

Goldman Sachs Commodity Strategy C2BE

Overview, Structure of the Strategy and Documentation

19 February 2024

OVERVIEW

This overview of this Strategy is a summary and, as such, is necessarily incomplete. This overview should be read in conjunction with, and is qualified in its entirety by, the more detailed descriptions in the documents described below.

The Goldman Sachs Commodity Strategy C2BE (the "**Strategy**") is a synthetic rules-based proprietary strategy created by Goldman Sachs International as Strategy Sponsor.

The Strategy intends to provide a synthetic exposure to the performance of a basket (the "Basket") of underlying components (the "Components"). The quantities assigned to such Components are rebalanced periodically with a frequency as specified in this Specifications Annex.

The Strategy contains a mechanism to amend, postpone or cancel certain Transactions upon the occurrence of a Non-Tradable Event.

The Strategy Value is reduced by the deduction of the basket rebalancing costs. The basket rebalancing costs reflect the synthetic costs of entering into and/or unwinding any transactions relating to the Components following changes to their quantities.

The Strategy Value is reduced by the deduction of the component servicing costs. The component servicing costs reflect the synthetic costs of maintaining positions in, and replicating the performance of, the Components.

The Strategy Value is reduced by the deduction of the strategy deduction rate. The strategy deduction rate has the effect of reducing the performance of the Strategy

The Strategy is calculated on an "excess return" basis and does not include a synthetic interest rate return on a notional cash amount.

The Strategy Value can be positive or may fall below zero and have a negative value.

Investors should note that the actual costs of entering into, unwinding and/or maintaining transactions may be lower or higher than the synthetic costs set out in the Strategy and, if they were lower, the effect of these deductions would be to benefit the Strategy Sponsor and/or any affiliate (a "**Hedging Party**") in its capacity as issuer of, or counterparty to, products linked to the Strategy (such products, "**Linked Products**"). In general, it is expected that such actual costs will be lower in each case than the synthetic costs in the Strategy.

A Hedging Party may hedge its exposure or potential or expected exposure to the Strategy (and other similar strategies), Linked Products, and the components and their constituents with an affiliate or a third party. A Hedging Party may make significant returns on this hedging activity independently of the performance of the Strategy or any component, including in scenarios where the levels at which it executes its hedges are different from the levels specified in the methodology for determining the Strategy Value (or otherwise where such Hedging Party does not hedge all of its exposure to the Strategy). Any returns on a Hedging Party's hedging activity or on any unhedged exposure will not be passed on to investors in any Linked Products, and investors in any Linked Products will not have any rights in respect of a Hedging Party's hedge positions, including any fund shares/units, equity shares, futures, options, commodities or currencies. Where a Hedging Party, in accordance with its internal policies, executes hedging activity by trading in components of the Strategy (or other, similar, strategies) on or before the related rebalancing day, such trading may have an adverse impact on the level at which the basket of components is rebalanced (which may result in an adverse impact on the performance of the Strategy). Such hedging activity, and the size of such impact, will be linked to the amount of new and outstanding Linked Products at the relevant time and then prevailing market conditions.

The Strategy is initially calculated and published by Goldman Sachs International as the "**Strategy Calculation Agent**" and may thereafter be such person as the Strategy Sponsor may appoint from time to time. The Strategy Sponsor does not have any obligation to ensure that the Strategy Calculation Agent continues to publish the Strategy Value and the Strategy Calculation Agent may discontinue publication at any time.

Where Goldman Sachs International is required or entitled to make a determination in relation to the Strategy pursuant to the Strategy methodology and that determination involves the exercise of expert judgement or discretion (other than those that are purely mechanical and, where relevant, implemented in accordance with the relevant methodology), then that expert judgement or discretion will be exercised in good faith and in a commercially reasonable manner (unless otherwise stated in the Strategy Description) and will be subject to the Goldman Sachs International's policies and procedures.

The computation of the Strategy Values is partially based on simulated data

The computation of the Strategy Values may be partially based on simulated data determined by reference to simulated time series data for any given Immediate Component (the "Immediate Component Backtest").

The simulated data used in the Immediate Component Backtest is based on various assumptions, does not reflect actual trading and is subject to various market data limitations. As a result, the simulated time series data may differ from the hypothetical actual historical performance of the Strategy over the same period and this difference may be material. As such, the performance of the Strategy could be materially different if the relevant values were determined solely based on the actual performance of the Strategy and its Immediate Components rather than based on simulated time series data.

DOCUMENTATION

The rules and methodology applicable to the Strategy and other information relating to it (the "**Strategy Description**") are set out in the following documents:

- (i) The Specifications Annex (and as amended, updated and/or supplemented from time to time) which describes the parameters which apply to this specific Strategy and which are used to effect the calculations described in the General Description and which may also contain all or part of the methodology of the relevant transaction modules (the "**Specifications Annex**");
- (ii) The Goldman Sachs Transaction-Based Basket Strategies (as amended, updated and/or supplemented from time to time) which sets out the general rules of the Strategy, including the methodology used to calculate the value of the Strategy (the "**General Description**");
- (iii) The Goldman Sachs General Strategy Terms (as amended, updated and/or supplemented from time to time) which contain general matters related to several strategies of this type, such as general adjustments, publication and changes in methodology, the adjustments that may be made if disruption events and other events occur and important risk factors and disclaimers which are incorporated herein (the "**General Strategy Terms**"); and
- (iv) Each of the documents describing the Components.

In the event of any inconsistency between these documentation elements, the provisions shall prevail according to the order given above (e.g., the provisions of the Specifications Annex shall prevail over all other documentation elements).

INVESTORS IN ANY LINKED PRODUCT SHOULD READ AND UNDERSTAND THIS SPECIFICATIONS ANNEX AND OTHER DOCUMENTATION ELEMENTS OF THE STRATEGY DESCRIPTION AND EACH OF THE DOCUMENTS DESCRIBING THE COMPONENTS IN THE STRATEGY. IN PARTICULAR INVESTORS MUST READ THE SECTIONS OF THE STRATEGY DESCRIPTION HEADED "RISK FACTORS", "CONFLICTS OF INTEREST" AND "DISCLAIMERS" AND THE RISK FACTORS IN THE DOCUMENTS DESCRIBING EACH OF THE COMPONENTS IN THE STRATEGY PRIOR TO MAKING ANY INVESTMENT DECISION.

SPECIFICATIONS ANNEX

Date: 19 February 2024

GENERAL STRATEGY PARAMETERS

Strategy Name	Goldman Sachs Commodity Strategy C2BE
Strategy Inception Date	22 August 2011
Strategy Currency	US Dollar (" USD ")
Strategy Calculation Agent	Goldman Sachs International
Strategy Initial Value	100.0000
Strategy Bloomberg Ticker	ABGSC2BE Index
Strategy Value Publication Precision	4 decimal places with 0.00005 rounded upwards
Strategy Publication Data Source	https://marquee.gs.com/studio or any successor page
Strategy Return Type	Excess Return
Strategy Calculation Day	Days on which the offices of Goldman Sachs & Co. LLC are open for business in New York
Strategy Trading Day	Each calendar day which satisfies each of the following criteria: (i) It is a Strategy Calculation Day; and (ii) It is a Component Trading Day in respect of each Immediate Component
Strategy Value Floor	Not Applicable
Component Business Day	In respect of a Component, each day which is a business day according to the holiday calendar of such Component, as determined by the Strategy Calculation Agent in accordance with the strategy description of such Component.

PRICING PARAMETERS

Currency Exchange Rate Source	In respect of all Immediate Components: The 4 p.m. LDN WMR Closing Spot Rates as published by WM Company/Refinitiv or any successor company.
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APPLICABLE TRANSACTION MODULES

Applicable Transaction Module	Transaction Module Execution Order Number
Fixed Weight Basket - A	1
Non-Tradable Events - A	2
Transaction Costs - A	3
Servicing Costs - A	4
Strategy Deduction Rate - A	5

The parameters for each Applicable Transaction Module are specified:

- (i) in the “Immediate Components” table below; and/or
- (ii) in the parameters section of the relevant Transaction Module below.

IMMEDIATE COMPONENTS TABLE

The Immediate Components of the Strategy are as set out in the table below. For more information on each such Immediate Component please refer to the relevant description in respect of such Immediate Component.

Immediate Component	Component Bloomberg Ticker	Component Currency	Non-Tradable Events Applicability	Component Servicing Cost Rate	Style	Component Weight	Component Transaction Cost Rate	Terminal Component
Goldman Sachs Commodity Strategy EXT2	ABGSEXT2 Index	USD	Applicable: Modify	20 bps	Index	50%	1.5 bps	Yes
Goldman Sachs Commodity Strategy EXT4	ABGSEXT4 Index	USD	Applicable: Modify	25 bps	Index	33.3333333333%	2 bps	Yes
Goldman Sachs Commodity Strategy EXT6	ABGSEXT6 Index	USD	Applicable: Modify	35 bps	Index	16.6666666667%	2.5 bps	Yes

A value of "Yes" in the "Terminal Component" column above indicates that a Component is a Terminal Component and a value of "No" indicates that a Component is a Non-Terminal Component.

Any cost rates specified in the table above are as of the date of this document (as specified above) and may be amended from time to time in accordance with the terms of the General Strategy Terms.

PARAMETERS FOR THE APPLICABLE TRANSACTION MODULES

The following sections specify parameters specific to each Applicable Transaction Module, and not the Strategy as a whole. Any parameters defined should be considered specific to the Applicable Transaction Module in which they are defined unless specified otherwise.

Parameters for Transaction Module: Fixed Weight Basket - A

Transaction Module Execution Day	The Strategy Inception Date and thereafter the 22nd calendar day of each calendar month, or if such calendar day is not a Strategy Calculation Day and a Component Trading Day in respect of all Immediate Components, the immediately following Strategy Calculation Day which is a Component Trading Day in respect of all Immediate Components.
Observation Lag	1
Disjoint Execution	Not Applicable

Immediate Components Trading Days Table

For the purposes of this table, each reference to "Asset" shall be deemed to refer to "Immediate Component".

Immediate Component	Component Trading Day
Goldman Sachs Commodity Strategy EXT2	Each "Strategy Trading Day" in respect of the Asset (such "Strategy Trading Day" as defined in the strategy description applicable to the Asset).
Goldman Sachs Commodity Strategy EXT4	Each "Strategy Trading Day" in respect of the Asset (such "Strategy Trading Day" as defined in the strategy description applicable to the Asset).
Goldman Sachs Commodity Strategy EXT6	Each "Strategy Trading Day" in respect of the Asset (such "Strategy Trading Day" as defined in the strategy description applicable to the Asset).

Parameters for Transaction Module: Non-Tradable Events - A

Non-Tradable Events Applicability	The Non-Tradable Events Applicability is specified in the Immediate Components table above.
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Parameters for Transaction Module: Transaction Costs - A

The Component Transaction Cost Rates are specified in the Immediate Components table above.

Parameters for Transaction Module: Servicing Costs - A

Servicing Cost Day Count Fraction Convention	Act/360
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Parameters for Transaction Module: Strategy Deduction Rate - A

Strategy Deduction Rates	Means, in respect of the Strategy Inception Date and any subsequent Strategy Calculation Day thereafter, each of the following: Strategy Deduction Rate: 0.4000%
Strategy Deduction Rate Day Count Fraction Convention	Act/365 (Fixed) day count fraction convention (as defined in, and determined in accordance with, the 2006 ISDA Definitions, as published by the International Swaps and Derivatives Association, Inc. (the "ISDA Definitions")).

METHODOLOGY OF THE APPLICABLE TRANSACTION MODULES

Methodology for Fixed Weight Basket - A

Transaction Module Description: The purpose of this Transaction Module is to periodically rebalance the Component Quantities of the Components in the Basket based on the Component Weight assigned to each Component as set out in the Specifications Annex. In respect of each Transaction Module Execution Day and each Transaction Module Execution Time Stamp, this Transaction Module shall create a Transaction in respect of each Transaction Component, as defined below.

Transaction Component: In respect of the relevant Transaction Module Execution Day and Transaction Module Execution Time Stamp, each Non-Cash Component contained in the Strategy on such Transaction Module Execution Day and such Transaction Module Execution Time Stamp.

Preliminary Component Transaction Quantity: In respect of the Transaction Component, the relevant Transaction Module Execution Day and the relevant Transaction Module Execution Time Stamp, the Preliminary Component Transaction Quantity of such Transaction Component is:

$$TQ_{i,t,u} = \frac{CW_{i,t,u} \times S_{tObs,uObs}}{A_{i,tObs,uObs} \times FX_{i,tObs,uFXObs}}$$

Where:

Subscript *i* refers to the relevant Transaction Component;

Subscript *t* refers to the relevant Transaction Module Execution Day;

Subscript *u* refers to the relevant Transaction Module Execution Time Stamp;

Subscript *tObs* refers to the relevant Observation Day;

Subscript *uObs* refers to the relevant Basket Observation Time Stamp;

Subscript *uFXObs* refers to the relevant FX Rate Observation Time Stamp;

CW_{i,t,u} refers to the Component Weight in respect of Transaction Component *i*, Transaction Module Execution Day *t* and Transaction Module Execution Time Stamp *u*;

S_{tObs,uObs} refers to the Strategy Value in respect of the relevant Observation Day *tObs* and Basket Observation Time Stamp *uObs*;

A_{i,tObs,uObs} refers to the Component Timely Value in respect of Transaction Component *i*, Observation Day *tObs* and Basket Observation Time Stamp *uObs*; and

FX_{i,tObs,uFXObs} refers to the applicable Currency Exchange Rate to convert one unit of the Component Currency in which Transaction Component *i* is denominated into the Strategy Currency as of Observation Day *tObs* and FX Rate Observation Time Stamp *uFXObs*.

Methodology Table: Fixed Weight Basket - A

Transaction Module Quantity Type	Target
Transaction Module Cash Type	Value Neutral
Transaction Module Execution Time Stamp	The end of the relevant Strategy Calculation Day
Observation Day	(i) In respect of a Transaction Module Execution Day and a Non-Cash Component, the Strategy Calculation Day which falls <i>x</i> Strategy Calculation Days before such Transaction Module Execution Day, whereby <i>x</i> shall be the Observation Lag, or the immediately preceding Component Business Day for such Non-Cash

	<p>Component if such resulting day is not a Component Business Day for such Non-Cash Component.</p> <p>(ii) If the Observation Day resulting from the paragraph above would fall before the Strategy Inception Date then the Observation Day shall be the Strategy Inception Date instead.</p> <p>(iii) If the Observation Lag is zero then the Observation Day in respect of a Transaction Module Execution Day and a Non-Cash Component shall be such Transaction Module Execution Day, or the immediately preceding Component Business Day for such Non-Cash Component if such resulting day is not a Component Business Day for such Non-Cash Component.</p>
Basket Observation Time Stamp	The end of the relevant Strategy Calculation Day
FX Rate Observation Time Stamp	4 p.m. LDN

Methodology for Non-Tradable Events - A

Transaction Module Description: The purpose of this Transaction Module is to amend, postpone or cancel Non-Tradable Transactions in respect of Components for which this Transaction Module is specified to be applicable.

Transaction Component: In respect of the relevant Transaction Module Execution Day and Transaction Module Execution Time Stamp, each Component in respect of which the Non-Tradable Events Applicability is specified to be "Applicable" in the relevant Specifications Annex and in respect of a which a Non-Tradable Transaction has occurred.

Methodology Table: Non-Tradable Events - A

Transaction Module Quantity Type	Additive
Transaction Module Cash Type	Value Effective
Transaction Module Execution Day	As defined in the Strategy Description, and if not so specified each Strategy Calculation Day
Transaction Module Execution Time Stamp	The end of the relevant Strategy Calculation Day
Preliminary Component Transaction Quantity	The Transaction Quantity of the Non-Tradable Transaction
Strategy Transaction Time Stamp	As defined for the Non-Tradable Transaction

Amendment, Postponement or Cancellation of a Non-Tradable Transaction

In respect of a Non-Tradable Transaction on a Transaction Module Execution Day and Strategy Transaction Time Stamp, this Transaction Module shall amend, postpone or cancel Non-Tradable Transactions as follows:

- (i) If "Non-Tradable Events Applicability" is specified in the relevant Specifications Annex in respect of a Transaction Component to be:
 - a) "Applicable: Postpone Next Day" then the execution of the Non-Tradable Transaction shall be postponed to the immediately following Transaction Module Execution Day. Such postponed Transaction shall be executed before any other Transactions, if any, which are generated by any Transaction Module other than this Non-Tradable Events – A Transaction Module and which are scheduled for the same Strategy Transaction Time Stamp on the immediately following Transaction Module Execution Day; or
 - b) "Applicable: Postpone Next Time Stamp" then the execution of the Non-Tradable Transaction shall be postponed to the immediately following Strategy Transaction Time Stamp. If there are no further Strategy Transaction Time Stamps scheduled in respect of such Transaction Module Execution Day then the execution of the Non-Tradable Transaction shall be postponed to the first Strategy Transaction Time Stamp on the immediately following Transaction Module Execution Day. Such postponed Transaction shall be executed before any other Transactions, if any, which are 1) generated by any Transaction Module other than this Non-Tradable Events – A Transaction Module and 2) scheduled for the same postponed Strategy Transaction Time Stamp; or
 - c) "Applicable: Modify" then the Non-Tradable Transaction shall be deemed to have occurred on such Transaction Module Execution Day. For the purpose of this Transaction Module:
 - (1) the Preliminary Component Transaction Quantity of all Components shall be determined by using the Component Timely Values on the relevant date and Input Data Observation Time Stamp (as specified in the General Description) and such quantities will not be changed by this Transaction Module once the Component Tradable Value becomes available when the Non-Tradable Event ceases to exist (such date and time being a "**Non-Tradable Event Cessation Date**" and a "**Non-Tradable Event Cessation Time Stamp**");
 - (2) the Transaction Price,
 - 2.1 for the purposes of calculating the Strategy Value from and including such Transaction Module Execution Day to but not including the Non-Tradable Event Cessation Time Stamp on the Non-Tradable Event Cessation Date (such period the "**Non-Tradable Event Period**"), shall be the Component Timely Value;

2.2 for the purposes of calculating the Strategy Tradable Value and the Strategy Value from and including the Non-Tradable Event Cessation Time Stamp on the Non-Tradable Event Cessation Date, shall be the Component Tradable Value which becomes available after the Non-Tradable Event Period.

- (3) For the purposes of calculating the Strategy Tradable Value and the Strategy Value from and including the Non-Tradable Event Cessation Time Stamp on the Non-Tradable Event Cessation Date, any Offsetting Cash Transactions in respect of any Value Neutral Transactions which have been affected by the Non-Tradable Event shall be re-computed as follows: The Transaction Quantity of such Transactions shall be re-computed using the formula for the computation of the Transaction Quantity of Offsetting Cash Transactions (as defined in the General Description) but using the Component Tradable Value as the "Transaction Price of the Value Neutral Transaction" (as defined in the General Description).
 - (4) The Strategy Values published in the Non-Tradable Event Period shall remain unchanged and not be restated upon the cessation of the Non-Tradable Event; or
- d) "Applicable: Modify, Curve-Linked" then the Non-Tradable Transaction shall be treated as in c) above, with the addition that, if the Non-Tradable Event has occurred in respect of a Component which (i) is a futures contract or (ii) which is an index consisting of futures contracts (as determined by the Strategy Calculation Agent), then the Non-Tradable Event will be deemed to have occurred for all such futures contracts or all such indices consisting of futures contracts, as the case may be, with the same underlying but with a different contract expiration date. For the avoidance of doubt, such Non-Tradable Event will be deemed to have occurred with respect to the Non-Tradable Transaction and any Transaction referencing the futures contracts with the same underlying as the Non-Tradable Transaction computed within each Component on such date; or
- e) "Applicable: Cancel" then the Non-Tradable Transaction shall be cancelled and no replacement of such Non-Tradable Transaction shall take place,

each in respect of the Transaction Component of the Non-Tradable Transaction.

If the Non-Tradable Transaction is a Value Neutral Transaction then also the Offsetting Cash Transaction associated with such Non-Tradable Transaction shall be amended, postponed or cancelled (as applicable) in a similar manner as the Non-Tradable Transaction, in accordance with the provisions of the above clauses a), b), c), d) and e), as applicable.

- (ii) If "Non-Tradable Events Applicability" is specified in the relevant Specifications Annex in respect of a Transaction Component to be "Not applicable" or if not so specified then this Transaction Module shall not make any amendments, postponement or cancellation to the relevant Non-Tradable Transaction.

Methodology for Transaction Costs - A

Transaction Module Description: The purpose of this Transaction Module is to charge synthetic transaction costs for changes in the Component Quantities of Non-Cash Components comprised in the Strategy.

Transaction Component: The Strategy Currency Cash Component.

Preliminary Component Transaction Quantity:

- (i) In respect of the relevant Transaction Module Execution Day and the relevant Transaction Module Execution Time Stamp (other than the first Transaction Module Execution Time Stamp on the Strategy Inception Date):

$$TQ_{t,u} = \sum_i -1 \times |A_{i,t,u}| \times |(q_{i,t,u} - q_{i,t,u-1})| \times CTC_{i,t,u} \times FX_{i,t}$$

- (ii) In respect of the first Transaction Module Execution Time Stamp on the Strategy Inception Date:

$$TQ_{t,u} = 0$$

Where:

Subscript *i* refers to each Non-Cash Component contained in the Strategy on (i) the relevant Transaction Module Execution Time Stamp of the relevant Transaction Module Execution Day and/or (ii) the Transaction Module Execution Time Stamp immediately preceding such relevant Transaction Module Execution Time Stamp;

Subscript *t* refers to the relevant Transaction Module Execution Day;

Subscript *u* refers to the relevant Transaction Module Execution Time Stamp;

Subscript *u – 1* refers to the Transaction Module Execution Time Stamp immediately preceding the relevant Transaction Module Execution Time Stamp;

TQ_{t,u} is the Preliminary Component Transaction Quantity on Transaction Module Execution Day *t* and Transaction Module Execution Time Stamp *u*;

A_{i,t,u} is the Component Timely Value of Component *i* on Transaction Module Execution Time Stamp *u* and date *t*;

q_{i,t,u} is the Component Quantity of Component *i* on Transaction Module Execution Time Stamp *u* and date *t*;

CTC_{i,t,u} is the Component Transaction Cost Rate in respect of Component *i* on Transaction Module Execution Time Stamp *u* and date *t*;

FX_{i,t} is the applicable Currency Exchange Rate to convert one unit of the Component Currency of Component *i* into the Strategy Currency in respect of date *t*.

Methodology Table: Transaction Costs - A

Transaction Module Quantity Type	Additive
Transaction Module Cash Type	Value Effective
Transaction Module Execution Day	Each Strategy Calculation Day
Transaction Module Execution Time Stamp	The end of the relevant Strategy Calculation Day

Methodology for Servicing Costs - A

Transaction Module Description: The purpose of this Transaction Module is, for each Non-Cash Component where a non-zero Component Servicing Cost Rate is specified, to decrease (or increase) the Strategy Value by decreasing (or increasing) the Component Quantity of the Strategy Currency Cash Component. In particular, this Transaction Module will have the effect of reducing the Strategy Value in respect of Non-Cash Components which have a positive Component Servicing Cost Rate and increasing the Strategy Value in respect of Non-Cash Components which have a negative Component Servicing Cost Rate.

Transaction Component: The Strategy Currency Cash Component.

Preliminary Component Transaction Quantity:

- (i) In respect of a Transaction Module Execution Day falling after the Strategy Inception Date and the relevant Transaction Module Execution Time Stamp:

$$TQ_t = \sum_i -1 \times A_{i,t-1} \times |q_{i,t-1}| \times CSC_{i,t-1} \times DCF_{t-1,t} \times FX_{i,t}$$

- (ii) In respect of the Strategy Inception Date:

$$TQ_t = 0$$

Where:

Subscript *i* refers to each Non-Cash Component contained in the Strategy on the Transaction Module Execution Day immediately preceding the relevant Transaction Module Execution Day;

Subscript *t* refers to the relevant Transaction Module Execution Day

Subscript *t – 1* refers to the Transaction Module Execution Day immediately preceding the relevant Transaction Module Execution Day;

TQ_t is the Preliminary Component Transaction Quantity on Transaction Module Execution Day *t*;

A_{i,t-1} is the Component Timely Value of Non-Cash Component *i* on date *t – 1*;

q_{i,t-1} is the Component Quantity of Non-Cash Component *i* on date *t – 1*;

CSC_{i,t-1} is the Component Servicing Cost Rate of Component *i* on date *t – 1*;

DCF_{t-1,t} is the day count fraction for the period from (and including) date *t – 1* to (but excluding) date *t*, computed by using the “**Servicing Cost Day Count Fraction Convention**”;

FX_{i,t} is the applicable Currency Exchange Rate to convert one unit of the Component Currency of Non-Cash Component *i* into the Strategy Currency in respect of date *t*.

Methodology Table: Servicing Costs – A

Transaction Module Quantity Type	Additive
Transaction Module Cash Type	Value Effective
Transaction Module Execution Day	Each Strategy Calculation Day
Transaction Module Execution Time Stamp	The end of the relevant Strategy Calculation Day

Methodology for Strategy Deduction Rate - A

Transaction Module Description: The purpose of this Transaction Module is to decrease (or increase) the Strategy Value by decreasing (or increasing) the Component Quantity of the Strategy Currency Cash Component. In particular, this Transaction Module will have the effect of reducing the Strategy Value in respect of each Strategy Deduction Rate which has a positive sign, or increasing the Strategy Value in respect of each Strategy Deduction Rate which has a negative sign, as specified in the Specifications Annex.

Transaction Component: The Strategy Currency Cash Component.

Preliminary Component Transaction Quantity: In respect of the relevant Transaction Module Execution Day and the relevant Transaction Module Execution Time Stamp:

$$TQ_{t,u} = -1 \times S_{t-1,u} \times \left(\sum_n SDR_{n,t-1} \right) \times DCF_{t-1,t}$$

Where:

Subscript t refers to the relevant Transaction Module Execution Day;

Subscript u refers to the relevant Transaction Module Execution Time Stamp;

Subscript $t - 1$ refers to the Transaction Module Execution Day immediately preceding the relevant Transaction Module Execution Day;

Subscript n refers to the total number of Strategy Deduction Rates specified as applicable in the Specifications Annex;

$TQ_{t,u}$ is the Preliminary Component Transaction Quantity on Transaction Module Execution Day t and Transaction Module Execution Time Stamp u ;

$S_{t-1,u}$ is the Strategy Value on date $t - 1$ and Transaction Module Execution Time Stamp u ;

$SDR_{n,t-1}$ is the value of the relevant Strategy Deduction Rate n on date $t - 1$, as specified in the Specifications Annex; and

$DCF_{t-1,t}$ is the day count fraction for the period from (and including) date $(t - 1)$ to (but excluding) date (t) , computed by using the Strategy Deduction Rate Day Count Fraction Convention, as specified in the Specifications Annex.

Methodology Table: Strategy Deduction Rate - A

Transaction Module Quantity Type	Additive.
Transaction Module Cash Type	Value Effective.
Transaction Module Execution Day	Each Strategy Calculation Day falling after the Strategy Inception Date.
Transaction Module Execution Time Stamp	The end of the relevant Strategy Calculation Day.

Appendix

Appendix 1: Asset Class Specific Definitions - General

Terms defined in this section shall apply to (a) each instrument and component defined as an Instrument or Component in this section and (b) each Component calculated by reference to such an Instrument or Component and for which the Style specified is contained in the Component Timely and Tradable Value Table set out in this section.

Pricing Styles (Styles: Index, B and C)

"Component Timely and Tradable Value Table" means:

Style	Elements	Provisions
Index	Component Timely Value	The Component Timely Value of a Component on any day will be determined as the official closing level of such Component as published by the relevant sponsor or calculation agent of such Component on such day, and "Component Timely Value" may be (among others) referred to in the Strategy Description as "Strategy Value", "Strategy Timely Value", "Strategy Closing Level" or "Index Value".
Index	Component Tradable Value	<p>The Component Tradable Value of a Component on a Strategy Calculation Day will be determined as follows:</p> <ul style="list-style-type: none"> (i) If one or more MDE Linked Components are specified in respect of such Component, <ul style="list-style-type: none"> a. if no Non-Tradable Event occurs in respect of such Component on such Strategy Calculation Day, the Component Timely Value b. if a Non-Tradable Event occurs in respect of such Component on such Strategy Calculation Day, the Component Timely Value in respect of the first Strategy Calculation Day following such Strategy Calculation Day on which no Non-Tradable Event occurs in respect of such Component. (ii) If no MDE Linked Component is specified in respect of such Component: <ul style="list-style-type: none"> a. If a "Strategy Tradable Level" or "Strategy Tradable Value" is defined in the relevant rules of such Component, such Strategy Tradable Level or Strategy Tradable Value (as the case may be), provided that if such Component Tradable Value would be determined on a day which would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Component Tradable Value of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner. b. Otherwise, the Component Timely Value in respect of the First Tradable Date falling on or immediately after such Strategy Calculation Day.

Style	Elements	Provisions
B	Component Timely Value	The Component Timely Value of a Component on any day will be calculated in accordance with the definition of "Strategy Timely Level" or "Strategy Timely Value" specified in the relevant rules in respect of such Component.
B	Component Tradable Value	The Component Tradable Value of a Component on a Strategy Calculation Day will be calculated in accordance with the definition of "Strategy Tradable Level" or "Strategy Tradable Value" specified in the relevant rules in respect of such Component, provided that if such Component Tradable Value would be determined on a day which would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Component Tradable Value of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
C	Component Timely Value	The Component Timely Value of a Component on any day will be calculated in accordance with the definition of "Strategy Closing Level" or "Strategy Closing Value" specified in the relevant rules in respect of such Component.
C	Component Tradable Value	The Component Tradable Value of a Component on a Strategy Calculation Day will be calculated in accordance with the definition of "Strategy Tradable Level" or "Strategy Tradable Value" specified in the relevant rules in respect of such Component, provided that if such Component Tradable Value would be determined on a day which would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Component Tradable Value of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.

Definitions related to Execution

"**Disjoint Execution**" will be specified as either "Applicable" or "Not Applicable" in the Strategy Description, or if not so specified, shall be deemed to be specified as "Not Applicable".

"**Execution Day**" means, in respect of a Component, as determined by the Strategy Calculation Agent in accordance with paragraph (i) or (ii) below:

- (i) if Disjoint Execution is specified as "Applicable" in the Strategy Description, each day that (a) is a Strategy Calculation Day and (b) is a Component Trading Day in respect of such Component; or
- (ii) if Disjoint Execution is specified as "Not Applicable" in the Strategy Description, each day that (a) is a Strategy Calculation Day and is a Component Trading Day in respect of all Components included in the Strategy.

"**Execution Lag**" means, in respect of a Component, the non-negative integer specified as such in the Strategy Description, or if not so specified, zero (0).

"**Execution Start Date**" means, in respect of a Rebalancing Date and a Component:

- (i) if the Execution Lag in respect of such Component is specified as zero (0), the first Execution Day in respect of such Component falling on or after such Rebalancing Date;
- (ii) otherwise, the first Execution Day in respect of such Component falling on or immediately after the number of Component Trading Days in respect of such Component equal to the Execution Lag from, but excluding, such Rebalancing Date.

"**First Tradable Date**" means, in respect of a Strategy Calculation Day t and:

(i) an Instrument, the first Strategy Calculation Day (measured from, and including, Strategy Calculation Day t) on which no Non-Tradable Event exists in respect of such Instrument:

(a) provided that if one or more Non-Tradable Event(s) in respect of such Instrument exists on Strategy Calculation Day t and each of the five (5) Strategy Calculation Days immediately following Strategy Calculation Day t , then the sixth (6th) Strategy Calculation Day immediately following Strategy Calculation Day t shall be deemed to be the First Tradable Date; and

(b) provided that notwithstanding the fact that a Non-Tradable Event may continue to exist on such sixth (6th) Strategy Calculation Day, if the Strategy Sponsor expects that no Non-Tradable Event will exist in respect of such Instrument shortly after such sixth (6th) Strategy Calculation Day (as determined by the Strategy Sponsor in its discretion and acting in a commercially reasonable manner), the Strategy Sponsor may postpone the First Tradable Date to the first Strategy Calculation Day on which no Non-Tradable Event exists in respect of such Instrument,

(c) provided further that the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, determine that such event also results in an Adjustment Event; and

(ii) a Component, the last First Tradable Date in respect of all Instruments used to calculate the level of such Component.

"Rebalancing Date" means, in respect of a Reference Date, each day specified as such in the Strategy Description.

"Reference Date" means each day specified as such in the Strategy Description.

Definitions related to Components

"Component" or **"Immediate Component"** means a Terminal Component, a Non-Terminal Component or an Associated Component (in each case as specified in the Strategy Description) in respect of any Strategy Calculation Day, provided that:

(i) if a Component Start Date is specified in the Strategy Description in respect of such Component, such Strategy Calculation Day falls on or after such Component Start Date and;

(ii) if a Component End Date is specified in the Strategy Description in respect of such Component, such Strategy Calculation Day falls on or before the First Tradable Date in respect of such Component and the Last Fade-Out Day in respect of the Rebalancing Date falling on or immediately prior to such Component End Date.

(iii) If an Associated Component Start Date or Associated Component End Date is specified in the Strategy Description in respect of such Component, such Strategy Calculation Day falls in the period commencing on, and including, the Associated Component Start Date in respect of such Associated Component and ending on, and including the Last Fade-Out Day in respect of the Rebalancing Date by reference to which such Associated Component Start Date is determined.

"Instrument" means each tradable instrument defined as such in the Asset Class Specific Definitions.

"Instrument Valuation Data" means, in respect of an Instrument, any level, price, rate or data specified as such in the Asset Class Specific Definitions corresponding to such Instrument.

"Market Disruption Event" means any event defined as such or as "Disruption Event" in the Strategy Description.

"MDE Linked Component" means, in respect of a Terminal Component (for the purposes of this definition, the **"Relevant Terminal Component"**):

(i) each Terminal Component specified to be a MDE Linked Component relating to the Relevant Terminal Component in the Strategy Description, if so specified; or

(ii) each Terminal Component specified to belong to the same MDE Linked Component Group as the MDE Linked Component Group of the Relevant Terminal Component in the Strategy Description, if so specified; or

(iii) if the Relevant Terminal Component is a Terminal Component included in an Immediate Component, each MDE Linked Component in respect of the Relevant Terminal Component as determined in accordance with the rules of such Immediate Component; or

- (iv) each MDE Linked Component in respect of a Terminal Component which is in turn an MDE Linked Component in respect of the Relevant Terminal Component.

"Non-Terminal Component" means each component specified as such in the Strategy.

"Non-Tradable Event" means, in respect of a Strategy Calculation Day and:

- (i) a Component, the occurrence of any one of the following events, as determined by the Strategy Sponsor:
- (a) such Strategy Calculation Day is not a Component Trading Day for such Component; or
 - (b) a Market Disruption Event is occurring or existing in respect of such Component on such Strategy Calculation Day; or
 - (c) if such Component is a Terminal Component, a Market Disruption Event is occurring or existing in respect of one or more MDE Linked Components (if so defined) in respect of such Component on such Strategy Calculation Day; or
 - (d) if such Component is an Instrument, each event specified as such in the Asset Class Specific Definitions corresponding to such Instrument;
- (ii) an Instrument that is not a Component, each event specified as such in the Asset Class Specific Definitions corresponding to such Instrument;
- (iii) a Strategy, the occurrence of a Non-Tradable Event in respect of any Terminal Component included in such Strategy.

"Component Timely Value", "Timely Value" or "Timely Level" means, in respect of a Component and any day, the "timely" level, price or rate of such Component on such day, as determined in accordance with the Style of such Component and as described in the Component Timely and Tradable Value Table corresponding to such Component, provided that if such day is not a day on which the level of such Component is scheduled to be published, then the Timely Value of such Component for such day shall be deemed to be the Component Timely Value of such Component on the immediately preceding day on which such Component is scheduled to be published.

"Component Tradable Value", "Tradable Level" or "Tradable Value" means, in respect of a Component and a Strategy Calculation Day, the "tradable" level or price of such Component on such Strategy Calculation Day, as determined in accordance with the Style of such Component and as described in the Component Timely and Tradable Value Table in respect of such Component.

Appendix 2: Reproduction and Re-Distribution

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review or dissemination of, or the taking of any action in reliance on, this communication is expressly prohibited.

Specifications Annex – Goldman Sachs Commodity Strategy EXT2

Dated: 21 February 2024

1. Introduction

This Specifications Annex, as may be amended from time to time constitutes the Relevant General Strategy Description for the purposes of the Goldman Sachs Beta Adjusted Basket Methodology Description (“**Beta Adjusted Basket Methodology Description**”) and utilizes the methodology set out therein to calculate the level of the GS Strategy identified in paragraph 2 (*Strategy Specifications*) below. This Specifications Annex sets out certain information required to complete the Beta Adjusted Basket Methodology Description as well as certain other rules, methodology, definitions and other information applicable to such GS Strategy.

Terms not otherwise defined in this Specifications Annex shall have the meanings given to them in the Beta Adjusted Basket Methodology Description

2. Strategy Specifications

Strategy Name	Goldman Sachs Commodity Strategy EXT2
Strategy Inception Date	22 August 2011 Investors should refer to the risk factor in the General Index Provisions, entitled "Index Inception Date and Back-testing (provided that each reference to "Index Inception Date" therein shall be deemed to be a reference to the "Strategy Inception Date")
Strategy Calculation Currency	USD
Initial Strategy Level	100.0000
Strategy Publication Data Source	Bloomberg Ticker: ABGSEXT2 <Index>
Publication of Strategy Timely Level and/or Strategy Tradable Level	Strategy Timely Level
Strategy Calculation Day	Any day on which the offices of Goldman Sachs & Co. LLC in New York are open for business
Strategy Trading Day	Each Trading Day in respect of the GS Strategy
Strategy Servicing Cost Rate	0%
Strategy Floored at Zero	Not Applicable

Reference Date	Each of (i) the Strategy Inception Date, and thereafter, (ii) the second to last Trading Day of each month
Rebalancing Date	In respect of a Reference Date, the Trading Day immediately following such Reference Date
Holding Period Rebalancing Days	1
Number of Fading Days	1
Decision Date Rule	In respect of a Reference Date, the same day as such Reference Date
Disjoint Execution	Not Applicable
MDE Linkage Lookthrough	Applicable

3. Signal Specifications

Beta Lookback Date Rule	The day falling 3 calendar months prior to the relevant Decision Date or if such day is not a Strategy Calculation Day, the immediately preceding day that is a Strategy Calculation Day
Use Short Cap	Yes
Short Cap Value	1.00
Use Short Floor	Yes
Short Floor Value	0.00
Leverage Factor	100%

4. Immediate Components Table

The Immediate Components of the GS Strategy are as set out in the table below.

The Sponsor of each Immediate Component specified in the table (Immediate Components) below is Goldman Sachs International. For information on each such Immediate Component, please refer the relevant rules and/or documentation in respect of such Immediate Component.

Immediate Components Table

Immediate Component	Component Ticker	"Long Immediate Component ("L") or Short Immediate Component ("S")	Transaction Cost Rate (in basis points)	Servicing Cost Rate (in basis points)	Terminal Component ("T") or Non-Terminal Component ("NT")	Style
Modified Strategy EXT2 on the Bloomberg Commodity Index 2 Month Forward	ENHGEXT2 <Index>	L	0	0	T	A
Modified Strategy EXT0 on the Bloomberg Commodity Index	ENHGEXT0 <Index>	S	0	0	T	A

5. MDE Linked Components

Each Terminal Component (for the purposes of this paragraph, the "Relevant Terminal Component"), included in the following table shall be a MDE Linked Component in respect of each other Terminal Component specified in the same row in the table corresponding to the Relevant Terminal Component and vice versa.

Modified Strategy EXT0 on the Bloomberg Commodity Index	Modified Strategy EXT2 on the Bloomberg Commodity Index 2 Month Forward
---------------------------------------------------------	-------------------------------------------------------------------------

Additional Risk Factors

There is no assurance that the Beta Adjusted Basket Methodology will achieve its objective

The objective of the GS Strategy is to generate overall positive returns by notionally buying a long position in the Long Immediate Component (by assigning a positive weight to such immediate component) and notionally selling a short position in the Short Immediate Component (by assigning a negative weight to such immediate component). The rationale for the Beta Adjusted Basket Methodology is that the effectiveness of using the short position in the Short Immediate Component to offset the long position in the Long Immediate Component may be improved by adjusting for the "beta" between the two immediate components and therefore the volatility of the GS Strategy may be reduced. However, there can be no assurance that the Beta Adjusted Basket Methodology will be successful in reducing the volatility of the GS Strategy and this may adversely affect the value of the GS Strategy.

The GS Strategy may not achieve lower volatility

The GS Strategy may provide both long and short exposure to the immediate components. The use of long and short positions simultaneously in the immediate components may result in a lower volatility of returns than would otherwise be the case for a "naked" long or short position - however there can be no guarantee that the GS Strategy will be successful in achieving lower volatility.

Data sourcing and calculation risks associated with the GS Strategy and its terminal components may adversely affect the level of the GS Strategy

The GS Strategy is linked to underlying instruments, and therefore calculated based on price data that may be subject to potential errors in data sources or other errors that may affect the closing levels and/or prices published by the relevant sponsor (and therefore the level of the GS Strategy). Such errors could adversely affect the level of the GS Strategy. Neither the Strategy Sponsor, nor any of its affiliates is under any obligation or currently intends to independently verify such third party information or data from any third party data source or to advise the Counterparty in any financial instrument linked to the GS Strategy of any inaccuracy, omission, mistake or error of which it or any such affiliate becomes aware. Consequently, neither the Strategy Sponsor nor any of its affiliates shall be liable (whether in contract or otherwise) to any person for any inaccuracy, omission, mistake or error in the calculation or dissemination of the level of the GS Strategy. There can be no assurance that any error or discrepancy on the part of any data source or sponsor will be corrected or revised. Even if any error or discrepancy on the part of any third party data source or sponsor is corrected or revised, neither the Strategy Sponsor nor any of its affiliates is under any obligation or currently intends to incorporate any such correction or revision into the calculation of the level of the GS Strategy or the level of any terminal component. Neither the Strategy Sponsor, or any of its affiliates makes any representation or warranty, express or implied, as to the correctness or completeness of that information and takes no responsibility for the accuracy of such data or the impact of any inaccuracy of such data on the level of the GS Strategy, the level of any terminal component or on the performance of the commodity futures contracts included therein. Any of the foregoing errors or discrepancies could also adversely affect the level of the GS Strategy or its terminal components.

An investment in the GS Strategy is subject to risks associated with foreign commodities markets

Each of the terminal components included in the GS Strategy tracks the performance of one or more commodities in the commodity markets. Such commodities may be represented by commodity futures which (i) trade outside the United States on international exchanges, and/or (ii) are denominated in currencies other than United States dollars. The Counterparty to a financial instrument linked to the GS Strategy should be aware that investments linked to the value of foreign commodity futures contracts involve particular risks.

Certain terminal components included in the GS Strategy may be linked to commodity futures contracts on physical commodities on trading facilities located outside the United States. The regulations of the Commodity Futures Trading Commission (the "CFTC") do not apply to trading on foreign trading facilities, and trading on foreign trading facilities may involve different and greater risks than trading on United States trading facilities. Certain foreign markets may be more susceptible to disruption than United States trading facilities due to the lack of a government-regulated clearinghouse system. Trading on foreign trading facilities also involves certain other risks that are not applicable to trading on United States trading facilities. Those risks may include: exchange rate risk relative to the U.S. dollar, exchange controls, expropriation, burdensome or confiscatory taxation, and moratoriums, and political or diplomatic events. It will also likely be more costly and difficult for the Strategy Sponsor, as the sponsor of the GS Strategy, to enforce the laws or regulations of a foreign country or trading facility, and it is possible that the foreign country or trading facility may not have laws or regulations which adequately protect the rights and interests of investors in the commodity futures contracts included in the GS Strategy. In addition, because foreign trading facilities may be open on days when the value of the GS Strategy is not published, the value of the commodity futures contracts included in the GS Strategy may change on days when the level of the GS Strategy is unavailable.

Suspension or disruptions of market trading in the commodity and related options futures markets may adversely affect the value of the GS Strategy

The commodity markets are subject to temporary distortions or other market disruptions due to various factors, including the lack of liquidity in the markets, the participation of speculators and government regulation and intervention. In addition, U.S. futures exchanges and some foreign exchanges have regulations that limit the amount of fluctuation in futures contract prices that may occur during a single business day. These limits are generally referred to as "daily price fluctuation limits" and the maximum or minimum price of a contract on any given day as a result of these limits is referred to as a "limit price". Once the limit price has been reached in a particular contract, no trades may be made at a different price. Limit prices have the effect of precluding trading in a particular contract or forcing the liquidation of contracts at disadvantageous times or prices. These circumstances could adversely affect the level of the terminal components in the GS Strategy and, therefore, the value of the GS Strategy and the value of any financial instruments linked to the GS Strategy.

Risks relating to commodity prices, the S&P GSCI® Index, S&P GSCI® Sub-Indices, S&P GSCI® Forward Indices, S&P GSCI® Forward Sub-Indices, S&P GSCI® Single Commodity Indices and S&P GSCI® Single Commodity Forward Indices (each, an "S&P DJI Commodity Index", and together, the "S&P DJI Commodity Indices"), Bloomberg Commodity IndexSM, Bloomberg Commodity Subindices, Bloomberg Commodity Forward Indices, and Bloomberg Commodity Forward Subindices (each, a "BCOM Family Index", and together "BCOM Family Indices"), Goldman Sachs proprietary strategies, commodity futures contracts underlying S&P DJI Commodity Indices, BCOM Family Indices and Goldman Sachs proprietary strategies

Exposure to commodity futures contracts through an investment in the GS Strategy that references commodity indices or strategies compared to "spot" prices

- **Rolling** - It is typical in commodity markets to take the price of the first-nearby commodity futures contract with respect to a commodity (that is, as of a given date, the commodity futures contract first to expire following such date) as a reference for the "spot" price of such commodity. Over time such "spot" price will vary for two reasons. Firstly, the price of the first-nearby commodity futures contract will vary over time due to market fluctuations. Secondly, when the commodity futures contract which is considered to be the first-nearby contract changes from contract expiration "X" to contract expiration "Y" (as contract expiration "X" is approaching expiry), there is a discrete change in the price of the "prevailing" first-nearby commodity futures contract. If contract expiration "Y" is trading at a premium to contract expiration "X" (referred to as a "contango" market, as described in further detail below), the discrete change will represent a "jump" in the "spot" price. If contract expiration "Y" is trading at a discount to contract expiration "X" (referred to as a "backwardated" market, as described in further detail below) the discrete change will represent a "drop" in price.
- **Effect of "jump" or "drop"** - Since a "jump" or "drop" does not correspond to a change in price of any given commodity futures contract, these economics cannot be captured by a futures-linked investment such as the GS Strategy. Therefore, all other things being equal (in particular, assuming no change in the relative price of the various contract expirations with respect to the relevant commodity futures contract), in a "contango" market a long-only futures-linked investment may be expected to underperform the "spot" price (due to not capturing the "jump" in spot price) and in a "backwardated" market a long-

only futures-linked investment may be expected to outperform the "spot" price (due to not capturing the "drop" in spot price).

- "Backwardation" occurs when the price of a near-dated commodity futures contract is greater than the price of a longer-dated commodity futures contract, the market for such contracts is referred to as in "backwardation". "Contango" occurs when the price of the near-dated commodity futures contract is lower than the price of the longer-dated commodity futures contract, the market for such contracts is referred to as in "contango".
- Accordingly, a Counterparty to a financial instrument linked to the GS Strategy that references commodity indices or strategies as components may receive a lower payment upon redemption of such financial instrument than such Counterparty would have received if he or she had invested directly in commodities underlying such commodity indices or strategies or a financial instrument whose redemption or settlement amount was based upon the spot price of physical commodities or commodity futures contracts that were scheduled to expire on the maturity date of the financial instrument.

Commodity prices are characterised by high and unpredictable volatility, which could lead to high and unpredictable volatility of the GS Strategy

Commodity prices, and, consequently, the prices of corresponding commodity futures contracts, are affected by various factors, including, but not limited to, supply and demand, liquidity, weather conditions and natural disasters, government programs and policies, political, military, terrorist and economic events as set out in more detail below.

- **Supply and demand** - The planning and management of commodities supplies is very time-consuming. This means that the scope for action on the supply side is limited and it is not always possible to adjust production swiftly to take account of demand. Demand can also vary on a regional basis. Transport costs for commodities in regions where these are needed also affect their prices. The fact that some commodities take a cyclical pattern, such as agricultural products which are only produced at certain times of the year, can also result in major price fluctuations.
- **Liquidity** - Not all commodities markets are liquid and able to quickly and adequately react to changes in supply and demand. The fact that there are only a few market participants in the commodities markets means that speculative investments can have negative consequences and may distort prices.
- **Weather conditions and natural disasters** - Unfavourable weather conditions can influence the supply of certain commodities for the entire year. This kind of supply crisis can lead to severe and unpredictable price fluctuations. Diseases and epidemics can also influence the prices of agricultural commodities.
- **Governmental programs and policies, national and international political, military and economic events and trading activities in commodities and related contracts** - Commodities are often produced in emerging market countries, with demand coming principally from industrialised nations. The political and economic situation is however far less stable in many emerging market countries than in the developed world. They are generally much more susceptible to the risks of rapid political change and economic setbacks. Political crises can affect purchaser confidence, which can as a consequence affect commodity prices. Armed conflicts can also impact on the supply and demand for certain commodities. It is also possible for industrialised nations to impose embargos on imports and exports of goods and services. This can directly and indirectly impact commodity prices. Furthermore, numerous commodity producers have joined forces to establish organisations or cartels in order to regulate supply and influence prices.

These factors may adversely affect the value of the GS Strategy and the value of any financial instrument linked thereto in varying ways, and different factors may cause the value and volatility of different commodities to move in inconsistent directions and at inconsistent rates.

The GS Strategy does not track the performance of the S&P DJI Commodity Indices or the BCOM Family Indices and is likely to deliver returns that differ from the performance of the S&P DJI Commodity Indices or the BCOM Family Indices

Whilst the GS Strategy may reference certain S&P DJI Commodity Indices and/or BCOM Family Indices (whether directly or indirectly via its immediate components), an investment in a financial instrument linked to the value of the GS Strategy is not comparable to and should not be benchmarked against an

investment in a financial instrument linked to the value of the S&P DJI Commodity Indices or the BCOM Family Indices. This is because the differences between the GS Strategy and the S&P DJI Commodity Indices or the BCOM Family Indices (as the case may be) are likely to produce different values for the GS Strategy and the S&P DJI Commodity Indices or the BCOM Family Indices (as the case may be) at any given time and, therefore, may produce differing returns.

Change in the composition or discontinuance of S&P DJI Commodity Indices, BCOM Family Indices and Goldman Sachs proprietary strategy referenced by the GS Strategy could affect the level of the GS Strategy

The GS Strategy may reference certain S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies. The S&P DJI Commodity Indices are calculated and maintained by S&P Dow Jones Indices LLC, a subsidiary of The McGraw-Hill Companies, Inc. as sponsor. The BCOM Family Indices are calculated by UBS Securities LLC (collectively with its affiliates, "UBS") together with Bloomberg Finance L.P. (collectively with its affiliates, "Bloomberg") as sponsor. The Goldman Sachs proprietary strategies are calculated by Goldman Sachs International as sponsor. The relevant sponsor is also responsible for the composition of such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies. The relevant sponsor may take any actions in respect of such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies (as the case may be) without regard to the interests of the Strategy Sponsor of the GS Strategy or the Counterparty to any financial instruments linked to the GS Strategy, and any of these actions could adversely affect the level of the GS Strategy together with the market value of any financial instruments linked to the GS Strategy.

The relevant sponsor can substitute the commodity futures contracts underlying such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies (for example, if a commodity futures contract referenced were to be delisted, terminated or replaced by the relevant exchange on which such underlying commodity futures contract is traded) or make other changes to the methodology for calculating such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies. The composition of an S&P DJI Commodity Index, a BCOM Family Index, or a Goldman Sachs proprietary strategy may also change over time as additional commodity contracts satisfy the eligibility criteria or commodity contracts currently included in such S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy (as the case may be) fail to satisfy such criteria. Such changes to the composition of any S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy referenced by the GS Strategy may affect the level of such S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy as any newly added commodity futures contract may perform significantly worse or better than the commodity futures contract it replaces, which in turn, may affect the level of the GS Strategy. The relevant sponsor may also alter, discontinue or suspend calculation or dissemination of such S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy. In such circumstances, the Strategy Sponsor would have the discretion to make determinations with respect to the level of the GS Strategy for the purposes of calculating the amount payable on any financial instrument linked to the GS Strategy.

The S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy may in the future include commodity futures contracts that are not traded on regulated futures exchanges

The S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy are based solely on commodity futures contracts traded on regulated futures exchanges (referred to in the United States as "**designated contract markets**"). At present, these S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies continue to be comprised exclusively of regulated commodity futures contracts. However, the S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy may in the future include over-the-counter contracts (such as swaps and forward contracts) traded on trading facilities that are subject to lesser degrees of regulation or, in some cases, no substantive regulation. As a result, trading in such commodity futures contracts, and the manner in which prices and volumes are reported by the relevant trading facilities, may not be subject to the same provisions of, and the protections afforded by, the U.S. Commodity Exchange Act 1936, as amended, or other applicable statutes and related regulations, that govern trading on regulated futures exchanges. In addition, many electronic trading facilities have only recently initiated trading and do not have significant trading histories. As a result, the trading of commodity futures contracts on such facilities and the inclusion of such commodity futures contracts in any S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy referenced by the GS Strategy may be subject to certain risks not presented by most exchange-traded futures contracts, including risks related to the liquidity and price histories of the relevant commodity futures contracts.

Some of the S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy may be subject to pronounced risks of pricing volatility

As a general matter, the risk of low liquidity or volatile pricing around the maturity date of a commodity futures contract is greater than in the case of other futures contracts because (among other factors) a number of market participants take physical delivery of the underlying commodities. Many commodities, like those in the energy and industrial metals sectors, have liquid futures contracts that expire every month. Therefore, these futures contracts are rolled forward every month. Futures contracts based on certain other commodities, most notably agricultural and livestock products, tend to have only a few contract months each year that trade with substantial liquidity. Thus, these commodities, with related futures contracts that expire infrequently, roll forward less frequently than every month, and can have further pronounced pricing volatility during extended periods of low liquidity. It should be noted that due to the significant level of continuous consumption, limited reserves, and oil cartel controls, energy commodities are subject to rapid price increases in the event of perceived or actual shortages. These factors (when combined or in isolation) may affect the price of commodity futures contracts and, as a consequence, the performance of the GS Strategy.

Commodities are subject to legal and regulatory regimes that may change in ways that could affect the level of the GS Strategy and/or affect the ability of the Strategy Sponsor, an issuer or other relevant entities to enter into or maintain hedging transactions

Commodities are subject to legal and regulatory regimes in the United States and, in some cases, in other countries that may change in ways that could negatively affect the value of the GS Strategy and are expected to increase the cost of transacting derivatives. This could have an adverse impact on the level of the GS Strategy.

Specifications Annex – Goldman Sachs Commodity Strategy EXT4

Dated: 19 February 2024

1. Introduction

This Specifications Annex, as may be amended from time to time constitutes the Relevant General Strategy Description for the purposes of the Goldman Sachs Beta Adjusted Basket Methodology Description (“**Beta Adjusted Basket Methodology Description**”) and utilizes the methodology set out therein to calculate the level of the GS Strategy identified in paragraph 2 (*Strategy Specifications*) below. This Specifications Annex sets out certain information required to complete the Beta Adjusted Basket Methodology Description as well as certain other rules, methodology, definitions and other information applicable to such GS Strategy.

Terms not otherwise defined in this Specifications Annex shall have the meanings given to them in the Beta Adjusted Basket Methodology Description

2. Strategy Specifications

Strategy Name	Goldman Sachs Commodity Strategy EXT4
Strategy Inception Date	22 August 2011 Investors should refer to the risk factor in the General Index Provisions, entitled "Index Inception Date and Back-testing (provided that each reference to "Index Inception Date" therein shall be deemed to be a reference to the "Strategy Inception Date")
Strategy Calculation Currency	USD
Initial Strategy Level	100.0000
Strategy Publication Data Source	Bloomberg Ticker: ABGSEXT4 <Index>
Publication of Strategy Timely Level and/or Strategy Tradable Level	Strategy Timely Level
Strategy Calculation Day	Any day on which the offices of Goldman Sachs & Co. LLC in New York are open for business
Strategy Trading Day	Each Trading Day in respect of the GS Strategy
Strategy Servicing Cost Rate	0%
Strategy Floored at Zero	Not Applicable

Reference Date	Each of (i) the Strategy Inception Date, and thereafter, (ii) the second to last Trading Day of each month
Rebalancing Date	In respect of a Reference Date, the Trading Day immediately following such Reference Date
Holding Period Rebalancing Days	1
Number of Fading Days	1
Decision Date Rule	In respect of a Reference Date, the same day as such Reference Date
Disjoint Execution	Not Applicable
MDE Linkage Lookthrough	Applicable

3. Signal Specifications

Beta Lookback Date Rule	The day falling 3 calendar months prior to the relevant Decision Date or if such day is not a Strategy Calculation Day, the immediately preceding day that is a Strategy Calculation Day
Use Short Cap	Yes
Short Cap Value	1.00
Use Short Floor	Yes
Short Floor Value	0.00
Leverage Factor	100%

4. Immediate Components Table

The Immediate Components of the GS Strategy are as set out in the table below.

The Sponsor of each Immediate Component specified in the table (Immediate Components) below is Goldman Sachs International. For information on each such Immediate Component, please refer the relevant rules and/or documentation in respect of such Immediate Component.

Immediate Components Table

Immediate Component	Component Ticker	"Long Immediate Component ("L") or Short Immediate Component ("S")	Transaction Cost Rate (in basis points)	Servicing Cost Rate (in basis points)	Terminal Component ("T") or Non-Terminal Component ("NT")	Style
Modified Strategy EXT4 on the Bloomberg Commodity Index 4 Month Forward	ENHGEXT4 <Index>	L	0	0	T	A
Modified Strategy EXT0 on the Bloomberg Commodity Index	ENHGEXT0 <Index>	S	0	0	T	A

5. MDE Linked Components

Each Terminal Component (for the purposes of this paragraph, the "Relevant Terminal Component"), included in the following table shall be a MDE Linked Component in respect of each other Terminal Component specified in the same row in the table corresponding to the Relevant Terminal Component and vice versa.

Modified Strategy EXT0 on the Bloomberg Commodity Index	Modified Strategy EXT4 on the Bloomberg Commodity Index 4 Month Forward
---------------------------------------------------------	-------------------------------------------------------------------------

Additional Risk Factors

There is no assurance that the Beta Adjusted Basket Methodology will achieve its objective

The objective of the GS Strategy is to generate overall positive returns by notionally buying a long position in the Long Immediate Component (by assigning a positive weight to such immediate component) and notionally selling a short position in the Short Immediate Component (by assigning a negative weight to such immediate component). The rationale for the Beta Adjusted Basket Methodology is that the effectiveness of using the short position in the Short Immediate Component to offset the long position in the Long Immediate Component may be improved by adjusting for the "beta" between the two immediate components and therefore the volatility of the GS Strategy may be reduced. However, there can be no assurance that the Beta Adjusted Basket Methodology will be successful in reducing the volatility of the GS Strategy and this may adversely affect the value of the GS Strategy.

The GS Strategy may not achieve lower volatility

The GS Strategy may provide both long and short exposure to the immediate components. The use of long and short positions simultaneously in the immediate components may result in a lower volatility of returns than would otherwise be the case for a "naked" long or short position - however there can be no guarantee that the GS Strategy will be successful in achieving lower volatility.

Data sourcing and calculation risks associated with the GS Strategy and its terminal components may adversely affect the level of the GS Strategy

The GS Strategy is linked to underlying instruments, and therefore calculated based on price data that may be subject to potential errors in data sources or other errors that may affect the closing levels and/or prices published by the relevant sponsor (and therefore the level of the GS Strategy). Such errors could adversely affect the level of the GS Strategy. Neither the Strategy Sponsor, nor any of its affiliates is under any obligation or currently intends to independently verify such third party information or data from any third party data source or to advise the Counterparty in any financial instrument linked to the GS Strategy of any inaccuracy, omission, mistake or error of which it or any such affiliate becomes aware. Consequently, neither the Strategy Sponsor nor any of its affiliates shall be liable (whether in contract or otherwise) to any person for any inaccuracy, omission, mistake or error in the calculation or dissemination of the level of the GS Strategy. There can be no assurance that any error or discrepancy on the part of any data source or sponsor will be corrected or revised. Even if any error or discrepancy on the part of any third party data source or sponsor is corrected or revised, neither the Strategy Sponsor nor any of its affiliates is under any obligation or currently intends to incorporate any such correction or revision into the calculation of the level of the GS Strategy or the level of any terminal component. Neither the Strategy Sponsor, or any of its affiliates makes any representation or warranty, express or implied, as to the correctness or completeness of that information and takes no responsibility for the accuracy of such data or the impact of any inaccuracy of such data on the level of the GS Strategy, the level of any terminal component or on the performance of the commodity futures contracts included therein. Any of the foregoing errors or discrepancies could also adversely affect the level of the GS Strategy or its terminal components.

An investment in the GS Strategy is subject to risks associated with foreign commodities markets

Each of the terminal components included in the GS Strategy tracks the performance of one or more commodities in the commodity markets. Such commodities may be represented by commodity futures which (i) trade outside the United States on international exchanges, and/or (ii) are denominated in currencies other than United States dollars. The Counterparty to a financial instrument linked to the GS Strategy should be aware that investments linked to the value of foreign commodity futures contracts involve particular risks.

Certain terminal components included in the GS Strategy may be linked to commodity futures contracts on physical commodities on trading facilities located outside the United States. The regulations of the Commodity Futures Trading Commission (the "CFTC") do not apply to trading on foreign trading facilities, and trading on foreign trading facilities may involve different and greater risks than trading on United States trading facilities. Certain foreign markets may be more susceptible to disruption than United States trading facilities due to the lack of a government-regulated clearinghouse system. Trading on foreign trading facilities also involves certain other risks that are not applicable to trading on United States trading facilities. Those risks may include: exchange rate risk relative to the U.S. dollar, exchange controls, expropriation, burdensome or confiscatory taxation, and moratoriums, and political or diplomatic events. It will also likely be more costly and difficult for the Strategy Sponsor, as the sponsor of the GS Strategy, to enforce the laws or regulations of a foreign country or trading facility, and it is possible that the foreign country or trading facility may not have laws or regulations which adequately protect the rights and interests of investors in the commodity futures contracts included in the GS Strategy. In addition, because foreign trading facilities may be open on days when the value of the GS Strategy is not published, the value of the commodity futures contracts included in the GS Strategy may change on days when the level of the GS Strategy is unavailable.

Suspension or disruptions of market trading in the commodity and related options futures markets may adversely affect the value of the GS Strategy

The commodity markets are subject to temporary distortions or other market disruptions due to various factors, including the lack of liquidity in the markets, the participation of speculators and government regulation and intervention. In addition, U.S. futures exchanges and some foreign exchanges have regulations that limit the amount of fluctuation in futures contract prices that may occur during a single business day. These limits are generally referred to as "daily price fluctuation limits" and the maximum or minimum price of a contract on any given day as a result of these limits is referred to as a "limit price". Once the limit price has been reached in a particular contract, no trades may be made at a different price. Limit prices have the effect of precluding trading in a particular contract or forcing the liquidation of contracts at disadvantageous times or prices. These circumstances could adversely affect the level of the terminal components in the GS Strategy and, therefore, the value of the GS Strategy and the value of any financial instruments linked to the GS Strategy.

Risks relating to commodity prices, the S&P GSCI® Index, S&P GSCI® Sub-Indices, S&P GSCI® Forward Indices, S&P GSCI® Forward Sub-Indices, S&P GSCI® Single Commodity Indices and S&P GSCI® Single Commodity Forward Indices (each, an "S&P DJI Commodity Index", and together, the "S&P DJI Commodity Indices"), Bloomberg Commodity IndexSM, Bloomberg Commodity Subindices, Bloomberg Commodity Forward Indices, and Bloomberg Commodity Forward Subindices (each, a "BCOM Family Index", and together "BCOM Family Indices"), Goldman Sachs proprietary strategies, commodity futures contracts underlying S&P DJI Commodity Indices, BCOM Family Indices and Goldman Sachs proprietary strategies

Exposure to commodity futures contracts through an investment in the GS Strategy that references commodity indices or strategies compared to "spot" prices

- **Rolling** - It is typical in commodity markets to take the price of the first-nearby commodity futures contract with respect to a commodity (that is, as of a given date, the commodity futures contract first to expire following such date) as a reference for the "spot" price of such commodity. Over time such "spot" price will vary for two reasons. Firstly, the price of the first-nearby commodity futures contract will vary over time due to market fluctuations. Secondly, when the commodity futures contract which is considered to be the first-nearby contract changes from contract expiration "X" to contract expiration "Y" (as contract expiration "X" is approaching expiry), there is a discrete change in the price of the "prevailing" first-nearby commodity futures contract. If contract expiration "Y" is trading at a premium to contract expiration "X" (referred to as a "contango" market, as described in further detail below), the discrete change will represent a "jump" in the "spot" price. If contract expiration "Y" is trading at a discount to contract expiration "X" (referred to as a "backwardated" market, as described in further detail below) the discrete change will represent a "drop" in price.
- **Effect of "jump" or "drop"** - Since a "jump" or "drop" does not correspond to a change in price of any given commodity futures contract, these economics cannot be captured by a futures-linked investment such as the GS Strategy. Therefore, all other things being equal (in particular, assuming no change in the relative price of the various contract expirations with respect to the relevant commodity futures contract), in a "contango" market a long-only futures-linked investment may be expected to underperform the "spot" price (due to not capturing the "jump" in spot price) and in a "backwardated" market a long-

only futures-linked investment may be expected to outperform the "spot" price (due to not capturing the "drop" in spot price).

- "Backwardation" occurs when the price of a near-dated commodity futures contract is greater than the price of a longer-dated commodity futures contract, the market for such contracts is referred to as in "backwardation". "Contango" occurs when the price of the near-dated commodity futures contract is lower than the price of the longer-dated commodity futures contract, the market for such contracts is referred to as in "contango".
- Accordingly, a Counterparty to a financial instrument linked to the GS Strategy that references commodity indices or strategies as components may receive a lower payment upon redemption of such financial instrument than such Counterparty would have received if he or she had invested directly in commodities underlying such commodity indices or strategies or a financial instrument whose redemption or settlement amount was based upon the spot price of physical commodities or commodity futures contracts that were scheduled to expire on the maturity date of the financial instrument.

Commodity prices are characterised by high and unpredictable volatility, which could lead to high and unpredictable volatility of the GS Strategy

Commodity prices, and, consequently, the prices of corresponding commodity futures contracts, are affected by various factors, including, but not limited to, supply and demand, liquidity, weather conditions and natural disasters, government programs and policies, political, military, terrorist and economic events as set out in more detail below.

- **Supply and demand** - The planning and management of commodities supplies is very time-consuming. This means that the scope for action on the supply side is limited and it is not always possible to adjust production swiftly to take account of demand. Demand can also vary on a regional basis. Transport costs for commodities in regions where these are needed also affect their prices. The fact that some commodities take a cyclical pattern, such as agricultural products which are only produced at certain times of the year, can also result in major price fluctuations.
- **Liquidity** - Not all commodities markets are liquid and able to quickly and adequately react to changes in supply and demand. The fact that there are only a few market participants in the commodities markets means that speculative investments can have negative consequences and may distort prices.
- **Weather conditions and natural disasters** - Unfavourable weather conditions can influence the supply of certain commodities for the entire year. This kind of supply crisis can lead to severe and unpredictable price fluctuations. Diseases and epidemics can also influence the prices of agricultural commodities.
- **Governmental programs and policies, national and international political, military and economic events and trading activities in commodities and related contracts** - Commodities are often produced in emerging market countries, with demand coming principally from industrialised nations. The political and economic situation is however far less stable in many emerging market countries than in the developed world. They are generally much more susceptible to the risks of rapid political change and economic setbacks. Political crises can affect purchaser confidence, which can as a consequence affect commodity prices. Armed conflicts can also impact on the supply and demand for certain commodities. It is also possible for industrialised nations to impose embargos on imports and exports of goods and services. This can directly and indirectly impact commodity prices. Furthermore, numerous commodity producers have joined forces to establish organisations or cartels in order to regulate supply and influence prices.

These factors may adversely affect the value of the GS Strategy and the value of any financial instrument linked thereto in varying ways, and different factors may cause the value and volatility of different commodities to move in inconsistent directions and at inconsistent rates.

The GS Strategy does not track the performance of the S&P DJI Commodity Indices or the BCOM Family Indices and is likely to deliver returns that differ from the performance of the S&P DJI Commodity Indices or the BCOM Family Indices

Whilst the GS Strategy may reference certain S&P DJI Commodity Indices and/or BCOM Family Indices (whether directly or indirectly via its immediate components), an investment in a financial instrument linked to the value of the GS Strategy is not comparable to and should not be benchmarked against an

investment in a financial instrument linked to the value of the S&P DJI Commodity Indices or the BCOM Family Indices. This is because the differences between the GS Strategy and the S&P DJI Commodity Indices or the BCOM Family Indices (as the case may be) are likely to produce different values for the GS Strategy and the S&P DJI Commodity Indices or the BCOM Family Indices (as the case may be) at any given time and, therefore, may produce differing returns.

Change in the composition or discontinuance of S&P DJI Commodity Indices, BCOM Family Indices and Goldman Sachs proprietary strategy referenced by the GS Strategy could affect the level of the GS Strategy

The GS Strategy may reference certain S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies. The S&P DJI Commodity Indices are calculated and maintained by S&P Dow Jones Indices LLC, a subsidiary of The McGraw-Hill Companies, Inc. as sponsor. The BCOM Family Indices are calculated by UBS Securities LLC (collectively with its affiliates, "UBS") together with Bloomberg Finance L.P. (collectively with its affiliates, "Bloomberg") as sponsor. The Goldman Sachs proprietary strategies are calculated by Goldman Sachs International as sponsor. The relevant sponsor is also responsible for the composition of such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies. The relevant sponsor may take any actions in respect of such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies (as the case may be) without regard to the interests of the Strategy Sponsor of the GS Strategy or the Counterparty to any financial instruments linked to the GS Strategy, and any of these actions could adversely affect the level of the GS Strategy together with the market value of any financial instruments linked to the GS Strategy.

The relevant sponsor can substitute the commodity futures contracts underlying such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies (for example, if a commodity futures contract referenced were to be delisted, terminated or replaced by the relevant exchange on which such underlying commodity futures contract is traded) or make other changes to the methodology for calculating such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies. The composition of an S&P DJI Commodity Index, a BCOM Family Index, or a Goldman Sachs proprietary strategy may also change over time as additional commodity contracts satisfy the eligibility criteria or commodity contracts currently included in such S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy (as the case may be) fail to satisfy such criteria. Such changes to the composition of any S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy referenced by the GS Strategy may affect the level of such S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy as any newly added commodity futures contract may perform significantly worse or better than the commodity futures contract it replaces, which in turn, may affect the level of the GS Strategy. The relevant sponsor may also alter, discontinue or suspend calculation or dissemination of such S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy. In such circumstances, the Strategy Sponsor would have the discretion to make determinations with respect to the level of the GS Strategy for the purposes of calculating the amount payable on any financial instrument linked to the GS Strategy.

The S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy may in the future include commodity futures contracts that are not traded on regulated futures exchanges

The S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy are based solely on commodity futures contracts traded on regulated futures exchanges (referred to in the United States as "**designated contract markets**"). At present, these S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies continue to be comprised exclusively of regulated commodity futures contracts. However, the S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy may in the future include over-the-counter contracts (such as swaps and forward contracts) traded on trading facilities that are subject to lesser degrees of regulation or, in some cases, no substantive regulation. As a result, trading in such commodity futures contracts, and the manner in which prices and volumes are reported by the relevant trading facilities, may not be subject to the same provisions of, and the protections afforded by, the U.S. Commodity Exchange Act 1936, as amended, or other applicable statutes and related regulations, that govern trading on regulated futures exchanges. In addition, many electronic trading facilities have only recently initiated trading and do not have significant trading histories. As a result, the trading of commodity futures contracts on such facilities and the inclusion of such commodity futures contracts in any S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy referenced by the GS Strategy may be subject to certain risks not presented by most exchange-traded futures contracts, including risks related to the liquidity and price histories of the relevant commodity futures contracts.

Some of the S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy may be subject to pronounced risks of pricing volatility

As a general matter, the risk of low liquidity or volatile pricing around the maturity date of a commodity futures contract is greater than in the case of other futures contracts because (among other factors) a number of market participants take physical delivery of the underlying commodities. Many commodities, like those in the energy and industrial metals sectors, have liquid futures contracts that expire every month. Therefore, these futures contracts are rolled forward every month. Futures contracts based on certain other commodities, most notably agricultural and livestock products, tend to have only a few contract months each year that trade with substantial liquidity. Thus, these commodities, with related futures contracts that expire infrequently, roll forward less frequently than every month, and can have further pronounced pricing volatility during extended periods of low liquidity. It should be noted that due to the significant level of continuous consumption, limited reserves, and oil cartel controls, energy commodities are subject to rapid price increases in the event of perceived or actual shortages. These factors (when combined or in isolation) may affect the price of commodity futures contracts and, as a consequence, the performance of the GS Strategy.

Commodities are subject to legal and regulatory regimes that may change in ways that could affect the level of the GS Strategy and/or affect the ability of the Strategy Sponsor, an issuer or other relevant entities to enter into or maintain hedging transactions

Commodities are subject to legal and regulatory regimes in the United States and, in some cases, in other countries that may change in ways that could negatively affect the value of the GS Strategy and are expected to increase the cost of transacting derivatives. This could have an adverse impact on the level of the GS Strategy.

Specifications Annex – Goldman Sachs Commodity Strategy EXT6

Dated: 19 February 2024

1. Introduction

This Specifications Annex, as may be amended from time to time constitutes the Relevant General Strategy Description for the purposes of the Goldman Sachs Beta Adjusted Basket Methodology Description (“**Beta Adjusted Basket Methodology Description**”) and utilizes the methodology set out therein to calculate the level of the GS Strategy identified in paragraph 2 (*Strategy Specifications*) below. This Specifications Annex sets out certain information required to complete the Beta Adjusted Basket Methodology Description as well as certain other rules, methodology, definitions and other information applicable to such GS Strategy.

Terms not otherwise defined in this Specifications Annex shall have the meanings given to them in the Beta Adjusted Basket Methodology Description

2. Strategy Specifications

Strategy Name	Goldman Sachs Commodity Strategy EXT6
Strategy Inception Date	22 August 2011 Investors should refer to the risk factor in the General Index Provisions, entitled "Index Inception Date and Back-testing (provided that each reference to "Index Inception Date" therein shall be deemed to be a reference to the "Strategy Inception Date")
Strategy Calculation Currency	USD
Initial Strategy Level	100.0000
Strategy Publication Data Source	Bloomberg Ticker: ABGSEXT6 <Index>
Publication of Strategy Timely Level and/or Strategy Tradable Level	Strategy Timely Level
Strategy Calculation Day	Any day on which the offices of Goldman Sachs & Co. LLC in New York are open for business
Strategy Trading Day	Each Trading Day in respect of the GS Strategy
Strategy Servicing Cost Rate	0%
Strategy Floored at Zero	Not Applicable

Reference Date	Each of (i) the Strategy Inception Date, and thereafter, (ii) the second to last Trading Day of each month
Rebalancing Date	In respect of a Reference Date, the Trading Day immediately following such Reference Date
Holding Period Rebalancing Days	1
Number of Fading Days	1
Decision Date Rule	In respect of a Reference Date, the same day as such Reference Date
Disjoint Execution	Not Applicable
MDE Linkage Lookthrough	Applicable

3. Signal Specifications

Beta Lookback Date Rule	The day falling 3 calendar months prior to the relevant Decision Date or if such day is not a Strategy Calculation Day, the immediately preceding day that is a Strategy Calculation Day
Use Short Cap	Yes
Short Cap Value	1.00
Use Short Floor	Yes
Short Floor Value	0.00
Leverage Factor	100%

4. Immediate Components Table

The Immediate Components of the GS Strategy are as set out in the table below.

The Sponsor of each Immediate Component specified in the table (Immediate Components) below is Goldman Sachs International. For information on each such Immediate Component, please refer the relevant rules and/or documentation in respect of such Immediate Component.

Immediate Components Table

Immediate Component	Component Ticker	"Long Immediate Component ("L") or Short Immediate Component ("S")	Transaction Cost Rate (in basis points)	Servicing Cost Rate (in basis points)	Terminal Component ("T") or Non-Terminal Component ("NT")	Style
Modified Strategy EXT6 on the Bloomberg Commodity Index 6 Month Forward	ENHGEXT6 <Index>	L	0	0	T	A
Modified Strategy EXT0 on the Bloomberg Commodity Index	ENHGEXT0 <Index>	S	0	0	T	A

5. MDE Linked Components

Each Terminal Component (for the purposes of this paragraph, the "Relevant Terminal Component"), included in the following table shall be a MDE Linked Component in respect of each other Terminal Component specified in the same row in the table corresponding to the Relevant Terminal Component and vice versa.

Modified Strategy EXT0 on the Bloomberg Commodity Index	Modified Strategy EXT6 on the Bloomberg Commodity Index 6 Month Forward
---------------------------------------------------------	-------------------------------------------------------------------------

Additional Risk Factors

There is no assurance that the Beta Adjusted Basket Methodology will achieve its objective

The objective of the GS Strategy is to generate overall positive returns by notionally buying a long position in the Long Immediate Component (by assigning a positive weight to such immediate component) and notionally selling a short position in the Short Immediate Component (by assigning a negative weight to such immediate component). The rationale for the Beta Adjusted Basket Methodology is that the effectiveness of using the short position in the Short Immediate Component to offset the long position in the Long Immediate Component may be improved by adjusting for the "beta" between the two immediate components and therefore the volatility of the GS Strategy may be reduced. However, there can be no assurance that the Beta Adjusted Basket Methodology will be successful in reducing the volatility of the GS Strategy and this may adversely affect the value of the GS Strategy.

The GS Strategy may not achieve lower volatility

The GS Strategy may provide both long and short exposure to the immediate components. The use of long and short positions simultaneously in the immediate components may result in a lower volatility of returns than would otherwise be the case for a "naked" long or short position - however there can be no guarantee that the GS Strategy will be successful in achieving lower volatility.

Data sourcing and calculation risks associated with the GS Strategy and its terminal components may adversely affect the level of the GS Strategy

The GS Strategy is linked to underlying instruments, and therefore calculated based on price data that may be subject to potential errors in data sources or other errors that may affect the closing levels and/or prices published by the relevant sponsor (and therefore the level of the GS Strategy). Such errors could adversely affect the level of the GS Strategy. Neither the Strategy Sponsor, nor any of its affiliates is under any obligation or currently intends to independently verify such third party information or data from any third party data source or to advise the Counterparty in any financial instrument linked to the GS Strategy of any inaccuracy, omission, mistake or error of which it or any such affiliate becomes aware. Consequently, neither the Strategy Sponsor nor any of its affiliates shall be liable (whether in contract or otherwise) to any person for any inaccuracy, omission, mistake or error in the calculation or dissemination of the level of the GS Strategy. There can be no assurance that any error or discrepancy on the part of any data source or sponsor will be corrected or revised. Even if any error or discrepancy on the part of any third party data source or sponsor is corrected or revised, neither the Strategy Sponsor nor any of its affiliates is under any obligation or currently intends to incorporate any such correction or revision into the calculation of the level of the GS Strategy or the level of any terminal component. Neither the Strategy Sponsor, or any of its affiliates makes any representation or warranty, express or implied, as to the correctness or completeness of that information and takes no responsibility for the accuracy of such data or the impact of any inaccuracy of such data on the level of the GS Strategy, the level of any terminal component or on the performance of the commodity futures contracts included therein. Any of the foregoing errors or discrepancies could also adversely affect the level of the GS Strategy or its terminal components.

An investment in the GS Strategy is subject to risks associated with foreign commodities markets

Each of the terminal components included in the GS Strategy tracks the performance of one or more commodities in the commodity markets. Such commodities may be represented by commodity futures which (i) trade outside the United States on international exchanges, and/or (ii) are denominated in currencies other than United States dollars. The Counterparty to a financial instrument linked to the GS Strategy should be aware that investments linked to the value of foreign commodity futures contracts involve particular risks.

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The commodity markets are subject to temporary distortions or other market disruptions due to various factors, including the lack of liquidity in the markets, the participation of speculators and government regulation and intervention. In addition, U.S. futures exchanges and some foreign exchanges have regulations that limit the amount of fluctuation in futures contract prices that may occur during a single business day. These limits are generally referred to as "daily price fluctuation limits" and the maximum or minimum price of a contract on any given day as a result of these limits is referred to as a "limit price". Once the limit price has been reached in a particular contract, no trades may be made at a different price. Limit prices have the effect of precluding trading in a particular contract or forcing the liquidation of contracts at disadvantageous times or prices. These circumstances could adversely affect the level of the terminal components in the GS Strategy and, therefore, the value of the GS Strategy and the value of any financial instruments linked to the GS Strategy.

Risks relating to commodity prices, the S&P GSCI® Index, S&P GSCI® Sub-Indices, S&P GSCI® Forward Indices, S&P GSCI® Forward Sub-Indices, S&P GSCI® Single Commodity Indices and S&P GSCI® Single Commodity Forward Indices (each, an "S&P DJI Commodity Index", and together, the "S&P DJI Commodity Indices"), Bloomberg Commodity IndexSM, Bloomberg Commodity Subindices, Bloomberg Commodity Forward Indices, and Bloomberg Commodity Forward Subindices (each, a "BCOM Family Index", and together "BCOM Family Indices"), Goldman Sachs proprietary strategies, commodity futures contracts underlying S&P DJI Commodity Indices, BCOM Family Indices and Goldman Sachs proprietary strategies

Exposure to commodity futures contracts through an investment in the GS Strategy that references commodity indices or strategies compared to "spot" prices

- **Rolling** - It is typical in commodity markets to take the price of the first-nearby commodity futures contract with respect to a commodity (that is, as of a given date, the commodity futures contract first to expire following such date) as a reference for the "spot" price of such commodity. Over time such "spot" price will vary for two reasons. Firstly, the price of the first-nearby commodity futures contract will vary over time due to market fluctuations. Secondly, when the commodity futures contract which is considered to be the first-nearby contract changes from contract expiration "X" to contract expiration "Y" (as contract expiration "X" is approaching expiry), there is a discrete change in the price of the "prevailing" first-nearby commodity futures contract. If contract expiration "Y" is trading at a premium to contract expiration "X" (referred to as a "contango" market, as described in further detail below), the discrete change will represent a "jump" in the "spot" price. If contract expiration "Y" is trading at a discount to contract expiration "X" (referred to as a "backwardated" market, as described in further detail below) the discrete change will represent a "drop" in price.
- **Effect of "jump" or "drop"** - Since a "jump" or "drop" does not correspond to a change in price of any given commodity futures contract, these economics cannot be captured by a futures-linked investment such as the GS Strategy. Therefore, all other things being equal (in particular, assuming no change in the relative price of the various contract expirations with respect to the relevant commodity futures contract), in a "contango" market a long-only futures-linked investment may be expected to underperform the "spot" price (due to not capturing the "jump" in spot price) and in a "backwardated" market a long-

only futures-linked investment may be expected to outperform the "spot" price (due to not capturing the "drop" in spot price).

- "Backwardation" occurs when the price of a near-dated commodity futures contract is greater than the price of a longer-dated commodity futures contract, the market for such contracts is referred to as in "backwardation". "Contango" occurs when the price of the near-dated commodity futures contract is lower than the price of the longer-dated commodity futures contract, the market for such contracts is referred to as in "contango".
- Accordingly, a Counterparty to a financial instrument linked to the GS Strategy that references commodity indices or strategies as components may receive a lower payment upon redemption of such financial instrument than such Counterparty would have received if he or she had invested directly in commodities underlying such commodity indices or strategies or a financial instrument whose redemption or settlement amount was based upon the spot price of physical commodities or commodity futures contracts that were scheduled to expire on the maturity date of the financial instrument.

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Commodity prices, and, consequently, the prices of corresponding commodity futures contracts, are affected by various factors, including, but not limited to, supply and demand, liquidity, weather conditions and natural disasters, government programs and policies, political, military, terrorist and economic events as set out in more detail below.

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- **Weather conditions and natural disasters** - Unfavourable weather conditions can influence the supply of certain commodities for the entire year. This kind of supply crisis can lead to severe and unpredictable price fluctuations. Diseases and epidemics can also influence the prices of agricultural commodities.
- **Governmental programs and policies, national and international political, military and economic events and trading activities in commodities and related contracts** - Commodities are often produced in emerging market countries, with demand coming principally from industrialised nations. The political and economic situation is however far less stable in many emerging market countries than in the developed world. They are generally much more susceptible to the risks of rapid political change and economic setbacks. Political crises can affect purchaser confidence, which can as a consequence affect commodity prices. Armed conflicts can also impact on the supply and demand for certain commodities. It is also possible for industrialised nations to impose embargos on imports and exports of goods and services. This can directly and indirectly impact commodity prices. Furthermore, numerous commodity producers have joined forces to establish organisations or cartels in order to regulate supply and influence prices.

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Whilst the GS Strategy may reference certain S&P DJI Commodity Indices and/or BCOM Family Indices (whether directly or indirectly via its immediate components), an investment in a financial instrument linked to the value of the GS Strategy is not comparable to and should not be benchmarked against an

investment in a financial instrument linked to the value of the S&P DJI Commodity Indices or the BCOM Family Indices. This is because the differences between the GS Strategy and the S&P DJI Commodity Indices or the BCOM Family Indices (as the case may be) are likely to produce different values for the GS Strategy and the S&P DJI Commodity Indices or the BCOM Family Indices (as the case may be) at any given time and, therefore, may produce differing returns.

Change in the composition or discontinuance of S&P DJI Commodity Indices, BCOM Family Indices and Goldman Sachs proprietary strategy referenced by the GS Strategy could affect the level of the GS Strategy

The GS Strategy may reference certain S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies. The S&P DJI Commodity Indices are calculated and maintained by S&P Dow Jones Indices LLC, a subsidiary of The McGraw-Hill Companies, Inc. as sponsor. The BCOM Family Indices are calculated by UBS Securities LLC (collectively with its affiliates, "UBS") together with Bloomberg Finance L.P. (collectively with its affiliates, "Bloomberg") as sponsor. The Goldman Sachs proprietary strategies are calculated by Goldman Sachs International as sponsor. The relevant sponsor is also responsible for the composition of such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies. The relevant sponsor may take any actions in respect of such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies (as the case may be) without regard to the interests of the Strategy Sponsor of the GS Strategy or the Counterparty to any financial instruments linked to the GS Strategy, and any of these actions could adversely affect the level of the GS Strategy together with the market value of any financial instruments linked to the GS Strategy.

The relevant sponsor can substitute the commodity futures contracts underlying such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies (for example, if a commodity futures contract referenced were to be delisted, terminated or replaced by the relevant exchange on which such underlying commodity futures contract is traded) or make other changes to the methodology for calculating such S&P DJI Commodity Indices, BCOM Family Indices, or Goldman Sachs proprietary strategies. The composition of an S&P DJI Commodity Index, a BCOM Family Index, or a Goldman Sachs proprietary strategy may also change over time as additional commodity contracts satisfy the eligibility criteria or commodity contracts currently included in such S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy (as the case may be) fail to satisfy such criteria. Such changes to the composition of any S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy referenced by the GS Strategy may affect the level of such S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy as any newly added commodity futures contract may perform significantly worse or better than the commodity futures contract it replaces, which in turn, may affect the level of the GS Strategy. The relevant sponsor may also alter, discontinue or suspend calculation or dissemination of such S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy. In such circumstances, the Strategy Sponsor would have the discretion to make determinations with respect to the level of the GS Strategy for the purposes of calculating the amount payable on any financial instrument linked to the GS Strategy.

The S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy may in the future include commodity futures contracts that are not traded on regulated futures exchanges

The S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy are based solely on commodity futures contracts traded on regulated futures exchanges (referred to in the United States as "**designated contract markets**"). At present, these S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies continue to be comprised exclusively of regulated commodity futures contracts. However, the S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy may in the future include over-the-counter contracts (such as swaps and forward contracts) traded on trading facilities that are subject to lesser degrees of regulation or, in some cases, no substantive regulation. As a result, trading in such commodity futures contracts, and the manner in which prices and volumes are reported by the relevant trading facilities, may not be subject to the same provisions of, and the protections afforded by, the U.S. Commodity Exchange Act 1936, as amended, or other applicable statutes and related regulations, that govern trading on regulated futures exchanges. In addition, many electronic trading facilities have only recently initiated trading and do not have significant trading histories. As a result, the trading of commodity futures contracts on such facilities and the inclusion of such commodity futures contracts in any S&P DJI Commodity Index, BCOM Family Index, or Goldman Sachs proprietary strategy referenced by the GS Strategy may be subject to certain risks not presented by most exchange-traded futures contracts, including risks related to the liquidity and price histories of the relevant commodity futures contracts.

Some of the S&P DJI Commodity Indices, BCOM Family Indices, and Goldman Sachs proprietary strategies referenced by the GS Strategy may be subject to pronounced risks of pricing volatility

As a general matter, the risk of low liquidity or volatile pricing around the maturity date of a commodity futures contract is greater than in the case of other futures contracts because (among other factors) a number of market participants take physical delivery of the underlying commodities. Many commodities, like those in the energy and industrial metals sectors, have liquid futures contracts that expire every month. Therefore, these futures contracts are rolled forward every month. Futures contracts based on certain other commodities, most notably agricultural and livestock products, tend to have only a few contract months each year that trade with substantial liquidity. Thus, these commodities, with related futures contracts that expire infrequently, roll forward less frequently than every month, and can have further pronounced pricing volatility during extended periods of low liquidity. It should be noted that due to the significant level of continuous consumption, limited reserves, and oil cartel controls, energy commodities are subject to rapid price increases in the event of perceived or actual shortages. These factors (when combined or in isolation) may affect the price of commodity futures contracts and, as a consequence, the performance of the GS Strategy.

Commodities are subject to legal and regulatory regimes that may change in ways that could affect the level of the GS Strategy and/or affect the ability of the Strategy Sponsor, an issuer or other relevant entities to enter into or maintain hedging transactions

Commodities are subject to legal and regulatory regimes in the United States and, in some cases, in other countries that may change in ways that could negatively affect the value of the GS Strategy and are expected to increase the cost of transacting derivatives. This could have an adverse impact on the level of the GS Strategy.

GOLDMAN SACHS GENERAL BASKET STRATEGY BASE DESCRIPTION

Version 7.0

Dated: 26 July 2022

Section A: General

1. Introduction

This documentation element, the Goldman Sachs General Basket Strategy Base Description, as may be amended from time to time (this "**General Basket Strategy Base Description**") comprises certain rules, methodology, definitions, disclaimers, conflicts of interest and other information applicable to certain notional rules-based proprietary strategies which Goldman Sachs International or its successor(s) (the "**Strategy Sponsor**") may create from time to time (each, a "**GS Strategy**" and together, the "**GS Strategies**").

The most recently published version of the Goldman Sachs General Index Provisions (as updated from time to time, the "**General Index Provisions**") are incorporated into and shall apply to, and must be read together with, this documentation element.

For the purposes of applying the General Index Provisions to this documentation element, each expression in the General Index Provisions set out in the column of the table below entitled "Reference in the General Index Provisions" shall be read and construed for the purposes of this documentation element as a reference to the word or expression appearing in the same row in the table in the column entitled "Reference in this documentation element":

	Reference in the General Index Provisions	Reference in this documentation element
1.	"Index"	"Strategy"
2.	"Index Business Day"	"Strategy Calculation Day"
3.	"Index Component"	"Component"
4.	"Index Calculation Agent"	"Strategy Calculation Agent"
5.	"Disruption Event"	Each of the "Exchange Rate Disruption Event", "Force Majeure Event", "Market Disruption Event" and "Non-Tradable Event"
6.	"Index Sponsor"	"Strategy Sponsor"

This General Basket Strategy Base Description should also be read in conjunction with the relevant description (the "**Relevant General Strategy Description**") comprising certain other rules, methodology, definitions and other information applicable to a particular GS Strategy, as well as any other documentation element(s) referred to in such Relevant General Strategy Description and/or in such other documentation elements (the "**Other Relevant Strategy Documentation Elements**"), in each case, where such documentation element is specified to be applicable to such GS Strategy.

This General Basket Strategy Base Description, together with the General Index Provisions, a Relevant General Strategy Description and any Other Relevant Strategy Documentation Elements will constitute the "**Strategy Rules**" in respect of a particular GS Strategy.

2. The GS Strategy

The GS Strategy consists of certain "**immediate components**". Each immediate component is either designated as a "**terminal component**" or a "**non-terminal component**".

The purpose of this General Basket Strategy Base Description is to describe (i) how the size of the exposure (represented by the number of units) of each immediate component and each terminal component to which a GS Strategy is exposed is determined, and in turn, (ii) how the level of a GS Strategy is calculated by reference to the levels of the terminal components included in such GS Strategy and the number of units of such terminal

components included in such GS Strategy on any day, as well as the impact of any transaction costs and/or servicing costs which may be applicable in respect of the terminal components included in a GS Strategy and/or any servicing costs which may be applicable in respect of the GS Strategy. The identity of the immediate components and the determination of the immediate component weights are as specified or described in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements. Information relating to any terminal component which is included in the GS Strategy as constituent parts of a non-terminal component shall be set out in the relevant rules in respect of such non-terminal component, unless otherwise specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements of the GS Strategy.

Section B: Calculation of the Strategy Tradable Level and Strategy Timely Level

The level (the "**Strategy Tradable Level**") of a GS Strategy in respect of each Strategy Calculation Day will depend on the daily mark-to-market change in the value of the position in each Terminal Component included in such GS Strategy. The Strategy Tradable Level of each GS Strategy will be calculated by Strategy Calculation Agent in accordance with paragraph 1 of this Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level*.

Unless "Strategy Floored at Zero" is specified to be "Not Applicable" in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, the Strategy Tradable Level shall be floored at zero, meaning that if the methodology set out in this Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level* would otherwise result in a Strategy Tradable Level on a Strategy Calculation Day t of less than zero, the Strategy Tradable Level shall be deemed to be zero on such Strategy Calculation Day t and all subsequent Strategy Calculation Days. If "Strategy Floored at Zero" is specified to be "Not Applicable" the Strategy Tradable Level may be negative on any Strategy Calculation Day, and in respect of each Reference Date on which the Strategy Timely Level is less than or equal to zero, the units of all Immediate Components (and therefore the value of the positions of all Terminal Components) included in the GS Strategy will be equal to zero on the Rebalancing Date corresponding to such Reference Date. Consequently, if the Strategy Tradable Level continues to be less than or equal to zero for a prolonged period of time, the value of the position in all Terminal Components will continue to be zero and the Strategy Tradable Level will become static at or below zero.

If a Non-Tradable Event occurs on any Strategy Calculation Day t in respect of the GS Strategy, the Strategy Calculation Agent will not be able to calculate the Strategy Tradable Level in respect of such Strategy Calculation Day t until a later date. Therefore, the Strategy Calculation Agent will also calculate a level (the "**Strategy Timely Level**") of a GS Strategy in respect of each Strategy Calculation Day. The Strategy Timely Level will be calculated by the Strategy Calculation Agent in accordance with paragraph 2 of this Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level*.

1. Calculation of the Strategy Tradable Level for a GS Strategy

In respect of a GS Strategy, the Strategy Tradable Level in respect of (i) the Strategy Inception Date shall be equal to the Initial Strategy Level, and (ii) each Strategy Calculation Day t following the Strategy Inception Date shall be calculated by the Strategy Calculation Agent in accordance with the following formula:

$$S_t = S_{t-1} \times (1 + OIR_t \times DCF_t) + \left[\sum_c \left(FX_t(c) \times (V_{t,t-1}(c) - V_{t-1,t-1}(c)) \right) \right] - \text{Total Costs}_t$$

Where the summation is taken over each Terminal Component c included in the GS Strategy on Strategy Calculation Day $t-1$ or Strategy Calculation Day t , and:

"**DCF_t**" or the "**Overnight Interest Rate Day Count Fraction**:" means, in respect of a Strategy Calculation Day t , the Overnight Interest Rate Day Count Fraction in respect of the period commencing on, and including, Strategy Calculation Day $t-1$ and ending on, but excluding, Strategy Calculation Day t ;

"**FX_t(c)**" means the Tradable Level of the Currency Conversion Component in respect of Terminal Component c and Strategy Calculation Day t ;

"**OIR_t**" means the

- (1) if no Overnight Interest Rate Data Source is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, zero (0)
- (2) If Overnight Interest Rate Data Source is specified as "weekly auction High Rate for 13 week U.S. Treasury Bills" in the Total Return Specifications table in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, the Overnight Interest Rate in respect of Strategy Calculation Day $t-1$
- (3) Otherwise, the Overnight Interest Rate in respect of the earlier of (A) Strategy Calculation Day $t-1$ and (B) the second last Overnight Interest Rate Business Day that falls prior to or on Strategy Calculation Day t ;

"**S_t**" means the Strategy Tradable Level in respect of Strategy Calculation Day t ;

"Total Costs_t:" means, in respect of a Strategy Calculation Day *t*, an amount determined by the Strategy Calculation Agent in accordance with the following formula:

$$\text{Total Costs}_t = \text{TC}_t + \left[\sum_c \text{SC}_t(c) \right] + \text{SSC}_t$$

Where the summation is taken over each Terminal Component *c* included in the GS Strategy on Strategy Calculation Day *t*, and:

"SC_t(c)" means the servicing costs in respect of Terminal Component *c* in respect of Strategy Calculation Day *t*, as determined by the Strategy Calculation Agent in accordance with the following formula:

$$\text{SC}_t(c) = \text{Abs}(\text{FX}_{t-1}(c) \times \text{SCWM}_{t-1}(c) \times \text{U}_{t-1}(c)) \times \text{SCR}_{t-1}(c) \times \frac{\text{days}}{365}$$

Where:

"Abs(x)" is the absolute value function evaluated for the number *x*;

"FX_{t-1}(c)" means the Tradable Level of the Currency Conversion Component in respect of Terminal Component *c* and Strategy Calculation Day *t-1*;

"SCR_{t-1}(c)" means the Servicing Cost Rate in respect of Terminal Component *c* and Strategy Calculation Day *t-1*;

"days" means the number of calendar days falling in the period commencing on, and including, Strategy Calculation Day *t-1* and ending on, but excluding, Strategy Calculation Day *t*;

"L_{t-1}(c)" means the Tradable Level of Terminal Component *c* in respect of Strategy Calculation Day *t-1*;

"SCWM_{t-1}(c)" means, (i) if a Servicing Cost Weight Multiplier in respect of Terminal Component *c* in respect of Strategy Calculation Day *t-1* is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, such Servicing Cost Weight Multiplier, or (ii) if no Servicing Cost Weight Multiplier is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, *L_{t-1}(c)*; and

"U_{t-1}(c)" means the Units of Terminal Component *c* in respect of Strategy Calculation Day *t-1*.

"SSC_t" means the strategy servicing costs in respect of Strategy Calculation Day *t*, as determined by the Strategy Calculation Agent in accordance with the following formula:

$$\text{SSC}_t = \text{Abs}(S_{t-1}) \times \text{SSCR} \times \frac{\text{days}}{365}$$

Where:

"Abs(x)" is the absolute value function evaluated for the number *x*;

"days" means the number of calendar days falling in the period commencing on, and including, Strategy Calculation Day *t-1* and ending on, but excluding, Strategy Calculation Day *t*;

"S_{t-1}" means the Strategy Tradable Level in respect of Strategy Calculation Day *t-1*;

"SSCR" means the Strategy Servicing Cost Rate;

"**TC_t**" means, in respect of Strategy Calculation Day *t*, the aggregate of the transaction costs in respect of each Transaction Cost Class, as determined by the Strategy Calculation Agent in accordance with the following formula:

$$TC_t = \sum_{cc} TC_t(cc)$$

Where the summation is taken over each Transaction Cost Class relating to the Terminal Components included in the GS Strategy on Strategy Calculation Day *t*, and:

"**TC_t(cc)**" means the transaction costs in respect of Transaction Cost Class *cc* and Strategy Calculation Day *t*, as determined by the Strategy Calculation Agent in accordance with the following formula:

$$TC_t(cc) = TCR_t(cc) \times Abs \left(\sum_c FX_t(c) \times TCWM_t(c, cc) \times (U_t(c) - U_{t-1}(c)) \right)$$

Where the summation is taken over each Terminal Component *c* which is a part of Transaction Cost Class *cc* on Strategy Calculation Day *t-1* or *t*, and:

"**Abs(x)**" is the absolute value function evaluated for the number *x*;

"**FX_t(c)**" means the Tradable Level of the Currency Conversion Component in respect of Terminal Component *c* and Strategy Calculation Day *t*;

"**TCR_t(cc)**" means the Transaction Cost Rate in respect of Transaction Cost Class *cc* and Strategy Calculation Day *t*;

"**TCWM_t(c, cc)**" means the Transaction Cost Weight Multiplier in respect of Transaction Cost Class *cc* and Terminal Component *c* on Strategy Calculation Day *t*;

"**U_t(c)**" means the Units of Terminal Component *c* in respect of Strategy Calculation Day *t*; and

"**U_{t-1}(c)**" means the Units of Terminal Component *c* in respect of Strategy Calculation Day *t-1*.

"**t-1**" means the Strategy Calculation Day preceding Strategy Calculation Day *t*; and

"**V_{t,s}(c)**" means the value of the position in Terminal Component *c*, valued using the Tradable Level of Terminal Component *c* in respect of a Strategy Calculation Day *t* and the Units of Terminal Component *c* on Strategy Calculation Day *s*, as determined by the Strategy Calculation Agent in accordance with the following formula:

$$V_{t,s}(c) = L_t(c) \times U_s(c)$$

Where:

"**L_t(c)**" means the Tradable Level of Terminal Component *c* in respect of Strategy Calculation Day *t*; and

"**U_s(c)**" means the Units of Terminal Component *c* in respect of Strategy Calculation Day *s*.

2. Calculation of the Strategy Timely Level for a GS Strategy

The Strategy Calculation Agent will calculate the Strategy Timely Level of a GS Strategy on each Strategy Calculation Day *t* as follows:

- (i) if no Non-Tradable Event occurs in respect of the GS Strategy on such Strategy Calculation Day *t*, the Strategy Timely Level shall be equal to the Strategy Tradable Level in respect of such Strategy Calculation Day *t*; or

- (ii) if a Non-Tradable Event occurs in respect of the GS Strategy on such Strategy Calculation Day t , the Strategy Timely Level will be calculated using the same methodology for calculating the Strategy Tradable Level, save that (a) the Timely Level of each Terminal Component (and the Currency Conversion Component in respect of such Terminal Component) shall be used in place of its Tradable Level, and (b) each reference to "Strategy Tradable Level" in paragraph 1 of this Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level* shall be deemed to be replaced with "Strategy Timely Level".

3. Publication of the GS Strategy

If so specified in the Relevant General Strategy Description or the Other Relevant Strategy Documentation Elements, the Strategy Calculation Agent will publish the Strategy Timely Level and/or the Strategy Tradable Level on the Strategy Publication Data Source.

If a Strategy Value Publication Precision is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, the Strategy Timely Level and/or the Strategy Tradable Level will be published to the number of significant figures equal to such Strategy Value Publication Precision.

Section C: Calculation of the number of Units of a Terminal Component

A GS Strategy will provide exposure to each Terminal Component included in such GS Strategy, by notionally entering into a position (which may be "long" or "short") in such Terminal Component. A GS Strategy's quantity of exposure to a particular Terminal Component is called the number of units ("**Units**") of such Terminal Component. In order to calculate the Units of each Terminal Component, the Strategy Calculation Agent will first calculate the number of units (the "**Immediate Units**") of each Immediate Component (which may be a Terminal Component or a Non-Terminal Component) in accordance with paragraph 1 of this Section C: *Calculation of the number of Units of a Terminal Component*. Thereafter, the Strategy Calculation Agent will calculate the Units of each Terminal Component by reference to the Immediate Units of the relevant Immediate Component(s) in accordance with paragraph 2 of this Section C: *Calculation of the number of Units of a Terminal Component*.

1. Calculation of the Immediate Units of an Immediate Component

The "Immediate Units" of an Immediate Component ic included in a GS Strategy in respect of (i) each Strategy Calculation Day falling in the period commencing on, and including, the Strategy Inception Date and ending on, but excluding, the immediately following Rebalancing Date, shall be equal to zero and (ii) each Strategy Calculation Day t other than a Strategy Calculation Day mentioned in (i) above shall be determined by the Strategy Calculation Agent in accordance with the following formula:

$$IU_t(ic) = \sum_r Units_{t,r}(ic)$$

Where the summation is taken over each Rebalancing Date r falling on or prior to Strategy Calculation Day t , and where:

"**Units_{t,r}(ic)**" means the units of Immediate Component ic on Strategy Calculation Day t in respect of Rebalancing Date r falling on or prior to Strategy Calculation Day t , as determined by the Strategy Calculation Agent in accordance with the following formula:

$$Units_{t,r}(ic) = \left(\frac{ICW_r(ic)}{\text{Holding Period Rebalancing Days}} \times \frac{S_{\text{RefDate}(r)}}{USF_{\text{RefDate}(r)}(ic) \times FX_{\text{RefDate}(r)}(ic)} \times \frac{FI_{r,ic}(t) - FO_{r,ic}(t)}{\text{NumFadeDays}} \right)$$

provided that if $L_{\text{RefDate}(r)}(ic)$ is less than or equal to zero, then $Units_{t,r}(ic)$ shall be deemed to be zero, and:

"**FI_{r,ic}(t)**" means the number of Fade-In Days in respect of Rebalancing Date r and Immediate Component ic falling on or prior to Strategy Calculation Day t ;

"**FO_{r,ic}(t)**" means the number of Fade-Out Days in respect of Rebalancing Date r and Immediate Component ic falling on or prior to Strategy Calculation Day t ;

"**FX_{RefDate(r)}(ic)**" means the Timely Level of the Currency Conversion Component in respect of Immediate Component ic and $\text{RefDate}(r)$;

"**Holding Period Rebalancing Days**" means one (1), or if a positive integer is specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, such positive integer;

"**ICW_r(ic)**" means the Immediate Component Weight in respect of Immediate Component ic determined in respect of Rebalancing Date r ;

"**IU_t(ic)**" means the Immediate Units of Immediate Component ic in respect of Strategy Calculation Day t ;

"**USF_{RefDate(r)}(ic)**" means, if (i) a Units Scaling Factor is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, such Units Scaling Factor, or (ii) no Units Scaling Factor is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, $L_{\text{RefDate}(r)}(ic)$;

"**L_{RefDate(r)}(ic)**" means the Timely Level of Immediate Component ic in respect of $\text{RefDate}(r)$;

"**NumFadeDays**" or "**Number of Fading Days**" means one (1), or if a positive integer is specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, such positive integer;

"**RefDate(r)**" means the Reference Date in respect of Rebalancing Date r ; and

"**S_{RefDate(r)}**" means the Strategy Timely Level in respect of RefDate(r), or if such Strategy Timely Level is negative, then zero (0).

2. Calculation of the Units of a Terminal Component

The Units of a Terminal Component c included in a GS Strategy in respect of Strategy Calculation Day t will be determined by the Strategy Calculation Agent in accordance with the following formula:

$$U_t(c) = \sum_{ic} IU_t(ic) \times U_{ic,t}(c)$$

Where the summation is over each Immediate Component ic included in such GS Strategy, and where:

"**IU_t(ic)**" means the Immediate Units of Immediate Component ic in respect of Strategy Calculation Day t ;

"**U_{ic,t}(c)**" means the Units of Terminal Component c included in Immediate Component ic in respect of Strategy Calculation Day t , as determined by the Strategy Calculation Agent in accordance with the following paragraphs:

- (i) if Terminal Component c is Immediate Component ic , one; or
- (ii) if Terminal Component c is a Terminal Component included in Immediate Component ic , then the Units of Terminal Component c included in Immediate Component ic in respect of Strategy Calculation Day t , as determined in accordance with the relevant rules in respect of Immediate Component ic ; or
- (iii) otherwise, zero; and

"**U_t(c)**" means the Units of Terminal Component c in respect of Strategy Calculation Day t .

Section D: Associated Immediate Components

In respect of each GS Strategy for which an Immediate Component Template is specified in the Relevant General Strategy Description or the Other Relevant Strategy Documentation Elements, on each Strategy Calculation Day such GS Strategy will notionally hold long positions (by assigning a positive weight) and/or notionally hold short positions (by assigning a negative weight) in each Associated Immediate Component defined by such Immediate Component Template.

On any Strategy Calculation Day an Immediate Component Template will define a set of Associated Immediate Components (the "**Associated Immediate Component Set**" in respect of such Immediate Component Template and such Strategy Calculation Day) and such Immediate Component Template will include all of the specifications required to define each Associated Immediate Component belonging to such Associated Immediate Component Set. Each Associated Immediate Component will be deemed to be included in such GS Strategy with effect from the Execution Start Date in respect of a particular Rebalancing Date (the "**Associated Immediate Component Start Date**" in respect of such Associated Immediate Component) and will cease to be an Associated Immediate Component after the Last Fade-Out Day in respect of such Rebalancing Date and the Immediate Component Template corresponding to such Associated Immediate Component. As a result, the Associated Immediate Components included in an Associated Immediate Component Set and a GS Strategy will vary over time.

Where any variable or characteristic is to be specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of an Immediate Component, such variable or characteristic may be specified in respect of an Immediate Component Template and such variable or characteristic so specified will apply to each Associated Immediate Component in the relevant Associated Immediate Component Set.

Section E: Consequences of Adjustment Events

1. Strategy Adjustment Events relating to a GS Strategy

If, in respect of a GS Strategy and any Strategy Calculation Day, a Strategy Adjustment Event has occurred, then the Strategy Sponsor may determine, in its discretion and acting in a commercially reasonable manner, to make such determinations or adjustments to the terms of such GS Strategy, including to the methodology and/or to replace the relevant data sources, as it deems appropriate to account for such Strategy Adjustment Event and, as applicable, to the extent necessary to calculate the Strategy Timely Level and the Strategy Tradable Level in respect of such Strategy Calculation Day (for which purpose it may use its own internal models and other market data sources as it reasonably determines is necessary) whilst preserving the intended commercial purpose of the GS Strategy.

If the Strategy Sponsor determines that no such determination(s) or adjustment(s) would achieve a commercially reasonable result and/or that it is no longer possible or practicable to calculate the level of the GS Strategy, the Strategy Sponsor may terminate the calculation and the publication of the GS Strategy without notice.

2. Adjustment Events relating to Components

(i) If any Component is:

- (a) not calculated and announced by the relevant Sponsor or Price Source, as the case may be, for such Component, but is calculated and announced by a successor sponsor or price source acceptable to the Strategy Sponsor, then such successor sponsor or price source, as the case may be, will be deemed to be that Sponsor or Price Source; or
- (b) replaced by a successor instrument, strategy, index or basket, as applicable, using the same or a substantially similar specification or formula and method of calculation as used in the calculation of such Component, as determined by the Strategy Sponsor, then such replacement instrument, strategy, index or basket, as the case may be, will be deemed to be that Component,

and in each case, the Strategy Sponsor may make such adjustment(s) to the Strategy Rules or to the composition of the GS Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner.

(ii) If, in respect of a Component that is an index or a strategy, and any Strategy Calculation Day, the Strategy Sponsor determines that:

- (a) the relevant Sponsor makes, in the reasonable judgment of the Strategy Sponsor, a material change in the weighting or composition of, formula for, or method of calculating such Component, as the case may be or in any other way materially modifies such Component (other than a modification prescribed in that formula or method relating to the weighting or composition of such Component or other routine events or modifications), effective on or after such Strategy Calculation Day; or
- (b) the relevant Sponsor fails or is not scheduled to calculate and announce the level of such Component on such Strategy Calculation Day, or, on or prior to such Strategy Calculation Day, such Component has ceased to be calculated by the relevant Sponsor, and has not been replaced by a successor index, strategy or basket; or
- (c) a Market Disruption Event occurs in respect of the Currency Cross of the relevant Currency Conversion Component on such Strategy Calculation Day; or
- (d) in the reasonable judgment of the Strategy Sponsor, the level of such Component on such Strategy Calculation Day contains a manifest error,

then the Strategy Sponsor shall calculate the level of such Component, in lieu of a published level for such Component using the same formula for, and method of, calculating the level of such Component last in effect prior to the occurrence of any of the circumstances described above (utilising any adjustment to such formula or method that the Strategy Sponsor determines to be commercially reasonable) or in the event that the Strategy Sponsor determines, in its reasonable judgment, that the occurrence of any of the foregoing circumstances could adversely affect the GS Strategy, it may (in good faith and acting in a commercially reasonable manner) elect to replace or remove (or assign a zero weight to) the relevant Component from the GS Strategy at the earliest possible opportunity as it determines to be commercially

reasonable and make such other changes to the GS Strategy as may be necessary, in its commercially reasonable judgment, to effect such change.

- (iii) If, in respect of an Instrument and any Strategy Calculation Day:
- (a) the Strategy Sponsor determines that any Instrument has ceased to be published by the relevant Price Source, and has not been replaced by successor instrument;
 - (b) the Strategy Sponsor determines that there has been a material change (or it has been announced that a material change will be made) to (I) the content, composition or constitution of any Instrument, or (II) the formula for or method of calculating any Instrument Valuation Data, or (III) the delivery, expiry or settlement terms of such Instrument;
 - (c) the Strategy Sponsor, in its reasonable judgment, (I) determines that such Instrument has ceased to be a liquid, actively traded Instrument that is generally available for trading, or that such Instrument has been the subject of a Market Disruption Event for at least five consecutive Strategy Calculation Days (provided that the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, determine that for the purposes of determining the level of the GS Strategy on any Strategy Calculation Day, such event shall constitute a Non-Tradable Event in respect of such Instrument and in such case, the Strategy Sponsor will also calculate the level of the relevant Instrument or any Component to which such Instrument is linked on the First Tradable Date), or (II) anticipates that such Instrument or any Instrument Valuation Data, notwithstanding that it is available for trading, will cease to be liquid and actively traded or will be terminated or delisted by the relevant Price Source; or
 - (d) in respect of any Instrument defined in sub-section 3 (*Interest Rate Swaps Definitions*) of Section G: Asset Class Specific Definitions of this General Basket Strategy Base Description, the Strategy Sponsor, in its reasonable judgment, determines that (I) liquidity in transactions relating to such Instrument has moved (or anticipates that liquidity in transactions relating to such Instrument will move) from a clearing house or trading venue, as the case may be, on which such Instrument would generally be cleared or traded, as the case may be, to a different clearing house or trading venue, as the case may be, in accordance with market convention, (II) liquidity in transactions relating to such Instrument (as identified by the relevant Swap Conventions) has moved (or anticipates that liquidity in transactions relating to such Instrument will move) to transactions relating to other Instruments identified by one or more different Swap Conventions, in accordance with market convention, or (III) notwithstanding that such Instrument is and will continue to be available for trading, any Instrument Valuation Data, will (or may at a future date determined by the Strategy Sponsor in its discretion and acting in a commercially reasonable manner) cease to be an accurate reflection of the Swap Conventions with respect to such Instrument,

then the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, (A) make such determinations or adjustments to the terms of the GS Strategy, including to the methodology and relevant data sources, as it deems appropriate to account for such Adjustment Event and, as applicable, to the extent necessary for the Strategy Timely Level and the Strategy Tradable Level to continue to be calculated (for which purpose it may use its own internal models and other market data sources as it reasonably determines is necessary), or (B) elect to replace or remove (or, where applicable, assign a zero weight to) such Instrument or any Component to which such Instrument is linked from the GS Strategy at the earliest possible opportunity as it determines to be commercially reasonable in order for the Strategy Timely Level and the Strategy Tradable Level to continue to be calculated notwithstanding the relevant circumstances, and in such case, the Strategy Sponsor may make such adjustment(s) to the Strategy Rules or to the composition of the GS Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner, to reflect such change(s).

- (iv) If, in respect of an Overnight Interest Rate and any Strategy Calculation Day, the Strategy Sponsor determines that a material change has been made (or it is announced that a material change will be made) to the formula for, or the method of, calculating such Overnight Interest Rate, then the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, elect to replace such Overnight Interest Rate from the GS Strategy at the earliest possible opportunity as it determines to be commercially reasonable in order for the Strategy Timely Level and the Strategy Tradable Level to continue to be calculated notwithstanding the relevant circumstances, and in such case, the Strategy Sponsor may make such adjustment(s) to the Strategy Rules or to the composition of the GS Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner, to reflect such change(s).
- (v) If the level of a Component as published by the relevant Sponsor, the Instrument Valuation Data in respect of an Instrument, the Spot Exchange Rate in respect of any Currency Conversion Component or the Overnight Interest Rate, as the case may be, each as published by the relevant Price Source, on any

Strategy Calculation Day (for the purposes of this paragraph 2(v) a "**Relevant Day**") is subsequently corrected and the Strategy Sponsor determines that the correction is published or made available by the Sponsor or Price Source, as the case may be, on a timely basis on the immediately following Strategy Calculation Day, then such corrected level, price or rate, as the case may be, shall be deemed to be the relevant level, price or rate for the Relevant Day, and the Strategy Sponsor shall use the corrected level, price or rate as the case may be, in its calculation of the Strategy Timely Level or Strategy Tradable Level, as applicable.

3. Adjustments relating to third party information or data

If, in respect of any third party information or data relied on or which is used to determine, or which constitutes, any weight(s), signal(s) or other input used in the calculation of the GS Strategy (the "**Third Party Data**"):

- (i) the Strategy Sponsor discovers, or is notified by the third party responsible for collecting, calculating, distributing or publishing such Third Party Data (the "**Third Party Data Source**") of, an error or discrepancy in such Third Party Data, the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, disregard such error or discrepancy and shall not be under any obligation to use the corrected Third Party Data in its calculation of the Strategy Timely Level or the Strategy Tradable Level, as applicable, or to correct or revise the Strategy Timely Level or the Strategy Tradable Level of the GS Strategy following the release of the corrected Third Party Data by the Third Party Data Source; or
- (ii) (a) the Third Party Data Source ceases to publish such Third Party Data (or the Third Party Data Source announces that it will cease to publish such Third Party Data), and such Third Party Data is not replaced by any equivalent information or data, or (b) there is a material change in the formula for or method of calculating, or the content or frequency of publication of, such Third Party Data, or (c) the Third Party Data Source fails to calculate or publish such Third Party Data for an extended period of time, in the reasonable judgement of the Strategy Sponsor, then the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, (I) elect to replace or remove (or assign a zero weight to) the Component(s) affected by the unavailability or material change(s) to such information or data from the GS Strategy at the earliest possible opportunity as it determines to be commercially reasonable in order for the Strategy Timely Level or the Strategy Tradable Level of the GS Strategy to continue to be calculated notwithstanding the relevant circumstances, or (II) use third party information or data from an alternative data source which it determines to be comparable to such Third Party Data and to be appropriate in order to preserve the original economic objective of the GS Strategy (and such third party information or data will be deemed to be Third Party Data for the purposes of the GS Strategy), or (III) make such adjustment(s) to the Strategy Rules or to the composition of the GS Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner, to reflect such unavailability or change(s), or (IV) if the Strategy Sponsor determines that none of the above adjustment(s) would achieve a commercially reasonable result and/or that it is no longer possible or practicable to calculate the GS Strategy, terminate the calculation and publication of the GS Strategy without notice.

4. Delay in publication of third party information or data

Subject to paragraph 3 of this Section E: *Consequences of Adjustment Events*, if a Third Party Data Source fails to publish or make available on the scheduled publication date for any reason any Third Party Data used to calculate the Strategy Timely Level or the Strategy Tradable Level of the GS Strategy in respect of a Strategy Calculation Day, the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, use the Third Party Data last published or made available by such Third Party Data Source to calculate the Strategy Timely Level or the Strategy Tradable Level of the GS Strategy in respect of such Strategy Calculation Day.

Section F: General Definitions

Terms not otherwise defined in this General Basket Strategy Base Description in respect of a GS Strategy shall have the meanings given to them below.

"Adjustment Events" means each of the events described in Section E: *Consequences of Adjustment Events* in this General Basket Strategy Base Description.

"Asset Class Specific Definitions" means the definitions in Section G: *Relevant Asset Class Specific Definitions* of this General Basket Strategy Base Description, provided that each paragraph of Section G: *Relevant Asset Class Specific Definitions* of this General Basket Strategy Base Description shall only apply to an Instrument as defined in such paragraph or a Component that is calculated by reference to such an Instrument and in respect of which the Style specified is contained in the Timely and Tradable Level Table included in such paragraph.

"Associated Immediate Component" means, in respect of an Immediate Component Template and any Strategy Calculation Day, each component defined by such Immediate Component Template on such Strategy Calculation Day. Each Associated Immediate Component will also be a Terminal Component.

"Associated Immediate Component Set" shall have the meaning given to such term in Section D: *Associated Immediate Components* of this General Basket Strategy Base Description.

"Associated Immediate Component Start Date" shall have the meaning given to such term in Section D: *Associated Immediate Components* of this General Basket Strategy Base Description.

"Component" means a Terminal Component or a Non-Terminal Component.

"Component Execution Day" means, in respect of a Component or an Immediate Component Template, each day determined in accordance with the Style of such Component or Immediate Component Template and as described in the Timely and Tradable Level Table in respect of such Component or Immediate Component Template, provided that if no Component Execution Days are specified in respect of such Style, the Component Execution Days in respect of such Component or Immediate Component Template shall be each Trading Day in respect of such Component or Immediate Component Template.

"Component Ticker" means, in respect of a Component, the Bloomberg ticker reference (or any official successor thereto) corresponding to such Component as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements (or if not so specified and if such Component is a Terminal Component included in an Immediate Component, as determined in accordance with the rules of such Immediate Component).

"Currency Business Day" means, in respect of a Currency Conversion Component or a Currency Cross, each day specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of such Currency Conversion Component or Currency Cross, or if not so specified, either (a) if the relevant Currency Cross is a Non-USD Currency Cross, each day that is a Currency Business Day for the Denominated Dollar Cross in respect of such Currency Cross and a Currency Business Day for the Underlying Dollar Cross, or (b) otherwise, each day on which the Spot Exchange Rate in respect of the relevant Currency Cross is scheduled to be published on the relevant Spot Exchange Rate Price Source.

"Currency Conversion Component" means, in respect of:

- (i) a Component, the Currency Cross with a Denominated Currency equal to the Strategy Calculation Currency and an Underlying Currency equal to the Quoted Currency of such Component; or
- (ii) an Immediate Component Template, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

For the purposes of determining the Timely Level or the Tradable Level of a Currency Conversion Component, the Style of such Currency Conversion Component shall be deemed to be "FX-Spot". For the avoidance of doubt, if (a) in respect of a Component, the Quoted Currency is the same as the Strategy Calculation Currency or (b) in respect of an Immediate Component Template, Currency Conversion Component is specified as "Not Applicable", or is not so specified, in each case there will be no Currency Conversion Component in respect of such Component or Immediate Component Template, and for the purposes of any calculations, the Timely Level and the Tradable Level of the Currency Conversion Component in respect of such Component or Immediate Component Template shall be deemed to be one (1).

"Currency Cross" means, in respect of two currencies, the Denominated Currency and the Underlying Currency, a rate expressed as the number of units of the Denominated Currency per unit of the Underlying Currency.

"Denominated Currency" means, in respect of a Currency Cross, the currency specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Denominated Dollar Cross" means, in respect of a Non-USD Currency Cross and the Denominated Currency in respect of such Non-USD Currency Cross (the **"Original Denominated Currency"** for the purposes of this definition of Denominated Dollar Cross), the Currency Cross in respect of which the Denominated Currency is USD and the Underlying Currency is the Original Denominated Currency.

"Disjoint Execution" will be specified as either "Applicable" or "Not Applicable" in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall be deemed to be specified as "Not Applicable".

"Exchange Rate Disruption Event" means, in respect of a Currency Cross and a Strategy Calculation Day, any one of the following events, as determined by the Strategy Sponsor:

- (i) the relevant Spot Exchange Rate has ceased to be published by the relevant Price Source, and has not been replaced by a successor Price Source; or
- (ii) Dual Currency Event: the Underlying Currency or the Denominated Currency in respect of such Currency Cross splits into dual or multiple currencies; or
- (iii) Inconvertibility Event: an event has occurred in, or affecting, any jurisdiction whose currency is either the Underlying Currency or the Denominated Currency in respect of such Currency Cross, as the case may be, that generally makes it impossible to convert the Underlying Currency into the Denominated Currency or, as the case may be, the Denominated Currency into the Underlying Currency, through customary legal channels; or
- (iv) Exchange Rate Unavailability: it is or becomes impossible or not reasonably practicable for the Strategy Sponsor to obtain a currency exchange rate for such Currency Cross (including the Spot Exchange Rate) from the relevant Price Source or any other source for purposes of the GS Strategy, or to obtain a firm quote for a currency exchange rate for such Currency Cross (including the Spot Exchange Rate); or
- (v) Non-Transferability Event: (a) an event has occurred in, or affecting, any jurisdiction whose currency is the Underlying Currency that generally makes it impossible to deliver (I) the Denominated Currency from accounts inside such jurisdiction to accounts outside such jurisdiction or (II) the Underlying Currency between accounts inside such jurisdiction or to a party that is a non-resident of such jurisdiction, or (b) an event has occurred in, or affecting, any jurisdiction whose currency is the Denominated Currency that generally makes it impossible to deliver (I) the Underlying Currency from accounts inside such jurisdiction to accounts outside such jurisdiction or (II) the Denominated Currency between accounts inside such jurisdiction or to a party that is a non-resident of such jurisdiction; or
- (vi) Governmental Authority Default: a default, event of default, or other similar condition or event (however described) with respect to any security or indebtedness for borrowed money of, or guaranteed by, any Governmental Authority, including, but not limited to, (a) the failure of timely payment in full of any principal, interest, or other amounts due (without giving effect to any applicable grace periods) in respect of any such security, indebtedness, or guarantee, (b) a declared moratorium, standstill, waiver, deferral, repudiation, challenge of the validity, or rescheduling of any principal, interest, or other amounts due in respect of any such security, indebtedness, or guarantee, or (c) the amendment or modification of the terms and conditions of payment of any principal, interest, or other amounts due in respect of any such security, indebtedness, or guarantee without the consent of all holders of such obligation. For these purposes, the determination of the existence or occurrence of any default, event of default, or other similar condition or event shall be made without regard to any lack or alleged lack of authority or capacity of such Governmental Authority to issue or enter into such security, indebtedness, or guarantee; or
- (vii) Nationalisation Event: any expropriation, confiscation, requisition, nationalisation or other action by a relevant Governmental Authority which deprives any market participant of all or substantially all of its assets in any jurisdiction whose currency is the Underlying Currency or the Denominated Currency; or
- (viii) Inability to Transact: the occurrence or existence at any time, of any event or circumstance that disrupts or impairs (a) the ability of market participants in general to effect transactions in relation to the Underlying Currency or the Denominated Currency in a notional size required in relation to any product or transaction linked to a GS Strategy, (b) impairs the liquidity of transactions in relation to the Underlying Currency or the Denominated Currency, (c) the ability to obtain market values of, the Underlying Currency or the

Denominated Currency, or (d) the ability of any market participant, after using commercially reasonable efforts, to acquire, establish, re-establish, substitute, maintain, unwind, or dispose of any hedge position relating to the GS Strategy or any transaction linked to the GS Strategy or to realise, recover or remit the proceeds of any such transaction; or

- (ix) Currency Merger: the Underlying Currency or the Denominated Currency ceases to exist and is replaced by another currency.

"Execution Day" means, in respect of an Immediate Component or an Immediate Component Template, as determined by the Strategy Calculation Agent in accordance with paragraph (i) or (ii) below:

- (i) if Disjoint Execution is specified as "Applicable" in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, each day that (a) is a Strategy Calculation Day, (b) is a Currency Business Day in respect of the Currency Conversion Component of such Immediate Component or Immediate Component Template (if applicable) and (c) is a Component Execution Day in respect of such Immediate Component or Immediate Component Template (as applicable); or
- (ii) if Disjoint Execution is specified as "Not Applicable" in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements or is deemed to be "Not Applicable" in accordance with the definition of Disjoint Execution, each day that (a) is a Strategy Calculation Day, (b) is a Currency Business Day in respect of the Currency Conversion Component of all Components or Immediate Component Templates included in the GS Strategy (if applicable) and (c) is a Component Execution Day in respect of all Components and Immediate Component Templates included in the GS Strategy (if applicable).

"Execution Lag" means, in respect of an Immediate Component, the non-negative integer specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, zero (0).

"Execution Start Date" means, in respect of a Rebalancing Date and an Immediate Component or an Immediate Component Template;

- (i) if the Execution Lag in respect of such Immediate Component or Immediate Component Template (as applicable) is specified as zero (0), the first Execution Day in respect of such Immediate Component or Immediate Component Template (as applicable) falling on or after such Rebalancing Date;
- (ii) otherwise, the first Execution Day in respect of such Immediate Component or Immediate Component Template (as applicable) falling on or immediately after the number of Trading Days in respect of such Immediate Component or Immediate Component Template equal to the Execution Lag from, but excluding, such Rebalancing Date.

"Fade-In Days" means, in respect of a Rebalancing Date and an Immediate Component, the sequence of consecutive Execution Days in respect of such Immediate Component equal in number to the Number of Fading Days, beginning on, and including, the Execution Start Date in respect of such Rebalancing Date and such Immediate Component.

"Fade-Out Days" means, in respect of a Rebalancing Date (for the purposes of this definition of Fade-Out Days, the **"Relevant Rebalancing Date"**) and an Immediate Component, the Fade-In Days in respect of such Immediate Component and the Rebalancing Date falling the number of Rebalancing Dates equal to the Holding Period Rebalancing Days following the Relevant Rebalancing Date.

"First Tradable Date" means, in respect of a Strategy Calculation Day t and:

- (i) an Instrument or a Currency Conversion Component, the first Strategy Calculation Day (measured from, and including, Strategy Calculation Day t) on which no Non-Tradable Event exists in respect of such Instrument or Currency Conversion Component (as applicable), provided that if one or more Non-Tradable Event(s) in respect of such Instrument or Currency Conversion Component (as applicable) exists on Strategy Calculation Day t and each of the five (5) Strategy Calculation Days, immediately following Strategy Calculation Day t , then the sixth (6th) Strategy Calculation Day immediately following Strategy Calculation Day t shall be deemed to be the First Tradable Date, notwithstanding the fact that a Non-Tradable Event may be existing on such sixth (6th) Strategy Calculation Day, provided that if the Strategy Sponsor expects that no Non-Tradable Event will exist in respect of such Instrument or Currency Conversion Component (as applicable) shortly after such sixth (6th) Strategy Calculation Day (determined by the Strategy Sponsor in its discretion and acting in a commercially reasonable manner), the Strategy Sponsor may postpone the First Tradable Date to the first Strategy Calculation Day on which no Non-Tradable Event Exists in respect of such Instrument or Currency Conversion Component (as applicable),

provided further that the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, determine that such event also results in an Adjustment Event; and

- (ii) a Component, the First Tradable Date to fall latest in time in respect of such Strategy Calculation Day *t* and all Instruments and Currency Conversion Components used to calculate the level of such Component.

"Force Majeure Event" means, in respect of a GS Strategy, an event or circumstance (including, without limitation, a systems failure, fire, building evacuation, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance) that is beyond the reasonable control of the Strategy Sponsor and that, in the Strategy Sponsor's sole and absolute discretion, is likely to have a material adverse effect on any Instrument or Component.

"General Basket Strategy Base Description" shall have the meaning given to such term in Section A: *General* of this document.

"General Index Provisions" shall have the meaning given to such term in Section A: *General* of this General Basket Strategy Base Description.

"Governmental Authority" means, in respect of a Currency Cross, in relation to the primary jurisdiction whose currency is the relevant Underlying Currency or the relevant Denominated Currency, any de facto or de jure government (or any agency or instrumentality thereof), court, tribunal, administrative, executive, legislative or other governmental authority, or any other entity (private or public) charged with the regulation of the financial markets (including the central bank) of such jurisdiction (which with respect to the Euro shall include the European Union as well as any member state thereof from time to time whose currency is the Euro).

"GS Strategy" shall have the meaning given to such term in Section A: *General* of this General Basket Strategy Base Description.

"Holding Period Rebalancing Days" shall have the meaning given to such term in paragraph 1 of Section C: *Calculation of the number of Units of a Terminal Component* of this General Basket Strategy Base Description.

"Immediate Component" means, in respect of any Strategy Calculation Day;

- (i) an immediate component included in a GS Strategy as determined from time to time in accordance with the provisions of the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, provided that (a) if an Immediate Component Start Date is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of such immediate component, such Strategy Calculation Day falls on or after such Immediate Component Start Date and (b) if an Immediate Component End Date is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of such immediate component, such Strategy Calculation Day falls on or before the First Tradable Date in respect of such immediate component and the final Fade-Out Day in respect of the Rebalancing Date falling on or immediately prior to such Immediate Component End Date; and
- (ii) an Associated Immediate Component, provided that such Strategy Calculation Day falls in the period commencing on, and including, the Associated Immediate Component Start Date in respect of such Associated Immediate Component and ending on, and including the Last Fade-Out Day in respect of the Rebalancing Date by reference to which such Associated Immediate Component Start Date is determined.

"Immediate Component End Date" means, if specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of an Immediate Component, the date after which there will be no new positions entered in respect of such Immediate Component.

"Immediate Component Start Date" means, if specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of an Immediate Component, the date from which such Immediate Component will be deemed to be included in a GS Strategy.

"Immediate Component Template" means, in respect of an Associated Immediate Component Set, the template that includes the specifications required to define each Associated Immediate Component belonging to such Associated Immediate Component Set (including, but not limited to, the Style of such Associated Immediate Components), as more particularly described in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Immediate Component Weight" means, in respect of an Immediate Component and a Rebalancing Date, the weight assigned to such Immediate Component in respect of such Rebalancing Date, as determined in

accordance with the provisions set out in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Immediate Units" means, in respect of an Immediate Component and a Strategy Calculation Day, the size of the position in such Immediate Component on such Strategy Calculation Day held by the GS Strategy, as determined in accordance with the provisions set out in Section C: *Calculation of the number of Units of a Terminal Component* of this General Basket Strategy Base Description.

"Initial Strategy Level" means the Strategy Tradable Level on the Strategy Inception Date, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Instrument" means each tradable instrument defined as such in the Asset Class Specific Definitions.

"Instrument Trading Day" means, in respect of an Instrument, each day defined as such in the Asset Class Specific Definitions corresponding to such Instrument.

"Instrument Valuation Data" means, in respect of an Instrument, any level, price, rate or data specified as such in the Asset Class Specific Definitions corresponding to such Instrument.

"Last Fade-Out Day" means, in respect of a Rebalancing Date (for the purposes of this definition of Last Fade-Out Day, the **"Relevant Rebalancing Date"**) and an Immediate Component Template, the final Execution Day in the sequence of consecutive Execution Days in respect of such Immediate Component Template equal in number to the Number of Fading Days beginning on, and including, the Execution Start Date in respect of such Immediate Component Template and the Rebalancing Date falling the number of Rebalancing Dates equal to the Holding Period Rebalancing Days following the Relevant Rebalancing Date.

"Market Disruption Event" means, in respect of a Strategy Calculation Day and:

- (i) in respect of a Component, any one of the following events, as determined by the Strategy Sponsor:
 - (a) each event specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements (or if not so specified and if such Component is a Terminal Component included in an Immediate Component, as determined in accordance with the rules of such Immediate Component);
 - (b) if such Component is a Non-Terminal Component, the occurrence on such Strategy Calculation Day of a Market Disruption Event in respect of any Terminal Component included in such Component;
 - (c) the occurrence of a Market Disruption Event (or other analogous event) in respect of any Instrument, Currency Cross, or other asset, instrument or rate (including, but not limited to, an option, exchange rate or interest rate) included in such Component or used in the calculation of the level of, such Component; or
 - (d) if such Component is an Instrument, each event specified as a Market Disruption Event in the Asset Class Specific Definitions corresponding to such Instrument;
- (ii) in respect of an Instrument that is not a Component, each event specified as such in the Asset Class Specific Definitions corresponding to such Instrument;
- (iii) in respect of a Currency Cross, the occurrence of any one of the following events, as determined by the Strategy Sponsor:
 - (a) an Exchange Rate Disruption Event in respect of such Currency Cross; or
 - (b) the occurrence or existence, on such Strategy Calculation Day at any time, of a suspension of, or limitation imposed on, trading on the London interbank market or the interbank market of the city or cities determined by the Strategy Sponsor to be the principal financial centre(s) for the Underlying Currency or the Denominated Currency;
- (iv) in respect of an Overnight Interest Rate, if it has become impossible or otherwise impracticable to obtain such Overnight Interest Rate or any rate used to calculate such Overnight Interest Rate; or
- (v) any asset, instrument or rate other than an Instrument (including, but not limited to, an option, exchange rate or interest rate) included in a Component or used in the calculation of the level of a Component, the

occurrence of a Market Disruption Event (or other analogous event) on such Strategy Calculation Day, as determined in accordance with the rules of such Component unless otherwise specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"MDE Linked Component" means, in respect of a Terminal Component included in such GS Strategy (for the purposes of this definition, the **"Relevant Terminal Component"**):

- (i) each Terminal Component specified to be a MDE Linked Component relating to the Relevant Terminal Component in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements; or
- (ii) if the Relevant Terminal Component is a Terminal Component included in an Immediate Component, each MDE Linked Component in respect of the Relevant Terminal Component as determined in accordance with the rules of such Immediate Component; or
- (iii) each MDE Linked Component in respect of a Terminal Component which is in turn an MDE linked Component in respect of the Relevant Terminal Component.

"Non-Terminal Component" means each component specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Non-Tradable Event" means, in respect of a Strategy Calculation Day and:

- (i) a Component, the occurrence of any one of the following events, as determined by the Strategy Sponsor:
 - (a) such Strategy Calculation Day is not a Trading Day for such Component; or
 - (b) a Market Disruption Event is occurring or existing in respect of such Component on such Strategy Calculation Day; or
 - (c) if such Component is a Terminal Component, a Market Disruption Event is occurring or existing in respect of one or more MDE Linked Components in respect of such Component on such Strategy Calculation Day; or
 - (d) if such Component is an Instrument, each event specified as such in the Asset Class Specific Definitions corresponding to such Instrument;
- (ii) an Instrument that is not a Component, each event specified as such in the Asset Class Specific Definitions corresponding to such Instrument;
- (iii) a Currency Conversion Component, the occurrence of any one of the following events, as determined by the Strategy Sponsor:
 - (a) such Strategy Calculation Day is not a Currency Business Day in respect of such Currency Conversion Component; or
 - (b) a Market Disruption Event is occurring or existing in respect of the relevant Currency Cross on such Strategy Calculation Day;
- (iv) a GS Strategy, the occurrence of a Non-Tradable Event in respect of (a) any Terminal Component included in such GS Strategy or (b) any Currency Conversion Component in respect of any such Terminal Component (if applicable).

"Non-USD Currency Cross" means a Currency Cross in respect of which neither the Denominated Currency nor the Underlying Currency are USD.

"Number of Fading Days" shall have the meaning given to such term in paragraph 1 of Section C: *Calculation of the number of Units of a Terminal Component* of this General Basket Strategy Base Description.

"Other Relevant Strategy Documentation Elements" shall have the meaning given to such term in Section A: General of this General Basket Strategy Base Description.

"Overnight Interest Rate" means, in respect of a day, the value published on the Overnight Interest Rate Data Source in respect of such day. If such day is not an Overnight Interest Rate Business Day, the value published for the immediately preceding day that is an Overnight Interest Rate Business Day.

"Overnight Interest Rate Business Day" means, each day specified as such in the Total Return Specifications table in the Relevant Specifications Annex.

"Overnight Interest Rate Data Source" means the data source(s) specified to be the "Overnight Interest Rate Data Source" in the Total Return Specifications table in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Overnight Interest Rate Day Count Fraction" means, in respect of any period of time, the day count fraction specified as such in the Total Return Specifications table in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Price Source" means, (i) in respect of an Instrument or the Instrument Valuation Data in respect of such Instrument, as defined in the Asset Class Specific Definitions in respect of such Instrument, (ii) in respect of a Currency Conversion Component, the Spot Exchange Rate Price Source in respect of the relevant Currency Cross and (iii) in respect of the Overnight Interest Rate, the Overnight Interest Rate Data Source.

"Quoted Currency" means, in respect of a Component, the currency in which the Timely Level and Tradable Level of such Component is expressed, as determined in accordance with the Style of such Component and as described in the Timely and Tradable Level Table in respect of such Component.

"Rebalancing Date" means, in respect of a Reference Date, each day specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Reference Date" means each day specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Relevant General Strategy Description" shall have the meaning given to such term in Section A: *General* of this General Basket Strategy Base Description.

"Servicing Cost Rate" means, in respect of a Terminal Component, a rate per annum as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements (or if not so specified and if such Terminal Component is included in an Immediate Component, as determined in accordance with the rules of such Immediate Component).

"Servicing Cost Weight Multiplier" means, in respect of a Terminal Component and a Strategy Calculation Day, the value specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Sponsor" means, in respect of a Component, the corporation or entity that, in the determination of the Strategy Sponsor, is responsible for setting and reviewing the rules and procedures and the methods of calculation and adjustments, if any, related to such Component and announces or publishes (directly or through an agent) the level of such Component on each day on which the level of such Component is scheduled to be published, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements (or if not so specified and if such Component is a Terminal Component included in an Immediate Component, as determined in accordance with the rules of such Immediate Component).

"Spot Exchange Rate" means, in respect of a Currency Cross and any day, the spot exchange rate of the Underlying Currency for the Denominated Currency, expressed as the number of units of the Denominated Currency per unit of the Underlying Currency on such day, as published by the relevant Spot Exchange Rate Price Source, and, if such rate is published by the relevant Spot Exchange Rate Price Source as the number of units of the Underlying Currency per unit of the Denominated Currency, such published level may be inverted in order to be expressed as the number of units of the Denominated Currency per unit of the Underlying Currency. If such day is not a Currency Business Day for the relevant Currency Cross, or such spot exchange rate is otherwise unavailable for any other reason, the Spot Exchange Rate shall be deemed to be the relevant spot exchange rate as of the first preceding Currency Business Day on which the relevant Spot Exchange Rate Price Source published such spot exchange rate. If such Currency Cross is a Non-USD Currency Cross, the Spot Exchange Rate will be calculated by the Strategy Calculation Agent as being equal to the *quotient* of (i) the Spot Exchange Rate in respect of the relevant Underlying Dollar Cross *divided* by (ii) the Spot Exchange Rate in respect of the relevant Denominated Dollar Cross. For the avoidance of doubt, if the relevant Underlying Currency is the same currency as the relevant Denominated Currency, the Spot Exchange Rate shall be deemed to be one (1).

"Spot Exchange Rate Price Source" means, in respect of a Currency Cross, the data source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Strategy Adjustment Event" means, in respect of a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) Force Majeure Event;
- (ii) a material change in national or international financial, political, legal or economic conditions that would likely prejudice the calculation and publication of the Strategy Tradable Level; or
- (iii) the European Union membership of any member of the European Union is discontinued, suspended or terminated, or any member of the European Union disaffirms, disclaims, repudiates or rejects in whole or in part any obligation arising from its European Union membership under the relevant treaties; or
 - (a) the Euro ceases to be the lawful currency of any member of the European Union; or
 - (b) any member of the European Union takes, or indicates its intention to take, any action in furtherance of, or indicates its consent to, approval of, or acquiescence in, any of the foregoing events.

"Strategy Calculation Agent" means the entity appointed by the Strategy Sponsor to calculate the GS Strategy, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements. If not specified, the Strategy Calculation Agent is Goldman Sachs International or its successor(s).

"Strategy Calculation Currency" means the calculation currency of the Strategy, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, United States dollars ("**USD**").

"Strategy Calculation Day" means each day specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall mean any day on which the offices of Goldman, Sachs & Co. in New York are open for business.

"Strategy Floored at Zero" will be specified as either "Applicable" or "Not Applicable", as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall be deemed to be specified as "Applicable".

"Strategy Inception Date" means the first date in respect of which the Strategy Tradable Level and Strategy Timely Level is calculated, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Strategy Publication Data Source" means the publication data source (which may be a Bloomberg ticker or otherwise) on which the Strategy Tradable Level and/or the Strategy Timely Level of a GS Strategy shall be published, if so specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Strategy Rules" shall have the meaning given to such term in Section A: *General* of this General Basket Strategy Base Description.

"Strategy Servicing Cost Rate" means a rate per annum as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, zero (0).

"Strategy Sponsor" shall have the meaning given to such term in Section A: *General* of this General Basket Strategy Base Description.

"Strategy Timely Level" shall have the meaning given to such term in Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level* of this General Basket Strategy Base Description.

"Strategy Tradable Level" shall have the meaning given to such term in Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level* of this General Basket Strategy Base Description.

"Strategy Value Publication Precision" means the number specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Style" means, in respect of a Component, a Currency Conversion Component or an Immediate Component Template, the method in accordance with which the Timely Level, the Tradable Level, the Quoted Currency and the Component Execution Days (if applicable) of such Component, Currency Conversion Component or the relevant Associated Immediate Components are determined, as described in the Timely and Tradable Level Table in respect of such Component, Currency Conversion Component or Immediate Component Template and as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements (or if not so specified and if such Component is a Terminal Component included in an Immediate Component, as determined in accordance with the rules of such Immediate Component). The Style of each Associated Immediate Component shall be the Style specified in respect of the Immediate Component Template which defined such Associated Immediate Component.

"TARGET Business Day" means each day on which the Trans-European Automated Real-time Gross Settlement Express Transfer (TARGET2) system or any successor is open for the settlement of payments in Euro.

"Terminal Component" means either:

- (i) an Immediate Component which is specified to be a Terminal Component in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements; or
- (ii) a Component specified as a Terminal Component in respect of an Immediate Component which is a Non-Terminal Component, as determined in accordance with the rules of such Immediate Component.

"Third Party Data" shall have the meaning given to such term in paragraph 3 of Section E: *Consequences of Adjustment Events* of this General Basket Strategy Base Description.

"Third Party Data Source" shall have the meaning given to such term in paragraph 3 of Section E: *Consequences of Adjustment Events* of this General Basket Strategy Base Description.

"Timely and Tradable Level Table" means (i) in respect of a Component or an Immediate Component Template, the Timely and Tradable Level Table set out below or in the relevant Asset Class Specific Definitions (as applicable) or (ii) in respect of a Currency Conversion Component, the Timely and Tradable Level Table set out below, in each case describing the Style specified in respect of such Currency Conversion Component, Component or Immediate Component Template:

Style	Timely/Tradable/ Quoted Currency/Component Execution Days	Provisions
FX-Spot	Timely	The Timely Level of a Currency Conversion Component on any day shall be the Spot Exchange Rate in respect of the relevant Currency Cross and such day.
FX-Spot	Tradable	The Tradable Level of a Currency Conversion Component on Strategy Calculation Day <i>t</i> shall be the Timely Level in respect of such Strategy Calculation Day, unless a Non-Tradable Event is occurring in respect of such Currency Conversion Component or the Component <i>c</i> corresponding to such Currency Conversion Component on such Strategy Calculation Day, in which case the Tradable Level of such Currency Conversion Component shall be the Spot Exchange Rate in respect of the relevant Currency Cross on the day (the " Resolution Day " for the purposes of this definition of Tradable Level only) that is the First Tradable Date in respect of such Currency Conversion Component and the Strategy Calculation Day that falls on the First Tradable Date in respect of such Component <i>c</i> and Strategy Calculation Day <i>t</i> , provided that if a Non-Tradable Event in respect of such Currency Conversion Component exists on the Resolution Day, the Tradable Level of such Currency Conversion Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
FX-Spot	Quoted Currency	The Quoted Currency of a Currency Conversion Component shall be the Denominated Currency of the relevant Currency Cross.

Style	Timely/Tradable/ Quoted Currency/Component Execution Days	Provisions
B	Timely	The Timely Level of a Component on any day will be calculated in accordance with the definition of "Strategy Timely Level" specified in the relevant rules in respect of such Component.
B	Tradable	The Tradable Level of a Component on a Strategy Calculation Day will be calculated in accordance with the definition of "Strategy Tradable Level" specified in the relevant rules in respect of such Component, provided that if such Tradable Level would be determined on a day which would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
B	Quoted Currency	The Quoted Currency of a Component shall be the "Strategy Calculation Currency" specified in the relevant rules in respect of such Component, or if not so specified, shall be USD.
B	Component Execution Days	The Component Execution Days of a Component shall be each day that is a "Strategy Trading Day" as specified in the relevant rules in respect of such Component, or if not so specified, each day that is a Trading Day in respect of such Component.
C	Timely	The Timely Level of a Component on any day will be calculated in accordance with the definition of "Strategy Closing Level" specified in the relevant rules in respect of such Component.
C	Tradable	The Tradable Level of a Component on a Strategy Calculation Day will be calculated in accordance with the definition of "Strategy Tradable Level" specified in the relevant rules in respect of such Component, provided that if such Tradable Level would be determined on a day which would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
C	Quoted Currency	The Quoted Currency of a Component shall be specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall be USD.

"Timely Level" means, in respect of a Component or a Currency Conversion Component and any day, the "timely" level, price or rate of such Component or Currency Conversion Component (as the case may be) on such day, as determined in accordance with the Style of such Component or Currency Conversion Component and as described in the Timely and Tradable Level Table corresponding to such Component or Currency Conversion Component, provided that if such day is not a day on which the level of such Component or Currency Conversion Component is scheduled to be published, then the Timely Level of such Component or Currency Conversion Component for such day shall be deemed to be the Timely Level of such Component or Currency Conversion Component on the immediately preceding day on which such Component or Currency Conversion Component is scheduled to be published.

"Tradable Level" means, in respect of a Component or a Currency Conversion Component, and a Strategy Calculation Day, the "tradable" level or price of such Component or Currency Conversion Component (as the case may be) on such Strategy Calculation Day, as determined in accordance with the Style of such Component or Currency Conversion Component and as described in the Timely and Tradable Level Table in respect of such Component or Currency Conversion Component.

"Trading Day" means, in respect of:

- (i) a Non-Terminal Component, a day which is (I) a Trading Day for all the Terminal Components included in such Non-Terminal Component and (II) a day on which such Component is scheduled to be published;
- (ii) a Terminal Component, a day which is (I) an Instrument Trading Day for such Terminal Component and any Instruments included in or referenced by such Component, (II) a day on which any other asset, instrument or rate (including, but not limited to, an option, exchange rate or interest rate) included in such Component or used in the calculation of the level of such Component, is scheduled to be traded or published, as applicable, and (III) a day on which such Component is scheduled to be published or traded (as applicable);
- (iii) an Immediate Component Template, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements; and
- (iv) a GS Strategy, each day which is (a) a Trading Day for all the Terminal Components included in such GS Strategy, (b) a Currency Business Day for all Currency Conversion Components in respect of such Terminal Components and (c) a Strategy Calculation Day for the GS Strategy (if applicable).

"Transaction Cost Class" means a class of one or more Terminal Components with a common Transaction Cost Rate. A Terminal Component will be part of each Transaction Cost Class which such Terminal Component is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements as being a part of (or if not so specified and if such Terminal Component is a Terminal Component included in an Immediate Component, as determined in accordance with the relevant rules of such Immediate Component), provided that each Terminal Component that is not specified to be part of any Transaction Cost Class in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, will be deemed to constitute a separate Transaction Cost Class and the Transaction Cost Rate in respect of each such Transaction Cost Class shall be equal to the Transaction Cost Rate in respect of the relevant Terminal Component.

"Transaction Cost Rate" means, in respect of a Transaction Cost Class or a Terminal Component, a rate specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of such Transaction Cost Class or such Terminal Component, as applicable (or if not so specified and if such Terminal Component is a Terminal Component included in an Immediate Component, as determined in accordance with the relevant rules of such Immediate Component).

"Transaction Cost Weight Multiplier" means, in respect of Strategy Calculation Day, a Terminal Component and a Transaction Cost Class in respect of which such Terminal Component is a part of (or constitutes), as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of such Terminal Component and such Transaction Cost Class, or if not so specified, the Tradable Level of each such Terminal Component in respect of such Strategy Calculation Day.

"Treasury Bill Rate" means, in respect of any Strategy Calculation Day, the 91-day discount rate for U.S. Treasury Bills, as reported by the U.S. Department of the Treasury's Treasury Direct service at <http://www.treasurydirect.gov/instit/instit.htm?upcoming> on the most recent weekly auction date falling on or prior to such Strategy Calculation Day.

"Underlying Currency" means, in respect of a Currency Cross, the currency specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Underlying Dollar Cross" means, in respect of a Non-USD Currency Cross and the Underlying Currency in respect of such Non-USD Currency Cross (the **"Original Underlying Currency"** for the purposes of this definition of Underlying Dollar Cross), the Currency Cross in respect of which the Denominated Currency is USD and the Underlying Currency is the Original Underlying Currency.

"Units" means, in respect of a Terminal Component and a Strategy Calculation Day, the size of the position in such Terminal Component on such Strategy Calculation Day held by the GS Strategy, as determined in accordance with the provisions set out in Section C: *Calculation of the number of Units of a Terminal Component* of this General Basket Strategy Base Description.

"Units Scaling Factor" means, in respect of an Immediate Component, the number specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

Section G: Asset Class Specific Definitions

1. Futures Definitions

Terms defined in this sub-section 1 of Section G: Asset Class Specific Definitions of this General Basket Strategy Base Description shall only apply to (a) each tradable instrument defined as an Instrument in this sub-section and (b) each Component calculated by reference to such an Instrument and for which the Style specified is contained in the Timely and Tradable Level Table set out in this sub-section or in the Timely and Tradable Level Table set out in Section F: General Definitions of this General Basket Strategy Base Description. This sub-section and shall be read in conjunction with the definitions in Section F: General Definitions of this General Basket Strategy Base Description.

"Contract Expiration" means in respect of a Futures Contract, the version of that Futures Contract associated with a relevant date, month or term specified for delivery of, or settlement in respect of, the underlying of such Futures Contract (which must be a date, month or term reported or capable of being determined from information reported in or by the relevant Price Source) on, during or after which delivery or settlement will occur. References to the price of a Contract Expiration shall mean the price of such Futures Contract with respect to such Contract Expiration.

"Daily Contract Reference Price" means, in respect of a Contract Expiration and any day, the settlement price of such Contract Expiration on such day, expressed in the currency in which such Contract Expiration is settled, that is generally used by participants in the related cash or over-the-counter market as a benchmark for transactions related to such Contract Expiration and which is announced by the relevant Price Source. If such day is not an Exchange Business Day for such Contract Expiration or if the settlement price is not available on such day for any other reason, the Daily Contract Reference Price shall be deemed to be the settlement price for such Contract Expiration as of the last day on which the relevant Trading Facility was open for trading for its regular trading session, notwithstanding such Trading Facility closing prior to its scheduled closing time.

"Exchange Business Day" means, in respect of a Contract Expiration, any day on which the relevant Trading Facility for such Contract Expiration is scheduled to be open for trading for its regular trading session, notwithstanding any such Trading Facility closing prior to its scheduled closing time.

"Futures Contract" means any contract that provides for the physical delivery of, or is based on the price of, an underlying. All references to the term **"Futures Contract"** shall be deemed to include all Contract Expirations with respect to the Futures Contract in question.

"Instrument" means a Contract Expiration which is a Component or which is used to calculate the level of a Component or the GS Strategy.

"Instrument Trading Day" means an Exchange Business Day.

"Instrument Valuation Data" means the Daily Contract Reference Price.

"Market Disruption Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) the Daily Contract Reference Price of such Contract Expiration for such Strategy Calculation Day remains at a "limit price" which means that the price of such Contract Expiration on such day has increased or decreased from the previous day's settlement price for such Contract Expiration by the maximum amount permitted under the applicable rules of the relevant Trading Facility; or
- (ii) there is a failure by the relevant Trading Facility or other Price Source to announce or publish the Daily Contract Reference Price for such Strategy Calculation Day, provided that such Strategy Calculation Day is also an Exchange Business Day in respect of such Contract Expiration; or
- (iii) trading in such Contract Expiration on the relevant Trading Facility is suspended or interrupted subsequent to the opening of trading and trading in such Contract Expiration does not recommence at least ten (10) minutes prior to the regular scheduled close of trading in such Contract Expiration, or in the event trading in such Contract Expiration does recommence at least ten (10) minutes prior to the regular scheduled close of trading, trading does not continue until the regular scheduled close of trading in such Contract Expiration.

"Non-Tradable Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) such Strategy Calculation Day is not an Exchange Business Day for such Contract Expiration; or
- (ii) a Market Disruption Event is occurring or existing in respect of such Contract Expiration on such Strategy Calculation Day; or
- (iii) an adjustment event as set out in paragraph 2(iii)(c) of Section E: *Consequences of Adjustment Events* of this General Basket Strategy Base Description is occurring or existing in respect of such Contract Expiration on such Strategy Calculation Day.

"Price Source" means, in respect of a Contract Expiration and the relevant Daily Contract Reference Price, the relevant publication source (or such other source of reference, including but not limited to, a Trading Facility) publishing, containing or reporting the Daily Contract Reference Price used by the relevant Sponsor.

Timely and Tradable Level Table

Style	Timely/ Tradable/ Quoted Currency/ Component Execution Days	Provisions
A	Timely	The Timely Level of a Component on any day will be determined as the official closing level of such Component as published on the relevant Component Ticker on such day, subject to adjustment in accordance with the provisions of the General Basket Strategy Base Description
A	Tradable	<p>The Tradable Level of a Component on a Strategy Calculation Day will be determined as follows:</p> <ul style="list-style-type: none"> (i) if no Non-Tradable Event occurs in respect of any Contract Expiration included in such Component on such Strategy Calculation Day, the Tradable Level of such Component for such Strategy Calculation Day will be equal to the Timely Level of such Component on such Strategy Calculation Day; or (ii) if (A) no MDE Linked Component is specified in respect of such Component and (B) a Non-Tradable Event occurs in respect of any Contract Expiration (the "Affected Contract Expiration") included in such Component on such Strategy Calculation Day, the Tradable Level of such Component for such Strategy Calculation Day will be calculated on the First Tradable Date in accordance with the formula for, and method of, calculating such Component, using the Tradable Contract Price (instead of the Daily Contract Reference Price) for the Affected Contract Expiration in respect of such Strategy Calculation Day, and the Strategy Sponsor may make such adjustment(s) to the formula for, and method of, calculating such Component as it determines in a commercially reasonable manner to be appropriate in order to effect such calculation; or (iii) if (A) one or more MDE Linked Components are specified in respect of such Component; (B) MDE Linkage Lookthrough is specified as Not Applicable or is not so specified in respect of the GS Strategy and (C) a Non-Tradable Event occurs in respect of any Contract Expiration included in such Component on such Strategy Calculation Day, the Tradable Level of such Component for such Strategy Calculation Day will be equal to the Timely Level of such Component on the first Strategy Calculation Day following such Strategy Calculation Day on which no Non-Tradable Event occurs in respect of such Component. (iv) if (A) one or more MDE Linked Components are specified in respect of such Component; (B) MDE Linkage Lookthrough is specified as Applicable in respect of the GS Strategy; and (C) a Non-Tradable Event occurs in respect of any Contract Expiration (the "Source Affected Contract Expiration") included in any such Component on such Strategy Calculation Day, a Non-Tradable Event is deemed

Style	Timely/ Tradable/ Quoted Currency/ Component Execution Days	Provisions
		to have occurred in respect of every other Contract Expiration included in any such linked Component on such Strategy Calculation Day that has the same underlying as the Source Affected Contract Expiration. The Tradable Level of any of the linked Components for such Strategy Calculation Day will be calculated according to the same procedure of paragraph (ii) using the Tradable Contract Price on the First Tradable Date when there is no Non-Tradable Event for any such Contract Expiration.
A	Quoted Currency	The Quoted Currency of a Component shall be specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall be USD.
Rates	Timely	<p>The Timely Level of a Component on any day will be determined in accordance with the definition of "Index Value" in respect of the last "Index Business Day" on or before such day, as specified in the relevant rules in respect of such Component, provided that if the "Index Sponsor" has deferred calculation and publication of the "Index Value" due to a "Market Disruption Event" in accordance with the relevant rules in respect of such Component, the Timely Level of a Component shall be the last "Index Value" of such Component on or before such day in which no "Market Disruption Event" has caused the publication of the "Index Value" to be deferred.</p> <p>Each term referred to in this definition of Timely Level only that is surrounded by quotation marks will be as specified in the relevant rules in respect of such Component.</p>
Rates	Tradable	The Tradable Level of a Component on a Strategy Calculation Day shall be the Timely Level in respect of such Strategy Calculation Day, unless a Non-Tradable Event is occurring in respect of such Component and such Strategy Calculation Day, in which case the Tradable Level of a Component shall be the "Index Value" specified in the relevant rules in respect of such Component in respect of the first day on or after such Strategy Calculation Day on which no Non-Tradable Event is occurring in respect of such Component and which is a Strategy Calculation Day for the GS Strategy (such day, the " Resolution Day " for the purposes of this definition of Tradable Level only), provided that if the Resolution Day would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
Rates	Quoted Currency	The Quoted Currency of a Component shall be the "Index Currency" specified in the relevant rules in respect of such Component.
Rates	Component Execution Days	The Component Execution Days of a Component shall be each day that is an "Index Trading Day" as specified in the relevant rules in respect of such Component, or if not so specified, each day that is a Trading Day in respect of such Component.

"**Tradable Contract Price**" means, in respect of a Contract Expiration and a Strategy Calculation Day, the Daily Contract Reference Price of such Contract Expiration on the First Tradable Date in respect of such Strategy Calculation Day, unless a Non-Tradable Event exists on such First Tradable Date, in which case the Tradable Contract Price in respect of such Contract Expiration for such Strategy Calculation Day shall be determined by the Strategy Sponsor in a commercially reasonable manner.

"Trading Facility" means, in respect of a Contract Expiration, the exchange, facility or platform on or through which such Contract Expiration is traded.

2. FX Forwards Definitions

Terms defined in this sub-section 2 of Section G: *Asset Class Specific Definitions of this General Basket Strategy Base Description* shall only apply to (a) each tradable instrument defined as an Instrument in this sub-section and (b) each Component calculated by reference to such an Instrument and for which the Style specified is contained in the *Timely and Tradable Level Table* set out in this sub-section or in the *Timely and Tradable Level Table* set out in Section F: *General Definitions of this General Basket Strategy Base Description*. This sub-section shall be read in conjunction with the definitions in Section F: *General Definitions of this General Basket Strategy Base Description*.

"Currency Settlement Day" means, in respect of a Currency Cross:

- (i) if such Currency Cross is a Non-USD Currency Cross, each day which is a Currency Settlement Day in respect of the relevant Denominated Dollar Cross and the relevant Underlying Dollar Cross; or
- (ii) otherwise, each day which is a Denominated Currency Business Day and an Underlying Currency Business Day in respect of such Currency Cross.

"Denominated Currency Business Day" means, in respect of the relevant Currency Cross and the Denominated Currency, (i) if such Denominated Currency is the Euro, each TARGET Business Day, or (ii) otherwise, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in the principal financial centre of such Denominated Currency.

"Forward Contract Business Day" means, in respect of the relevant Currency Cross, each day that is a Currency Business Day in respect of such Currency Cross and on which any relevant Forward Exchange Rate is scheduled to be published on the relevant Forward Exchange Rate Price Source.

"Forward Contract Expiration" means a hypothetical agreement between two parties to enter into a transaction to sell (a notional short position) or purchase (a notional long position) a specific notional amount of the relevant Underlying Currency in exchange for a notional amount of the relevant Denominated Currency on a pre-determined future date (the **"Forward Contract Expiration Date"**). If a Non-Tradable Event occurs in respect of a Forward Contract Expiration on the corresponding scheduled Forward Contract Expiration Date (the **"Original Forward Contract Expiration Date"** for the purposes of this definition), the Forward Contract Expiration Date shall be deemed to be the First Tradable Date in respect of such Forward Contract Expiration and the Original Forward Contract Expiration Date.

"Forward Contract Expiration Date" shall have the meaning given to such term in the definition of "Forward Contract Expiration" in this sub-section 2 of Section G: *Asset Class Specific Definitions* of this General Basket Strategy Base Description.

"Forward Contract Settlement Date" means, in respect of a Forward Contract Expiration, the Spot Settlement Date in respect of the relevant Currency Cross and the relevant Forward Contract Expiration Date.

"Forward Exchange Rate" means, in respect of a Currency Cross, a Forward Tenor, and any day *t*:

- (i) if such Forward Tenor is specified as "Spot", the Spot Exchange Rate in respect of such Currency Cross and day *t*; or
- (ii) otherwise, the forward exchange rate of the relevant Underlying Currency for the relevant Denominated Currency in respect of such Forward Tenor and such day, expressed as the number of units of the Denominated Currency per unit of the Underlying Currency, as published by the relevant Forward Exchange Rate Price Source, and, if necessary, such published level may be added to the relevant Spot Exchange Rate and/or, if such rate is published by the relevant Forward Exchange Rate Price Source as the number of units of the Underlying Currency per unit of the Denominated Currency, shall be inverted in order to be expressed as the number of units of the Denominated Currency per unit of the Underlying Currency. If such day is not a Forward Contract Business Day in respect of such Currency Cross, or such forward exchange rate is otherwise unavailable for any other reason, the Forward Exchange Rate shall be deemed to be the relevant forward exchange rate as of the first preceding Forward Contract Business Day on which the Forward Exchange Rate Price Source published such forward exchange rate. If such Currency Cross is a Non-USD Currency Cross, the Forward Exchange Rate will be calculated by the Strategy Calculation Agent as being equal to the *quotient* of (i) the Forward Exchange Rate in respect of such Forward Tenor, day *t*, and the relevant Underlying Dollar Cross *divided* by (ii) the Forward Exchange Rate in respect of such Forward Tenor, day *t*, and the relevant Denominated Dollar Cross. For the avoidance of doubt, if the relevant Underlying Currency is the same currency as the relevant Denominated Currency, the Forward Exchange Rate shall be deemed to be one (1).

"Forward Exchange Rate Price Source" means, in respect of a Currency Cross and a Forward Tenor, the data source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of the relevant Forward Exchange Rate.

"Forward Tenor" means, in respect of a Currency Cross and any day t , a specified period of time (being a specified number of days, weeks, months or years, as the case may be) commencing from day t in respect of which the relevant Forward Exchange Rate Price Source is scheduled to publish the Forward Exchange Rate of the relevant Underlying Currency for the relevant Denominated Currency (expressed as the number of units of the Denominated Currency per unit of the Underlying Currency) and where the Forward Tenor "Spot" means zero (0) days.

"Forward Settlement Date" means, in respect of the relevant Currency Cross, a Forward Tenor and any day t , as determined by the Strategy Calculation Agent in accordance with paragraph (i) or (ii) below (as applicable):

- (i) if such Forward Tenor is specified as "Spot", the Spot Settlement Date in respect of such Currency Cross and such day t ; or
- (ii) otherwise:
 - (a) if such Currency Cross is a Non-USD Currency Cross, the Forward Settlement Date shall be the first Currency Settlement Day in respect of such Currency Cross falling on or after the later of (I) the Forward Settlement Date in respect of the relevant Denominated Dollar Cross, such Forward Tenor and day t , and (II) the Forward Settlement Date in respect of the relevant Underlying Dollar Cross, such Forward Tenor and day t ; or
 - (b) otherwise, the date falling the period of time equal to the Forward Tenor after the Spot Settlement Date in respect of such Currency Cross and such day t (such date, " t^* " for the purposes of this limb (ii)(b) of this definition of Forward Settlement Date), adjusted in accordance with paragraphs (I), (II), or (III) below:
 - (I) if such Forward Tenor is specified as a number of "Months" and such Spot Settlement Date is the last Currency Settlement Day of the calendar month in which it falls, the Forward Settlement Date shall be the last Currency Settlement Day of the month in which t^* falls;
 - (II) if such Forward Tenor is specified as a number of "Months" and such Spot Settlement Date is not the last Currency Settlement Day of the month in which it falls, the Forward Settlement Date shall be the earlier of (x) first Currency Settlement Day falling on or immediately following t^* , or (y) the last Currency Settlement Day of the month in which t^* falls;
 - (III) if such Forward Tenor is not specified as a number of "Months", the Forward Settlement Date shall be the first Currency Settlement Day falling on or immediately following t^* .

"Instrument" means a Forward Contract Expiration which is a Component or which is used to determine the level of a Component or the GS Strategy.

"Instrument Trading Day" means a Forward Contract Business Day.

"Instrument Valuation Data" means the relevant Spot Exchange Rate or the relevant Forward Exchange Rate, as the case may be.

"Market Disruption Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) a Market Disruption Event in respect of the relevant Currency Cross;
- (ii) the relevant Forward Exchange Rate has ceased to be published by the relevant Price Source and has not been replaced by a successor Price Source; or
- (iii) it is or becomes impossible or not reasonably practicable for the Strategy Sponsor to obtain a currency exchange rate for the relevant Currency Cross (including any relevant Forward Exchange Rate) from the relevant Price Source or any other source for purposes of the GS Strategy, or to obtain a firm quote for a currency exchange rate for the relevant Currency Cross (including any relevant Forward Exchange Rate) specified for use for purposes of the GS Strategy.

"Non-Tradable Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) such Strategy Calculation Day is not a Forward Contract Business Day for the Currency Cross in respect of such Forward Contract Expiration; or
- (ii) a Market Disruption Event is occurring or existing in respect of such Forward Contract Expiration on such Strategy Calculation Day; or
- (iii) an adjustment event as set out in paragraph 2(iii)(c) of Section E: *Consequences of Adjustment Events* of this General Basket Strategy Base Description is occurring or existing in respect of such Forward Contract Expiration on such Strategy Calculation Day.

"Price Source" means, in respect of a Forward Contract Expiration and the relevant Spot Exchange Rate or the relevant Forward Exchange Rate, the relevant Spot Exchange Rate Price Source or the relevant Forward Exchange Rate Price Source as the case may be.

"Reference Long Forward Tenor" means, in respect of a Forward Contract Expiration and any day, the first Forward Tenor in the Set of Available Forward Tenors in respect of such Forward Contract Expiration for which the Forward Settlement Date in respect of such day and such Forward Tenor falls on or after the Forward Contract Settlement Date in respect of such Forward Contract Expiration.

"Reference Short Forward Tenor" means, in respect of a Forward Contract Expiration and any day, the last Forward Tenor in the Set of Available Forward Tenors in respect of such Forward Contract Expiration for which the Forward Settlement Date in respect of such day and such Forward Tenor falls on or before the Forward Contract Settlement Date in respect of such Forward Contract Expiration, or if there is no such Forward Tenor, then the Reference Short Forward Tenor shall be deemed to be "Spot".

"Set of Available Forward Tenors" means, in respect of a Forward Contract Expiration, the list of Forward Tenors specified as such in respect of the Immediate Component Template that defines such Forward Contract Expiration in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements and such set of Forward Tenors shall be deemed to be ordered by the length of the period in respect of each such Forward Tenor such that the shortest period shall be the first Forward Tenor and the longest period shall be the last Forward Tenor. If "Spot" is not specified in the Set of Available Forward Tenors, the Set of Available Forward Tenors shall be deemed to include "Spot" (and "Spot" shall be deemed to be the first Forward Tenor in the Set of Available Forward Tenors).

"Settlement Delay" means, in respect of the relevant Currency Cross, the non-negative integer specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Settlement Convention" means, in respect of the relevant Currency Cross, will be specified as either "b" or "s", as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Spot Settlement Date" means, in respect of the relevant Currency Cross and any day t , the date determined by the Strategy Calculation Agent in accordance with paragraph (i) or (ii) below, as applicable:

- (i) if such Currency Cross is a Non-USD Currency Cross, the Spot Settlement Date shall be first Currency Settlement Day in respect of such Currency Cross falling on or after the later of (a) the Spot Settlement Date in respect of the relevant Denominated Dollar Cross and day t and (b) the Spot Settlement Date in respect of the relevant Underlying Dollar Cross and day t ; or
- (ii) otherwise:
 - (a) if the Settlement Convention in respect of such Currency Cross is specified as "b", the Spot Settlement Date shall be the first Currency Settlement Day (" t^* " for the purposes of this limb (ii)(a) of this definition of Spot Settlement Date) such that the number of relevant Currency Settlement Days from, and including, day t , to, but excluding, t^* is equal to the Settlement Delay in respect of such Currency Cross; or
 - (b) if the Settlement Convention in respect of such Currency Cross is specified as "s" and:
 - (l) the Denominated Currency in respect of such Currency Cross is USD, the Spot Settlement Date shall be the first Currency Settlement Day (" t^* " for the purposes of this limb (ii)(b)(l) of this definition of Spot Settlement Date) such that the number of Underlying Currency

Business Days falling in the period commencing on, but excluding, day t , and ending on, and including, t^* is at least equal to the Settlement Delay in respect of such Currency Cross; or

- (II) the Underlying Currency in respect of such Currency Cross (the "**Original Currency Cross**" for the purposes of this limb (ii)(b)(II) of this definition of Spot Settlement Date) is USD, the Spot Settlement Date in respect of the Currency Cross in respect of which the Denominated Currency is USD and the Underlying Currency is the Denominated Currency of the Original Currency Cross.

"Timely and Tradable Level Table" means the following table:

Style	Timely/ Tradable/ Quoted Currency/ Component Execution Days	Provisions
FX- Forward	Timely	<p>The Timely Level in respect of Forward Contract Expiration FC and any day t shall be determined in accordance with paragraph (i) or (ii) below (as applicable):</p> <p>(i) if the relevant Currency Cross is a Non-USD Currency Cross, the Timely Level shall be the <i>quotient</i> of (a) the Timely Level in respect day t and a Forward Contract Expiration with the same specifications (for the avoidance of doubt, including the same Forward Contract Settlement Date) as Forward Contract Expiration FC (except that the Currency Cross is the relevant Underlying Dollar Cross) <i>divided</i> by (b) the Timely Level in respect of day t and a Forward Contract Expiration with the same specifications (for the avoidance of doubt, including the same Forward Contract Settlement Date) as Forward Contract Expiration FC (except that the Currency Cross is the relevant Denominated Dollar Cross);</p> <p>(ii) otherwise, the Timely Level will be equal to the "Interpolated Forward Exchange Rate", as determined in accordance with the formula below:</p> $FX_t(FC) = FwdS_t(CC) + \left((FwdL_t(CC) - FwdS_t(CC)) \times \frac{Tenor_t(S, FC)}{Tenor_t(S, L)} \right)$ <p>Provided that (a) if day t is not a Forward Contract Business Day in respect of the relevant Currency Cross the Timely Level shall be the Timely Level in respect of Forward Contract Expiration FC and the Forward Contract Business Day immediately preceding day t and (b) if the Reference Short Forward Tenor in respect of Forward Contract Expiration FC and day t is the same Forward Tenor as the Reference Long Forward Tenor in respect of Forward Contract Expiration FC and day t, $FX_t(FC)$ shall be deemed to be equal to $FwdS_t(CC)$.</p> <p>Where:</p> <p>"$FX_t(FC)$" means the Interpolated Forward Exchange Rate in respect of such Forward Contract Expiration FC and day t;</p> <p>"$FwdL_t(CC)$" means the Forward Exchange Rate in respect of the relevant Currency Cross, day t and the Reference Long Forward Tenor in respect of such Forward Contract Expiration FC and day t;</p> <p>"$FwdS_t(CC)$" means the Forward Exchange Rate in respect of the relevant Currency Cross, day t and the Reference Short Forward Tenor in respect of such Forward Contract Expiration FC and day t;</p> <p>"$Tenor_t(S, FC)$" means, in respect of any day t, Forward Contract Expiration FC and the Reference Short Forward Tenor in respect of such day t and such Forward Contract Expiration FC, as determined in accordance with paragraph (i)</p>

Style	Timely/ Tradable/ Quoted Currency/ Component Execution Days	Provisions
		<p>or (ii) below:</p> <p>(i) if the Forward Settlement Date in respect of the relevant Currency Cross, day <i>t</i> and such Reference Short Forward Tenor (for the purposes of this definition the "Relevant Forward Settlement Date") is the Forward Contract Settlement Date in respect of such Forward Contract Expiration <i>FC</i>, zero (0); or</p> <p>(ii) otherwise, the number of calendar days falling in the period commencing on, and including, the Relevant Forward Settlement Date and ending on, but excluding, the Forward Contract Settlement Date in respect of such Forward Contract Expiration <i>FC</i>; and</p> <p>"Tenor_(S,L)" means, in respect of any day <i>t</i>, the Reference Short Forward Tenor in respect of such day <i>t</i> and Forward Contract Expiration <i>FC</i> and the Reference Long Forward Tenor in respect of such day <i>t</i> and Forward Contract Expiration <i>FC</i>, the number of calendar days falling in the period commencing on, and including, the Forward Settlement Date in respect of such Reference Short Forward Tenor and such day <i>t</i> and ending on, but excluding, the Forward Settlement Date in respect of such Reference Long Forward Tenor and such day <i>t</i>.</p> <p>For the avoidance of doubt, if (i) there are any adjustments to Strategy Calculation Days, the Currency Settlement Days in respect of the relevant Currency Cross or the Forward Contract Business Days in respect of the relevant Currency Cross after day <i>t</i> or (ii) a Non-Tradable Event occurs after day <i>t</i>, that would, when utilised in the calculation of the Interpolated Forward Exchange Rate in accordance with the methodology set out above, generate a different rate than the Interpolated Forward Exchange Rate that was determined by the Strategy Sponsor on day <i>t</i>, the Interpolated Forward Exchange Rate shall not be restated.</p>
FX-Forward	Tradable	<p>The Tradable Level of a Component on a Strategy Calculation Day shall be the Timely Level in respect of such day, unless a Non-Tradable Event is occurring in respect of such Component and such Strategy Calculation Day, in which case the Tradable Level of a Component shall be determined in accordance with the definition of the Timely Level of such Component, provided that references to "<i>t</i>" in the definitions used to determine the Timely Level shall be deemed to be replaced by reference to the first day following such Strategy Calculation Day on which no Non-Tradable Event is occurring and which is a Strategy Calculation Day (such day, the "Resolution Day" for the purposes of this definition of Tradable Level only), provided that if the Resolution Day would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.</p>
FX-Forward	Quoted Currency	<p>The Quoted Currency of a Component shall be the Denominated Currency in respect of the relevant Currency Cross.</p>

"Underlying Currency Business Day" means, in respect of the relevant Currency Cross and the Underlying Currency, (i) if such Underlying Currency is the Euro, each TARGET Business Day, or (ii) otherwise, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in the principal financial centre of such Underlying Currency.

3. Interest Rate Swaps Definitions

Terms defined in this sub-section 3 of Section G: Asset Class Specific Definitions of this General Basket Strategy Base Description shall only apply to (a) each tradable instrument defined as an Instrument in this sub-section and (b) each Component calculated by reference to such an Instrument and for which the Style specified is contained in the Timely and Tradable Level Table set out in this sub-section or in the Timely and Tradable Level Table set out in Section F: General Definitions of this General Basket Strategy Base Description. This sub-section shall be read in conjunction with the definitions in Section F: General Definitions of this General Basket Strategy Base Description.

"ISDA Definitions" means the 2006 ISDA Definitions, as published by the International Swaps and Derivatives Association, Inc. If the ISDA Definitions are subsequently amended or supplemented, the Strategy Sponsor may (but is not obliged to), in its discretion and acting in a commercially reasonable manner, determine that one or more definitions set out herein shall be amended or supplemented accordingly.

"Annuity" means, in respect of an IR Swap, a value which when multiplied by a small change in the related Swap Rate, aims to measure the change in the value of such IR Swap that would result from such change in the related Swap Rate, as determined in accordance with the relevant Annuity Model and as described in the Timely and Tradable Level Table.

"Annuity Model" means, in respect of an IR Swap, either (i) "Annuity Model AM1" or (ii) "Annuity Model AM2", in each case being a mathematical model used to determine the Annuity in respect of such IR Swap and/or certain data inputs used to determine the Annuity in respect of such an IR Swap, as specified and more particularly described in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements. If the methodology of an Annuity Model is subsequently amended or supplemented, the Strategy Sponsor may (but is not obliged to), in its discretion and acting in a commercially reasonable manner, utilise such amended or supplemented methodology to determine the Annuity in respect of the relevant IR Swap.

"Annuity Model AM1" means the ISDA Standard Model dated as of 8 November 2014, being a simplified annuity model published by the International Swaps and Derivatives Association at the following page (or any applicable successor thereto): [http://www.cdsmodel.com/cdsmodel/assets/cds-model/docs/Interest%20Rate%20Curve%20Specification%20-%20All%20Currencies%20\(Updated%20November%202014\)%20Final.pdf](http://www.cdsmodel.com/cdsmodel/assets/cds-model/docs/Interest%20Rate%20Curve%20Specification%20-%20All%20Currencies%20(Updated%20November%202014)%20Final.pdf) and, for which the source code implementation can be found at the following page (or any applicable successor thereto): <http://www.cdsmodel.com/cdsmodel/documentation.html>. If any conflict shall exist between such documentation and source code, the source code shall prevail. Discount Factors shall be calculated in accordance with the Annuity Model AM1 by constructing a zero curve using inputs such as, but not limited to, the relevant Spot Lag, the relevant Swap Fixed Leg Convention, the relevant Swap Floating Leg Convention, the relevant money market conventions, money market rates and maturity dates, swap rates and maturity dates in accordance with the relevant Annuity Source, where the relevant business day calendar shall be deemed to be "none" for all Quoted Currencies, and the Bad Day Convention shall be deemed to be "M" for all Quoted Currencies.

"Annuity Model AM2" means the GS Annuity Model.

"Annuity Source" means, in respect of an IR Swap and an Annuity Model, the data source from which certain data inputs (which may include, but are not limited to, swap rates and deposit rates) required to calculate the Annuity of such IR Swap in accordance with such Annuity Model are obtained.

"Combination Weight" means, in respect of each Forward Swap Contract in a Forward Swap Combination Contract, the weight allocated to such Forward Swap Contract (which may be positive or negative) in such Forward Swap Combination Contract, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Current Annuity Source" means, in respect of an IR Swap and an Annuity Model, the Annuity Source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Current Price Source" means, in respect of an IR Swap, the relevant Current Swap Source or the relevant Current Annuity Source, as the case may be.

"Current Swap Source" means, in respect of an IR Swap, the data source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, provided that, if the Strategy Sponsor, in its reasonable judgment, determines that liquidity in transactions relating to the spot swap rate in respect of such IR Swap has moved (or anticipates that liquidity in transactions relating to such spot swap rate will move) to transactions relating to a spot swap rate published by a different data source (which may be a spot swap rate published by a different data source provider or a spot swap rate published by the same data

source provider on a different screen page and/or at a different time), in accordance with market convention, the Current Swap Source shall be such other data source as determined by the Strategy Sponsor in its discretion, acting in a commercially reasonable manner.

"Day Count Fraction" in respect of (i) a Forward Swap Contract and the fixed amounts or floating amounts (as applicable) notionally payable thereunder, has the meaning given to such term in the ISDA Definitions (and each reference to a "Calculation Period" in the ISDA Definitions shall be deemed to be a reference to the fixed amount calculation period or the floating amount calculation period, as applicable, under such Forward Swap Contract), or (ii) a Deposit Instrument, has the meaning given to the "Floating Rate Day Count Fraction" term in the ISDA Definitions (each reference to a "Floating Rate Option" in the ISDA Definitions shall be deemed to be a reference to such Deposit Instrument, and each reference to a "Calculation Period" in the ISDA Definitions shall be deemed to be a reference to the term in respect of such Deposit Instrument).

"Decision Date" means, in respect of a Rebalancing Date (and determined in relation to such Rebalancing Date in accordance with the Decision Date Rule), the Strategy Calculation Day on which the Strategy Calculation Agent determines the Immediate Component Weight of each of the Immediate Components included in a GS Strategy for such Rebalancing Date.

"Decision Date Rule" means the rule used to determine the Decision Date in respect of each Rebalancing Date, as specified in the Relevant Specifications Annex.

"Deposit Instrument" means a hypothetical agreement between two parties, pursuant to which (i) one party agrees to deposit an amount denominated in the Quoted Currency at a future date with the other party, and (ii) the other party agrees to return such amount at a specified later date with interest.

"Discount Factor" means, in respect of two dates, an Annuity Model and an Annuity Source, the amount of currency a hypothetical market participant is willing to pay on the first date in exchange for one unit of currency to be received on the second date.

"EUR" means euro.

"EURIBOR" means, in respect of a relevant day, the interest rate for deposits for a period of the designated maturity in EUR which appears on the Reuters Screen EURIBOR01 Page (or any successor thereto) as of 11:00 a.m. Brussels Time on such relevant day.

"First Tradable Date Convention" means, in respect of an IR Swap and any date (for the purposes of this definition, the **"Relevant Date"**) specified to be subject to adjustment in accordance with such First Tradable Date Convention, if a Non-Tradable Event occurs on the original date on which the Relevant Date is scheduled to fall, then the Relevant Date shall be deemed to be the First Tradable Date in respect of such IR Swap and such original date.

"Forward Swap Contract" means any IR Swap with the same terms as the Quoted Currency, the Swap Start Date, the Swap Term and the Swap Conventions specified in respect of an Immediate Component Template in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Forward Swap Combination Contract" means a set of one or more Forward Swap Contracts (as identified by the related Immediate Component Template), each with its respective Combination Weight in such Forward Swap Combination Contract.

"GBP" means Pound Sterling.

"GS Annuity Model" means, in respect of any day, the Goldman Sachs proprietary mathematical model used as of such day to determine the Annuity in respect of an IR Swap as the sum of the relevant discount factors weighted by the corresponding day count fractions in respect of such IR Swap. The GS Annuity Model is also used to adjust the annuity of an IR Swap that is determined by reference to published spot swap rates, deposit rates and the Annuity Model AM1, so that it reflects as closely as possible the level of the annuity of such IR Swap at which hypothetical transactions could be executed. The GS Annuity Model may change from time to time and the Strategy Sponsor will not be obliged to consider any GS Strategy when making any such changes and will not have any liability for the effect of such changes on any GS Strategy.

"GS Interest Rate Curve" means the Goldman Sachs proprietary interest rate curve data prevailing from time to time which contains spot interest rate data (including but not limited to spot swap rates and deposit rates) and is calculated in accordance with a Goldman Sachs proprietary methodology that can be used to adjust a published spot swap rate so that it reflects as closely as possible the level of a forward swap rate at which hypothetical

transactions could be executed. Spot interest rate data from the GS Interest Rate Curve may also be used to calculate the Annuity of an IR Swap in accordance with the relevant Annuity Model.

"Instrument" means a Forward Swap Contract, a Reference Spot Swap Contract or Forward Swap Combination Contract (as applicable) which is a Component or which is used to determine the level of a Component or the GS Strategy.

"Instrument Trading Day" means a Swap Business Day.

"Instrument Valuation Data" means any Swap Rate which is used to determine the level of a Component or the GS Strategy.

"IR Swap" means a hypothetical interest rate swap transaction (which may be a spot interest rate swap transaction or a forward interest rate swap transaction) between two parties, pursuant to which:

- (i) one party is required to pay, in respect of each specified floating rate period during the term of such transaction, an amount denominated in the Quoted Currency and calculated at a specified floating rate of interest on a specified notional amount of the Quoted Currency; and
- (ii) the other party is required to pay, in respect of each specified fixed rate period during the term of such transaction an amount denominated in the Quoted Currency and calculated at a specified fixed rate of interest on such specified notional amount of the Quoted Currency.

All references to the term **"IR Swap"** (save where the context otherwise requires) shall be deemed to include all Forward Swap Contracts or Reference Spot Swap Contracts with respect to the IR Swap in question.

"JPY" means Japanese Yen.

"LIBOR" means, in respect of a relevant day, the interest rate for deposits for a period of the designated maturity in the relevant currency, which appears on:

- (i) the Reuters Screen LIBOR01 Page (or any successor thereto) as of 11:00 a.m. London Time on such relevant day if the relevant currency is USD;
- (ii) the Reuters Screen LIBOR01 Page (or any successor thereto) as of 11:00 a.m. London Time on such relevant day if the relevant currency is GBP; or
- (iii) the Reuters Screen LIBOR01 Page (or any successor thereto) as of 11:00 a.m. London Time on such relevant day if the relevant currency is JPY.

"Market Disruption Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) any data input used to calculate (a) the Swap Rate of the relevant Forward Swap Contract or the relevant Reference Spot Swap Contract, (b) the Annuity of a Forward Swap Contract or (c) any other data input which is used to determine the level of such Instrument, is not published, calculated by or otherwise made available by both the relevant Current Price Source and the relevant Previous Price Source on such Strategy Calculation Day, provided that such Strategy Calculation Day is also a Swap Business Day in respect of such Instrument, or, such data input has ceased to be published or calculated by the relevant Price Source and has not been replaced by a successor Price Source;
- (ii) it is or becomes impossible or not reasonably practicable for the Strategy Sponsor to obtain a Swap Rate or Annuity which is used to determine the level of an Instrument from the relevant Price Source or any other source for purposes of the GS Strategy; or
- (iii) the occurrence or existence at any time, of any event or circumstance that (a) disrupts or impairs the ability of any market participant, after using commercially reasonable efforts, to acquire, establish, re-establish, substitute, maintain, unwind, or dispose of all or any portion of any hedge position relating to such Instrument or the GS Strategy, or any transaction linked to the GS Strategy, or to realise, recover or remit the proceeds of any such hedge position, or (b) causes or would cause any such market participant to incur a materially increased cost in doing so, including due to any capital requirements or other law or regulation.

"Non-Tradable Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) such Strategy Calculation Day is not a Swap Trading Day; or
- (ii) a Market Disruption Event is occurring or existing in respect of such Instrument on such Strategy Calculation Day;

an adjustment event as described in paragraph 2(iii)(c) of Section E: *Consequences of Adjustment Events* of this General Basket Strategy Base Description is occurring or existing in respect of such Instrument on such Strategy Calculation Day. **"Previous Annuity Source"** means, in respect of an IR Swap and an Annuity Model, the Annuity Source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Previous Price Source" means, in respect of an IR Swap, the relevant Previous Swap Source or the relevant Previous Annuity Source, as the case may be.

"Previous Swap Source" means, in respect of an IR Swap, the data source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Price Source" means, in respect of an IR Swap, the relevant Current Swap Source, the relevant Previous Swap Source, the relevant Current Annuity Source or the relevant Previous Annuity Source, as the case may be.

"Reference Spot Swap Contract" means, in respect of a Forward Swap Contract and any day t , an IR Swap with the same terms as the Swap Term, the Quoted Currency and the Swap Conventions as such Forward Swap Contract, but in respect of which:

- (i) the Swap Start Date is day t , subject to adjustment in accordance with the Swap Business Day Convention;
- (ii) the Swap Effective Date is the day falling the number of Spot Lag Days (or if undefined the number of Swap Business Days) equal to the Spot Lag after day t , subject to adjustment in accordance with the Swap Business Day Convention;
- (iii) the Swap Maturity Date is the Swap Business Day falling the number of days, weeks, months or years equal to the Swap Term after such Swap Effective Date, subject to adjustment in accordance with the Swap Business Day MF Convention; and
- (iii) all other relevant dates defined in respect of such IR Swap shall be adjusted accordingly to reflect such Swap Effective Date and such Swap Maturity Date, in each case subject to adjustment in accordance with the Swap Business Day Convention or the Swap Business Day MF Convention, as applicable.

"Spot Lag" means, in respect of an IR Swap, the non-negative integer specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Spot Lag Day" means, in respect of an IR Swap and the relevant Quoted Currency, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in the principal financial centres specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Swap Business Day" means, in respect of an IR Swap and the relevant Quoted Currency and unless otherwise specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements:

- (i) if such Quoted Currency is EUR, each TARGET Business Day;
- (ii) if such Quoted Currency is JPY, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in Tokyo and London;
- (iii) if such Quoted Currency is USD, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in New York and London; or

- (iv) otherwise, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in the principal financial centre of such Quoted Currency.

"Swap Business Day Convention" means, in respect of any date (for the purposes of this definition, the **"Relevant Date"**) specified to be subject to adjustment in accordance with such Swap Business Day Convention, if the original date on which the Relevant Date is scheduled to fall is not a Swap Business Day, then the Relevant Date will be the Swap Business Day immediately following such original date.

"Swap Business Day MF Convention" means, in respect of any date (for the purposes of this definition, the **"Relevant Date"**) specified to be subject to adjustment in accordance with such Swap Business Day MF Convention, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements. If not specified, the Swap Business Day MF Convention shall be Modified Following.

"Swap Clearing Convention" means, in respect of a Forward Swap Contract, the then prevailing generally accepted clearing venue to which such Forward Swap Contract should or could be submitted for clearing, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Swap Conventions" means, in respect of a Forward Swap Contract, the Swap Floating Leg Reference Rate, the Swap Floating Leg Convention, the Swap Fixed Leg Convention, and the Swap Clearing Convention (and any other convention or parameter specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements).

"Swap Discount Date" means, in respect of a Forward Swap Contract, the date specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements), or if not so specified, the Swap Effective Date in respect of such Forward Swap Contract.

"Swap Effective Date" means, in respect of an IR Swap, the first day of the term of such IR Swap. In respect of a Forward Swap Contract, the Swap Effective Date shall be the date falling the number of Spot Lag Days (or if undefined the number of Swap Business Days) equal to the relevant Spot Lag after the relevant Swap Start Date.

"Swap Fixed Leg Calculation Period" means, in respect of an IR Swap, each period from, and including, a Swap Fixed Leg Payment Date to, but excluding, the next following Swap Fixed Leg Payment Date during the relevant Swap Term, provided that (i) the initial Swap Fixed Leg Calculation Period will commence on, and include, the relevant Swap Effective Date, and (ii) the final Swap Fixed Leg Calculation Period will end on, but exclude, the relevant Swap Maturity Date.

"Swap Fixed Leg Conventions" means, in respect of an IR Swap, each of (i) the frequency of each payment date in respect of which fixed amounts are notionally payable under the terms of such IR Swap, and (ii) the Day Count Fraction to be applied in the calculation of such fixed amounts.

"Swap Fixed Leg Payment Dates" means, in respect of an IR Swap and unless otherwise specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, the set of periodic payment dates during the relevant Swap Term in respect of which fixed amounts are notionally payable under the terms of such IR Swap, as determined in accordance with the relevant Swap Fixed Leg Convention, such that each payment date shall fall on the same day of the month as the relevant Unadjusted Swap Maturity Date and subject to adjustment in accordance with the Swap Business Day MF Convention. The last Swap Fixed Leg Payment Date in respect of an IR Swap shall be the relevant Swap Maturity Date.

"Swap Floating Leg Reference Rate" means, in respect of an IR Swap, the reference rate of interest for the relevant Quoted Currency which is used to calculate the floating amounts that are notionally payable under the terms of such IR Swap, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements. If, in respect of an IR Swap and any day, the Strategy Sponsor determines that any of the following events has occurred:

- (i) the supervisor of the benchmark administrator of such Swap Floating Leg Reference Rate makes a public statement announcing the bankruptcy of such administrator (and there is no successor administrator);
- (ii) the benchmark administrator of such Swap Floating Leg Reference Rate makes a public statement announcing it has ceased or will cease to provide the benchmark permanently or indefinitely (and there is no successor administrator);
- (iii) the supervisor of the benchmark administrator of such Swap Floating Leg Reference Rate makes a public statement that the benchmark has been or will be permanently or indefinitely discontinued;

- (iv) the supervisor of the benchmark administrator of such Swap Floating Leg Reference Rate makes a public statement that the benchmark may no longer be used; or
- (v) the Strategy Sponsor determines that there has been a material change (or it has been announced that a material change will be made) to the definition, methodology or formula for calculating such Swap Floating Leg Reference Rate,

and if such IR Swap is a Component or is used to determine the level of a Component, the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, replace or remove such IR Swap or any Component to which such IR Swap is linked from the GS Strategy at the earliest possible opportunity as it determines to be commercially reasonable in order for the Strategy Timely Level and the Strategy Tradable Level to continue to be calculated notwithstanding the relevant circumstances, and in such case, the Strategy Sponsor may make such adjustment(s) to the Strategy Rules or to the composition of the GS Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner, to reflect such change(s).

"Swap Floating Leg Conventions" means, in respect of an IR Swap, each of (i) the frequency of each payment date in respect of which floating amounts are notionally payable under the terms of such IR Swap, and (ii) the Day Count Fraction to be applied in the calculation of such floating amounts.

"Unadjusted Swap Maturity Date" means, in respect of an IR Swap, the last day of the term of such IR Swap. In respect of an IR Swap, the Swap Maturity Date shall be the date falling the number of days, weeks, months or years equal to the relevant Swap Term after the relevant Swap Effective Date. For the avoidance of doubt if such resulting date shall fall on 29th of February in a non-leap year, 28th of February of such year shall be used instead.

"Swap Maturity Date" means the Unadjusted Swap Maturity Date subject to adjustment in accordance with the Swap Business Day MF Convention.

"Swap Rate" means, in respect of an IR Swap, the fixed rate of interest (expressed as a per annum rate) which is used to calculate the fixed amounts that are notionally payable under the terms of such IR Swap.

"Swap Start Date" means, in respect of an IR Swap, the date specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, subject to adjustment in accordance with the First Tradable Date Convention.

"Swap Term" means, in respect of an IR Swap, the scheduled term of such IR Swap (for the avoidance of doubt prior to any adjustment in accordance with the Swap Business Day MF Convention) as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Swap Trading Day" means, in respect of an IR Swap and the relevant Quoted Currency and unless otherwise specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements:

- (i) if such Quoted Currency is USD, each Swap Business Day which is also a Strategy Calculation Day and such day is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on <http://www.sifma.org/Services/Holiday-Schedule/>;
- (ii) if such Quoted Currency is CAD, each Swap Business Day which is also a Strategy Calculation Day, and on such day commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in New York, and such day is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on <http://www.sifma.org/Services/Holiday-Schedule/>; or
- (iii) if such Quoted Currency is EUR, each Swap Business Day which is also a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in London; or
- (iv) otherwise, each Swap Business Day which is also a Strategy Calculation Day.

"Target Annuity" means, in respect of a Forward Swap Combination Contract, the value specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Timely and Tradable Level Table" means the following table:

	Timely/ Tradable/	Provisions

Style	Quoted Currency	
IR-Swap	Timely	<p>The Timely Level in respect of Forward Swap Contract <i>FS</i> and any day <i>t</i> shall be determined as follows:</p> $L_t(FS) = (FSR_s(FS) - FSR_t(FS)) \times A_t(FS)$ <p>If such day <i>t</i> is not a Swap Trading Day then $L_t(FS)$ shall be the Timely Level in respect of Forward Swap Contract <i>FS</i> and the immediately preceding Swap Trading Day.</p> <p>Where:</p> <p>"FSR_s(FS)" means the Swap Rate in respect of such Forward Swap Contract <i>FS</i> and Execution Start Date <i>s</i>, as determined in accordance with the definition of $FSR_t(FS)$ provided that each reference to "day <i>t</i>" is deemed to be a reference to "Execution Start Date <i>s</i>";</p> <p>"L_t(FS)" means the Timely Level in respect of such Forward Swap Contract <i>FS</i> and day <i>t</i>;</p> <p>"FSR_t(FS)" means the Swap Rate in respect of such Forward Swap Contract <i>FS</i> and day <i>t</i>, as determined in accordance with the formula below:</p> $FSR_t(FS) = BSR_t(FS) + SRA_{t-1}(FS)$ <p>If Fwd Period is less than or equal to FP Cutoff, and if such day <i>t</i> is a day on which $SR_t(S, CSS)$ is not published or not available on such day <i>t</i>, then $FSR_t(FS)$ shall be deemed to be the Swap Rate $SR_t(FS, PSS)$ in respect of Forward Swap Contract <i>FS</i>, and day <i>t</i>, as determined in accordance with the Previous Swap Source <i>PSS</i>.</p> <p>If Fwd Period is greater than the FP Cutoff, and if such day <i>t</i> is a day on which the Current Swap Source <i>CSS</i> does not publish or make available on date <i>t</i> any value used in the calculation of $FSR_t(FS)$ (each such value, an "Affected Value"), then $FSR_t(FS)$ in respect of such day <i>t</i> shall be calculated by the Index Sponsor using, in place of any Affected Values, such values published or made available by the Previous Swap Source <i>PSS</i> on day <i>t</i>;</p> <p>"BSR_t(FS)" means the Base Swap Rate in respect of such Forward Swap Contract <i>FS</i> and day <i>t</i>, as determined in accordance with the formula below:</p> $BSR_t(FS) = \begin{cases} \text{if Fwd Period} \leq \text{FP Cutoff: } SR_t(S, CSS) \\ \text{if Fwd Period} > \text{FP Cutoff: } IFR_t(FS, CSS) \end{cases}$ <p>"SRA_{t-1}(FS)" means the Swap Rate Adjustment in respect of such Forward Swap Contract <i>FS</i> and day <i>t-1</i>, as determined in accordance with the formula below:</p> $SRA_{t-1}(FS) = \begin{cases} \text{if Fwd Period} \leq \text{FP Cutoff: } SR_{t-1}(FS, PSS) - SR_{t-1}(S, PSS) \\ \text{if Fwd Period} > \text{FP Cutoff: } SR_{t-1}(FS, PSS) - IFR_{t-1}(FS, PSS) \end{cases}$ <p>Where:</p> <p>"Fwd Period" means the number of Swap Business Days, days, weeks, months or years from and including day <i>t</i> to (but excluding) the Swap Start Date in respect of the Forward Swap Contract <i>FS</i>;</p>

"**FP Cutoff**" means the Forward Period Cutoff as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall be 30 Swap Business Days;

"**Current Swap Source CSS**" means the Current Swap Source in respect of Reference Spot Swap Contract *S* or Forward Swap Contract *FS*;

"**Previous Swap Source PSS**" means the Previous Swap Source in respect of Reference Spot Swap Contract *S* or Forward Swap Contract *FS*;

"**Swap Source SS**" may be the Current Swap Source *CSS* or the Previous Swap Source *PSS* (as applicable).

"**Reference Spot Swap Contract S**" means the Reference Spot Swap Contract in respect of Forward Swap Contract *FS* and day *t*;

"**SR_t(S,CSS)**" means the Swap Rate published by the Current Swap Source *CSS* in respect of Reference Spot Swap Contract *S* on day *t*, as determined by the Strategy Sponsor;

"**SR_t(FS,PSS)**" means the Swap Rate in respect of Forward Swap Contract *FS* and day *t*, as determined in accordance with the Previous Swap Source *PSS*;

"**SR_{t-1}(FS,PSS)**" means the Swap Rate in respect of Forward Swap Contract *FS* and Swap Business Day *t-1*, as determined in accordance with the Previous Swap Source *PSS*;

"**SR_{t-1}(S,PSS)**" means the Swap Rate in respect of Reference Spot Swap Contract *S* and Swap Business Day *t-1*, as determined in accordance with the Previous Swap Source *PSS*; and

"**t-1**" means the Swap Business Day immediately preceding day *t*;

"**IFR_t(FS,CSS)**" means the Interpolated Forward Rate in respect of Forward Swap Contract *FS*, Current Swap Source *CSS* and day *t*;

"**IFR_t(FS,SS)**" means the Interpolated Forward Rate in respect of such Forward Swap Contract *FS*, Swap Source *SS* and day *t*, as determined in accordance with the formula below:

$$IFR_t(FS, SS) = \frac{ISR_t(S_{Fwd+Mat}, SS) \times IA_t(S_{Fwd+Mat}) - ISR_t(S_{Fwd}, SS) \times IA_t(S_{Fwd})}{IA_t(S_{Fwd+Mat}) - IA_t(S_{Fwd})}$$

Where:

"**Mat**" means the number of days, weeks, months or years of the Swap Term in respect of the Forward Swap Contract *FS*. For the avoidance of doubt, in case of a 1y10y IR Swap this would be 10 years;

"**S_{Fwd+Mat}**" means the Reference Spot Swap Contract *S_{Fwd+Mat}* in respect of Forward Swap Contract *FS*, in respect of which the Swap Maturity Date in respect of such Reference Spot Swap Contract is the Swap Maturity Date in respect of Forward Swap Contract *FS*;

"**S_{Fwd}**" means the Reference Spot Swap Contract *S_{Fwd}* in respect of Forward Swap Contract *FS*, in respect of which the Swap Maturity Date in respect of

such Reference Spot Swap Contract is the Swap Effective Date in respect of Forward Swap Contract FS;

" $ISR_t(S_{Fwd+Mat}, SS)$ " means the Interpolated Spot Rate in respect of Reference Spot Swap Contract $S_{Fwd+Mat}$, the Swap Source SS and the day t ;

" $ISR_t(S_{Fwd}, SS)$ " means the Interpolated Spot Rate in respect of Reference Spot Swap Contract S_{Fwd} , the Swap Source SS and the day t ;

" $A_t(S_{Fwd+Mat})$ " means the Annuity in respect of Reference Spot Swap Contract $S_{Fwd+Mat}$ and day t ;

" $A_t(S_{Fwd})$ " means the Annuity in respect of Reference Spot Swap Contract S_{Fwd} and day t ;

" $IFR_{t-1}(FS, SS)$ " means the Interpolated Forward Rate in respect of such Forward Swap Contract FS, Swap Source SS and day $t-1$;

" $ISR_t(S, SS)$ " means the Interpolated Spot Rate in respect of such Reference Spot Swap Contract S, Swap Source SS and day t , as determined in accordance with the formula below:

$$ISR_t(S, SS) = SR_t(S_{ST}, SS) + [SR_t(S_{LT}, SS) - SR_t(S_{ST}, SS)] \times \frac{DCF(S_{ST}, S)}{DCF(S_{ST}, S_{LT})}$$

" $IA_t(S)$ " means the Interpolated Annuity in respect of such Reference Spot Swap Contract S, and day t , as determined in accordance with the formula below:

$$IA_t(S) = A_t(S_{ST}) + [A_t(S_{LT}) - A_t(S_{ST})] \times \frac{DCF(S_{ST}, S)}{DCF(S_{ST}, S_{LT})}$$

Where:

"ST" means the Short Dated Term, which is (i) the Swap Term of Reference Spot Swap Contract S or (ii) the term of the relevant Deposit Instrument, as applicable, if such term is scheduled to be published by the Current Annuity Source CAS. If such term is not scheduled to be published by the Current Annuity Source CAS, ST shall be the term closest to (but shorter than) the Swap Term of Reference Spot Swap Contract S that is scheduled to be published by the Current Annuity Source CAS, as applicable;

" S_{ST} " means (i) the Reference Spot Swap Contract S in respect of Forward Swap Contract FS, where the Swap Term shall be the Short Dated Term ST, or (ii) the relevant Deposit Instrument with term ST published by the Current Annuity Source CAS, as applicable;

" $SR_t(S_{ST}, SS)$ " means (i) if S_{ST} is an IR Swap, the Swap Rate in respect of Reference Spot Swap Contract S_{ST} , and day t , published by the Swap Source SS in respect of such Reference Spot Swap Contract S_{ST} on day t , or (ii) if ST is a Deposit Instrument, the relevant rate with term ST as published by the Current Annuity Source CAS on day t ;

" $A_t(S_{ST})$ " means (i) if S_{ST} is an IR Swap, the Annuity in respect of Reference Spot Swap Contract S_{ST} , and day t , or (ii) if S_{ST} is a Deposit Instrument, the Day Count Fraction in respect of such Deposit Instrument, the Swap Floating Leg Conventions in respect of Forward Swap Contract FS, day t and the term

of such Deposit Instrument;

"**LT**" means the Long Dated Swap Term, which is (i) the Swap Term of Reference Spot Swap Contract *S* or (ii) the term of the relevant Deposit Instrument, as applicable, if such term is scheduled to be published by the Current Annuity Source *CAS*. If such term is not scheduled to be published by the Current Annuity Source *CAS*, *LT* shall be the term closest to (but longer than) the Swap Term of Reference Spot Swap Contract *S* that is scheduled to be published by the Current Annuity Source *CAS*;

"**S_{LT}**" means (i) the Reference Spot Swap Contract *S* in respect of Forward Swap Contract *FS*, where the Swap Term shall be the Long Dated Swap Term *LT*, or (ii) the relevant Deposit Instrument with term *LT* published by the Current Annuity Source *CAS*, as applicable;

"**SR_t(S_{LT},SS)**" means (i) if *S_{LT}* is an IR Swap, the Swap Rate in respect of Reference Spot Swap Contract *S_{LT}*, and day *t*, published by the Swap Source *SS* in respect of such Reference Spot Swap Contract *S_{LT}* on day *t*, or (ii) if *LT* is a Deposit Instrument, the relevant rate with term *LT* as published by the Current Annuity Source *CAS* on day *t*;

"**A_t(S_{LT})**" means (i) if *S_{LT}* is an IR Swap, the Annuity in respect of Reference Spot Swap Contract *S_{LT}*, and day *t*, or (ii) if *S_{LT}* is a Deposit Instrument, the Day Count Fraction in respect of such Deposit Instrument, the Swap Floating Leg Conventions in respect of Forward Swap Contract *FS*, day *t* and the term of such Deposit Instrument;

"**DCF(S_{ST},S)**" means the number of days in the period commencing on (and including) the Swap Maturity Date of Reference Spot Swap Contract *S_{ST}* and ending on (and excluding) the Swap Maturity Date of the Reference Spot Swap Contract *S*, divided by 365;

"**DCF(S_{ST},S_{LT})**" means the number of days in the period commencing on (and including) the Swap Maturity Date of Reference Spot Swap Contract *S_{ST}* and ending on (and excluding) the Swap Maturity Date of the Reference Spot Swap Contract *S_{LT}*, divided by 365 (or, if zero, the $DCF(S_{ST}, S_{LT})$, shall be one (1)).

"**A_t(FS)**" means the Annuity in respect of Forward Swap Contract *FS* and day *t*, as determined in accordance with the following formula:

$$A_t(FS) = A_t(FS, CAS, AM1) + AA_{t-1}(FS, PAS, AM1, AM2)$$

Where:

"**A_t(FS,CAS,AM1)**" means the Annuity in respect of such Forward Swap Contract *FS* and day *t*, as determined in accordance with the Current Annuity Source *CAS* and the Annuity Model *AM1*. If such day *t* is not a day on which the Current Annuity Source *CAS* is scheduled to publish any value used in the methodology of the Annuity Model *AM1* for the purposes of calculating such Annuity, or any such value is otherwise not published or available on such day *t* (each such value, an "**Affected Value**"), then $A_t(FS, CAS, AM1)$ in respect of such day *t* shall be calculated by the Index Sponsor using, in place of any Affected Values, such values published by the Previous Annuity Source *PAS* on day *t*;

"**AA_{t-1}(FS,PAS,AM1,AM2)**" means, the Annuity Adjustment in respect of Forward Swap Contract *FS* and Swap Business Day *t-1*, a value which aims

		<p>to adjust the annuity calculated in accordance with the Annuity Model AM1 and using data published by the Current Annuity Source CAS so that it reflects as closely as possible the level of the annuity of such Forward Swap Contract <i>FS</i> at which hypothetical transactions could be executed, as determined in accordance with the following formula:</p> $AA_{t-1}(FS, PAS, AM1, AM2) = A_{t-1}(FS, PAS, AM2) - A_{t-1}(FS, PAS, AM1)$ <p>"A_{t-1}(FS,PAS,AM2)" means the Annuity in respect of such Forward Swap Contract <i>FS</i> and Swap Business Day <i>t-1</i>, as determined in accordance with the Previous Annuity Source <i>PAS</i> and the Annuity Model <i>AM2</i>;</p> <p>"A_{t-1}(FS,PAS,AM1)" means the Annuity in respect of such Forward Swap Contract <i>FS</i> and Swap Business Day <i>t-1</i>, as determined in accordance with the Previous Annuity Source <i>PAS</i> and the Annuity Model <i>AM1</i>;</p> <p>"Current Annuity Source CAS" means the Current Annuity Source in respect of Forward Swap Contract <i>FS</i> and the Annuity Model <i>AM1</i>;</p> <p>"Previous Annuity Source PAS" means the Previous Annuity Source in respect of Forward Swap Contract <i>FS</i> and the Annuity Model <i>AM1</i> or the Annuity Model <i>AM2</i>, as the case may be; and</p> <p>"t-1" means the Swap Business Day immediately preceding day <i>t</i>;</p> <p>"Annuity" in respect of a Forward Swap Contract <i>FS</i>, Annuity Source <i>AS</i>, Annuity Model <i>AM</i>, and day <i>t</i> shall be determined in accordance with the following formula:</p> $A_t(FS, AS, AM) = \sum_i DCF(t_i, t_{i+1}) \times \frac{df(SED, t_{i+1}, AS, AM)}{df(SED, SDD, AS, AM)}$ <p>Where the summation is taken over the Swap Effective Date and each subsequent Swap Fixed Leg Payment Date <i>t_i</i> in respect of Forward Swap Contract <i>FS</i>, and:</p> <p>"AS" means the Current Annuity Source or Previous Annuity Source, as applicable, in respect of a Forward Swap Contract <i>FS</i>;</p> <p>"AM" means Annuity Model <i>AM1</i> or Annuity Model <i>AM2</i>, as applicable, in respect of a Forward Swap Contract <i>FS</i>;</p> <p>"DCF(t_i, t_{i+1})" means the Day Count Fraction for the fixed amounts notionally payable in respect of such Forward Swap Contract in respect of day <i>t_i</i> and day <i>t_{i+1}</i>;</p> <p>"df(SED, SDD, AS, AM)" means the Discount Factor in respect of the Swap Effective Date <i>SED</i> of the relevant Reference Spot Swap Contract, the Swap Discount Date <i>SDD</i> of Forward Swap Contract <i>FS</i>, the Annuity Source <i>AS</i>, and the Annuity Model <i>AM</i>; and</p> <p>"df(SED, t_{i+1}, AS, AM)" means the Discount Factor in respect of the Swap Effective Date <i>SED</i> of the relevant Reference Spot Swap Contract, day <i>t_{i+1}</i>, the Annuity Source <i>AS</i> and the Annuity Model <i>AM</i>.</p>
IR-Swap	Tradable	The Tradable Level of a Component on a Strategy Calculation Day shall be the Timely Level in respect of such day, unless a Non-Tradable Event is occurring in respect of such Component and such Strategy Calculation Day, in which case the

		Tradable Level of a Component shall be determined in accordance with the definition of the Timely Level of such Component, provided that references to "t" in the definitions used to determine the Timely Level shall be deemed to be replaced by reference to the first day following such Strategy Calculation Day on which no Non-Tradable Event is occurring and which is a Strategy Calculation Day (such day, the " Resolution Day " for the purposes of this definition of Tradable Level only), provided that if the Resolution Day would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
IR-Swap	Quoted Currency	The Quoted Currency of a Component shall be as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.
IR-Swap-Combina tion	Timely	<p>The Timely Level in respect of Forward Swap Combination Contract FSC and any day t shall be determined as follows:</p> $L_t(FSC) = \sum_i CW(FS_i) \times AF_s(FS_i) \times L_t(FS_i)$ <p>If such day t is not a Swap Trading Day then $L_t(FSC)$ shall be the Timely Level in respect of Forward Swap Combination Contract FSC and the immediately preceding Swap Trading Day.</p> <p>Where the summation is taken over each Forward Swap Contract i included in the Forward Swap Combination Contract on Strategy Calculation Day t, and:</p> <p>"CW_t(FS_i)" means the Combination Weight in respect of Forward Swap Contract FS_i in such Forward Swap Combination Contract FSC and any day t;</p> <p>"AF_s(FS_i)" means, in respect of Forward Swap Contract FS_i, a value which aims to adjust the annuity of Forward Swap Contract FS to the Target Annuity, as determined as follows:</p> <p>(i) if no Target Annuity is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, $AF_s(FS_i)$ shall be equal to one (1);</p> <p>(ii) if a Target Annuity is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, $AF_s(FS_i)$ shall be determined in accordance with the following formula:</p> $AF_s(FS_i) = \frac{TA(FSC)}{A_s(FS_i)}$ <p>Where:</p> <p>"TA(FSC)" means the Target Annuity in respect of Forward Swap Combination Contract FSC;</p> <p>"A_s(FS_i)" means the Annuity in respect of Forward Swap Contract FS_i and Decision Date s, as determined in accordance with the definition of $A_t(FS)$ provided that each reference to "day t" is deemed to be a reference to "Decision Date s" and each reference to "Forward Swap Contract FS" is deemed to be a reference to "Forward Swap Contract FS_i". If such Decision Date s is not a Swap Business Day, then each reference to "Decision Date s" is deemed to be a reference to the Swap Business Day immediately preceding such Decision Date s.</p> <p>"L_t(FS_i)" means the Timely Level in respect of Forward Swap Contract FS_i and any</p>

		day t . If Fwd Period in respect of Forward Swap Contract FS_i is less than or equal to FP Cutoff and if such day t is a day on which a Swap Rate $SR_t(S,CSS)$ of the Reference Spot Swap Contract S in respect of any Forward Swap Contract FS_i and day t , is not published or not available on such day t , then $FSR_t(FS_i)$ used to determine $L_t(FS_i)$ for all Forward Swap Contracts FS_i shall be deemed to be the Swap Rate $SR_t(FS_i,PSS)$ in respect of Forward Swap Contract FS_i , and day t , as determined in accordance with the Previous Swap Source PSS.
IR-Swap-Combina tion	Tradable	The Tradable Level of a Component on a Strategy Calculation Day shall be the Timely Level in respect of such day, unless a Non-Tradable Event is occurring in respect of such Component and such Strategy Calculation Day, in which case the Tradable Level of a Component shall be determined in accordance with the definition of the Timely Level of such Component, provided that references to " t " in the definitions used to determine the Timely Level shall be deemed to be replaced by reference to the first day following such Strategy Calculation Day on which no Non-Tradable Event is occurring and which is a Strategy Calculation Day (such day, the " Resolution Day " for the purposes of this definition of Tradable Level only), provided that if the Resolution Day would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
IR-Swap-Combina tion	Quoted Currency	The Quoted Currency of a Component shall be as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.
IR-Swap internal	Timely	<p>The Timely Level in respect of Forward Swap Contract FS and any day t shall be determined by the Strategy Sponsor as follows:</p> $L_t(FS) = (FSR_s(FS) - FSR_t(FS)) \times A_t(FS)$ <p>If such day t is not a Swap Trading Day then $L_t(FS)$ shall be the Timely Level in respect of Forward Swap Contract FS and the immediately preceding Swap Trading Day.</p> <p>Where:</p> <p>"$FSR_s(FS)$" means the Swap Rate in respect of such Forward Swap Contract FS and Execution Start Date s, as determined by the Strategy Sponsor, in accordance with Goldman Sachs internal market valuations, by reference to the values or levels of instruments that are (i) published by recognised third party data providers; and/or (ii) determined by Goldman Sachs in the ordinary course of its business.</p> <p>"$FSR_t(FS)$" means the Swap Rate in respect of such Forward Swap Contract FS and day t, as determined by the Strategy Sponsor, in accordance with Goldman Sachs internal market valuations, by reference to the values or levels of instruments that are (i) published by recognised third party data providers; and/or (ii) determined by Goldman Sachs in the ordinary course of its business.</p> <p>"$A_t(FS)$" means the Annuity in respect of Forward Swap Contract FS and day t, as determined by the Strategy Sponsor, in accordance with Goldman Sachs internal market valuations, by reference to the values or levels of instruments that are (i) published by recognised third party data providers; and/or (ii) determined by Goldman Sachs in the ordinary course of its business. For the avoidance of doubt, Annuity in respect of Forward Swap Contract FS corresponds to forward annuity convention and not spot annuity convention.</p>
IR-Swap	Tradable	The Tradable Level of a Component on a Strategy Calculation Day shall be the Timely Level in respect of such day, unless a Non-Tradable Event is occurring in respect of such Component and such Strategy Calculation Day, in which case the

internal		Tradable Level of a Component shall be determined in accordance with the definition of the Timely Level of such Component, provided that references to "t" in the definitions used to determine the Timely Level shall be deemed to be replaced by reference to the first day following such Strategy Calculation Day on which no Non-Tradable Event is occurring and which is a Strategy Calculation Day (such day, the " Resolution Day " for the purposes of this definition of Tradable Level only), provided that if the Resolution Day would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
IR-Swap internal	Quoted Currency	The Quoted Currency of a Component shall be as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.
IR-Swap-Combina tion internal	Timely	<p>The Timely Level in respect of Forward Swap Combination Contract <i>FSC</i> and any day <i>t</i> shall be determined as follows:</p> $L_t(FSC) = \sum_i CW(FS_i) \times AF_s(FS_i) \times L_t(FS_i)$ <p>If such day <i>t</i> is not a Swap Trading Day then $L_t(FSC)$ shall be the Timely Level in respect of Forward Swap Combination Contract <i>FSC</i> and the immediately preceding Swap Trading Day.</p> <p>Where the summation is taken over each Forward Swap Contract <i>i</i> included in the Forward Swap Combination Contract on Strategy Calculation Day <i>t</i>, and:</p> <p>"CW_t(FS_i)" means the Combination Weight in respect of Forward Swap Contract <i>FS_i</i> in such Forward Swap Combination Contract <i>FSC</i> and any day <i>t</i>;</p> <p>"AF_s(FS_i)" means, in respect of Forward Swap Contract <i>FS_i</i>, a value which aims to adjust the annuity of Forward Swap Contract <i>FS</i> to the Target Annuity, as determined as follows:</p> <ul style="list-style-type: none"> (i) if no Target Annuity is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, $AF_s(FS_i)$ shall be equal to one (1); (ii) if a Target Annuity is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, $AF_s(FS_i)$ shall be determined in accordance with the following formula: $AF_s(FS_i) = \frac{TA(FSC)}{A_s(FS_i)}$ <p>Where:</p> <p>"TA(FSC)" means the Target Annuity in respect of Forward Swap Combination Contract <i>FSC</i>;</p> <p>"A_t(FS)" means the Annuity in respect of Forward Swap Contract <i>FS</i> and day <i>t</i>, as determined by the Strategy Sponsor, in accordance with Goldman Sachs internal market valuations, by reference to the values or levels of instruments that are (i) published by recognised third party data providers; and/or (ii) determined by Goldman Sachs in the ordinary course of its business.</p> <p>"L_t(FS_i)" means the Timely Level in respect of Forward Swap Contract <i>FS_i</i> and any</p>

		day t , determined in line with the Style IR-Swap internal.
IR-Swap-Combination internal	Tradable	The Tradable Level of a Component on a Strategy Calculation Day shall be the Timely Level in respect of such day, unless a Non-Tradable Event is occurring in respect of such Component and such Strategy Calculation Day, in which case the Tradable Level of a Component shall be determined in accordance with the definition of the Timely Level of such Component, provided that references to "t" in the definitions used to determine the Timely Level shall be deemed to be replaced by reference to the first day following such Strategy Calculation Day on which no Non-Tradable Event is occurring and which is a Strategy Calculation Day (such day, the " Resolution Day " for the purposes of this definition of Tradable Level only), provided that if the Resolution Day would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
IR-Swap-Combination internal	Quoted Currency	The Quoted Currency of a Component shall be as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

GOLDMAN SACHS GENERAL INDEX PROVISIONS

Version 2.2

Dated: 16 May 2023

The following sections comprise the Goldman Sachs General Index Provisions:

Introduction, Application, Copyright and Incorporation

Section A: Determinations of the Index Sponsor and Index Calculation Agent

Section B: Change in Methodology, Index Committee and Termination

Section C: Availability and Publication of Index Values and Adjustments

Section D: Disclaimers

Section E: Conflicts of Interest

Section F: Risk Factors

Section G: ESG Disclosures

Introduction, Application, Copyright and Incorporation

1. Introduction

This document, the Goldman Sachs General Index Provisions (as may be amended from time to time as provided herein, the "**General Index Provisions**") comprises certain rules, disclaimers, risk factors and other information applicable to certain notional rules-based proprietary indices which Goldman Sachs International or its successor(s) (the "**Index Sponsor**") may create from time to time (each, a "**GS Index**" and together, the "**GS Indices**").

In respect of a GS Index, these General Index Provisions should be read in conjunction with the following documents (to the extent that they are specified to be applicable and/or incorporated by reference therein):

- (i) the relevant base description comprising certain rules, methodology, definitions, disclaimers, conflicts of interest and other information applicable to such GS Index (in respect of such GS Index, the "**Relevant Base Description**");
- (ii) the relevant description comprising certain other rules, methodology, definitions, disclaimers, conflicts of interest and other information applicable to such GS Index, if applicable (in respect of such GS Index, the "**Relevant General Description**"); and
- (iii) any other documentation element(s) referred to in such Relevant General Description and/or in such other documentation elements (the "**Other Relevant Documentation Elements**"), in each case, where such documentation element is specified to be applicable to such GS Index.

These General Index Provisions may be amended or modified from time to time at the discretion of the Index Sponsor in accordance with the terms set out herein and upon each amendment or modification this document shall be updated to a new version. Following an update, the most recent version shall be deemed to be in force from the date of such update and replace in its entirety the preceding version such that, in the event of any conflict between the preceding version and the most recent version, the most recent version shall prevail.

2. Application

These General Index Provisions, when read together with the Relevant Base Description, the Relevant General Description (if applicable) and the Other Relevant Documentation Elements in respect of a GS Index, will constitute the "**Index Rules**" in respect of such GS Index.

Capitalised terms used in these General Index Provisions but not defined herein have the meaning given to them in the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements, as the case may be. In respect of each GS Index, in the event of any inconsistency between the provisions of the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements and the provisions of these General Index Provisions, the provisions of the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements will prevail. In respect of each GS Index, in the event of any inconsistency between the provisions of the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements, the provisions shall prevail according to the order specified in such documentation elements.

A GS Index may be linked to one or more other GS Indices, each of which may in turn be linked to one or more other GS Indices, and so on (each such index, an "**Underlying GS Index**"). In such case, potential investors should also refer to the relevant index description or rules relating to each such Underlying GS Index (which may or may not comprise these General Index Provisions, a Relevant Base Description, a Relevant General Description or Other Relevant Documentation Elements) for the specific description, methodology, rules, disclaimers, risk factors and/or conflicts of interest applicable to such Underlying GS Index.

In respect of each GS Index, the Index Sponsor will appoint a calculation agent (in respect of such GS

Index, the "**Index Calculation Agent**") as specified in the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements to make certain determinations and calculations and to publish the value of such GS Index as more particularly described in the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements. The Index Sponsor does not have any obligation to ensure that the relevant Index Calculation Agent continues to publish, and the Index Sponsor may discontinue publication of, the value of any GS Index at any time. The Index Sponsor may at any time in respect of a GS Index appoint one or more replacement Index Calculation Agents, including itself or an affiliate.

The Index Sponsor may also appoint other agents and/or third party data providers in relation to a GS Index to obtain certain inputs necessary to compute the value of such GS Index. The Index Sponsor does not have any obligation to ensure that these agents and/or third party providers continue to provide inputs necessary to compute the value of a GS Index. The Index Sponsor may change any agent and/or third party data provider appointed in respect of a GS Index at any time.

None of the GS Indices are sponsored, endorsed, sold, or promoted by the sponsor of any underlying index, financial instrument, asset, price, level, component or other underlying (each, an "**Index Component**") comprising, directly or indirectly, a GS Index, other than where the Index Sponsor is also the sponsor of such Index Component. Such sponsor(s) does(do) not make any representation whatsoever, whether express or implied, either as to the results to be obtained from the use of any such Index Component and/or the prices, levels or values at which any Index Component stands at any particular time on any particular date or otherwise.

Each GS Index is a synthetic product and the exposure of each GS Index to any position in an Index Component (which may itself represent a notional investment in one or more other Index Components) is purely notional. There is no actual portfolio of underlying indices, financial instruments, assets or other underlyings or components to which any person is entitled or in which any person has any ownership interest (whether legal, beneficial or otherwise), and there is no obligation on the Index Sponsor or the Index Calculation Agent to promote or purchase, enter into, and/or hold positions in any Index Component, or transactions or investments that are linked to any Index Component at any time. References in any Index Rules to any investment, disposal or acquisition of any Index Component should not be construed as imposing any obligation on the Index Sponsor, the Index Calculation Agent or any person to actually acquire or dispose of any such Index Component, investment or other property but are references to and relate solely to the calculation of the value of each GS Index.

Unless otherwise specified in the Strategy Description, the methodology for each Strategy does not pursue any environmental, social and governance ("**ESG**") objectives or take into account any ESG factors.

Investors in any product linked to a GS Index should read and understand these General Index Provisions. **IN PARTICULAR, PRIOR TO MAKING ANY INVESTMENT DECISION, INVESTORS MUST READ SECTION D: DISCLAIMERS, SECTION E: CONFLICTS OF INTEREST AND SECTION F: RISK FACTORS OF THESE GENERAL INDEX PROVISIONS, IN ADDITION TO THE ADDITIONAL DISCLAIMERS, CONFLICTS OF INTEREST AND RISK FACTORS (IF ANY) SET OUT IN THE RELEVANT BASE DESCRIPTION, THE RELEVANT GENERAL DESCRIPTION AND/OR THE OTHER RELEVANT DOCUMENTATION ELEMENTS IN RESPECT OF EACH GS INDEX.**

3. Copyright

The Index Sponsor owns the copyright and all other rights to the applicable GS Indices. No use or publication may be made of a GS Index or any value thereof without the prior written approval of the Index Sponsor.

4. Incorporation

Any or all of the provisions and sections of these General Index Provisions may be incorporated into and made applicable to the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements in respect of a GS Index. When the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation

Elements in respect of a GS Index incorporates these General Index Provisions, unless such documentation element states otherwise, the version of these General Index Provisions in effect as of the calendar day immediately prior to the date of such documentation elements to fall latest in time shall be deemed to be applicable, as may be updated from time to time.

Section A: Determinations of the Index Sponsor and Index Calculation Agent

In respect of each GS Index, all determinations and calculations that involve the exercise of expert judgement or discretion (other than those that are purely mechanical and, where relevant, implemented in accordance with the relevant Index Rules) made by the Index Sponsor or the Index Calculation Agent, as applicable, in respect of a GS Index shall be made in good faith and in a commercially reasonable manner. All such determinations and calculations will be made in accordance with policies and procedures of the Index Sponsor or the Index Calculation Agent (as applicable) and will (in the absence of manifest error) be final, conclusive and binding. Neither the Index Sponsor nor the Index Calculation Agent shall have any responsibility to any person for any errors or omissions in respect of any determination or calculation. In making any determinations with respect to a GS Index, the Index Sponsor and Index Calculation Agent do not owe any person any fiduciary duties in respect of a GS Index and are not required to take the interests of any person into account in making any determination with respect thereto.

Section B: Change in Methodology, Index Committee and Termination

1. Change in Methodology

In calculating and determining the value of any GS Index, the Index Calculation Agent will, subject as provided below, employ the methodology described in the relevant Index Rules with respect to calculating and determining the value of the GS Index and its application of such methodology shall (in the absence of manifest error) be conclusive and binding. While the Index Calculation Agent expects to employ the methodology described in the relevant Index Rules (in respect of each GS Index, the "**Index Methodology**") at all times to calculate and determine the value of each GS Index, it is possible that market, legal, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to, any changes to or any suspension or termination of or any other events affecting a GS Index and/or any Index Component (each as more particularly described in the relevant Index Rules in respect of such GS Index), or any other events affecting the ability of a third party data source to supply the necessary data for the purposes of calculating the value of a GS Index) will arise that would, in the view of the Index Sponsor, necessitate or make desirable a modification or change of such Index Methodology in order to preserve the ability of such GS Index to accomplish its intended commercial purpose. The Index Sponsor reserves the right to make any other changes to the composition of a GS Index or to the relevant Index Methodology or to any third party data source used to calculate the value of a GS Index as the Index Sponsor may, in its sole discretion, determine to be necessary as a result of market, legal, regulatory, judicial, financial, fiscal or other circumstances.

Accordingly, the Index Sponsor shall be entitled to make such modifications and/or changes to the Index Methodology or to any data obtained from a third party data source which is used to calculate the value of such GS Index without notice as it in its sole and absolute discretion deems appropriate, necessary or desirable, including (without limitation):

- (i) to correct any manifest error or proven error contained in the Index Rules;
- (ii) to cure, correct or supplement any ambiguity or contradictory or defective provision contained in the Index Rules;
- (iii) change the frequency of calculation of the value of a GS Index and to make such adjustment to the Index Methodology as it determines, in good faith and in a commercially reasonable manner, to be necessary to take account of the amended frequency of calculation;
- (iv) to permit the Index Calculation Agent to continue calculating and determining the value of the GS Index if market, legal, regulatory, judicial, financial, fiscal or other circumstances arise which were not reasonably foreseeable by the Index Sponsor as of the date of the relevant Index Rules and which have not been deliberately caused by the Index Sponsor, and such circumstances would prevent the Index Calculation Agent from calculating and determining the value of the GS Index, and would necessitate a modification or change of the relevant Index Methodology in order for the value of such GS Index to continue to be calculated and determined notwithstanding the relevant circumstances; and/or
- (v) to preserve the intended commercial purpose of such GS Index, where such modification and/or change is of a formal, minor or technical nature.

In making any such modifications described above in respect of a GS Index, the Index Sponsor and/or Index Committee, as applicable, will ensure that such modifications or changes will result in a methodology that is consistent in its intended commercial purpose with the relevant Index Methodology in respect of such GS Index. However, the Index Sponsor and Index Calculation Agent do not owe any person any fiduciary duties in respect of a GS Index and are not required to take the interests of any person into account in making any such modifications with respect thereto.

In the event that ambiguities arise in the calculation of the value of any GS Index, the Index Sponsor will resolve such ambiguities and, if necessary for resolution, make changes to the composition of such GS Index or the methodology of calculating such GS Index. In the event that the Index Sponsor determines that any calculation or determination in respect of any GS Index is incorrect, the Index Sponsor may, if practicable, correct calculations or determinations and publish or cause to be published

such correct calculations or determinations.

In the event that the value of any Index Component which is utilised for any calculation or determination in respect of a GS Index is subsequently corrected, the Index Calculation Agent may, if practicable, use such corrected value for the purpose of such calculation or determination, and, to the extent necessary and practicable, may adjust any prior calculation or determination.

2. Index Committee

The Index Sponsor may, but is not required to, establish an index committee (the "**Index Committee**") in respect of a GS Index. The Index Committee, if established, may comprise employees of the Index Sponsor and at least an equal number of external members with a relevant academic or professional background, as selected by the Index Sponsor in its sole and absolute discretion. The Index Sponsor may propose any modifications and/or changes to the Index Methodology of the kind described in paragraphs (i) to (v) above, without limitation, to the Index Committee for its consideration.

If an Index Committee is established, a meeting of the Index Committee will be considered quorate if (a) a majority of the Index Committee is in attendance, and (b) at least half of those in attendance are external members. For any decision of the Index Committee to be approved, the Index Committee must vote by a simple majority, including at least one external member, to approve such decision.

The role, responsibilities and powers of the Index Committee, if established, will be pre-defined by the Index Sponsor and will be limited to approving changes to the relevant Index Methodology or to any data obtained from a third party data source which is used to calculate the value of such GS Index, in each case where the Index Sponsor has made a proposal as it is permitted to do so and as contemplated above. In addition, the Index Committee, if established, may be given the power to make proposals to cure, correct or supplement ambiguities, defective provisions, errors, omissions and inconsistencies and to make administrative changes that are not economically significant. The Index Calculation Agent may from time to time consult with the Index Committee on matters of interpretation with respect to the methodology of a GS Index. For the avoidance of doubt, the Index Committee, if established, will not have greater powers than the Index Sponsor at any time.

In making or proposing any such modifications described above in respect of a GS Index, the Index Committee will ensure that such modifications or changes will result in a methodology that is consistent with the intended commercial purpose of such GS Index.

The Index Committee, if established, will keep a record of any approved amendments. Such record, and the agenda and minutes of each and any meeting of the Index Committee, will be made available to investors upon their request using the contact details given under Section C: *Availability and Publication of Index Values and Adjustments* of these General Index Provisions.

3. Termination

The Index Sponsor may, in its sole and absolute discretion, at any time, for any reason (including without limitation, because it is no longer possible or practicable to calculate the value of a GS Index) and without notice, terminate the calculation and publication of any GS Index.

Section C: Availability and Publication of Index Values and Adjustments

1. General

Unless otherwise specified in the Relevant Base Description, the Relevant General Description and/or the Other Relevant Documentation Elements, the Index Calculation Agent will make available the value of each GS Index on each Index Business Day.

In respect of each GS Index, in the event that the value of any Index Component which is utilized for any calculation or determination of the value of such GS Index or the value of such GS Index is subsequently corrected, the Index Sponsor may determine the adjustment or correction to be made to the terms and values of such GS Index and, to the extent necessary or desirable, will adjust any relevant terms and values of such GS Index to account for such correction.

The Index Sponsor may, following the occurrence of certain exchange rate disruption event, non-tradable events, market disruption events or force majeure events (each a “**Disruption Event**”, as more particularly described in the Relevant Base Description, Relevant General Description and/or the Other Relevant Documentation Elements) in respect of a GS Index, make certain determinations (as more particularly described in the relevant Base Description and/or the relevant Index Supplement) in respect of such GS Index.

2. Index values

The value in respect of each GS Index will be published on the relevant index publication data source or any successor page (as more particularly described in the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements) in respect of such GS Index.

Information about the past performance of a GS Index and its volatility can be obtained at the relevant index publication data source.

3. Miscellaneous

In respect of each GS Index, the availability of any publication described in this Section C: *Availability and Publication of Index Values and Adjustments* may be restricted by means determined as appropriate for such purpose by the Index Sponsor or Index Calculation Agent, in each case in its sole and absolute discretion, including, but not limited to, password protection restricting access to a limited set of persons in accordance with arrangements agreed between the Index Sponsor or Index Calculation Agent and such persons.

The Index Sponsor may, at any time and without notice, change the place and/or method of publication of the value in respect of any GS Index and/or change the frequency of publication of the value in respect of any GS Index, in its sole and absolute discretion.

Each of the Index Sponsor and the Index Calculation Agent accepts no legal liability to any person for publishing or not continuing to publish for any period of time the value of any GS Index at any particular place or any particular time.

Section D: Disclaimers

The following list of disclaimers does not purport to be a complete list or explanation of all the disclaimers associated with the GS Indices.

POTENTIAL INVESTORS SHOULD REFER TO THE RELEVANT BASE DESCRIPTION, THE RELEVANT GENERAL DESCRIPTION AND/OR THE OTHER RELEVANT DOCUMENTATION ELEMENTS IN RESPECT OF EACH GS INDEX FOR SPECIFIC DISCLAIMERS RELATING TO SUCH GS INDEX.

THE GS INDICES ARE TRADEMARKS OF THE GOLDMAN SACHS GROUP.

THE GOLDMAN SACHS GROUP DOES NOT GUARANTEE THE QUALITY, ACCURACY AND/OR COMPLETENESS OF A GS INDEX, ITS METHODOLOGY, ITS CALCULATION, ANY DATA OR INFORMATION INCLUDED THEREIN, OR ANY DATA OR INFORMATION ON WHICH IT IS BASED, OR THE INDEX RULES AND THE INDEX SPONSOR SHALL HAVE NO LIABILITY FOR ANY ERRORS, OMISSIONS, DELAYS OR INTERRUPTIONS HEREIN OR THEREIN OR RELATING TO ANY OF SUCH MATTERS ON THE PART OF ANY THIRD PARTY OR OTHERWISE.

NEITHER THE INDEX SPONSOR NOR THE INDEX CALCULATION AGENT (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) SHALL HAVE ANY RESPONSIBILITY TO ANY PERSON (WHETHER AS A RESULT OF NEGLIGENCE OR OTHERWISE) FOR ANY DETERMINATION MADE OR ANYTHING DONE (OR OMITTED TO BE DETERMINED OR DONE), INCLUDING WITHOUT LIMITATION ANY AMENDMENTS TO OR SUBSTITUTIONS OF ANY INDEX COMPONENTS, IN RESPECT OF ANY GS INDEX OR PUBLICATION OF THE VALUE OF ANY GS INDEX (OR THE FAILURE TO PUBLISH THE VALUE OF ANY GS INDEX) AND ANY USE TO WHICH ANY PERSON MAY PUT ANY GS INDEX OR THE VALUE OF ANY GS INDEX. EACH OF THE INDEX SPONSOR AND THE INDEX CALCULATION AGENT ACTS AS PRINCIPAL AND NOT AS FIDUCIARY AND OWES NO FIDUCIARY DUTIES IN RESPECT OF EACH GS INDEX.

IN CALCULATING THE VALUE OF ANY GS INDEX, THE INDEX CALCULATION AGENT WILL OBTAIN AND USE DATA AND INFORMATION FROM THIRD PARTY SOURCES. NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) WILL INDEPENDENTLY VERIFY SUCH INFORMATION, GUARANTEES THE QUALITY, ACCURACY AND/OR THE COMPLETENESS OF SUCH DATA OR INFORMATION AND CONSEQUENTLY NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) GUARANTEES THE QUALITY, ACCURACY AND/OR COMPLETENESS OF ANY GS INDEX. NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) SHALL BE LIABLE (WHETHER IN CONTRACT, TORT OR OTHERWISE) TO ANY PERSON FOR ANY INACCURACY, OMISSION, MISTAKE OR ERROR IN THE COMPUTATION OR DISSEMINATION OF THE VALUE OF ANY GS INDEX AND NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR IS UNDER ANY OBLIGATION TO ADVISE ANY PERSON OF ANY INACCURACY, OMISSION, MISTAKE OR ERROR IT BECOMES AWARE OF.

NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) MAKES ANY EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES AS TO (I) THE ADVISABILITY OF PURCHASING OR ASSUMING ANY RISK IN CONNECTION WITH ANY TRANSACTION LINKED TO ANY GS INDEX, (II) THE VALUE OF ANY GS INDEX AT ANY PARTICULAR TIME ON ANY PARTICULAR DATE, (III) THE RESULTS TO BE OBTAINED BY ANY INVESTOR IN A PRODUCT LINKED TO THE PERFORMANCE OF ANY GS INDEX OR ANY INDEX COMPONENT, OR (IV) ANY

OTHER MATTER.

INVESTORS CONSIDERING ACQUIRING ANY PRODUCT LINKED TO A GS INDEX SHOULD CONSULT THEIR OWN ACCOUNTING, TAX, INVESTMENT AND LEGAL ADVISORS BEFORE DOING SO. NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) IS ACTING AS AN ADVISOR OR FIDUCIARY.

BEFORE INVESTORS INVEST IN ANY PRODUCT LINKED TO A GS INDEX, THEY MUST READ AND UNDERSTAND THE INDEX RULES SETTING OUT THE RULES, METHODOLOGY, DEFINITIONS, DISCLAIMERS, CONFLICTS OF INTEREST, RISK FACTORS AND OTHER INFORMATION APPLICABLE TO SUCH GS INDEX. IN PARTICULAR, AN INVESTOR MUST PAY PARTICULAR ATTENTION TO THE CONFLICTS OF INTEREST AND RISK FACTORS APPLICABLE TO SUCH GS INDEX SET OUT IN THE INDEX RULES.

NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) MAKES, AND EACH OF THEM DISCLAIMS, ANY EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY GS INDEX OR ANY DATA OR INFORMATION INCLUDED THEREIN OR ANY DATA OR INFORMATION ON WHICH IT IS BASED.

EACH GS INDEX HAS BEEN STRUCTURED, THE VALUE OF EACH GS INDEX IS CALCULATED AND DETERMINATIONS RELATING TO EACH GS INDEX ARE MADE, WITHOUT REGARD TO ANY TRANSACTION LINKED TO SUCH GS INDEX. THE INDEX SPONSOR AND THE INDEX CALCULATION AGENT HAVE NO OBLIGATION TO TAKE THE INTERESTS OF ANY PERSON INTO CONSIDERATION IN STRUCTURING A GS INDEX, CALCULATING THE VALUE OF SUCH GS INDEX, EXERCISING ANY DISCRETION IN RELATION TO ANY GS INDEX OR MAKING DETERMINATIONS RELATING TO SUCH GS INDEX, AS THE CASE MAY BE. THE INDEX SPONSOR AND THE INDEX CALCULATION AGENT SHALL NOT BE LIABLE FOR ANY LOSS SUFFERED BY ANY PERSON (INCLUDING ANY INVESTOR IN, OR ANY ISSUER, ARRANGER OR OTHER PERSON OF, A PRODUCT LINKED TO THE PERFORMANCE OF ANY GS INDEX OR ANY INDEX COMPONENT) AS A RESULT OF EXERCISING, OR REFRAINING FROM EXERCISING, ITS DISCRETION IN RESPECT OF ANY GS INDEX.

WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL THE INDEX CALCULATION AGENT OR THE INDEX SPONSOR HAVE ANY LIABILITY (WHETHER IN CONTRACT, TORT OR OTHERWISE) TO ANY PERSON FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL OR ANY OTHER DAMAGES (INCLUDING LOST PROFITS) EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

NOTHING IN THIS DISCLAIMER SHALL EXCLUDE OR LIMIT LIABILITY TO THE EXTENT SUCH EXCLUSION OR LIMITATION IS NOT PERMITTED BY LAW.

Section E: Conflicts of Interest

The following list of conflicts does not purport to be a complete list or explanation of all the conflicts of interests associated with the GS Indices.

POTENTIAL INVESTORS SHOULD REFER TO THE RELEVANT BASE DESCRIPTION, THE RELEVANT GENERAL DESCRIPTION AND/OR THE OTHER RELEVANT DOCUMENTATION ELEMENTS IN RESPECT OF EACH GS INDEX FOR SPECIFIC CONFLICTS OF INTEREST RELATING TO SUCH GS INDEX.

Overview of the roles of the Goldman Sachs Group ("GSG")

GSG members may have multiple roles in connection with the GS Indices:

- If Goldman Sachs International is the Index Calculation Agent of a GS Index, Goldman Sachs International is responsible for calculating and publishing the value of each GS Index in its capacity as Index Calculation Agent and for making certain determinations in respect of a GS Index from time to time in its capacity as Index Sponsor.
- The GS Indices are designed by, and are operated in accordance with, a methodology developed by the Index Sponsor. Among other things, the Index Sponsor will set the parameters within which each GS Index operates. The Index Sponsor does not have any obligation to ensure that the Index Calculation Agent continues to calculate and publish the value of each GS Index. Except in the limited circumstances set out in the relevant Index Rules, the Index Sponsor does not generally exercise any discretion in relation to the operation of each GS Index. The Index Sponsor owes no fiduciary duties in respect of each GS Index.
- GSG is a full-service financial services group and, consequently, is engaged in a range of activities that could affect the value of a GS Index and any Index Component either positively or negatively as further described below.
- GSG may be sponsors and/or calculation agents of one or more Index Components and in such capacity(ies) may have the power to make determinations that could materially affect the value of such GS Index.
- GSG may from time to time have a direct or indirect ownership interest in any third party data providers with respect to a GS Index or any Index Component (including, without limitation, any calculation agent).

Potential conflicts of interest

GSG will perform its obligations in a manner that it considers commercially reasonable but may face conflicts between the roles it performs in respect of a GS Index and its own interests. In particular, in its other businesses, GSG may have, or enter into transactions to create, a physical, economic or other interest (including an adverse and/or short interest, as the case may be) in a GS Index, products linked thereto, and/or any Index Component and investments referenced by or linked to any Index Component and may exercise remedies or take other action with respect to its interests as it deems appropriate.

The following actions could adversely affect the value of a GS Index:

- GSG may actively trade products linked to such GS Index, any Index Component, investments referenced by or linked to an Index Component and any other related investments. These activities could adversely affect the value of such GS Index, which could in turn affect the return on, and the value of, any products linked to such GS Index.
- GSG may have access to information relating to such GS Index, products linked to such GS Index, and/or an Index Component or investments referenced by or linked to an Index Component. GSG is not obliged to use that information for the benefit of any person acquiring or entering into any products linked to such GS Index.

- Certain activities conducted by GSG may conflict with the interests of those acquiring products linked to such GS Index. It is possible that GSG could receive substantial returns in respect of these activities while the value of any investment referenced to such GS Index may decline. For example:
 - GSG and other parties may issue or underwrite additional securities or trade other financial or derivative instruments or investments referenced to such GS Index or other similar indices or strategies and/or any Index Component. An increased level of investment and trading in these securities, instruments or investments may negatively affect the performance of such GS Index and could affect the value of such GS Index and, therefore, the amount payable at maturity (or on any other payment date) on any products linked to such GS Index and the value of any such products before that date. Such securities, instruments or investments may also compete with other products linked to such GS Index. By introducing competing products into the marketplace in this manner, GSG could adversely affect the market value of any products linked to such GS Index and the amount paid by it on such products at maturity (or on any other payment date). To the extent that GSG serves as issuer, agent or underwriter of those securities or other similar instruments or investments, its interests in respect of those securities, instruments or investments may be adverse to the interests of an investor of any products linked to such GS Index.
 - Although GSG is not obliged to do so, it may elect to hedge its exposure or potential or expected exposure to such GS Index, any products linked thereto, and/or any Index Component, or any investment referenced by or linked to an Index Component with an affiliate or a third party. Such affiliate or third party, in turn, is likely to directly or indirectly hedge any of its exposure or potential or expected exposure, including through transactions taking place on the futures and/or options markets. Where GSG chooses to hedge its exposure or potential or expected exposure, it may adjust or unwind such hedges by purchasing or selling products linked to such GS Index, and/or an Index Component, any investments referenced by or linked to an Index Component or any other product on or before the date such GS Index is valued for purposes of any investments referenced by such GS Index. GSG may also enter into, adjust or unwind hedging transactions relating to other instruments linked to such GS Index and/or an Index Component. Any such hedging activity may adversely affect the value of such GS Index and any products linked to such GS Index. In this regard:
 - GSG could receive substantial returns with respect to these hedging activities while the value of such GS Index and/or the value of any product linked to such GS Index may decline.
 - If GSG has hedged its exposure to an Index Component and incurs an effective rate of withholding tax that is less than the synthetic tax withholding applied in respect of a GS Index, GSG could receive substantial returns.
 - GSG could receive substantial returns if it trades in an Index Component on or before a rebalancing day and/or at levels which are different from the levels specified in the methodology for determining the value of such GS Index. Such trading may have an adverse impact on the level at which a rebalancing occurs, which will result in an adverse impact on the performance of such GS Index. In addition, such trading could generate significant returns to the Index Sponsor that will not be passed on to the investors in products linked to such GS Index.
 - Certain activities conducted by GSG may conflict with the interests of those acquiring products linked to such GS Index. For example, as described above, GSG may elect to hedge its obligations, if any, with an affiliate or a third party. It is possible that GSG could receive substantial returns with respect to these activities irrespective of the performance of such GS Index and including while the value of any investment referenced to such GS Index may decline.
 - GSG may also engage in trading for its proprietary accounts, for other accounts under its management or to facilitate transactions, including block transactions, on behalf of

customers relating to one or more products linked to a GS Index, an Index Component or any constituent thereof and/or any investment referenced by or linked to an Index Component or any constituent thereof. In the course of these transactions, GSG's customers may receive information about such GS Index before it is made available to other investors. Any of these activities could also adversely affect the value of such GS Index directly or indirectly by affecting the level of an Index Component or any constituent thereof or the investments referenced by or linked to an Index Component or any constituent thereof and, therefore, the market value of any products linked to such GS Index and the amount paid on any such product at maturity.

- In its capacity as sponsor of such GS Index, Goldman Sachs International will have discretion under certain circumstances to make various determinations that affect such GS Index and products linked to such GS Index, including, but not limited to, those situations more particularly described in the relevant Index Rules. Goldman Sachs International may use these determinations to calculate how much cash it must pay at maturity or upon any early redemption of any such product linked to such GS Index or on any other payment date, including products issued by the GSG members. The exercise by Goldman Sachs International of this discretion could adversely affect the value of such GS Index and/or any such product linked to such GS Index. It is possible that the exercise by the Index Sponsor of its discretion to change the relevant Index Methodology may result in substantial returns in respect of GSG's trading activities for its proprietary accounts, for other accounts under its management or to facilitate transactions on behalf of customers relating to one or more products linked to such GS Index, and/or the Index Components thereof or any investment referenced by or linked to the Index Components.
- In its capacity as sponsor of one or more Index Components, GSG may be entitled to exercise discretion over decisions that would have an adverse impact on the value of such GS Index, including, without limitation, discontinuing publication of the level of one or more Index Components. GSG will exercise any such discretion without regard to any GS Index or investors in any products linked thereto.
- GSG may in the future create and publish other indices or strategies, the concepts of which are similar, or identical, to that of a GS Index or one or more of the Index Components. The Index Components as specified in the Index Rules for such GS Index however, are the only components that will be used for the calculation of such GS Index. Accordingly, no other published indices should be treated by any investor as the level of any Index Component (except as the Index Sponsor or Index Calculation Agent may so determine, as described above).
- GSG may publish research, express opinions or provide recommendations (for example, with respect to an Index Component) that are inconsistent with investing in products linked to such GS Index, and which may be revised at any time. Any such research, opinions or recommendations may or may not recommend that investors buy or hold the relevant Index Component and could affect the value and or performance of such GS Index or of products linked to such GS Index.
- GSG may have ownership interests in sponsors of Index Components and as such may be able to influence the methodology and other features of such Index Components. In addition, GSG members may provide pricing or other data that is directly used in the calculation of the price, level or value of such Index Components (or the components thereof). The activities of GSG as contributor to any Index Components may be adverse to the interests of investors and/or counterparties to products linked to any such Index Components and may have an impact on the performance of such Index Components.
- GSG may have ownership interests in any Index Calculation Agent (or any other calculation agent with respect to an Index or Index Component) and any third party data providers with respect to an Index or any Index Component and as such may be able to influence the determinations of such an Index Calculation Agent or other calculation agent. In addition, members of the GSG may provide pricing or other data that is directly used in the calculation of the level, coupon and/or components of the Index. The activities of the GSG members as contributor to any Index may be adverse to the interests of investors and/or counterparties to products linked to any such Index and may have an impact on the performance of such Index.

Section F: Risk Factors

The following list of risk factors does not purport to be a complete list or explanation of all the risks associated with the GS Indices. Risk factors in relation to any financial instrument or product (a "product") which is linked to the performance of a GS Index may be set out in the relevant documents in respect of such product.

POTENTIAL INVESTORS SHOULD REFER TO THE RELEVANT BASE DESCRIPTION, THE RELEVANT GENERAL DESCRIPTION AND/OR THE OTHER RELEVANT DOCUMENTATION ELEMENTS IN RESPECT OF EACH GS INDEX FOR SPECIFIC RISK FACTORS RELATING TO SUCH GS INDEX.

General Risk Factors

Investors in a GS Index could lose their entire investment

The value of a GS Index depends on the performance of the Index Components, each of which may increase or decrease in value. Neither a GS Index nor any of the Index Components includes any element of capital protection or guaranteed return. The value of any Index Component, or a GS Index itself, may fall below its initial value.

If a floor is not specified to be applicable in respect of a GS Index or an Index Component then the level of that GS Index or Index Component may fall below zero and have a negative value. In this case an investment linked to a GS Index may incur losses which exceed the notional value of such investment.

If a floor is specified to be applicable in respect of a GS Index or an Index Component then the level of that GS Index or Index Component may fall to zero. In such a case, the level will remain at zero and any investment linked solely to such GS Index may have lost all of its value, in which case there will be no chance of such investment thereafter recovering.

No assurance can be given that the methodology underlying each GS Index will be successful in producing positive returns or that such GS Index will outperform any other alternative investment strategy.

Furthermore, it should be noted that the results that may be obtained from investing in any product linked to a GS Index or otherwise participating in any transaction linked to a GS Index might well be significantly different from the results that could theoretically be obtained from a direct investment in the Index Component(s) or any related derivatives.

Changes in market structure and/or increased investment in similar products may negatively affect the value of a GS Index

As a result of changes in market structure and/or due to increased investment in products using the same or similar investment rationale to that of a GS Index or any Index Component, the underlying market or economic characteristics that such GS Index or Index Component attempts to capture, measure or replicate may change, cease to exist, and/or lead to negative expected returns over any time period. This may have a negative impact on the value of a GS Index and such GS Index will not be adjusted to take account of any such changes.

Past performance of a GS Index is no guide to future performance

The actual performance of the GS Index over the life of any product linked to the GS Index as well as the amount payable at maturity or on settlement may bear little relation to the historical levels of the GS Index. It is not possible to predict the future performance of the GS Index.

Historical analysis or other statistical analysis in respect of a GS Index is no guarantee of the performance of such GS Index

Certain presentations and historical analysis, or other statistical analysis materials in respect of the

operation and/or potential returns of a GS Index which may be provided are based on a number of assumptions, historical estimates, simulated analyses and hypothetical circumstances to estimate how such a GS Index may have performed prior to the Index Launch Date (as defined below). Neither the Index Sponsor nor the issuer of any product linked to a GS Index provides any assurance or guarantee that such GS Index will operate or would have operated in the past in a manner consistent with those materials. As such, any historical returns projected in such materials or any hypothetical simulations based on these analyses or hypothetical levels, which are provided in relation to a GS Index, may not reflect the performance of, and are no guarantee or assurance in respect of the performance or returns of, such GS Index over any time period.

An investor in a product linked to a GS Index will have no rights with respect to the Index Component(s)

The investment exposure provided by a GS Index is synthetic. An investment referenced to a GS Index will therefore not make an investor a holder of, or give an investor a direct investment position in, any Index Component (or any components thereof).

The GS Indices are not actively managed

Each GS Index will be operated in accordance with the methodology set forth in the relevant Index Rules. There will be no active management of a GS Index so as to enhance returns beyond those embedded in such GS Index.

Market participants often adjust their investments promptly in view of market, political, financial or other factors. An actively managed investment may potentially respond more directly and appropriately to immediate market, political, financial or other factors than a non-actively managed strategy such as a GS Index. No assurance can be given that a GS Index will replicate or outperform a comparable strategy which is actively managed and the return on a GS Index may be lower than the return on an actively managed strategy.

The weights of the Index Components may total more or less than 100 per cent

A GS Index's absolute overall exposure to the Index Components may be greater or less than 100 per cent.

If the sum of the absolute weights of the Index Components is greater than 100 per cent the GS Index will employ leverage. In the current instance, leverage means that a GS Index will have increased exposure to changes, which may be positive or negative, in the levels of the Index Components, magnifying the volatility and risk. The performance of the GS Index will be adversely affected should the level of "long" Index Components decrease and/or the value of "short" Index Components increase.

If the sum of the absolute weights of the Index Components is less than 100 per cent the GS Index will have a reduced exposure to the Index Components and may underperform as compared to a GS Index where the exposure was greater.

An Excess Return GS Index will nearly always underperform a Total Return GS Index

A GS Index which is calculated on an excess return basis is the excess return version of one or more total return indices. To determine the value of an excess return index, the performance of the total return index is reduced by the return that could be earned on a synthetic cash deposit at a notional interest rate. Thus, the performance of an excess return index will nearly always (where such rates of return are positive) be less than the performance of the equivalent total return index.

A Total Return GS Index may exhibit excess return characteristics

A GS Index which is calculated on a total return basis may include Index Components which are calculated on an excess return basis. In such case even though the GS Index is calculated on a total return basis it will exhibit characteristics of an excess return version.

No assurance can be given that a GS Index will produce "absolute returns"

Alternative investments such as financial instruments linked to a GS Index may often be purchased on the basis of their potential to produce "absolute returns", or returns independent of the overall direction of the relevant markets. However, there can be no assurance that a GS Index will actually be successful at producing consistently positive returns or returns independent of the overall direction of the relevant markets, nor does the Index Sponsor or the issuer of financial instruments linked to a GS Index make any representation or warranty, express or implied, that a GS Index will do so in the future.

The actual weights of Index Components may vary following each rebalancing

The actual weight of each of the Index Components may be different than the assigned weights, and therefore the relative contribution of each Index Component to the value of the GS Index may vary from time to time, depending on the performance of each of the Index Components relative to the other Index Components since such immediately preceding rebalancing. The longer the period between each rebalancing, the greater the likelihood that there will be a significant variance between the absolute values of the weights of the Index Components, and the GS Index may therefore have an exposure to an Index Component further below or in greater excess of its assigned weight than it would if the period were shorter, which may result in a greater skewing of the absolute nature of the investment positions with respect to the Index Components and increase the overall risk profile of the GS Index.

The negative performance of one or more Index Components in a GS Index may outweigh the positive performance of other Index Components in such GS Index

The value of a GS Index will go up or down depending on the overall performance of each of the Index Components in a GS Index. The negative performance of one or more positively weighted Index Components in a GS Index (and/or the positive performance of one or more negatively weighted Index Components in a GS Index) may outweigh the positive performance of other positively weighted Index Components in a GS Index (and/or the negative performance of one or more negatively weighted Index Components in a GS Index). Even in the case of a positive performance of one or more Index Components in a GS Index, the value of the GS Index as a whole may go down if the performance of the other Index Components is negative to a greater extent.

Index Components assigned a weight of zero will not contribute to the level of the GS Index

Some Index Components may be assigned a weight of zero in respect of a rebalancing day and, in such case, the GS Index shall not have any exposure to such Index Components until the next rebalancing day (if any) on which such Index Components are assigned a non-zero weight. As a result, any changes in the performance of such immediate components will not affect the level of the GS Strategy for the relevant period following such rebalancing day.

A GS Index may provide short exposure to one or more of the Index Components

A GS Index may specify that the weight of an Index Component may be less than zero, i.e., a short position in such Index Component. A short position in an Index Component means that a GS Index will have negative exposure to such Index Component and the value of such GS Index will be negatively affected if the value of such Index Component should increase and positively affected if the value of such Index Component should decrease. Therefore, investors should be aware that an investment linked to a GS Index may decline in value in a period, even if the value of such Index Component increases during that timeframe. Further, given that short positions may create exposure to uncapped losses, increases in the value of such Index Component could result in a decrease in the value of such GS Index that is greater than the weight in respect of such Index Component and may result in the value of the GS Index falling to zero.

Correlation of performances among the Index Components may reduce the performance of a GS Index

Performances of the Index Components of a GS Index may become highly correlated from time to time, including, but not limited to, periods in which there is a substantial decline in a particular sector or asset type represented by the Index Components. High correlation during periods of negative returns among the Index Components may have an adverse effect on the level of a GS Index.

A GS Index may not be a fully diversified portfolio

Diversification is generally considered to reduce the amount of risk associated with generating returns. A GS Index may be concentrated in a particular asset class or sector and there can be no assurance that a GS Index will be sufficiently diversified at any time to reduce or minimize risks of volatility. The more concentrated the GS Index is in certain asset classes or sectors, the greater degree of volatility the GS Index may exhibit, and this could in turn result in an adverse effect on the returns of the GS Index.

In addition, certain asset classes or sectors may suffer the same adverse performance following a general downturn or other economic or political event, and this could in turn have an adverse effect on the returns of the GS Index.

Prices in the relevant underlying indices, financial instruments or assets constituted in an Index Component may be volatile

The value of an Index Component may be derived in whole or in part from the value of certain underlying indices, financial instruments or assets. The prices or levels of such underlying indices, financial instruments or assets may be volatile, with price movements being influenced by a multitude of factors, including, but not limited to, supply and demand, applicable market conditions, government policies and programs, political and economic events and rates of inflation, currency devaluations and revaluations, and sentiment in the relevant market. This may make the value of an Index Component volatile, which may in turn make the level of a GS Index volatile.

Volatility and GS Index risk

A GS Index may have a daily volatility adjustment feature (if so specified in the Relevant Base Description and/or Relevant General Description), which aims to provide a notional volatility-controlled exposure to the Index Components of such GS Index. This is achieved by periodically increasing or decreasing the exposure of such GS Index to the Index Components, based on the realized volatility of the Index Components over a certain period of time relative to a pre-determined volatility target. An increase in the realized volatility of an Index Component may decrease the exposure of such GS Index to such Index Component.

If the daily volatility adjustment feature is applicable, an underperformance of the GS Index compared to a similar GS Index without such feature could be observed in periods where the value of an Index Component in which a GS Index holds a synthetic long position is increasing and, at the same time, the realized volatility exceeds the volatility target. The daily volatility adjustment feature, if applicable, is not designed for short term investments both in terms of improved participation for option-based payoffs linked to the GS Index and in terms of the performance of the GS Index.

If the lookthrough volatility adjustment feature is applicable, the volatility adjustment feature may significantly differ from a volatility adjustment feature that is solely based on the historical volatility of the Strategy. This is because the underlying portfolio of futures of the Strategy, on which the lookthrough volatility calculation is based, may have a different realized volatility to the realized volatility of the Strategy over the same period. In addition, as the lookthrough volatility adjustment is based on the maximum of the historical volatility of the Strategy and the lookthrough volatility of the Strategy, such difference may result in a lower exposure to the underlying Strategy when using the lookthrough volatility adjustment feature compared to using a similar feature that is solely based on the historical volatility of the Strategy.

If the lookthrough volatility adjustment feature is applicable, an underperformance of the Strategy compared to a similar Strategy without such feature could be observed in periods where the value of a Component in which a Strategy holds a synthetic long position is increasing and, at the same time, the realized volatility of the Component, or that of its underlying portfolio of futures exceeds the volatility target. The lookthrough volatility adjustment feature, if applicable, is not designed for short term investments both in terms of improved participation for option-based payoffs linked to the Strategy and in terms of the performance of the Strategy.

Potential investors should make their own investigations and form their own views as to the appropriateness or otherwise of such GS Index, taking into account their own circumstances. In particular, potential investors in products linked to such GS Index should note that such GS Index may not reflect the return that could be realized from a direct investment in the Index Components.

As some Index Components may not be denominated in the currency of the GS Index, a GS Index may be subject to currency exchange rate risks

Each GS Index is calculated in a particular currency (the "**Index Currency**"). While some of the Index Components may be denominated in the Index Currency, a GS Index may also comprise Index Components denominated in other currencies. A GS Index may therefore be exposed to currency exchange rate risks. The impact on the value of a GS Index will depend on the extent to which these other currencies, if any, strengthen or weaken against the Index Currency and the relative weight of each such other currency represented in the GS Index. Currency exchange rates vary over time. Changes in a particular currency exchange rate result from the interaction of many factors directly or indirectly affecting economic or political conditions, including rates of inflation, interest rate levels, balances of payment among countries, the extent of governmental surpluses or deficits and other financial, economic, military and political factors, among others.

A GS Index may have a limited operating history and may perform in unanticipated ways

A GS Index may be a relatively new strategy. Where limited historical performance data exists with respect to the Index Components referenced by such GS Index and the GS Index itself, any investment in respect of which returns are linked to the performance of a GS Index or its Index Components may involve greater risk than an investment linked to returns generated by an investment strategy with a proven track record. While a longer history of actual performance could provide more reliable information on which to assess the validity of a GS Index and on which to base an investment decision, the fact that a GS Index and the Index Components are relatively new would not allow this. There can be no guarantee or assurance that a GS Index or its Index Components will operate in a manner consistent with the data available.

Index Inception Date and Back-testing

The Index Sponsor will designate an "Index Inception Date", on which the value of the strategy is equal to the "Initial Index Level" as specified in the rules of the relevant GS Index. The levels of the GS Index in the period from such Index Inception Date, to a date (the "**Index Launch Date**") no later than the date on which investment products linked to such GS Index are first implemented (which may be materially later than the Index Inception Date) will be calculated on the basis of back-tested data ("**Back-testing**").

GS Index levels for such period are hypothetical, and are calculated at or around the Index Launch Date in accordance with the relevant GS Index methodology but using historical data available to the Index Sponsor at the time of calculation. If such historical data is not available or is incomplete for any particular day, the Index Sponsor may use alternate sources of data in place of such historical data, and/ or may substitute alternative values (which may be determined by the Index Sponsor), as it deems necessary to calculate such hypothetical level of the GS Index.

If such historical data was available or complete, or if different sources or values were used in such Back-testing, the GS Index levels for such period would be different, potentially materially so. Accordingly, such GS Index levels may not reflect the performance of, and are no guarantee or assurance in respect of the performance or returns of, the GS Index over any time period from the Index Launch Date. Furthermore, any Back-testing is based on information and data provided to the Index Sponsor by third parties. The Index Sponsor will not have independently verified or guaranteed the accuracy and/or the completeness of such information or data provided and is not responsible for any inaccuracy, omission, mistake or error in such information, data and/or back-testing.

Some GS Index parameters are partially based on simulated data

Some parameters of a GS Index may have been determined by reference to simulated time series data which start before the Index Launch Date for such GS Index. Such simulated data are based on various

assumptions, do not reflect actual trading and are subject to various market data limitations. As a result, the performance of the simulated time series data may differ from the actual historical performance of a GS Index and this difference may be material. The future performance of a GS Index will depend, among other things, on the choice of the parameters as described in the Relevant General Description and/or Other Relevant Documentation Elements for the relevant GS Index. As such, the performance of such GS Index could be materially different if the relevant parameters were determined based on the actual performance of such GS Index rather than based on simulated time series data.

Gains from an investment linked to a GS Index will be adjusted by deductions included in the calculation of the value of such GS Index

Notional embedded costs may be included within a GS Index and will reduce the level of such GS Index. Such amounts will be deducted from the performance of a GS Index with the intention of reflecting synthetically one or more of (i) the cost of maintaining exposure to, and replicating performance of, each Index Component (the "**Servicing Costs**") (ii) the cost of entering into and/or unwinding transactions relating to an Index Component following each rebalancing of such Index Component in the GS Index (the "**Transaction Costs**") and/or (iii) the index servicing costs (the "**Index Servicing Costs**"). The relevant Servicing Costs and the relevant Transaction Costs for each Index Component will vary depending on the Index Component. Servicing Costs are applicable on an ongoing basis for such time as the GS Index maintains exposure to the Index Component. Deductions to account for Transaction Costs in relation to an Index Component are made only as a result of a rebalancing of such Index Component. The Index Servicing Costs are applicable to the GS Index rather than the Index Components and are applicable on an ongoing basis for such time as the level of the GS Index is greater than zero. These embedded costs will reduce the level of such GS Index.

Notional transaction costs, servicing costs and index servicing costs embedded in a GS Index may be greater than actual costs incurred in hedging transactions of the Index Sponsor or its affiliates

The transaction costs, servicing costs and/or index servicing costs which are embedded and reflected in the calculation of a GS Index will be calculated by reference to pre-determined rates and will not necessarily reflect the actual or realised transaction costs and/or servicing costs that would be incurred by an investor in the relevant Index Components or their underlying constituents, which could be larger or smaller from time to time. The Index Sponsor (or its affiliates) may benefit if the transaction costs, servicing costs and/or index servicing costs embedded in a GS Index exceed the actual transaction costs and/or servicing costs that are incurred by the Index Sponsor (or its affiliates) in hedging transactions that may be entered into in respect of such GS Index, each Index Component and/or any underlying component thereof.

The value of each Index Component and of each underlying component may be adjusted by certain deductions

Each Index Component and the underlying components thereof may also embed notional cost deductions, the effect of which is to reduce the level of the Index Component or component thereof, as applicable. Such notional costs deductions are intended to reflect, synthetically, certain costs incurred in respect of such Index Component (or component thereof, as applicable) which are equivalent in type and nature to the costs described above in respect of a GS Index. Any such deductions from the level or value of an Index Component or underlying component thereof shall have the effect of reducing the level of the relevant GS Index.

Under certain market conditions, the Index Sponsor could significantly increase the costs that are deducted from a GS Index

Under certain market conditions, the Index Sponsor of a GS Index may determine to increase significantly the costs that are deducted from the GS Index, and there may be no fixed limits on the levels of these costs. Although this determination is constrained by the procedure described in the Relevant Base Description and/or Relevant General Description, it is possible that the increased cost may be significantly greater than the levels originally assigned to them. Further, although a period of such market conditions may last only a short time, the increased cost could be deducted from a GS Index for an extended period of time. This could materially adversely affect the performance and value

of a GS Index.

The Index Sponsor's hedging activity may affect the level of a GS Index

By executing products linked to a GS Index ("**Linked Products**"), Goldman Sachs International and/or its affiliates ("**GS**") will have an exposure to such GS Index and its Index Components. GS will take risk positions to hedge this exposure in its sole discretion and in a principal capacity. Investors in any Linked Product will not have any rights in respect of any GS hedge positions, including any shares, futures, options, commodities or currencies. GS may execute its hedging activity by trading in the Index Components of a GS Index on or before the related rebalancing day. Such trading may have an adverse impact on the level at which a basket of Index Components is rebalanced which will result in an adverse impact on the performance of an Index. GS's hedging activity, and hence the size of such impact, will be linked to the amount of new and outstanding Linked Products at the relevant time. Additionally, GS may generate revenues if it executes its hedging activity at different levels from those used to determine the value of a GS Index or on a rebalancing of such GS Index. Such hedging activity could generate significant returns to GS that will not be passed on to investors in Linked Products.

A GS Index and its components are calculated and rebalanced according to the methodology for such GS Index, which includes assumptions as to transaction and servicing costs. GS will generate revenues in relation to a GS Index if the cost that GS incurs through its hedging activities are less than the assumed costs used in the methodology for a GS Index.

Section 871(m) of the U.S. Internal Revenue Code

The United States Treasury Department has issued regulations under which amounts paid or deemed paid on certain financial instruments ("**871(m) financial instruments**") that are treated as attributable to U.S.-source dividends could be treated, in whole or in part depending on the circumstances, as a "dividend equivalent" payment that is subject to tax at a rate of 30 per cent. (or a lower rate under an applicable treaty), which in the case of any amounts or returns which an investor in products linked to a GS Index may receive under the terms of their investment, could be collected via withholding. If these regulations were to apply, the counterparty to, or issuer of, such products may be required to withhold such taxes if any dividends are paid on any underlying component of the GS Index during the term of such investment. Any such investor may also be required to make certifications prior to the maturity of their investment in order to avoid or minimize withholding obligations, and the counterparty or issuer (as applicable) could withhold accordingly (subject to such investor's potential right to claim a refund from the United States Internal Revenue Service) if such certifications are not received or are not satisfactory. These regulations generally apply to any payment made on or after 1 January 2017 with respect to any 871(m) financial instrument issued on or after 1 January 2017. Investors in products linked to a GS Index should consult their tax advisors concerning these regulations or subsequent official guidance and regarding any other possible alternative characterisations of such products for United States federal income tax purposes.

Each GS Index may be subject to Disruption Events

If certain Disruption Events in respect of a GS Index (each as more particularly described in the relevant Index Rules) occur on any Index Business Day (as defined in the relevant Index Rules) or such other day(s) on which the value of such GS Index is scheduled to be calculated or published, the value of a GS Index may not be determined on such scheduled Index Business Day and/or other determinations and/or adjustments may be made in the discretion of the Index Sponsor, and the method of determining such GS Index and/or its value may be changed. In such case, it is likely that the value of such GS Index will be different from what it would have been if such Disruption Events had not occurred, and it may vary unpredictably and could be lower.

The Index Sponsor and/or the Index Calculation have the discretion to make determinations that could materially affect a GS Index and create conflicts of interest

The Index Sponsor and the Index Calculation Agent do not generally exercise any discretion in relation to the operation of a GS Index and owe no fiduciary duties in respect of the GS Indices. The Index Sponsor has a certain amount of discretion in the event of, amongst other things, the occurrence of certain Disruption Events in respect of each GS Index (each as more particularly described in the

relevant Index Rules). Determinations made by the Index Sponsor and, if applicable, the Index Calculation Agent could adversely affect the value of a GS Index or any product linked to a GS Index and the exercise by the Index Sponsor of its discretion could present it with a conflict of interest of the kind described in Section E: *Conflicts of Interest*. In making those determinations, the Index Sponsor and/or the Index Calculation Agent will not be required to, and will not, take the interests of any investor of any such product into account or consider the effect its determinations will have on the value of such a product. All determinations made by the Index Sponsor and/or the Index Calculation Agent shall be at its sole discretion and shall be conclusive for all purposes and will bind all investors of any products linked to a GS Index. The Index Sponsor and/or the Index Calculation Agent shall not have any liability for such determinations.

GSG members may, if it is acting as sponsor of one or more of the Index Components in respect of a GS Index, have the authority to make determinations in respect of such Index Components that could materially affect such GS Index and create conflicts of interest

GSG members may also act as sponsor of one or more of the Index Components in respect of a GS Index. In that capacity, each of them has the power in such capacity to make certain determinations that could materially affect the value of such Index Components and, in turn, the value of such GS Index, and the exercise by each such member of its discretion in its capacity as sponsor of such Index Components could present it with a conflict of interest of the kind described in Section E: *Conflicts of Interest*.

Trading and other transactions by GSG could materially affect the value of any product linked to a GS Index

GSG is a full-service financial services firm engaged in a range of market activities. GSG may issue, arrange for the issue of, or enter into products referenced to, a GS Index and/or the Index Components and arrange for the distribution of these products or underlyings, including the payment of distribution fees and commissions to any intermediaries. These activities could adversely affect the value of a GS Index and/or the value of the Index Components, and may present GSG with a conflict of interest of the kind described in Section E: *Conflicts of Interest*.

Information provided by the Index Sponsor or GSG about the value of any Index Components may not be indicative of future performance

Any information about the performance of any Index Components provided by the Index Sponsor or GSG (as applicable) will be or has been furnished as a matter of information only, and an investor in a product linked to a GS Index should not regard the information as indicative of the range of, or trends in, fluctuations in the levels or values that may occur in the future. Such information will likely differ from the actual values and levels used under the relevant methodology used to calculate such GS Index.

Information about each GS Index may only be available through the Index Sponsor or GSG

The Index Sponsor or GSG (as applicable) may not provide investors of any product linked to a GS Index with further information in relation to such GS Index beyond what is provided in the relevant Index Rules, and further information may not be generally available. The Index Sponsor or GSG (as applicable) has entered into non-exclusive licensing agreements with certain of its third party data suppliers in order to source the necessary data to calculate each GS Index. The formalities necessary to obtain access to such figures may deter potential investors from buying a product linked to a GS Index on the secondary market.

Reliance on the Index Calculation Agent

The Index relies on the Index Calculation Agent to determine the value of the Index, amongst other obligations. If the Index Calculation Agent does not, and/or is unable to, perform its obligations in respect of the Index, the determination and publication of the value of such Index is likely to be materially delayed. In such cases the Index Sponsor will aim to replace the Index Calculation Agent but there is no guarantee that this will be achieved in a reasonable timeframe and the determination and publication of the Index value of such Index may be delayed for a material period of time. This is likely to have an adverse effect on products linked to such Index, including the possible termination of such products.

The Index Sponsor and the Index Calculation Agent may rely upon third party and other external and internal data sources which may be inaccessible and/or inaccurate, and the inputs used by the Index Calculation Agent or the Index Sponsor to run the index calculations may affect the value of such GS Index

The Index Sponsor and the Index Calculation Agent may rely upon third party brokers or external dealers and other external and internal sources to obtain certain inputs necessary to compute the value of each GS Index which may be inaccessible and/or inaccurate and the inputs used by them to determine the weights of the Index Components and/or to compute the value of a GS Index may affect the value of such GS Index. Investors considering acquiring or making an investment in a product linked to such GS Index should carefully read and understand the information about such Index Components. Information about the Index Components can be found on the Bloomberg Pages specified in the Relevant General Description and/or Other Relevant Documentation Elements.

The inability of the Index Calculation Agent to source necessary data to calculate the relevant formulae of each GS Index may affect the value of such GS Index. In addition, the Index Sponsor and the Index Calculation Agent makes no warranty as to the correctness or completeness of that information and takes no responsibility for the accuracy of such data or the impact of any inaccuracy of such data on the value of each GS Index.

Products linked to a GS Index may be exposed to more or less risk, or perform better or worse, based upon the inputs received from the above suppliers or sources, than an actual investment in or linked to one or more of the Index Component(s).

Sponsors of Index Components have authority to make determinations that could materially affect a GS Index

Determinations that the sponsors of the Index Components of a GS Index, including GSG members, may make in connection with the composition, calculation and maintenance of the Index Components may materially affect the value of the Index Components and could, in turn, adversely affect the value of such GS Index. Those sponsors have no obligation to take the interests of the Index Sponsor or any investors of any investment referenced or linked to a GS Index into consideration for any reason in carrying out their functions and have generally disclaimed all liability to the extent permitted by law.

In addition, the sponsors of the Index Components have licensed, and may continue to license, such Index Components for use by other market participants, for publication in newspapers and periodicals, for distribution by information and data dissemination services and for various other purposes, any of which may contribute to an increased or decreased level of investment in such Index Components, which could adversely affect the value of a GS Index.

The policies of the Index Sponsor and changes that affect a GS Index could affect the value of the GS Index

The decisions and policies of the Index Sponsor concerning the calculation of the value of a GS Index could affect the value of such GS Index and, therefore, the amount payable on any products linked to such GS Index on the stated maturity date of such products (or on any other payment date) and the market value of such products before that date. The amount payable on any products linked to a GS Index and their market value could also be affected if the Index Sponsor changes these policies, for example, by changing the manner in which it calculates such GS Index, or if the Index Sponsor discontinues or suspends calculation or publication of such GS Index, in which case it may become difficult to determine the market value of such products. If such policy changes relating to a GS Index or the calculation or publication of a GS Index is discontinued or suspended, the calculation agent of any products linked to such GS Index (which may be Goldman Sachs International) will have discretion in determining the level of such GS Index on the relevant determination date and the amount payable on such products.

The policies of a sponsor and changes affecting an Index Component could affect the GS Index and its value

The policies of a sponsor concerning the calculation of the value of an Index Component, or additions,

deletions or substitutions of Index Components and the manner in which changes affecting the Index Components could affect the value of an Index Component and, therefore, the value of such GS Index and any product linked to such GS Index. The value of a GS Index could also be affected if the relevant sponsor changes these policies, for example, by changing the manner in which it calculates the value of the Index Component, or if the sponsor discontinues or suspends calculation or publication of the value of the Index Component, in which case it may become difficult to determine the value of the GS Index.

A GS Index may be calculated without reference to corrected data

In the event that the value of any component which is used for the calculation of the weight of any Index Component in relation to the GS Index is corrected after such time as it is used in the GS Index, the Index Calculation Agent shall be under no obligation to use such corrected value and may use the weights as calculated before such correction. As a result the performance of a GS Index may differ from the performance had such corrected values been used, and possibly materially so.

A GS Index may be changed or become unavailable

The Index Sponsor shall have the right to alter the methodology used to calculate a GS Index or to discontinue publication of the value of such GS Index and such event may result in a decrease in the value of or return on any product linked to such GS Index.

The Index Sponsor reserves the right to form an Index Committee for the purposes of considering certain changes. Any changes may be made without regard to the interests of an investor of any product linked to such GS Index.

If a GS Index uses an optimisation computer software package then such package may not determine the mathematically optimal result, and may be changed from time to time.

As part of its pre-determined set of rules a GS Index may use a commercially available optimisation computer software package (an "**Optimiser**") to solve a mathematical optimisation problem, which may be subject to certain optimisation constraints. For example, if specified in the rules of a GS Index such GS Index may use an Optimiser to calculate the weights of certain Index Components with the aim of maximising or minimising one or more variables.

As the possible results may be a continuous function, there may be no simple function to test the various combinations of results. Consequently, it is necessary to use approximations contained in computation routines. There is no guarantee that in respect of any optimisation problem an Optimiser will determine the optimal set of results and it is possible that there exist alternative results that satisfy the relevant constraints. Further, the Index Calculation Agent may from time to time change the Optimiser used in respect of a GS Index. Different Optimisers may be more or less likely to determine the optimal result for a GS Index, and using them could lead to a different performance of a GS Index. If such GS Index employed a different Optimiser, the results of rebalancing could be different and possibly materially so. As such, the performance of the GS Index may be dependent on the choice of Optimiser and could be materially different if the Index Sponsor replaces the Optimiser at any time.

Risk factors relating to Index Components which reference foreign exchange rates

Changes in foreign currency exchange rates can be volatile and unpredictable

Generally, rates of exchange between foreign currencies are volatile, and this volatility may continue in the future, in particular with regard to emerging market currencies. Fluctuations in currency exchange rates could adversely affect the performance of the GS Index. Some markets, especially emerging markets, carry significant risks for investors.

Government policy can adversely affect foreign currency exchange rates

Foreign currency exchange rates can either float or be fixed by sovereign governments. From time to time, governments use a variety of techniques, such as intervention by a country's central bank or imposition of regulatory controls or taxes, to affect the exchange rate of their currencies. Governments may also issue a new currency to replace an existing currency or alter the exchange rate or exchange characteristics by devaluation or revaluation of a currency. Therefore, the level of an Index Component (and therefore any GS Index referencing such Index Component) which references foreign currency exchange rates could be significantly and unpredictably affected by governmental actions. Even in the absence of governmental action directly affecting foreign currency exchange rates, political, military or economic developments in a country issuing either currency of a relevant currency pair or elsewhere could lead to significant and sudden changes in the foreign currency exchange rate between currency pairs as well as the level of any Index Component referencing such foreign currency exchange rate taken into account for the purposes of the calculation of the level of the GS Index.

The government or central bank that issues either currency of a relevant currency pair will have no involvement in the offer and sale of the GS Index and no obligations to the Index Sponsor. Each such government or central bank may take actions that could adversely affect the value of the GS Index.

Foreign exchange rates are influenced by unpredictable factors

Generally, foreign exchange rates are a result of the supply of, and demand for, a given currency both domestically and internationally. Changes in exchange rates may result from the interactions of many factors including economic, financial, social and political conditions in Europe, the United States, any other jurisdiction whose currency is either currency of a relevant currency pair. These conditions include, for example, the overall growth and performance of the economies of the United States, the European Monetary Union (and the constituent nations thereof), any other jurisdiction whose currency is either currency of the relevant currency pair, the trade and current account balance between such countries, inflation, interest rate levels, the performance of global stock markets, the stability of the United States, European or other relevant jurisdictions' governments and banking systems, wars in which such nations or regions are directly or indirectly involved or that occur anywhere in the world, major natural disasters, and other foreseeable and unforeseeable events.

Certain relevant information relating to relevant jurisdictions (in respect of any currency pair) may not be as well known or as rapidly or thoroughly reported in the United States as compared to US developments. It is possible that there would be a lack of availability of important information that can affect the value of the one currency against another in respect of the GS Index, and special efforts may be required to obtain such information on a timely basis. See also the risk factor entitled "Government policy can adversely affect foreign currency exchange rates" above.

Foreign exchange rate information may not be readily available

There is no systematic reporting of last-sale information for foreign currencies. Reasonable current bid and offer information is available in certain brokers' offices, in bank foreign currency trading offices, and to others who wish to subscribe for this information, but this information will not necessarily reflect the currency exchange rates relevant for determining the level of the GS Index. The absence of last-sale information and the limited availability of quotations to individual investors may make it difficult for many investors to obtain timely, accurate data about the state of the underlying foreign exchange markets.

Section G: ESG Disclosures

ESG Disclosures pursuant to REGULATION (EU) 2019/2089 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 November 2019 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks.

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY	
Item 1. Name of the benchmark administrator.	Goldman Sachs International
Item 2. Type of benchmark	For the purpose of ESG disclosure any of the following types of benchmarks may incorporate this Common Strategy Terms as part of its benchmark methodology: Other
Item 3. Name of the benchmark or family of benchmarks.	For the purpose of ESG Disclosure, this methodology document may apply to the below families of benchmark: <ul style="list-style-type: none"> - Commodities Benchmark Family (external only) - Commodities ESG Benchmark Family (external only) - Credit Benchmark Family (external only) - Credit Benchmark Family (external and internal)
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No

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The Goldman Sachs General Strategy Terms

Date: 10 November 2023

Introduction, Application, Copyright and Incorporation	1
Determinations of Goldman Sachs as Strategy Sponsor and/or Strategy Calculation Agent	4
Disruption Events and Consequences	5
Restatements of Input Data	19
Adjustment Events	20
Availability and Publication of Strategy Values and Termination of a Strategy	25
Change in Strategy Methodology.....	27
Hedging Activities and Notional Costs of a Strategy	31
Conflicts of Interest	33
Risk Factors	37
Disclaimers.....	73
ESG Disclosures.....	76

INTRODUCTION, APPLICATION, COPYRIGHT AND INCORPORATION

1. Introduction and Incorporation

This document, the Goldman Sachs General Strategy Terms (as may be amended from time to time as provided herein, the "**General Strategy Terms**"), comprises certain rules, disclaimers, risk factors and other information applicable to certain notional rules-based proprietary strategies which Goldman Sachs International or its successor(s) (the "**Strategy Sponsor**") may create from time to time (each, a "**Strategy**" and together, the "**Strategies**").

In respect of a Strategy, these General Strategy Terms should be read in conjunction with the following documents (to the extent that they are specified to be applicable and/or incorporated by reference in respect of a Strategy):

- (i) the relevant base or general description comprising certain rules, methodology, definitions, disclaimers, conflicts of interest and/or other information applicable to such Strategy (in respect of such Strategy, the "**General Description**");
- (ii) the relevant supplement or specifications annex to such General Description specifying, amongst other things, the name of such Strategy and specific terms, dates and/or parameters applicable to such Strategy (the "**Specifications Annex**"); and
- (iii) any other documentation element(s) referred to in such General Description or Specifications Annex (the "**Other Documentation Elements**").

For the purposes of applying the General Description, Specifications Annex and/or Other Documentation Elements to these General Strategy Terms, each expression in the General Description, Specifications Annex and/or Other Documentation Element to:

- (a) "Immediate Component" shall be deemed to be references to "Component";
- (b) "Index" (whether as a separate term or as part of a larger term – e.g. "Index Sponsor") shall be deemed to be references to "Strategy" (save for any larger terms which already include "Strategy" – e.g. "Successor Index Strategy Component" – in which case the term shall be read without reference to "Index");
- (c) "Strategy Supplement" shall be deemed to be references to "Specifications Annex"; and
- (d) "Parameter Adjustment Agent", "Strategy Rebalancing Entity" or "Strategy Rebalancing Agent" shall be deemed references to "Strategy Allocator".

These General Strategy Terms may be amended or modified from time to time at the discretion of the Strategy Sponsor in accordance with the terms set out herein and upon each amendment or modification this document shall be updated to a new version. Following an update, the most recent version shall be deemed to be in force from the date of such update and replace in its entirety the preceding version such that, in the event of any conflict between the preceding version and the most recent version, the most recent version shall prevail.

Any or all of the provisions and sections of these General Strategy Terms may be incorporated into and made applicable to the relevant General Description, Specifications Annex and/or Other Documentation Element in respect of a Strategy. When the relevant General Description, Specifications Annex and/or Other Documentation Element in respect of a Strategy incorporates these General Strategy Terms, unless such document states otherwise, the most recent version of the General Strategy Terms shall be deemed to be applicable, as updated, amended and/or supplemented from time to time.

2. Application

These General Strategy Terms, when read together with the relevant General Description, Specifications Annex and/or Other Documentation Element in respect of a Strategy (as applicable), will constitute the "**Strategy Description**" in respect of such Strategy.

Capitalised terms used in these General Strategy Terms but not defined herein have the meaning given to them in the relevant General Description, Specifications Annex or Other Documentation Element, as the case may be. In the event of any inconsistency between the provisions of the relevant General Description, Specifications Annex and/or Other Documentation Element and the provisions of these General Strategy Terms, the provisions of the relevant General Description, Specifications Annex and/or Other Documentation Element will prevail. In respect of each Strategy, unless otherwise specified in the relevant Specifications Annex, in the event of any inconsistency between the provisions of the relevant General Description, Specifications Annex and/or Other Documentation Element, the provisions of the relevant Specifications Annex will prevail.

A Strategy may be linked to one or more other Strategies, each of which may in turn be linked to one or more Strategies, and so on (each such strategy, an "**Underlying Strategy**"). In such case, potential investors should also refer to the relevant strategy description or rules relating to each such Underlying Strategy (which may or may not comprise these General Strategy Terms, a General Description, Specifications Annex or Other Documentation Element, in each case, applicable to the Underlying Strategy) for the specific description, methodology, rules, disclaimers, risk factors and/or conflicts of interest applicable to such Underlying Strategy.

In respect of each Strategy, the Strategy Sponsor will appoint a strategy calculation agent (the "**Strategy Calculation Agent**"), as specified in the relevant General Description, Specifications Annex and/or Other Documentation Element to make certain determinations and calculations and to publish the value of such Strategy as more particularly described in the relevant General Description, Specifications Annex and/or Other Documentation Element. The Strategy Sponsor does not have any obligation to ensure that the Strategy Calculation Agent continues to publish, and the Strategy Calculation Agent may discontinue publication of, the value of any Strategy at any time. The Strategy Sponsor may at any time in respect of a Strategy appoint one or more replacement Strategy Calculation Agents including itself or an affiliate.

The Strategy Sponsor may also appoint other agents and/or third-party data providers in relation to a Strategy to obtain certain inputs necessary to compute the value of such Strategy (including, without limitation, Input Data Providers (as defined below)). The Strategy Sponsor does not have any obligation to ensure that these agents and/or third-party providers continue to provide inputs necessary to compute the value of a Strategy. The Strategy Sponsor may change any agents and/or third-party data providers appointed in respect of a Strategy at any time.

Each Strategy may be comprised of a number of:

- (i) components and/or sub-components (including but not limited to Underlying Strategies, financial instruments and assets) which may be (direct or indirect) underlying assets of such Strategy (each, a "**Component**");
- (ii) input data (including but not limited to any price or level) which is used to determine, or which constitutes, any weight(s), signal(s) or other values or parameters in relation to a Component; and
- (iii) any other input data (other than a Component) or software package used in the calculation of a Strategy ((ii) and (iii) together, "**Input Data**").

None of the Strategies are sponsored, endorsed, sold, or promoted by the sponsor of any Component comprising, directly or indirectly, a Strategy, other than where the Strategy Sponsor is also the sponsor of such Component. Each such sponsor does not make any representation whatsoever, whether express or implied, either as to the results to be obtained from the use of any such Component and/or the prices, levels or values at which any Component stands at any particular time on any particular date or otherwise.

Each Strategy is a synthetic product and the exposure of each Strategy to any position in a Component (which may itself represent a notional investment in one or more other Components) is purely notional. There is no actual portfolio of underlying indices, financial instruments, inputs, assets or other underlyings or components to which any person is entitled or in which any person has any ownership interest (whether legal, beneficial or otherwise), and there is no obligation on the Strategy Sponsor or the Strategy Calculation Agent to promote or purchase, enter into and/or hold positions in any Component, or transactions or investments that are linked to any Component at any time. References in any Strategy Description to any investment, disposal or acquisition of any Component should not be construed as imposing any obligation on the Strategy Sponsor, the Strategy Calculation Agent or any person to actually acquire or dispose of any such Component, investment or other property but are references to, and relate solely to, the calculation of the value of each Strategy.

Unless otherwise specified in the Strategy Description, the methodology for each Strategy does not pursue any environmental, social and governance (“**ESG**”) objectives or take into account any ESG factors.

Investors in any product or transaction linked to a Strategy (together, “**Linked Products**”) should read and understand these General Strategy Terms in full. In particular, investors must read the sections of these General Strategy Terms entitled “*Conflicts of Interest*”, “*Risk Factors*” and “*Disclaimers*” in addition to the additional disclaimers, conflicts of interest and risk factors (if any) set out in the relevant General Description, Specifications Annex, Other Documentation Element and/or the other relevant strategy documentation elements in respect of each Strategy and each of its Components prior to making any investment decision.

3. Copyright

The Strategy Sponsor owns the copyright and all other rights to the applicable Strategies. No use or publication may be made of a Strategy or any value thereof without the prior written approval of the Strategy Sponsor.

DETERMINATIONS OF GOLDMAN SACHS AS STRATEGY SPONSOR AND/OR STRATEGY CALCULATION AGENT

Unless otherwise specified in the Strategy Description, all determinations and calculations that involve the exercise of expert judgement or discretion (other than those that are purely mechanical and, where relevant, implemented in accordance with the relevant methodology) made by the Strategy Sponsor or, only when Goldman Sachs is appointed as Strategy Calculation Agent, the Strategy Calculation Agent, as the case may be, in respect of a Strategy shall be made in good faith and in a commercially reasonable manner. All such determinations and calculations will be subject to the Strategy Sponsor's or the Strategy Calculation Agent's (as applicable) policies and procedures and will (in the absence of manifest error) be final, conclusive and binding. The Strategy Sponsor and/or the Strategy Calculation Agent, as applicable, shall have no responsibility to any person for any errors or omissions in any determination or calculation. In making any determinations with respect to a Strategy, the Strategy Sponsor and the Strategy Calculation Agent do not owe any person any fiduciary duties in respect of a Strategy and are not required to take the interests of any person into account in making any determination with respect thereto.

DISRUPTION EVENTS AND CONSEQUENCES

In the event of any inconsistency between the provisions of this “Disruption Events and Consequences” section and the provisions of any relevant General Description, Specifications Annex and/or Other Documentation Element in respect of a Strategy, the provisions of the relevant General Description, Specifications Annex and/or Other Documentation Element shall prevail for the purposes of such Strategy.

Disruption Events and Consequences

For the purposes of these General Strategy Terms, a “**Disruption Event**” shall mean any of the events listed in sub-paragraphs (i) to (ix) of this section entitled “*Disruption Events and Consequences*”.

(i) **Disruption Events applicable in respect of all Components and/or Input Data**

For the purposes of this sub-paragraph (i) only, a “**Relevant Underlying**” shall mean a Component or any Input Data in respect of the relevant Strategy. For the avoidance of doubt, the Other Disruption Events outlined in this sub-paragraph (i) shall not supersede or replace any Disruption Events in respect of a Relevant Underlying listed in sub-paragraphs (ii) to (ix) below (as applicable) and shall apply in addition to such Disruption Events in respect of a Relevant Underlying.

If, in respect of a Strategy or a Relevant Underlying, any one or more of the following events (each, an “**Other Disruption Event**”) occur:

- (a) the Strategy Sponsor becomes aware of (I) the adoption of, or change in, any applicable law or (II) the promulgation of, or any change in, the interpretation of any applicable law by a court, tribunal or regulatory authority with competent jurisdiction, which has the effect that (A) the performance by the Strategy Sponsor or Strategy Calculation Agent of their respective roles in respect of a Strategy has become unlawful, impracticable or would result in materially increased costs to them in whole or in part for any reason, or (B) the Strategy Sponsor and/or any of its affiliates would be prevented from entering into transactions in respect of such Strategy or Relevant Underlying (including any Relevant Underlying where the Strategy Sponsor and/or any of its affiliates is sponsor and/or calculation agent) by any applicable law or regulation;
- (b) the Strategy Sponsor determines that a Hedging Party would (A) be unable, after using commercially reasonable efforts, to acquire, establish, re-establish, substitute, maintain, unwind, or dispose of all or a portion of any hedge position relating to such Strategy and/or Relevant Underlying or (B) incur an increased cost in doing so, including, but not limited to, due to any capital requirements or other law or regulation (a “**Hedging Disruption**”);
- (c) a trading disruption occurs in respect of the relevant trading venue or any other similar event or circumstance occurs which, in the reasonable judgement of the Strategy Sponsor, (A) affects the ability of market participants in general to enter into transactions in respect of such Relevant Underlying in a notional size required in relation to any product or transaction linked to the relevant Strategy, (B) impairs the liquidity of any transactions in relation to such Relevant Underlying and/or (C) affects the value of such Relevant Underlying;
- (d) any other event described in the Strategy Description as an Additional Market Disruption Event occurs;
- (e) the occurrence of a systems failure, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance that is beyond the

reasonable control of the Strategy Sponsor, Strategy Calculation Agent or any of their respective affiliates that the Strategy Sponsor determines is likely to have a material effect on a Relevant Underlying, or on its ability to perform its role in respect of the Strategy (a "**Force Majeure Event**");

- (f) the official price, level, rate or other measure of any Relevant Underlying is unavailable or incomplete on any relevant day on which such measure is scheduled to be published or provided to the Strategy Sponsor (including cases where a member of the Goldman Sachs Group is the sponsor, calculation agent or provider of such Relevant Underlying);
- (g)
 - (I) an Unscheduled Holiday occurs in respect of a trading venue or Relevant Underlying;
 - (II) a trading venue or the sponsor or provider of a Relevant Underlying publicly announces that a day that was previously not a Scheduled Business Day in respect of such trading venue or Relevant Underlying (as applicable) shall be considered a Scheduled Business Day in respect of such trading venue or Relevant Underlying (as applicable) and the Strategy Sponsor determined (acting in good faith and a commercially reasonable manner) that such announcement did not occur within a reasonable amount of time prior to such day; or
 - (III) any relevant trading venue (including, without limitation, any physical trading floor and/or electronic trading platform) is not open for trading during its full regular trading session, or closes prior to its scheduled closing time, in each case, on any relevant day.

For the purposes of this sub-paragraph (g), "**Unscheduled Holiday**" means in respect of any relevant day and a trading venue or Relevant Underlying, such day is not a business day in respect of such trading venue or Relevant Underlying (as applicable) (a "**Scheduled Business Day**") and the Strategy Sponsor was not aware of such fact by means of a public announcement within a reasonable amount of time prior to such relevant day (as determined by the Strategy Sponsor in good faith and a commercially reasonable manner);

- (h) the level, price or other value of such Strategy and/or Relevant Underlying is, in the reasonable judgement of the Strategy Sponsor or Strategy Calculation Agent, manifestly incorrect,
- (i) where required, the Strategy Sponsor (after using commercially reasonable efforts) ceases to have the relevant data license in respect of such Relevant Underlying;
- (j) any authorisation, registration, recognition, endorsement, equivalence decision, approval or inclusion in any official register in respect of such Strategy, Relevant Underlying or the Strategy Sponsor has not been, or will not be, obtained or has been, or will be, rejected, refused, suspended or withdrawn by the relevant competent authority or other relevant official body, in each case, with the effect that the issuer of, or one of the contracting parties in respect of, a Linked Product is not, or will not be permitted under any applicable law or regulation to use the Strategy or Relevant Underlying, as determined by the Strategy Sponsor (an "**Authorisation Event**");
- (k) a material change in national or international financial, political, legal or economic conditions that would likely prejudice the calculation and publications of the value of a Strategy, as determined by the Strategy Sponsor;
- (l) the European Union membership or any member of the European Union is discontinued, suspended or terminated, or any member of the European Union disaffirms, disclaims, repudiates

or rejects in whole or in part any obligation arising from its European Union membership under the relevant treaties or:

- (I) the euro ceases to be the lawful currency of any member of the European Union; or
- (II) any member of the European Union takes, or indicates its intention to take, any action in furtherance of, or indicates its consent to, approval of, or acquiescence in, any of the foregoing event;

then the Strategy Sponsor (or the Strategy Sponsor may instruct the Strategy Calculation Agent to), acting in good faith may determine in its sole discretion to take actions (each a **"Consequential Action"**) or take no action, with reference to preserving the intended commercial purpose of the Strategy (the **"Strategy Purpose"**), including, but not limited to, any or more of the following:

- (I) make such determinations or adjustments to the terms of a Strategy, including to the methodology and relevant data sources, as it deems appropriate to account for such Other Disruption Event and, as applicable, to the extent necessary to calculate the value of a Strategy in respect of such day (for which purpose it may use its own internal models and other market data sources as it reasonably determines is necessary and/or Input Data last published or made available by such Input Data Provider);
- (II) postpone any applicable rebalancing in whole or in part in respect of a Strategy or a Relevant Underlying (a **"Relevant Rebalancing"**) until such time or day on which no Other Disruption Event is continuing (the **"Relevant Deadline"**), and make any relevant adjustments to the methodology for calculating the Strategy that it deems appropriate to account for such postponement of the Relevant Rebalancing;
- (III) determine that the value assigned to the weight or unit (howsoever defined in the Strategy Description) in respect of the Relevant Underlying in respect of the period from (and including) the date on which such Other Disruption Event occurred to (but excluding) the Relevant Deadline shall remain at the value assigned to the Relevant Underlying immediately prior to the occurrence of such Other Disruption Event;
- (IV) suspend the publication of the value of a Strategy until such time as no Other Disruption Event is continuing;
- (V) publish an indicative value of the Strategy in respect of each business day on which an Other Disruption Event is continuing (and no official value of a Strategy in respect of such Strategy will be published);
- (VI) temporarily or permanently remove the affected Relevant Underlying at a price, value or amount determined by the Strategy Sponsor in a commercially reasonable manner and/or replace any affected Relevant Underlying where it considers in its sole discretion that a similar alternative is available; or
- (VII) terminate the calculation and publication of such Strategy.

(ii) **Disruption Events applicable to Input Data only**

Notwithstanding sub-paragraph (i) above, if the Strategy Sponsor discovers, or is notified by a party

responsible for collecting, calculating, distributing or publishing an Input Data (the “**Input Data Provider**”, which may include a third party, the Strategy Sponsor itself or certain departments within the Goldman Sachs Group), that:

- (a) an Input Data Provider has ceased to publish such Input Data (or the Input Data Provider announces that it will cease to publish such Input Data) unless the Strategy Sponsor determines, in its sole and absolute discretion, that such Input Data has been replaced by any equivalent information or data;
- (b) there is a material change in the formula for or method of calculating, or the content or frequency of publication of, such Input Data (as determined by the Strategy Sponsor); or
- (c) the Input Data Provider (A) fails to calculate or publish such Input Data, (B) does not deliver such Input Data to the Strategy Sponsor or Strategy Calculation Agent (as the case maybe) or (C) delivers incomplete Input Data to the Strategy Sponsor or Strategy Calculation Agent (as the case maybe), in each case, on or prior to the time at which the Strategy Sponsor needs to use such Input Data for calculating the value of the relevant Strategy,

(each an “**Input Data Disruption Event**”), then the Strategy Sponsor may, in its sole discretion determine to take actions or take no actions, including, but not limited to:

- (I) use the Input Data last published or made available by such Input Data Provider to calculate the value of the relevant Strategy; and/or
- (II) in all circumstances, (A) elect to temporarily or permanently replace or remove (or assign a zero weight to) the Component(s) affected by the unavailability or material change(s) to such Input Data from the relevant Strategy at the earliest possible opportunity as it determines to be commercially reasonable in order for the value of such Strategy to continue to be calculated notwithstanding the relevant circumstances, (B) use information or data from an alternative data source (which may be Internal Data (as defined in the section of these General Strategy Terms entitled “*Risk Factors*”)) which it determines to be comparable to such Input Data and to be appropriate in order to preserve the Strategy Purpose (and such information or data will be deemed to be the relevant Input Data for the purposes of such Strategy), (C) make such adjustment(s) to the Strategy Description or to the composition of such Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner, to reflect such unavailability or change(s) while aiming to preserve the Strategy Purpose or (D) if the Strategy Sponsor determines that none of the above adjustment(s) would achieve a commercially reasonable result and/or that it is no longer possible or practicable to calculate the relevant Strategy, terminate the calculation and publication of such Strategy.

(iii) **Disruption Events applicable to a Component which is an index, as determined by the Strategy Sponsor (such Component, an “Index Strategy Component”)**

- (a) If an Index Strategy Component (an “**Affected Index Strategy Component**”) is either:
 - (I) not calculated and announced by the relevant component’s sponsor or calculation agent but is calculated and announced by a successor sponsor or successor calculation agent acceptable to the Strategy Sponsor; or
 - (II) replaced by a successor component using, in the determination of the Strategy Sponsor,

the same or a substantially similar formula for and method of calculating that Index Affected Index Strategy Component,

then, in the case of paragraph (I) above, the Affected Index Strategy Component shall continue to be a Component, and, in the case of paragraph (II) above, such successor component (a "**Successor Index Strategy Component**") will be deemed to become a Component and shall replace the Affected Index Strategy Component (such event, a "**Successor Index Strategy Component Event**"), and, in each case, the Strategy Sponsor may, acting in good faith, make such temporary or permanent adjustments to the terms and methodology of a Strategy as it deems appropriate in its sole discretion to account for such change (and such replacement and/or adjustment will be deemed to be effective as of the date determined by the Strategy Sponsor).

- (b) If in respect of an Index Strategy Component (including any such Component of which the Strategy Sponsor and/or any of its affiliates is the Component's sponsor) (a "**Sponsor Disrupted Index Strategy Component**"):
- (I) the Component's sponsor for such Sponsor Disrupted Index Strategy Component or the sponsor of any component of such Sponsor Disrupted Index Strategy Component announces that it will make a material change in the formula for or the method of calculating such Sponsor Disrupted Index Strategy Component (or any component thereof) or in any other way materially modifies such Sponsor Disrupted Index Strategy Component (or any component thereof) (other than such a modification prescribed, as of the inception date of a Component, in such formula or method (as may be specified in the Strategy Description) for the purpose of maintaining such Sponsor Disrupted Index Strategy Component (or such component thereof) in the event of changes to its composition);
 - (II) such Sponsor Disrupted Index Strategy Component (or any component thereof) is permanently cancelled by its sponsor (or sponsor of such component thereof) without there being a Successor Index Strategy Component (or successor component thereof), or ceases to exist or is no longer tradable (each as determined by the Strategy Sponsor), including as a result of any member of the Goldman Sachs Group discontinuing an underlying strategy or index of which it is a sponsor;
 - (III) such Sponsor Disrupted Index Strategy Component's sponsor (or sponsor of any component thereof) fails to calculate and announce the level of such Sponsor Disrupted Index Strategy Component (or such component thereof);
 - (IV) in the reasonable judgment of the Strategy Sponsor, the level of such Sponsor Disrupted Index Strategy Component contains a manifest error; or
 - (V) any authorisation, registration, recognition, endorsement, equivalence decision, approval or inclusion in any official register in respect of such Sponsor Disrupted Index Strategy Component or the administrator or sponsor of such Sponsor Disrupted Index Strategy Component has not been, or will not be, obtained or has been, or will be, rejected, refused, suspended or withdrawn by the relevant competent authority or other relevant official body, in each case, with the effect that the Strategy Sponsor is not, or will not be permitted under any applicable law or regulation to use such Sponsor Disrupted Index Strategy

Component, as determined by the Strategy Sponsor,

then the Strategy Sponsor may determine, in its sole and absolute discretion, to take actions or take no action, including, but not limited to, the following:

- (A) temporarily or permanently remove the Sponsor Disrupted Index Strategy Component and/or select an alternative index to replace the Sponsor Disrupted Index Strategy Component (provided that the Strategy Sponsor shall use commercially reasonable efforts to select a replacement Component that it considers, in its sole and absolute discretion, to be a similar alternative), and may make such adjustments to the terms of a Strategy as may be necessary, in its commercially reasonable judgment to effect such change; or
- (B) calculate the level of such Sponsor Disrupted Index Strategy Component, in lieu of the published level for such Sponsor Disrupted Index Strategy Component, using the same formula for, and method of, calculating the level of such Sponsor Disrupted Index Strategy Component last in effect prior to the occurrence of any of the circumstances described above (utilising any adjustment to such formula or method that the Strategy Sponsor determines to be commercially reasonable).

(iv) **Disruption Events applicable to a Component which is a futures contract, as determined by the Strategy Sponsor (such Component, a "Futures Contract Strategy Component")**

- (a) If, in respect of a Futures Contract Strategy Component (an "**Affected Futures Contract Strategy Component**"), any one or more of the following occurs:
 - (I) it is not calculated or quoted by or traded on the relevant reference exchange (as determined by the Strategy Sponsor) but is calculated or quoted by and traded on a successor exchange acceptable to the Strategy Sponsor;
 - (II) it is replaced by a successor futures contract having, in the determination of the Strategy Sponsor, the same or substantially similar terms as that Affected Futures Contract Strategy Component,

then in the case of paragraph (I) above, the Affected Futures Contract Strategy Component shall continue to be a Futures Contract Strategy Component and, in the case of paragraph (II) above, such successor futures contract (a "**Successor Futures Contract Strategy Component**") will be deemed to become a Futures Contract Strategy Component and shall replace the Affected Futures Contract Strategy Component (such event, a "**Successor Futures Contract Strategy Component Event**") and, in each case, the Strategy Sponsor may, acting in reasonable manner and in good faith, make such temporary or permanent adjustments to the terms and methodology of a Strategy as it deems appropriate to account for such change (and such replacement and/or adjustment will be deemed to be effective as of the date determined by the Strategy Sponsor).

- (b) If, in respect of a Futures Contract Strategy Component (a "**Disrupted Futures Contract Strategy Component**"), any one or more of the following occurs:
 - (I) any term of such Disrupted Futures Contract Strategy Component is: (A) changed or modified by the relevant reference exchange (including, without limitation, any change or

modification in the contract specifications, the delivery or settlement date, the month of expiration, methodology for calculating the settlement price of such Disrupted Futures Contract Strategy Component, the rules and procedures governing the trading, the clearing, settlement and any other related matters of such Disrupted Futures Contract Strategy Component) or (B) otherwise subject to any order, ruling directive or law of any government agency or body;

- (II) other than where the underlying asset in respect of such Disrupted Futures Contract Strategy Component is a commodity, the relevant contract reference price in respect of such Disrupted Futures Contract Strategy Component becomes a "limit price" in respect of any relevant day (meaning that the price of such Disrupted Futures Contract Strategy Component on the relevant day has increased or decreased from the previous day's settlement price for such Disrupted Futures Contract Strategy Component by the maximum amount permitted under the applicable rules of the relevant reference exchange such that no trades with respect to such Disrupted Futures Contract Strategy Component may be made at a different price);
- (III) the relevant contract reference price in respect of such Disrupted Futures Contract Strategy Component remains at a "limit price" for five consecutive Strategy Calculation Days;
- (IV) trading in such Disrupted Futures Contract Strategy Component (A) is suspended or interrupted subsequent to the open of trading on any relevant day, (B) never commences on any relevant day, (C) is permanently discontinued at any time or (D) ceases to exist or is no longer tradable (as determined by the Strategy Sponsor), in each case, without there being a Successor Futures Contract Strategy Component,

then the Strategy Sponsor may, in its sole and absolute discretion, acting in reasonable manner and in good faith, take no action or:

- (A) in respect of sub-paragraphs (II) and (IV) only, postpone any applicable rebalancing in whole or in part in respect of a Strategy or the Disrupted Futures Contract Strategy Component until such time or day on which no such Disruption Event is continuing and make any relevant adjustments to the methodology for calculating the Strategy that it deems appropriate to account for the postponement of such rebalancing;
- (B) in respect of sub-paragraphs (I), (III) and (IV), take actions, including, but not limited to, the following:
 - (x) remove the Disrupted Futures Contract Strategy Component and/or select any futures contract (other than the Disrupted Futures Contract Strategy Component) to replace the Disrupted Futures Contract Strategy Component (provided that the Strategy Sponsor shall use commercially reasonable efforts to select a replacement Futures Contract Strategy Component that it considers, in its sole and absolute discretion, to be a similar alternative), and may make such adjustments to the terms of a Strategy as it deems appropriate to account for such removal and/or replacement; and
 - (y) amend, in the Strategy Sponsor's sole and absolute discretion, on either a permanent or temporary basis, the methodology used to determine which futures

contract will constitute the relevant Futures Contract Strategy Component for the purposes of a Strategy while aiming to preserve the Strategy Purpose (and such replacement and/or adjustment will be deemed to be effective as of the date determined by the Strategy Sponsor); and

- (C) in respect of sub-paragraphs (I) and (III) only, amend, in the Strategy Sponsor's sole and absolute discretion, on either a temporary or permanent basis, the methodology used to calculate the price or value of the relevant Disrupted Futures Contract Strategy Component for the purposes of the Strategy while aiming to preserve the Strategy Purpose.

(v) **Disruption Events applicable to a Component which is a share, as determined by the Strategy Sponsor (such Component, a "Share Strategy Component")**

If, in respect of a Share Strategy Component, the Strategy Sponsor becomes aware of the occurrence of any one or more of the following events (each, a "**Trigger Event**"):

- (a) the adoption of, or change in, any applicable law or the promulgation of, or any change in, the interpretation of any applicable law, by a court, tribunal, regulatory authority with competent jurisdiction, and/or any relevant exchange, which, in each case, has resulted in a prohibition, restriction or any other adverse impact on short-selling with respect to a Share Strategy Component (whether having an impact for obtaining or offering synthetic exposure to short-selling, implementing a rebalancing in relation to such Share Strategy Component, or for acquiring, establishing, re-establishing, substituting, maintaining, unwinding, or disposing of any hedge position in relation to such Share Strategy Component);
- (b) any temporary or permanent suspension of, or limitation imposed on, trading by the reference exchange or any related exchange (as determined by the Strategy Sponsor) in respect of a Share Strategy Component, including but not limited to, by reason of movement in price exceeding limits permitted by the relevant reference exchange or related exchange relating to such Share Strategy Component; or
- (c) (I) the adoption of, or announcement of, any change in, any applicable law, rule regulation, order, sanction, or directive of any governmental, administrative, legislative or judicial authority or power, in each case, relating to financial sanctions and embargo programmes, including but not limited to, any restrictions applicable to designated or blocked persons, as enacted, administered and/or enforced, from time to time, by the U.S. Department of the Treasury's Office of Foreign Assets Control, the U.S. Department of State, Her Majesty's Treasury Department of the United Kingdom, the United Nations, the European Union or other relevant authority (for the purposes of this paragraph (c), an "**Applicable Sanctions Law**"); or
(II) the promulgation of, or any change in, the formal or informal interpretation of any Applicable Sanctions Law by a court, tribunal or regulatory authority with competent jurisdiction,

which, in either case, has resulted in any adverse impact on obtaining or offering synthetic exposure to a Share Strategy Component, implementing a rebalancing in relation to such Share Strategy Component, or for acquiring, establishing, re-establishing, substituting, maintaining, unwinding, or disposing of any hedge position in relation to such Share Strategy Component,

then the Strategy Sponsor may determine, in its sole and absolute discretion, to take actions or take no action, with reference to preserving the Strategy Purpose, including, but not limited to, any or more of the following:

- (A) to temporarily or permanently, exclude such Share Strategy Component affected by such Trigger Event from the Strategy and may make such adjustments to the terms and methodology of a Strategy as may be necessary, in its commercially reasonable judgment to effect such change. For avoidance of doubt, the Strategy Sponsor may determine (x) to apply such exclusion at or prior to the next scheduled rebalancing of the Strategy and (y) to re-designate such stock as a Component of the Strategy once such Trigger Event is no longer applicable to such Share Strategy Component; or
 - (B) make such determinations or adjustments to the terms of the Strategy, including to the methodology and relevant data sources, as it deems appropriate to account for such Trigger Event and, as applicable, to the extent necessary to calculate the value of the Strategy in respect of such day (for which purpose it may use its own internal models and other market data sources as it reasonably determines is necessary).
- (vi) **Disruption Events applicable to a Component which is an exchange traded fund (ETF), as determined by the Strategy Sponsor (such Component, an "ETF Strategy Component")**

In respect of an ETF Strategy Component (an "**Affected ETF Strategy Component**"):

- (a) paragraph (v) above shall apply to such Affected ETF Strategy Component, provided that:
 - (I) all references to "Affected Share Strategy Component" and "Share Strategy Component" shall be replaced with "Affected ETF Strategy Component" and "ETF Strategy Component" respectively; and
 - (II) it shall constitute a Trigger Event in respect of an Affected ETF Strategy Component if, in the determination of the Strategy Sponsor, the management company of the exchange traded fund of an Affected ETF Strategy Component, or any other entity who has been delegated the responsibility to publish the net asset value of such Affected ETF Strategy Component, has failed to or will fail to, or has not published or will not publish, the net asset value of such Affected ETF Strategy Component, and such failure to publish or non-publication will, in the determination of the Strategy Sponsor, in its sole and absolute discretion, have a material effect on such Strategy and will be for more than a short period and/or will not be of a temporary nature; and
- (b) if at any time the index underlying the exchange traded fund of such Affected ETF Strategy Component and/or the terms and conditions governing the assets, contracts and instruments invested in or held by such exchange traded fund are changed in a material respect (as determined by the Strategy Sponsor), or if such exchange traded fund in any other way is modified so that it does not, in the opinion of the Strategy Sponsor, fairly represent the net asset value of such Affected ETF Strategy Component had those changes or modifications not been made, then, from and after that time, the Strategy Sponsor will make those calculations and adjustments as, in the good faith judgment of the Strategy Sponsor, may be necessary in order to arrive at a price of an exchange traded fund comparable to such exchange traded fund as if those changes or modifications had not been made, and calculate the closing prices with reference to such exchange traded fund, as adjusted. Accordingly, if such exchange traded fund is modified in a

way that the price of its shares is a fraction of what it would have been if it had not been modified (for example, due to a split or a reverse split), then the Strategy Sponsor will adjust the price in order to arrive at a price of such Affected ETF Strategy Component as if it had not been modified (for example, as if the split or the reverse split had not occurred). The Strategy Sponsor also may determine that no adjustment is required by the modification of the method of calculation.

(vii) **Disruption Events applicable to a Component which is a currency exchange rate, as determined by the Strategy Sponsor (such Component, a "FX Strategy Component")**

If, in respect of a FX Strategy Component, any one or more of the following occurs (each a "**FX Disruption Event**"):

- (a) the occurrence or existence at any time, of a suspension of, or limitation imposed on, trading on the London interbank market or the interbank market of the city or cities determined by the Strategy Sponsor to be the principal financial centre(s) for the underlying or denominated currency in respect of such FX Strategy Component; or
- (b) a Currency Exchange Rate Disruption Event has occurred,

then the Strategy Sponsor may determine, in its sole and absolute discretion, to take one or more of the Consequential Actions listed in paragraph (i) above (or take no such action), with reference to preserving the Strategy Purpose (provided that each reference to a "Other Disruption Event" and "Relevant Underlying" shall be deemed to be a reference to "FX Disruption Event" and "FX Strategy Component" respectively).

Where "**Currency Exchange Rate Disruption Event**" means (and a Currency Exchange Rate Disruption Event shall be deemed to have occurred if), in respect of a FX Strategy Component and a relevant day:

- (i) such FX Strategy Component splits into dual or multiple currency exchange rates;
- (ii) an event has occurred in or affecting any relevant jurisdiction that generally makes it impossible to deliver (a) the Strategy Currency from accounts inside such jurisdiction to accounts outside such jurisdiction or (b) the Strategy Currency between accounts inside such jurisdiction for such FX Strategy Component or to a party that is a non-resident of such jurisdiction;
- (iii) a default, event of default, or other similar condition or event (however described) with respect to any security or indebtedness for borrowed money of, or guaranteed by, any applicable governmental authority (as defined below), including, but not limited to:
 - (a) the failure of timely payment in full of any principal, interest, or other amounts due (without giving effect to any applicable grace periods) in respect of any such security, indebtedness, or guarantee;
 - (b) a declared moratorium, standstill, waiver, deferral, repudiation, challenge of the validity, or rescheduling of any principal, interest, or other amounts due in respect of any such security, indebtedness, or guarantee; or
 - (c) the amendment or modification of the terms and conditions of payment of any principal amount, interest, or other amounts due in respect of any such security, indebtedness, or

guarantee without the consent of all holders of such obligation;

- (iv) it is or becomes impossible or not reasonably practicable for the Strategy Sponsor or any of its affiliates to obtain such FX Strategy Component from the source typically used for such FX Strategy Component, or to obtain a firm quote for such currency exchange rate;
- (v) any expropriation, confiscation, requisition, nationalization or other action by a relevant governmental authority occurs which deprives the Strategy Sponsor or any of its affiliates of all or substantially all of its assets in any relevant jurisdiction; or
- (vi) the FX Strategy Component and/or Strategy Currency, as the case may be, ceases to exist and is replaced by a new currency.

For these purposes:

- (A) the determination of the existence or occurrence of any default, event of default, or other similar condition or event shall be made without regard to any lack or alleged lack of authority or capacity of such governmental authority to issue or enter into such security, indebtedness, or guarantee; and
 - (B) "**governmental authority**" means any *de facto* or *de jure* government (or any agency or instrumentality thereof), court, tribunal, administrative, executive, legislative or other governmental authority, or any other entity (private or public) charged with the regulation of the financial markets (including the central bank) of a reference country (which with respect to the euro shall include the European Union as well as any member state thereof from time to time whose currency is the euro).
- (viii) **Disruption Events applicable to a Component which is an over-the-counter interest rate derivative transaction, as determined by the Strategy Sponsor (such Component, a "Swap Strategy Component")**

If, in respect of a Swap Strategy Component, any one or more of the following occurs (each a "**Swap Disruption Event**"):

- (a) any Input Data used to calculate (I) any relevant the swap rate in respect of such Swap Strategy Component, (II) the annuity in respect of such Swap Strategy Component or (III) any other data input which is used to determine the level of such Swap Strategy Component, is not published, calculated by or otherwise made available by both the relevant price source; or
- (b) it is or becomes impossible or not reasonably practicable for the Strategy Sponsor to obtain any relevant swap rate or annuity in respect of such Swap Strategy Component,

then the Strategy Sponsor may determine, in its sole and absolute discretion, to take one or more of the Consequential Actions listed in paragraph (i) above (or take no such action), with reference to preserving the Strategy Purpose (provided that each reference to a "Other Disruption Event" and "Relevant Underlying" shall be deemed to be a reference to "Swap Disruption Event" and "Swap Strategy Component" respectively).

- (ix) **Disruption Events applicable to a Component which is an options contract (which, for the avoidance of doubt, could reference any type or class of underlying instrument or asset), as**

determined by the Strategy Sponsor (such Component, an "Options Contract Strategy Component")

(a) If, in respect of an Options Contract Strategy Component (an **"Affected Options Contract Strategy Component"**), any one or more of the following occurs:

- (I) it is not calculated or quoted by or traded on the relevant reference exchange (as determined by the Strategy Sponsor) but is calculated or quoted by and traded on a successor exchange acceptable to the Strategy Sponsor;
- (II) it is replaced by a successor options contract having, in the determination of the Strategy Sponsor, the same or substantially similar terms as that Affected Options Contract Strategy Component,

then in the case of paragraph (I) above, the Affected Options Contract Strategy Component shall continue to be an Options Contract Strategy Component and, in the case of paragraph (II) above, such successor options contract (a **"Successor Options Contract Strategy Component"**) will be deemed to become an Options Contract Strategy Component and shall replace the Affected Options Contract Strategy Component (such event, a **"Successor Options Contract Strategy Component Event"**) and, in each case, the Strategy Sponsor may, acting in reasonable manner and in good faith, make such adjustments to the terms of a Strategy as it deems appropriate to account for such change (and such replacement and/or adjustment will be deemed to be effective as of the date determined by the Strategy Sponsor).

(b) If, in respect of an Options Contract Strategy Component (a **"Disrupted Options Contract Strategy Component"**), any one or more of the following occurs:

- (I) any term of such Disrupted Options Contract Strategy Component is: (A) changed or modified by the relevant reference exchange (including, without limitation, any change or modification in the contract specifications, the delivery or settlement date, the month of expiration, methodology for calculating the settlement price of such Disrupted Options Contract Strategy Component, the rules and procedures governing the trading, the clearing, settlement and any other related matters of such Disrupted Options Contract Strategy Component) or (B) otherwise subject to any order, ruling directive or law of any government agency or body;
- (II) the relevant price in respect of the underlying instrument or asset in respect of such Disrupted Options Contract Strategy Component becomes a "limit price" in respect of any relevant day (meaning that the price of such underlying instrument or asset on the relevant day has increased or decreased from the previous day's price for such underlying instrument or asset by the maximum amount permitted under the applicable rules of the relevant reference exchange such that no trades with respect to such Disrupted Options Contract Strategy Component may be made at a different price);
- (III) the relevant price in respect of the underlying instrument or asset in respect of such Disrupted Options Contract Strategy Component remains at a "limit price" for five consecutive Strategy Calculation Days;
- (IV) trading in such Disrupted Options Contract Strategy Component (A) is suspended or interrupted subsequent to the open of trading on any relevant day, (B) never commences

on any relevant day, (C) is permanently discontinued at any time, (D) ceases to exist or is no longer tradable (as determined by the Strategy Sponsor), in each case, without there being a Successor Options Contract Strategy Component;

- (V) the Strategy Sponsor, in its reasonable judgment, (I) determines that such Disrupted Options Contract Strategy Component has ceased to be a liquid, actively traded option contract that is generally available for trading or (II) anticipates that such Disrupted Options Contract Strategy Component, notwithstanding that it is available for trading, will cease to be a liquid and actively traded option contract or will be terminated or delisted by the relevant price source,

then the Strategy Sponsor may, in its sole and absolute discretion, to take actions or take no action, including, but not limited to, the following:

- (A) remove the Disrupted Options Contract Strategy Component and/or select any options contract (other than the Disrupted Options Contract Strategy Component) to replace the Disrupted Options Contract Strategy Component (provided that the Strategy Sponsor shall use commercially reasonable efforts to select a replacement Options Contract Strategy Component that it considers, in its sole and absolute discretion, to be a similar alternative), and may make such adjustments to the terms of a Strategy as it deems appropriate to account for such removal and/or replacement;
- (B) amend, in the Strategy Sponsor's sole and absolute discretion, on either a permanent or temporary basis, the methodology used to calculate the value of Disrupted Options Contract Strategy Component for the purposes of the Strategy while aiming to preserve the Strategy Purpose;
- (C) other than in respect of sub-paragraph (II), amend, in the Strategy Sponsor's sole and absolute discretion, on either a permanent or temporary basis, the methodology used to determine which options contract will constitute the relevant Options Contract Strategy Component for the purposes of a Strategy while aiming to preserve the Strategy Purpose (and such replacement and/or adjustment will be deemed to be effective as of the date determined by the Strategy Sponsor); or
- (D) in respect of sub-paragraph (II) only, postpone any applicable rebalancing in whole or in part in respect of a Strategy or the Disrupted Options Contract Strategy Component until such time or day on which no such Disruption Event is continuing and make any relevant adjustments to the methodology for calculating the Strategy that it deems appropriate to account for the postponement of such rebalancing.

- (x) **Disruption Events applicable to an "Intraday Strategy" (being a Strategy for which the parameter "Intraday Strategy" is stated to be "Applicable" in the applicable Strategy Description), as determined by the Strategy Sponsor**

Intraday Strategies typically use or reference intraday fixings, quotes or prices of various types (including, but not limited to, TWAPs, VWAPs and fixings, quotes or prices observed (and/or time stamped) at specified intraday times) as part of its Input Data. Typically, those intraday fixings, quotes or prices will be observed or computed by the Strategy Calculation Agent using real time data or values ("**Intraday Data**") available to it as of the time of calculation, sourced from exchanges, data vendors or other data sources as specified in the Strategy Description.

The Strategy Calculation Agent will use commercially reasonable efforts to ensure the availability and accuracy of Intraday Data. Due to the additional complexity and operational risks associated with the timely computation, technical implementation and risk management of Linked Products referencing Intraday Strategies, the following provisions shall apply to Intraday Strategies.

If, in respect of an Intraday Strategy, the Strategy Sponsor determines that the Strategy Sponsor or an Affiliate is unable:

- (a) prior to a relevant period of time (which may be an observation window or an execution window) to determine the hedges required to be executed by the Strategy Sponsor or an Affiliate in relation to its exposure to such Intraday Strategy; or
- (b) to access any relevant financial market, trading venue or exchange to execute such hedges, including internal trading and order entry systems;

in each case due directly or indirectly to the quality or unavailability of Intraday Data or failures in internal systems and/or data/risk processes, then the Strategy Sponsor may determine, in its sole and absolute discretion, to take actions or take no action, including but not limited to the following:

- (I) suspend the publication of the value of an Intraday Strategy until such time as the issue is resolved;
- (II) choose not to update, restate or correct any of these intraday calculations or end of day levels to account for such issue;
- (III) compute the value of an Intraday Strategy by reference to the affected Intraday Data;
- (IV) compute the value of an Intraday Strategy by reference to the relevant prices, levels, notionals and quantities at which the Strategy Sponsor or its affiliates have executed the relevant hedge transactions in lieu of the prices, levels, notionals and quantities specified in the Strategy Methodology;
- (V) deem an "Asset Level Sample" (as such term may be specified in the relevant Strategy Methodology) to be "not defined" for the purpose of the applicable Strategy Methodology and to compute the applicable Execution Fraction (as such term may be specified in the relevant Strategy Methodology) accordingly; and/or
- (VI) suspend the synthetic execution of new transactions within the Intraday Strategy until such time as the issue is resolved.

Investors should note that an Intraday Strategy may be a component of a wider basket or combination of other Strategies or Components, some of which may specify "Intraday Strategy" to be "Not Applicable". For the avoidance of doubt, any such statement that Intraday Strategy is "Not-Applicable" in a Strategy Description applies only to that Strategy and Investors should read and understand the disclosure applicable to each individual Strategy that forms part of such basket or combination.

The Disruption Events in this paragraph (x) shall not apply where "Intraday Disruption Provisions" are stated to be "Not Applicable" in the relevant Strategy Description.

RESTATEMENTS OF INPUT DATA

Further information on the policies and procedures of the Strategy Sponsor in relation to the handling of errors, incidents and restatements in respect of any Strategy can be found at the following location: <https://www.goldmansachs.com/disclosures/euro-benchmark-reg-iosco-principles-for-financial-benchmarks-f/summary-of-gs-policy-on-global-benchmark-incident.pdf> (or any successor page).

ADJUSTMENT EVENTS

In the event of any inconsistency between the provisions of this "Adjustment Events" section and the provisions of any relevant General Description, Specifications Annex and/or Other Documentation Element in respect of a Strategy, the provisions of the relevant General Description, Specifications Annex and/or Other Documentation Element shall prevail for the purposes of such Strategy.

For the purposes of these General Strategy Terms, a "**Strategy Calculation Agent Methodology Strategy**" means a Strategy that is calculated in accordance with the policies and practices of a third party strategy calculation agent or a third party's corporate action methodology (as further described in the Strategy Description) (such methodology being the "**Strategy Calculation Methodology**" in respect of the relevant Strategy), including, for the avoidance of doubt, where the Strategy Calculation Agent is a third party not affiliated with the Strategy Sponsor.

Strategy Calculation Agent Methodology Strategies

In respect of a Strategy Calculation Agent Methodology Strategy, following the determination by the Strategy Calculation Agent that (and each of below constitutes an "**Adjustment Event**" for the purpose of General Strategy Terms):

- (a) a Share Strategy Component or ETF Strategy Component (each an "**Affected Strategy Component**") has commenced trading ex-dividend in respect of an ordinary cash dividend (such dividend an "**Ordinary Dividend**" and such date, an "**Ex Day**");
- (b) an Extraordinary Event (as defined below) has occurred in respect of an Affected Strategy Component;
or
- (c) a Potential Adjustment Event (as defined below) has occurred in respect of an Affected Strategy Component or following any adjustment to the settlement terms of listed options or futures contracts on such Affected Strategy Component traded on an options or futures exchange,

then, unless otherwise specified in the Strategy Description, the Strategy Calculation Agent will adjust the value of the Strategy in accordance with such Strategy Calculation Agent Methodology in respect of such Strategy Calculation Agent Methodology Strategy to account the occurrence of such event or circumstance.

Ordinary Dividends and Ex Days

In respect of a Strategy that is not a Strategy Calculation Agent Methodology Strategy, following the determination by the Strategy Sponsor that an Affected Strategy Component has commenced trading ex-dividend in respect of an Ordinary Dividend, the Strategy Sponsor will determine the applicable dividend amount per share of such Affected Strategy Component net of an Assumed Tax Rate, as set out below (the "**Net Dividend Amount**"). Following such determination, the Strategy Sponsor will adjust the Strategy on or around the Ex Day with the aim of reflecting the economic effect of such Net Dividend Amount (as determined by the Strategy Sponsor acting in good faith and a commercially reasonable manner).

In the event that the dividend amount, dividend type or the Ex Day of a dividend is adjusted in respect of an Affected Strategy Component on any day after an Ex Day, the Strategy Sponsor may make further adjustments to the Strategy.

The Strategy Sponsor will determine in respect of each relevant Affected Strategy Component and Ex Day, based on its view of applicable law and/or regulations, observable sources and/or market practice, an assumed

tax rate ("**Assumed Tax Rate**") which is intended to reflect the withholding tax rate levied, or the potential tax rate that may be levied by the country of incorporation or residence of the issuer of such Affected Strategy Component.

Extraordinary Events and Corporate Actions

In respect of a Strategy that is not a Strategy Calculation Agent Methodology Strategy:

- (a) following the determination by the Strategy Sponsor that an Extraordinary Event has occurred in respect of an Affected Strategy Component the Strategy Sponsor may in respect of such Affected Strategy Component in its sole and absolute discretion:
 - (I) determine the appropriate adjustment, if any, to be made to one or more determinations under such Strategy as the Strategy Sponsor determines appropriate to account for the Extraordinary Event and determine the effective date of that adjustment. The relevant adjustments may include, without limitation, adjustments to account for changes in volatility, expected dividends, stock loan rate or liquidity relevant to such Affected Share Strategy Component; or
 - (II) remove the Affected Strategy Component and/or select an alternative Component to replace the Affected Strategy Component and make such adjustments to the terms of a Strategy as it deems appropriate to account for such removal; and
- (b) following the determination by the Strategy Sponsor that a corporate action has occurred in respect of an Options Contract Strategy Component, the Strategy Sponsor may, in respect of such Options Contract Strategy Component, in its sole and absolute discretion, determine the appropriate adjustment, if any, to be made to one or more determinations, calculations or values in respect of such Options Contract Strategy Component and determine the effective date of the adjustment(s). The Strategy Sponsor may, but need not, determine the appropriate adjustment(s) by reference to (amongst other things) the adjustment(s) in respect of such corporate action made by exchanges (including, but not limited to, the reference exchange for such Options Contract Strategy Component) or announcements made by The Options Clearing Corporation (OCC).

The following terms shall have the following meanings:

"Extraordinary Event" means, in respect of:

- (I) a Share Strategy Component, each of a Delisting, an Insolvency, a Merger Event, a Nationalisation and a Tender Offer, or any analogous circumstances, as determined by the Strategy Sponsor or Strategy Calculation Agent (as applicable) in its sole and absolute discretion; and
- (II) an ETF Strategy Component, each of a Delisting, an Insolvency, a Merger Event, a Nationalisation and a Tender Offer;

"Delisting" means, in respect of an Affected Strategy Component, the reference exchange (as determined by the Strategy Sponsor or Strategy Calculation Agent (as applicable)) announces that pursuant to the rules of such reference exchange, such Affected Strategy Component ceases (or will cease) to be listed, traded, or publicly quoted on such reference exchange for any reason (other than a Merger Event or Tender Offer) and are not immediately re-listed, re-traded, or re-quoted on an exchange or quotation system located in the same country as such reference exchange (or, where such reference exchange is within the European Union, in a member state of the European Union);

"Insolvency" means that by reason of the voluntary or involuntary liquidation, bankruptcy, insolvency, dissolution, or winding-up of or any analogous proceeding affecting the issuer of an Affected Strategy Component, (I) all such Affected Strategy Component is required to be transferred to a trustee, liquidator, or other similar official or (II) holders of such Affected Strategy Component become legally prohibited from transferring them;

"Merger Event" means, in respect of an Affected Strategy Component, any of the following:

- (I) a reclassification or change of such Affected Strategy Component that results in a transfer of, or an irrevocable commitment to transfer all such Affected Strategy Component outstanding to another entity or person;
- (II) a consolidation, amalgamation, merger, or binding share exchange of the issuer of such Affected Strategy Component with or into another entity or person (other than a consolidation, amalgamation, merger, or binding share exchange in which such issuer is the continuing entity and which does not result in a reclassification or change of all of such Affected Strategy Component outstanding);
- (III) a takeover offer, tender offer, exchange offer, solicitation, proposal, or other event by any entity or person to purchase or otherwise obtain 100 per cent. (100%) of the outstanding Affected Strategy Component that results in a transfer of, or an irrevocable commitment to transfer, all such Affected Strategy Component (other than such Affected Strategy Component owned or controlled by such other entity or person); or
- (IV) a consolidation, amalgamation, merger, or binding share exchange of the issuer of such Affected Strategy Component or its subsidiaries with or into another entity in which such issuer is the continuing entity and which does not result in a reclassification or change of all such Affected Strategy Component outstanding but results in the outstanding Share Strategy Component (other than such Affected Strategy Component owned or controlled by such other entity) immediately prior to such event collectively representing less than 50 per cent. (50%) of the outstanding Affected Strategy Component immediately following such event;

"Nationalisation" means that all the Affected Strategy Component or all or substantially all the assets of the issuer of such Affected Strategy Component are nationalised, expropriated, or are otherwise required to be transferred to any governmental agency, authority, entity, or instrumentality thereof;

"Tender Offer" means a takeover offer, tender offer, exchange offer, solicitation, proposal, or other event by any entity or person that results in such entity or person purchasing, or otherwise obtaining, or having the right to obtain, by conversion or other means, greater than 10 per cent. (10%) and less than 100 per cent. (100%) of the outstanding voting shares of the issuer of an Affected Strategy Component, as determined by the Strategy Sponsor or Strategy Calculation Agent (as applicable), based upon the making of filings with governmental or self-regulatory agencies or such other information as the Strategy Sponsor or Strategy Calculation Agent (as applicable) determines to be relevant.

Potential Adjustment Event

In respect of a Strategy that is not a Strategy Calculation Agent Methodology Strategy, following the determination by the Strategy Sponsor that a Potential Adjustment Event has occurred in respect of an Affected Strategy Component or following any adjustment to the settlement terms of listed options or futures contracts on such Affected Strategy Component traded on an options or futures exchange, the Strategy Sponsor will determine whether such Potential Adjustment Event or adjustment to the settlement terms of listed options or

futures contracts on such Affected Strategy Component traded on an options or futures exchange has a diluting or concentrative effect on the theoretical value of such Affected Strategy Component and, if so, will:

- (i) make the corresponding adjustment, if any, to one or more determinations under a Strategy, as the Strategy Sponsor determines appropriate to account for that diluting or concentrative effect (provided that adjustments may be made to account solely for changes in volatility, expected dividends, stock loan rate, or liquidity relative to such asset), including (but not limited to) an adjustment to level in respect of such Affected Strategy Component or an adjustment to the level of the Strategy and/or its composition; and
- (ii) determine the effective date of such adjustment.

The Strategy Sponsor may, but need not, determine the appropriate adjustment by reference (amongst other things) to the adjustment in respect of such Potential Adjustment Event made by other equity market dealers and/or exchanges (including but not limited to the reference exchange for such Affected Strategy Component, and options and futures exchanges related to such Affected Strategy Component) or quoting services.

"Potential Adjustment Event" means, in respect of an Affected Strategy Component, any of the following:

- (i) a subdivision, consolidation or reclassification of the relevant Affected Strategy Component (unless resulting in a Merger Event) or a free distribution or dividend of any such Affected Strategy Component to existing holders of such Affected Strategy Component by way of bonus, capitalisation, or similar issue;
- (ii) a distribution, issue or dividend to existing holders of the relevant Affected Strategy Component of (a) such Affected Strategy Component, (b) other share capital or securities granting the right to payment of dividends and/or the proceeds of liquidation of the issuer of such Affected Strategy Component equally or proportionately with such payments to holders of such Affected Strategy Component, (c) share capital or other securities of another issuer acquired or owned (directly or indirectly) by the issuer of such Affected Strategy Component as a result of a spin-off or other similar transaction or (d) any other type of securities, rights, or warrants, or other assets, in any case for payment (in cash or in other consideration) at less than the prevailing market price, all as determined by the Strategy Sponsor;
- (iii) an extraordinary dividend;
- (iv) a declaration or public announcement that any dividend that was previously declared as payable in respect of such Affected Strategy Component has been cancelled or will otherwise not be payable;
- (v) a call by the issuer of such Affected Strategy Component in respect of such Affected Strategy Component that are not fully paid;
- (vi) a repurchase by the issuer of such Affected Strategy Component or any of its subsidiaries of such Affected Strategy Component whether out of profits or capital and whether the consideration for such repurchase is cash, securities, or otherwise;
- (vii) in respect of the issuer of such Affected Strategy Component, an event that results in any shareholder rights being distributed or becoming separated from shares of common stock or other shares of the capital stock of such issuer pursuant to a shareholder rights plan or arrangement directed against hostile takeovers that provides upon the occurrence of certain events for a distribution of preferred stock, warrants, debt instruments, or stock rights at a price below their market value, as determined by the Strategy Sponsor, provided that any adjustment effected as a result of such an event shall be readjusted

upon any redemption of such rights; or

- (viii) any other event having a diluting or concentrative effect on the theoretical value of the relevant Affected Strategy Component, as determined by the Strategy Sponsor.

AVAILABILITY AND PUBLICATION OF STRATEGY VALUES AND TERMINATION OF A STRATEGY

Unless otherwise specified in the relevant Strategy Description, the Strategy Calculation Agent will generally calculate and make available the value of a Strategy in respect of each Strategy Calculation Day.

On any Strategy Calculation Day in respect of which a Disruption Event (as defined in the section of these General Strategy Terms entitled "*Disruption Events and Consequences*", or otherwise specified in the relevant General Description, Specifications Annex and/or Other Documentation Element) has occurred in respect of a Strategy, the Strategy Calculation Agent may still make available a value of a Strategy in respect of such Strategy Calculation Day. However, in such event, such value of a Strategy may be indicative and only for information purposes and may not reflect a value at which the Strategy Sponsor or its affiliates would be willing to issue or trade any products linked to such Strategy.

Strategy Values: The value of a Strategy in respect of a Strategy Calculation Day will be published on the following data sources:

- (i) on <https://marquee.gs.com> (or any successor page) (the "**Strategy Publication Data Source**"); and/or
- (ii) on such other information sources as the Strategy Sponsor may select from time to time at its sole and absolute discretion.

To the extent that rounding is applicable to a Strategy in accordance with the terms of the relevant Strategy Description, each value of a Strategy will be published to the number of significant figures set out in the relevant Strategy Description.

Information about the past performance of a Strategy can be obtained at the Strategy Publication Data Source.

Miscellaneous: As soon as reasonably practicable upon changing or amending the methodology relating to such Strategy in accordance with the section of these General Strategy Terms entitled "*Change in Strategy Methodology*", the Strategy Sponsor will post details of such determination, change or amendment to the Strategy Publication Data Source. Any notices in respect of a Strategy (including, without limitation, any notice in respect of a restatement of a Strategy) will be published on the Strategy Publication Data Source.

Any investor in a Linked Product who does not have access to the Strategy Publication Data Source may obtain information published there from the Systematic Trading Strategies (STS) Department of Goldman Sachs International.

Any publication described in this section of these General Strategy Terms entitled "*Availability and Publication of Strategy Values and Termination of a Strategy*" may be restricted by means determined appropriate for such purpose by the Strategy Sponsor or Strategy Calculation Agent, in each case in its sole and absolute discretion, including, but not limited to, password protection restricting access to a limited set of persons in accordance with arrangements agreed between the Strategy Sponsor or Strategy Calculation Agent and such persons.

The Strategy Sponsor may, at any time, for any reason, and without notice, change the Strategy Publication Data Source or the data source on which any value of a Strategy is published and/or change the frequency of publication of the value of a Strategy, in its sole and absolute discretion.

The Strategy Sponsor may, in its sole and absolute discretion, at any time, for any reason (including without limitation, because it is no longer possible or practicable to calculate the value of a Strategy), and without notice, terminate the calculation and publication of a Strategy.

The Strategy Sponsor and the Strategy Calculation Agent accept no liability to any person for publishing or not continuing to publish for any period of time any value of a Strategy on any particular data source or any particular time.

CHANGE IN STRATEGY METHODOLOGY

1. Change in Methodology

Except as provided in this section of these General Strategy Terms entitled "*Change in Strategy Methodology*", the Strategy Calculation Agent will, subject as provided below, employ the methodology described in the Strategy Description with respect to calculating and determining the value of a Strategy and the determining weights of any Components respectively, and its application of such methodologies shall (in the absence of manifest error) be conclusive and binding.

While the Strategy Calculation Agent expects to employ the methodology described in the Strategy Description (the "**Strategy Methodology**") at all times to calculate and determine the value of a Strategy and determining the weights of any Components respectively, it is possible that market, legal, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to (i) any event that impairs or is expected to impair the market liquidity of transactions relating to a Component, (ii) any changes to or any suspension or termination of or any other events affecting a Strategy and/or any Component, as the case may be or (iii) any other events affecting the ability of an Input Data Provider to supply the necessary Input Data for purposes of calculating the value of a Strategy or events affecting the availability of Input Data relating to Components) will arise that would, in the view of the Strategy Sponsor, necessitate or make desirable a modification or change of such Strategy Methodology in order to preserve the Strategy Purpose (including, without limitation, in order to increase the transparency of the Strategy Description (as determined by the Strategy Sponsor)).

The Strategy Sponsor reserves the right to make any other changes to the composition of a Strategy or to the Strategy Methodology or to any third party data source used to calculate the value of a Strategy as the Strategy Sponsor may, in its sole discretion, determine to be necessary as a result of market, legal, regulatory, judicial, financial, fiscal or other circumstances.

Accordingly, the Strategy Sponsor shall be entitled to make modifications and/or changes to the Strategy Methodology, the composition of the Strategy (including the Components) or to any Input Data obtained from an Input Data Provider which is used to calculate the value of a Strategy without notice as it in its sole and absolute discretion deems appropriate, necessary or desirable, including (without limitation):

- (i) to correct any manifest error or proven error contained in the Strategy Description;
- (ii) to cure, correct or supplement any ambiguity or contradictory or defective provision contained in the Strategy Description;
- (iii) to change the frequency of calculation of the value of a Strategy and to make such adjustment to the Strategy Methodology as it determines, in good faith and in a commercially reasonable manner, to be necessary to take account of the amended frequency of calculation;
- (iv) to permit the Strategy Calculation Agent to continue calculating and determining the value of a Strategy and determining the weights of any Component respectively if market, legal, regulatory, judicial, financial, fiscal or other circumstances arise which were not reasonably foreseeable by the Strategy Sponsor as of the date of the relevant Strategy Description and which have not been deliberately caused by the Strategy Sponsor and such circumstances would prevent the Strategy Calculation Agent from calculating and determining the value of a Strategy and determining the weights of any Components or any signal respectively, and would necessitate a modification or change of the methodology described in the Strategy Description in order for the value of a Strategy to continue to be calculated and determined notwithstanding the relevant circumstances;

- (v) to permit the Strategy Sponsor and/or the Strategy Calculation Agent to continue calculating and determining the value of a Strategy and determining the weight(s), signal(s) or other values or parameters in respect of any Component in anticipation of, or as a result of (A) the cessation of any benchmark, including but not limited to any inter-bank offered interest rates (each an “**Affected Rates Benchmark**”), (B) any change or adjustment announced or implemented by clearing houses or exchanges with respect to an Affected Rates Benchmark (including, but not limited to, any discounting convention or premium of a financial instrument) or (C) when such Affected Rates Benchmark, as determined by the Strategy Sponsor, becomes no longer reliable and representative of market or economic reality that such Affected Rates Benchmark is intended to measure;
- (vi) to preserve the Strategy Purpose where such modification and/or change is of a formal, minor or technical nature;
- (vii) to increase the transparency of the Strategy Description (as determined by the Strategy Sponsor in its sole discretion); and/or
- (viii) to preserve the Strategy Sponsor’s or its affiliates’ ability to hedge the relevant Strategy, Components and/or Input Data and maintain such Strategy as tradable and replicable.

The Strategy Sponsor may also specify in the relevant Strategy Description if it foresees any additional circumstances that it may deem necessary or appropriate to make any changes to the Strategy or to the Strategy Methodology.

In the event that an ambiguity or contradictory or defective provision comes to the attention of the Strategy Sponsor and/or the Strategy Calculation Agent in the calculation of the value of a Strategy, the Strategy Sponsor and/or the Strategy Calculation Agent may, in accordance with its own policies and procedures applicable at the time, resolve such ambiguity or contradictory or defective provision and, if necessary for resolution, make such changes to the composition of such Strategy or the methodology of calculating such Strategy. In the event that the Strategy Sponsor or the Strategy Calculation Agent (as applicable) determines that any calculation or determination in respect of any Strategy is incorrect, the Strategy Sponsor or the Strategy Calculation Agent (as applicable) shall review such calculation or determination in accordance with its policies and procedures applicable at the relevant time (which may result in such calculation or determination being corrected). In the event of any conflict between any such determination of the Strategy Sponsor and the Strategy Calculation Agent, the determination by the Strategy Sponsor shall prevail.

2. Strategy Oversight

The Strategy Sponsor has a committee (the “**Strategy Committee**”) which provides overall oversight of activities related to the development, issuance and operation of each Strategy. The Strategy Committee consists of representatives from Goldman Sachs’ front office who may be involved in the design and/or hedging of Strategies and control functions but does not include representation from external stakeholders. The Strategy Committee, amongst other things (i) serves as the oversight function for the purposes of Article 5 of the Benchmarks Regulation¹ of members of the Goldman Sachs Group acting as “administrators” (as such term is defined in the Benchmarks Regulation) under the Benchmarks Regulation and (ii) maintaining oversight of and approving the exercise of discretion or expert judgment by the Strategy Sponsor to a Strategy, including

¹ Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending directives 2008/48/EC and 2014/17/EU and Regulation (EU) 596/2014 (as may be amended or replaced from time to time).

determinations required following disruption events or adjustment events, changes to embedded costs and amendments to the calculation methodology.

Notwithstanding the foregoing, in making any such modifications described above, the Strategy Sponsor will ensure that such modifications or changes will result in a methodology that is consistent with the Strategy Purpose. However, each of the Strategy Sponsor and the Strategy Calculation Agent do not owe any person any fiduciary duties in respect of a Strategy and are not required to take the interests of any person into account in making any such modifications with respect thereto.

In respect of a Strategy, the Strategy Sponsor may, but is not required to, establish any additional consultation group (the "**External Consultation Group**"). The External Consultation Group, if established, will comprise employees of the Strategy Sponsor and at least an equal number of external members with a relevant academic or professional background, as selected by the Strategy Sponsor in its sole and absolute discretion. The Strategy Calculation Agent may from time to time consult with the External Consultation Group on matters of interpretation with respect to the methodology of a Strategy. For the avoidance of doubt, the External Consultation Group, if established, will not have greater powers than the Strategy Sponsor at any time.

This section of the General Strategy Terms entitled "*Strategy Oversight*" is subject to, and qualified by, Goldman Sachs International's benchmark statements (the "**GSI Benchmark Statements**") and a summary of its Securities Division Global Benchmark Policy and Control Framework (the "**Framework**") which can be accessed via the following link: <https://www.goldmansachs.com/disclosures/euro-benchmark-reg-iosco-principles-for-financial.html> (or any successor page thereto).

3. Capacity Limit of a Strategy

If the aggregate notional amount of Linked Products (or products or transactions linked to any other Strategy which is sponsored by the same Strategy Sponsor and which use a similar methodology as such Strategy) exceeds a certain threshold (as determined by the Strategy Sponsor by reference to the ability and capacity of the Strategy Sponsor and its affiliates to be able to effectively hedge its exposure to such Strategy and the liquidity impact of such hedging on the relevant markets, then the Strategy Sponsor may (a) change the methodology in respect of a Strategy so that the rebalancing of the Strategy is executed over one or more additional days and/or adjust the frequency in which the rebalancing of the Strategy occurs, (b) replace the Strategy with a replacement Strategy which will be identical in all material respects other than the day or days on which the Strategy is rebalanced, (c) make such other adjustments to the Strategy, in each case, in order to enable the Strategy Sponsor and its affiliates to effectively hedge its exposure to the Strategy and/or reduce the expected liquidity impact of such hedging transactions in relevant markets and/or (d) if such Strategy is an actively managed strategy, the Strategy Sponsor may, notwithstanding all rebalancing conditions in respect of a proposed rebalancing request being satisfied and if so specified in the Strategy Description, reject such proposed rebalancing request that would, if implemented, change the quantity or weight of certain components in the Strategy. No modifications, replacement or changes proposed as a result of this paragraph shall result in a Strategy that is inconsistent with the Strategy Purpose. Any such changes or actions will be announced as promptly as is reasonably on the Strategy Publication Data Source. Any holder or counterparty of any Linked Product who requires further information regarding any element of the foregoing should contact the Systematic Trading Strategies (STS) Department of Goldman Sachs International.

4. Amendments to notional costs in respect of a Strategy

The Strategy Sponsor, acting in a reasonable manner and in good faith, and subject to any applicable conditions and restrictions if being so specified in the relevant Strategy Description, shall have the right, but

not the obligation, to increase or decrease any of the notional costs in respect of a Strategy, in each case if the Strategy Sponsor determines, in its sole and absolute discretion, that the costs that a hypothetical investor would incur in investing in, rebalancing, maintaining positions in, or synthetically replicating the performance of, transactions or positions linked to the Strategy or Components have increased or decreased (as the case may be). The Strategy Sponsor is not required to take the interests of any person into account in determining whether or not to exercise such right and does not owe any person any fiduciary duties in respect thereof.

5. Amendments to the “Adjustment Events” section above

Investors in Linked Products should note that the Strategy Sponsor may replace or amend from time to time the methodology contained in the “Adjustment Events” section of these General Strategy Terms (including, without limitation, by the creation of a new methodology to determine corporate actions and the relevant adjustments).

HEDGING ACTIVITIES AND NOTIONAL COSTS OF A STRATEGY

1. Hedging activities in relation to a Strategy

The Strategy Sponsor and/or any affiliate in its capacity as issuer of, or counterparty to, Linked Products (a "**Hedging Party**") may hedge its exposure or potential or expected exposure to the Strategy, Linked Products and the Components (and their components) with an affiliate or a third party. A Hedging Party may make significant returns on this hedging activity independently of the performance of the Strategy or any Component, including in scenarios where the levels at which it executes its hedges are different from the levels specified in the methodology for determining the value of the Strategy (or otherwise where such Hedging Party does not hedge all of its exposure to the Strategy).

Any returns on a Hedging Party's hedging activity will not be passed on to investors in Linked Products, and such investors will not have any rights in respect of a Hedging Party's hedge positions including but not limited to any shares, ETFs, futures, options, commodities, currencies or other financial instruments. Where a Hedging Party, in accordance with its internal policies, executes hedging activity by trading in components of the Strategy (or other similar strategies) on or before the related rebalancing day, such trading may have an adverse impact on the level at which the Components are rebalanced (which may result in an adverse impact on the performance of the Strategy). Such hedging activity, and the size of such impact, will be linked to the amount of new and outstanding Linked Products at the relevant time.

Additionally, members of the Goldman Sachs Group may generate revenues if they execute their hedging activity at different levels from those used to determine the value of the Strategy or used for the rebalancing of the Strategy. Such hedging activity could generate significant returns to members of the Goldman Sachs Group that will not be passed on to investors in any Linked Product.

2. Notional costs of a Strategy

Notional embedded costs may be included within a Strategy that will generally reduce the level of such Strategy. Any such amounts will be deducted from the performance of a Strategy with the intention of reflecting synthetically one or more of (i) the cost of maintaining exposure to, and replicating performance of, each Component (such costs are applicable on an ongoing basis for such time as the Strategy maintains exposure to the relevant Component and are often referred to as servicing costs), (ii) the cost of entering into and/or unwinding transactions relating to a Component following each rebalancing of the Components in the Strategy (such costs are made only as a result of a rebalancing of a Strategy and are often referred to as transaction costs) and/or (iii) strategy deduction amounts (which are applicable to a Strategy rather than the Components and are applicable on an ongoing basis at either a continuous fixed rate or for such time as the value of the Strategy is greater than zero). The costs referred to in (i) and (ii) above may vary for each Component. These embedded costs will generally reduce the value of such Strategy. In addition, the value of a Strategy may be reduced by further deductions if so specified in the relevant Strategy Description.

Each Component and the underlying components thereof may also embed notional cost deductions, the effect of which is to reduce the value of the Component or component thereof, as applicable. Such notional costs deductions are intended to reflect, synthetically, certain costs incurred in respect of such Component (or component thereof, as applicable) as described in the documentation of the relevant Component or underlying component thereof (as applicable). Any such deductions from the value of a Component or underlying component thereof generally have the effect of reducing the value of the relevant Strategy.

Investors in Linked Products should note that the actual costs of entering into, unwinding and/or maintaining such transactions or positions may be lower or higher than the synthetic costs set out in the Strategy Description

and, if they were lower, the effect of these deductions would be to the benefit of a Hedging Party in its capacity as issuer of, or counterparty to the Linked Products. In general, it is expected that such actual costs will be lower in each case than the synthetic costs in the Strategy.

CONFLICTS OF INTEREST

The following list of conflicts does not purport to be a complete list or explanation of all the conflicts of interests associated with the Strategies.

POTENTIAL INVESTORS SHOULD REFER TO THE RELEVANT GENERAL DESCRIPTION, SPECIFICATIONS ANNEX AND/OR OTHER DOCUMENTATION ELEMENT IN RESPECT OF EACH STRATEGY FOR SPECIFIC CONFLICTS OF INTEREST RELATING TO SUCH STRATEGY.

Overview of the Roles of the Goldman Sachs Group

The Goldman Sachs Group may have multiple roles in connection with the Strategies:

- (i) If Goldman Sachs International is the Strategy Calculation Agent, Goldman Sachs International is responsible for calculating and publishing the value of a Strategy in its capacity as Strategy Calculation Agent and for making certain determinations in respect of such Strategy from time to time in its capacity as Strategy Sponsor.
- (ii) The Strategies are designed by, and are operated in accordance with, a methodology developed by Goldman Sachs International. Among other things, Goldman Sachs International created the parameters within which each Strategy operates. The Strategy Sponsor does not have any obligation to ensure that the Strategy Calculation Agent continues to calculate and publish the value of a Strategy. Except in the limited circumstances set out in the relevant Strategy Description, Goldman Sachs International does not generally exercise any discretion in relation to the operation of each Strategy. Goldman Sachs International owes no fiduciary duties in respect of such Strategy.
- (iii) The Goldman Sachs Group is a full-service financial services group and, consequently, is engaged in a range of activities that could affect the value of a Strategy, as the case may be, and any Component positively or negatively as further described below.
- (iv) The Goldman Sachs Group members may be sponsors and/or calculation agents of one or more Components and in that capacity have the power to make determinations that could materially affect the value of such Strategy.
- (v) The Goldman Sachs Group may from time to time have a direct or indirect ownership interest in any Strategy Calculation Agent (or any other calculation agent with respect to a Strategy or Component) and any third party data providers with respect to a Strategy or any Component (including, without limitation, any Input Data Provider).

Potential Conflicts of Interest

Potential conflicts of interest may arise in relation to Goldman Sachs' multiple roles in connection with the Strategy. Although the Goldman Sachs Group will perform its obligations in a manner that it considers commercially reasonable, it may face conflicts between the roles it performs in respect of a Strategy and its own interests. In particular, the Goldman Sachs Group may have, or enter into transactions to create, a physical, economic or other interest (including an adverse and/or short interest, as the case may be) in a Strategy, Linked Products, any Component, any Input Data and/or investments referenced by or linked to any Component or Input Data and may exercise remedies or take other action with respect to its interests as it deems appropriate. These actions could adversely affect the value of a Strategy and may include the following:

- (i) The Goldman Sachs Group actively trades Linked Products, any Component, Input Data, investments

referenced by or linked to a Component or Input Data and numerous related investments. These activities could adversely affect the value of a Strategy, which could in turn affect the return on, and the value of, Linked Products.

- (ii) The Goldman Sachs Group may have access to information relating to a Strategy, Linked Products, a Component, Input Data or investments referenced by or linked to a Component or Input Data. The Goldman Sachs Group is not obliged to use that information for the benefit of any person acquiring or entering into any Linked Products.
- (iii) Certain activities conducted by the Goldman Sachs Group may conflict with the interests of those acquiring any Linked Products. It is possible that the Goldman Sachs Group could receive substantial returns in respect of these activities while the value of any investment referenced to such Strategy may decline. For example:
 - (a) The Goldman Sachs Group and other parties may issue or underwrite additional securities or trade other financial or derivative instruments or investments referenced to a Strategy or other similar strategies or any Component. An increased level of investment and trading in these securities, instruments or investments may negatively affect the performance of a Strategy and could affect the value of such Strategy and, therefore, the amount payable at maturity (or on any other payment date) on any Linked Products and the value of such Linked Products before such date. Such securities, instruments or investments may also compete with any Linked Products. By introducing competing products into the marketplace in this manner, the Goldman Sachs Group could adversely affect the market value of any Linked Products and the amount paid by it on such products at maturity (or on any other payment date). To the extent that the Goldman Sachs Group serves as issuer, agent, underwriter or counterparty in respect of those securities or other similar instruments or investments, its interests in respect of those securities, instruments or investments may be adverse to the interests of a holder or counterparty in respect of any Linked Products.
 - (b) Although the Goldman Sachs Group is not obliged to do so, it may elect to hedge its exposure to a Strategy, any Linked Products, a Component, Input Data or any investment referenced by or linked to a Component or Input Data with an affiliate or a third party. That affiliate or third party, in turn, is likely to directly or indirectly hedge some or all of its exposure, including through transactions taking place on the futures and options markets. Where the Goldman Sachs Group chooses to hedge its exposure, it may adjust or unwind such hedges by purchasing or selling any Linked Products, a Component, Input Data, any investments referenced by or linked to a Component or Input Data or any other product on or before the date such Strategy is valued for purposes of any investments referenced to such Strategy. The Goldman Sachs Group may also enter into, adjust or unwind hedging transactions relating to other instruments linked to a Strategy or a Component including at times and/or levels which are different from those used to determine the value of a Strategy. Any of this hedging activity may adversely affect the value of a Strategy and the value of any products linked to such Strategy. In addition, and without limitation:
 - (I) The Goldman Sachs Group could receive substantial returns with respect to these hedging activities while the value of a Strategy and/or the value of any Linked Product may decline.
 - (II) If the Goldman Sachs Group has hedged its exposure to a Component and/or Input Data and incurs an effective rate of withholding tax that is less than the synthetic tax withholding applied in respect of a Strategy, the Goldman Sachs Group could receive substantial

returns.

- (III) The Goldman Sachs Group could receive substantial returns if it trades in a Component on or before the rebalancing of a Strategy and/or at levels which are different from the levels specified in the methodology for determining the value of a Strategy. Such trading may have an adverse impact on the level at which a rebalancing occurs, which may result in an adverse impact on the performance of a Strategy. In addition, such trading could generate significant returns to the Goldman Sachs Group that will not be passed on to the investors in any Linked Products.
- (c) Certain activities conducted by the Goldman Sachs Group may conflict with the interests of those acquiring any Linked Products. For example, as described above, the Goldman Sachs Group may elect to hedge its obligations, if any, with an affiliate or a third party. It is possible that the Goldman Sachs Group could receive substantial returns with respect to these activities irrespective of the performance of such Strategy and including while the value of any investment referenced to a Strategy may decline.
- (d) The Goldman Sachs Group may also engage in trading for its proprietary accounts, for other accounts under its management or to facilitate transactions, including block transactions, on behalf of customers relating to one or more Linked Products, a Component (or any constituent thereof), Input Data and/or any investment referenced by or linked to a Component (or any constituent thereof) or Input Data. In the course of these transactions, the Goldman Sachs Group's customers may receive information about a Strategy before it is made available to other investors. Any of these activities could also adversely affect the value of a Strategy directly or indirectly by affecting the level of a Component (or any constituent thereof), Input Data or the investments referenced by or linked to a Component (or any constituent thereof) or Input Data and, therefore, the market value of any Linked Products and the amount paid on any such product at maturity.
- (iv) As operator or sponsor of a Strategy, under certain circumstances Goldman Sachs International will have discretion in making various determinations that affect a Strategy and any Linked Products including, but not limited to, those situations described in the relevant Strategy Description. Goldman Sachs International may use these determinations to calculate how much cash it must pay at maturity, or, as the case may be, upon any early redemption or on any other payment date, of any Linked Product, including products issued by the Goldman Sachs Group members. The exercise by Goldman Sachs International of this discretion could adversely affect the value of such Strategy and the value of any Linked Product. It is possible that the exercise by the Strategy Sponsor of its discretion to change the relevant Strategy Methodology may result in substantial returns in respect of the Goldman Sachs Group's trading activities for its proprietary accounts, for other accounts under its management or to facilitate transactions on behalf of customers relating to one or more Linked Products, the Components and/or Input Data thereof or any investment referenced by or linked to such Components and/or Input Data.
- (v) As operator or sponsor of one or more Components (or as an Input Data Provider), the Goldman Sachs Group members may be entitled to exercise discretion over decisions that would have an adverse impact on the value of a Strategy, including, without limitation, discontinuing publication of the level of one or more Components and/or Input Data. The Goldman Sachs Group members will exercise any such discretion without regard to any Strategy or investors in any Linked Products.

- (vi) The Goldman Sachs Group may in the future create and publish other indices or strategies, the concepts of which are similar, or identical, to that of a Strategy or one or more of the Components. The Components as specified in the Strategy Description for such Strategy, however, are the only components that will be used for the calculation of the Strategy. Accordingly, no other published indices should be treated by any investor as the level of any Component (except as the Strategy Sponsor or the Strategy Calculation Agent may so determine, as described above).
- (vii) The Goldman Sachs Group may publish research, express opinions or provide recommendations (for example, with respect to a Component) that are inconsistent with investing in products linked to such Strategy, and which may be revised at any time. Any such research, opinions or recommendations may or may not recommend that investors buy or hold the relevant Component and could affect the value and or performance of such Strategy or of products linked to such Strategy.
- (viii) The Goldman Sachs Group may have ownership interests in sponsors of Components and as such may be able to influence the methodology and other features of such Components. In addition, members of the Goldman Sachs Group may provide pricing or other data that is directly used in the calculation of the level, value, coupon and/or components of Components (or the components thereof) or may be an Input Data Provider. The activities of the Goldman Sachs Group members as contributor to any Components or Input Data Providers may be adverse to the interests of investors and/or counterparties to products linked to any such Components or Input Data and may have an impact on the performance of such Components and/or Input Data.
- (ix) The Goldman Sachs Group may have ownership interests in the Strategy Calculation Agent (or any other calculation agent with respect to a Strategy or Component) and any third party data providers (including, without limitation, any Input Data Provider) with respect to a Strategy or any Component or Input Data and as such may be able to influence the determinations of such the Strategy Calculation Agent or other calculation agent. In addition, members of the Goldman Sachs Group may provide pricing or other data that is directly used in the calculation of the level, coupon and/or components of the Strategy or may be Input Data Providers. The activities of the Goldman Sachs Group members as contributor to any Strategy may be adverse to the interests of investors and/or counterparties to products linked to any such Strategy and may have an impact on the performance of such Strategy.

RISK FACTORS

Risk factors relating a synthetic investment in the Strategies are set out below. This section does not purport to describe all of the risks associated with a synthetic investment in the Strategies. Risk factors in relation to a transaction or product which is linked to the performance of the Strategies may also be set out in the relevant documents in respect of such transaction or product. In addition, potential investors should refer to the relevant General Description, Specifications Annex and/or Other Documentation Elements in respect of each Strategy and each of its Components for specific risk factors relating to such Strategy, such Components and any relevant Input Data.

(A) GENERAL RISK FACTORS

Investors in a Strategy could lose their entire investment

The value of a Strategy depends on the performance of the Components, each of which may increase or decrease in value. Neither a Strategy nor any of the Components includes any element of capital protection or guaranteed return. The value of any Component, or a Strategy itself, may fall below its initial value.

If a floor is not specified to be applicable in respect of a Strategy or Component, then the value of that Strategy or Component may fall below zero and have a negative value. In this case an investment linked to a “long” Strategy may incur losses which exceed the notional value of such investment.

If a floor is specified to be applicable in respect of a Strategy or Component, then the value of that Strategy or Component may not fall below zero. If the value of that Strategy or Component falls to zero, unless otherwise specified in the Strategy Description, such value will remain at zero and any investment linked solely to such Strategy may have lost all of its value, in which case there will be no chance of such investment thereafter recovering.

Changes in market structure and/or increased investment in similar products may negatively affect the value of a Strategy

As a result of changes in market structure and/or due to increased investment in products using the same or similar investment rationale to that of a Strategy or any Component, the underlying market or economic characteristics that such Strategy or Component attempts to capture, measure or replicate may change, cease to exist, and/or lead to negative expected returns over any time period. This may have a negative impact on the value of a Strategy and such Strategy will not be adjusted to take account of any such changes.

Unless otherwise specified in the relevant Strategy Description, a Strategy is not actively managed

Unless otherwise specified in the relevant Strategy Description, each Strategy will be operated in accordance with the methodology set forth in the Strategy Description and, in particular, any weight or quantity assigned to a Component on any relevant rebalancing day shall be determined by applying an algorithm operating within pre-determined rules. There will be no active management of a Strategy so as to enhance returns beyond those embedded in a Strategy.

Market participants are often able to adjust their investments promptly in view of market, political, financial or other factors. An actively managed investment may potentially respond more directly and appropriately to immediate market, political, financial or other factors than a non-actively managed strategy such as a Strategy. In contrast, the algorithm for a Strategy will rebalance the weights or quantities to their specified values on each relevant rebalancing day. No assurance can be given that a Strategy will replicate or outperform a comparable strategy which is actively managed and the return on a Strategy may be lower than the return on an actively

managed strategy.

An investment in a Strategy may be subject to leverage, which may increase the risk in such investment

A Strategy's absolute overall exposure to the Components may be greater or less than 100%.

If the sum of the absolute weights of the Components is greater than 100 per cent., the Strategy will employ leverage. In the current instance, leverage means that a Strategy will have increased exposure to changes, which may be positive or negative, in the value of the Components, magnifying the volatility and risk. The performance of the Strategy will be adversely affected should the value of "long" Components decrease and/or the value of "short" Components increase (as the case may be).

If the sum of the absolute weights of the Components is less than 100 per cent. the Strategy will have a reduced participation to the Components and may underperform as compared to a Strategy where the exposure was greater.

The actual weights of Components may vary following each rebalancing

The actual weight of each of the Components following each rebalancing may be different than the initially assigned weights of each of the Components, and therefore the relative contribution of each Component to the overall value of a Strategy may vary from time to time, depending on the performance of each of the Components relative to the other Components since such immediately preceding rebalancing. The longer the period between each rebalancing, the greater the likelihood that there will be a significant variance between the absolute values of the weights of the Components, and the Strategy may therefore have an exposure to a Component further below or in greater excess of its previously assigned weight than it would if the period were shorter, which may result in a greater skewing of the absolute nature of the investment positions with respect to the Components and increase the overall risk profile of the Strategy.

Certain costs in respect of the Strategy may be a function of third-party data at any time and, as such, are variable (and are floored, but not capped)

The costs that are deducted from a Strategy in respect of any relevant day may be determined by reference to (among other things) data from one or several Input Data Providers for such day. Accordingly, such cost will vary as a result of changes in the relevant data over time. While such costs for any relevant rebalancing day are subject to a minimum amount (or "floor"), the Strategy methodology may not apply any maximum amount (or "cap") to such for any relevant rebalancing day. Therefore, in such circumstances, the Strategy may not perform as well as a strategy for which such costs are fixed or calculated by reference to fixed values, or otherwise are subject to a fixed cap.

The Strategy Sponsor could significantly increase the costs that are deducted from a Strategy in prescribed circumstances

Under certain market conditions or otherwise in accordance with the circumstances or terms specified in the relevant Strategy Description, the Strategy Sponsor may determine to increase the costs that are deducted from the Strategy, and there may be no fixed limits on the levels of these costs. If specified in the relevant Strategy Description, such increases may be made unilaterally by the Strategy Sponsor, may be significant and may be made without taking into account the interests of any investors in Linked Products. Although this determination is constrained by the procedure described in the relevant Strategy Description, it is possible that the increased cost may be significantly greater than the levels originally assigned to them and may apply for an extended period of time (even if, where relevant and applicable, the period of such market conditions that originally

necessitated such increase in costs only lasts for a short period of time). This could materially adversely affect the performance and value of a Strategy.

Excess return strategies will often underperform total return strategies

A Strategy which is calculated on an “excess return” basis is the excess return version of one or more total return strategies. To determine the value of an excess return strategy, the performance of the total return strategy is reduced by the return that could be earned on a synthetic cash deposit at a notional interest rate. Thus, the performance of an excess return strategies will often be less than the performance of the equivalent total return strategy.

Total return strategies may exhibit excess return characteristics

A Strategy which is calculated on a “total return” basis may include Components which are calculated on an excess return basis. In such case even though the Strategy is calculated on a total return basis it will exhibit characteristics of an excess return version.

No assurance can be given that the methodology underlying each Strategy will be successful in producing positive returns or that such Strategy will outperform any other alternative investment strategy.

Alternative investments such as Linked Products may often be purchased on the basis of their potential to produce “absolute returns” or returns independent of the overall direction of the relevant markets. However, there can be no assurance that a Strategy will actually be successful at producing consistently positive returns or returns independent of the overall direction of the relevant markets, nor does the Strategy Sponsor or any issuer of such Linked Product make any representation or warranty, express or implied, that a Strategy will do so in the future.

Furthermore, it should be noted that the results that may be obtained from investing in any Linked Product or otherwise participating in any Linked Product might well be significantly different from the results that could theoretically be obtained from a direct investment in the Component(s) or any related derivatives.

Historical levels of a Strategy may not be indicative of future performance

Past performance of a Strategy is no guide to future performance. It is impossible to predict whether the value of a Strategy will rise or fall. The actual performance of a Strategy over the life of any Linked Product as well as the amount payable at maturity or settlement may bear little relation to the historical levels of the Strategy.

An investor in a Strategy will have no rights in respect of any Component(s)

The investment exposure provided by a Strategy is purely synthetic. An investment referenced to a Strategy will therefore not make an investor a holder of or give an investor a direct or indirect purchase or other acquisition or assignment of any interest or a direct investment position in, any Component (or any components thereof). As such, the risks and returns of a notional investment in a Strategy may differ significantly from a cash investment in any Component (or component thereof).

A Strategy may provide short exposure to one or more of the Components

A Strategy may specify that the weight of a Component may be less than zero, i.e. a short position in such Component. A short position in a Component means that a Strategy will have negative exposure to such Component and the value of such Strategy will be negatively affected if the value of such Component should

increase and positively affected if the value of such Component should decrease. Therefore, investors should be aware that an investment in a Linked Product may decline in value in a period, even if the value of such Component increases during that timeframe. Further, given that short positions may create exposure to uncapped losses, increases in the value of such Component could result in a decrease in the value of such Strategy that is greater than the weight in respect of such Component and may result in the value of such Strategy falling to zero or even to a negative value.

An investment in a Strategy may be subject to dilution, which may limit the gains in such investment

A Strategy may be subject to dilution, such that investors in any Linked Products may not benefit fully from increases or decreases (depending on whether the exposure is long or short) in the value of a Component. Dilution means that the return or loss on an investment is subject to a multiplier decreasing exposure to such investment and reducing the volatility and risk of loss should the value of such investment decline but reducing the potential gain should the value of such investment increase. Investors should be aware that if the value of a Component increases or decreases, an investment in a Linked Product may not have the same magnitude of increased or decreased value as the Component.

Correlation of performances among the Components may reduce the performance of a Strategy

Performances of the Components of a Strategy may become highly correlated from time to time, including, but not limited to, periods in which there is a substantial decline in a particular sector or asset type represented by the Components. High correlation during periods of negative returns among the Components may have an adverse effect on the level of a Strategy.

The negative performance of one or more Components in a Strategy may outweigh the positive performance of other Components in such Strategy

The value of a Strategy will go up or down depending on the overall performance of each of Component in a Strategy. The negative performance of one or more positively weighted Components in a Strategy (and/or the positive performance of one or more negatively weighted Components in a Strategy) may outweigh the positive performance of other positively weighted Components in a Strategy (and/or the negative performance of one or more negatively weighted Components in a Strategy). Even in the case of a positive performance of one or more Components in a Strategy, the value of the Strategy as a whole may go down if the performance of the other Components is negative to a greater extent.

Components assigned a weight or quantity of zero will not contribute to the value of a Strategy

Some Components may be assigned a weight or quantity of zero in respect of a rebalancing day and, in such case, the relevant Strategy shall not have any exposure to such Component until the next rebalancing day (if any) on which such Components are assigned a non-zero weight or quantity. As a result, any changes in the performance of such Components will not affect the value of the Strategy for the relevant period following such rebalancing day.

A Strategy may not be a fully diversified portfolio

Diversification is generally considered to reduce the amount of risk associated with an investment. A Strategy may be concentrated in a particular asset class or sector and there can be no assurance that a Strategy will be sufficiently diversified at any time to reduce or minimise risks of volatility. The more concentrated the Strategy is in certain asset classes or sectors, the greater degree of volatility the Strategy may exhibit, and this could in turn result in an adverse effect on the returns of the Strategy.

In addition, certain asset classes or sectors may suffer the same adverse performance following a general downturn or other economic or political event, and this could in turn have an adverse effect on the returns of the Strategy.

Prices in relevant underlying indices, financial instruments or assets constituted in a Component may be volatile

The value of a Component may be derived in whole or in part from the value of certain underlying indices, financial instruments or assets. The prices or levels of such underlying indices, financial instruments or assets may be volatile, with price movements being influenced by a multitude of factors, including, but not limited to, supply and demand, applicable market conditions, government policies and programmes, political and economic events and rates of inflation, currency devaluations and revaluations, and sentiment in the relevant market. This may make the value of a Component volatile, which may in turn make the value of a Strategy volatile.

At any given time, the component stock universe of the Strategy may include underliers that are on the “restricted trading list” of Goldman Sachs, and that may adversely affect the Strategy’s performance.

As part of its activities as a full-service global financial institution, Goldman Sachs may from time to time place companies on its internal “restricted trading list” (the “RTL”). If so specified in the relevant Strategy Description, where a company is placed on the RTL as a result of a potential restriction on Goldman Sachs’ ability to principally transact in the stock or options of such company, its shares may be disqualified as a member of the component stock universe of the Strategy upon such company being placed on the RTL (which, for the avoidance of doubt, could occur at any time notwithstanding any prior acceptance of, or the initiation of a determination or process in respect of, the shares of any such company in accordance with the terms of the Strategy Description). This disqualification may adversely affect the performance of the Strategy.

Notionally embedded costs in respect of a Component may not be fixed, but are a function of one or more reference assets (which will vary, perhaps materially, with market conditions and over time)

If the Strategy includes certain notionally embedded costs in respect of Components in the Strategy methodology, such costs will reduce the value of the Strategy. If so specified in the relevant Strategy Description, such costs or rates may not be fixed rates but, in respect of any Component, are dependent on the value or performance of one or more reference assets (which may include third party volatility indices or credit indices) on prescribed dates. While such costs are subject to a minimum amount (or “floor”), the Strategy Description may not apply any maximum amount (or “cap”) to such costs for any relevant day.

Such performance and, therefore, the corresponding cost rate in respect of a Component, will vary from time to time with market conditions, perhaps materially so. In particular, the relevant costs rates are expected to be higher during periods of high market volatility than during periods of low market volatility – and, as a result, may be higher during periods in which the Strategy performs poorly. Accordingly, the amount by which the value of the Strategy is reduced at any time by the application of the relevant cost rates will vary from time to time and, during periods where such rate is increased, will have a greater negative impact on the value of the Strategy as compared to a fixed synthetic transaction cost rate or costs calculated by reference to fixed values (or otherwise being subject to a cap). Such variation may result in the aggregate synthetic transactions costs deducted from the value of the Strategy being higher (perhaps materially so) on any future date, or over any future period, as compared to historical periods.

As some Components may not be denominated in the currency of the Strategy, a Strategy may be subject to currency exchange rate risks

Each Strategy is calculated in a particular currency (the “**Strategy Currency**”). While some of the Components may be denominated in the Strategy Currency, a Strategy may also comprise Components denominated in other currencies. A Strategy may therefore be exposed to currency exchange rate risks. The impact on the value of a Strategy will depend on the extent to which these other currencies, if any, strengthen or weaken against the Strategy Currency and the relative weight of each such other currency represented in the Strategy. Currency exchange rates vary over time. Changes in a particular currency exchange rate result from the interaction of many factors directly or indirectly affecting economic or political conditions, including rates of inflation, interest rate levels, balances of payment among countries, the extent of governmental surpluses or deficits and other financial, economic, military and political factors, among others.

A Strategy may have an internal simulated currency hedge feature in respect of one or more of its Components denominated in another currency, if so specified in the relevant Strategy Description. Through a series of synthetic transactions, the internal simulated currency hedge feature, if applicable, seeks to offset a portion of the positive or negative effects of currency exchange rate fluctuations in such other currency on the values of such Component. However, a Strategy's internal simulated currency hedge feature will prove ineffective if, and to the extent that, the performance of the relevant money markets and of such Component move in opposite directions or move in the same direction but to a different extent. As a result of such movements, investors in such Strategy will still be subject to the risk of currency fluctuations affecting the value of such Strategy. In addition, as the currency hedged levels of such Component are based on the performance of synthetic cash deposits, the internal simulated currency hedge feature, if applicable, is unlikely to replicate a return exactly equal or similar to the return such Component that would be available to an investor whose investment currency is the same as that of such Component.

Strategy Inception Date and Back-testing

The Strategy Sponsor will designate a “**Strategy Inception Date**”, on which the value of the Strategy is equal to the “**Strategy Initial Value**” (each as specified in the relevant Strategy Description). The levels of a Strategy in the period from such Strategy Inception Date, to a date on which Linked Products are first implemented (being the “**Strategy Launch Date**”) (which may be materially later than the Strategy Inception Date of such Strategy) will be calculated on the basis of back-tested data (“**Back-testing**”).

Levels in respect of a Strategy for such period are hypothetical and are calculated at or around the Strategy Launch Date in accordance with the relevant Strategy Description but using historical data available to the Strategy Sponsor at the time of calculation. If such historical data is not available or is incomplete for any particular day, the Strategy Sponsor may use alternate sources of data in place of such historical data, and/ or may substitute alternative values (which may be determined by the Strategy Sponsor), as it deems necessary to calculate such hypothetical level of such Strategy.

If such historical data was available or complete, or if different sources or values were used in such Back-testing, the levels of a Strategy for such period would be different, potentially materially so. Accordingly, such Strategy levels may not reflect the performance of, and are no guarantee or assurance in respect of the performance or returns of, such Strategy over any time period from the Strategy Launch Date. Furthermore, any Back-testing is based on information and data provided to the Strategy Sponsor by third parties. The Strategy Sponsor will not have independently verified or guaranteed the accuracy and/or the completeness of such information or data provided and is not responsible for any inaccuracy, omission, mistake or error in such information, data and/or Back-testing.

A Strategy may have a limited operating history and may perform in unanticipated ways

A Strategy has only been calculated since the relevant Strategy Inception Date and, therefore, there is no historical performance data available prior to such date. Additionally, there may only be limited historical performance data with respect to the Components referenced by such Strategy and the Strategy itself, any investment in respect of which returns are linked to the performance of a Strategy or its Components may involve greater risk than an investment linked to returns generated by an investment strategy with a proven track record. While a longer history of actual performance could provide more reliable information on which to assess the validity of a Strategy and on which to base an investment decision, the fact that a Strategy and the Components are relatively new would not allow this. There can be no guarantee or assurance that a Strategy or its Components will operate in a manner consistent with the data available.

Some Strategy parameters are partially based on simulated data

Some parameters of a Strategy may have been determined by reference to simulated time series data which start before the Strategy Inception Date for such Strategy. Such simulated data are based on various assumptions, do not reflect actual trading and are subject to various market data limitations. As a result, the performance of the simulated time series data may differ from the actual historical performance of a Strategy and this difference may be material. The future performance of a Strategy will depend, among other things, on the choice of the parameters as described in the relevant Strategy Description. As such, the performance of such Strategy could be materially different if the relevant parameters were determined based on the actual performance of such Strategy rather than based on simulated time series data.

A Strategy may be subject to a Disruption Event

If a Disruption Event occurs or is continuing in respect of a Strategy, the Strategy Sponsor may make (or the Strategy Sponsor may instruct the Strategy Calculation Agent to make) certain adjustments in respect of such Strategy and which may include, amongst other things, any adjustments to the methodology and relevant data sources in order to calculate the value of such Strategy, a postponement of any relevant rebalancing or the suspension of the publication of the value of such Strategy. If the Strategy Sponsor or Strategy Calculation Agent (as applicable) makes any adjustments to the methodology and relevant data sources or postpones any relevant rebalancing, it is likely that the value of the Strategy will be different from what it would have been if such Disruption Event had not occurred, and it may vary unpredictably and could be lower.

Changes in the Components or Input Data may affect the value of a Strategy

Where a Component or Input Data ceases to exist or is no longer tradable, including as a result of a Goldman Sachs Group member discontinuing a Component of which it is a sponsor or discontinuing to act as an Input Data Provider, or where the Strategy Sponsor would be prevented from entering into transactions in respect of a Component (including one for which a Goldman Sachs Group member is the sponsor) or Input Data by any applicable law or regulation, the Strategy Sponsor may (but is not obliged to) substitute another Component and/or Input Data for the original one where it considers in its sole discretion that a similar alternative is available. Any such substitution or assignment could alter the exposure provided by a Strategy and materially affect the performance and value of such Strategy.

As Strategy Sponsor and Strategy Calculation Agent of a Strategy, Goldman Sachs International has the authority to make determinations that could materially affect a Strategy and create conflicts of interest

As the Strategy Sponsor and Strategy Calculation Agent, Goldman Sachs International does not generally exercise any discretion in relation to the operation of a Strategy. Goldman Sachs International owes no fiduciary duties in respect of a Strategy or any Linked Products.

Goldman Sachs International may, however, exercise discretion in certain limited situations including, but not limited to, the occurrence of a Disruption Event in respect of each Strategy (as more particularly described in the relevant Strategy Description). Determinations made by Goldman Sachs International as the Strategy Sponsor and Strategy Calculation Agent could adversely affect the value of such Strategy or any Linked Product and the exercise by the Strategy Sponsor of its discretion could present it with a conflict of interest of the kind described in the section of these General Strategy Terms entitled "*Conflicts of Interest*". In making those determinations, the Strategy Sponsor and/or the Strategy Calculation Agent will not be required to, and will not, take the interests of any investor of any such Linked Product into account or consider the effect its determinations will have on the value of such a Linked Product. All determinations made by the Strategy Sponsor and/or the Strategy Calculation Agent shall be at its sole discretion and shall be conclusive for all purposes and will bind all holders of any Linked Product. The Strategy Sponsor and/or the Strategy Calculation Agent shall not have any liability for such determinations.

A Strategy may be changed or become unavailable which may result in the adjustment or termination of Linked Products

Subject as provided in the sections of these General Strategy Terms entitled "*Disruption Events and Consequences*" and "*Change in Strategy Methodology*" above, the Strategy Sponsor shall have the right to alter the methodology used to calculate a Strategy or to discontinue the publication of the value of a Strategy in certain circumstances (including, without limitation, following the occurrence of an Authorisation Event or any other Disruption Event). A permanent cancellation of a Strategy or a failure by the Strategy Sponsor to calculate or announce the value of a Strategy may constitute a disruption event in respect of, and, therefore, may result in a decrease in the value of or return on any Linked Product (or result in the termination or early redemption of a Linked Product). Any changes may be made without regard to the interests of a holder of any Linked Product.

Furthermore, the decisions and policies of the Strategy Sponsor concerning the calculation of the value of a Strategy could affect its value and, therefore, the amount payable over the term of any Linked Product and the market value of such Linked Product. The amount payable on Linked Product and its market value could also be affected if the Strategy Sponsor changes these policies.

As sponsors of Components, or as Input Data Providers, Goldman Sachs Group members have the authority to make determinations that could materially affect a Strategy and create conflicts of interest

Goldman Sachs Group members may also act as sponsor of one or more Components or as Input Data Providers in respect of a Strategy. In that capacity, each of them has the power to make certain determinations that could materially affect the value of such Components and/or Input Data Providers and, in turn, the value of such Strategy, and the exercise by each such member of its discretion in its capacity as sponsor of such Components or as Input Data Providers could present it with a conflict of interest of the kind described in described in the section of these General Strategy Terms entitled "*Conflicts of Interest*".

Potential amendment to the methodology of a Strategy or replacement of a Strategy to enable the Strategy Sponsor and/or any affiliate to be able to effectively hedge its exposure to the Strategy and to reduce the impact of such hedging transactions on the relevant markets

If the Strategy Sponsor determines that the aggregate notional or principal amount of Linked Products is above a certain threshold it may (a) change the methodology in respect of a Strategy so that the rebalancing of the Strategy is executed over one or more additional business days or that the frequency of rebalancing of the Strategy is changed, (b) replace the Strategy with a replacement Strategy which will be identical in all material respects other than the day or days on which the Strategy is rebalanced and/or (c) make such other adjustments

to the Strategy, in each case, in order to enable the Strategy Sponsor and/or any affiliate to be able to effectively hedge its exposure to such Strategy and/or to reduce the expected impact of such hedging transactions on the relevant markets. Although such amendments or such replacement would be designed to minimise potential market impact, the performance of the Strategy may be affected by such amendments or replacement, potentially materially so.

Trading and other transactions by the Goldman Sachs Group could materially affect the value of any Linked Product

The Goldman Sachs Group is a full-service financial services firm engaged in a range of market activities. Goldman Sachs Group may issue, arrange for the issue of, or enter into financial instruments referenced to, a Strategy or any of the Components of such Strategy and arrange for the distribution of these financial instruments, including the payment of distribution fees and commissions to any intermediaries. These activities could adversely affect the value of a Strategy and/or any of its Components and may present the Goldman Sachs Group with a conflict of interest of the kind described in the section of these General Strategy Terms entitled "*Conflicts of Interest*".

Information provided by the Goldman Sachs Group about the value of any Component may not be indicative of future performance

Any information about the performance of any Component provided by the Goldman Sachs Group will be or has been furnished as a matter of information only, and an investor in a Linked Product should not regard the information as indicative of the range of, or trends in, fluctuations in the levels or values that may occur in the future. Such information will likely differ from the actual values and levels used under the relevant methodology used to calculate such Strategy.

Information about a Strategy may only be available through the Goldman Sachs Group

The Goldman Sachs Group may not provide holders of any Linked Product with further information in relation to the relevant Strategy beyond what is provided in the relevant Strategy Description, and further information may not be generally available. The Goldman Sachs Group has entered into non-exclusive licensing agreements with certain Input Data Providers in order to source the necessary Input Data to calculate each Strategy. The formalities necessary to obtain access to such figures may deter potential investors from buying a Linked Product on the secondary market.

The Strategy Sponsor and the Strategy Calculation Agent may rely upon third party and other external and internal data sources which may be inaccessible and/or inaccurate, and the inputs used by the Strategy Sponsor and the Strategy Calculation Agent may affect the value of a Strategy

The Strategy Sponsor and the Strategy Calculation Agent may rely upon third party brokers or external dealers and other external and internal sources (including, without limitation, Input Data Providers) to obtain certain inputs necessary to compute the value of a Strategy and/or to determine the weights or quantity of the Components which may be inaccessible and/or inaccurate and the inputs used by them to compute the value of a Strategy may affect the value of such Strategy. Investors considering acquiring or making an investment in a Linked Product should carefully read and understand the information about such Components and Input Data.

The inability of the Strategy Calculation Agent to source necessary data to calculate the relevant formulae of a Strategy may affect the value of such Strategy. In addition, the Strategy Sponsor and the Strategy Calculation Agent (i) make no warranty as to the correctness or completeness of that information and take no responsibility for the accuracy of such data or the impact of any inaccuracy of such data on the value of a Strategy and (ii)

are not under any obligation or currently intend to independently verify such third party information or data from any third party data source or to advise any investor in any Linked Product of any inaccuracy, omission, mistake or error of which it becomes aware. Consequently, neither the Strategy Sponsor nor any of its affiliates shall be liable (whether in contract, tort or otherwise) to any person for any inaccuracy, omission, mistake or error in the calculation or dissemination of the value of the Strategy. There can be no assurance that any error or discrepancy on the part of any data source or sponsor will be corrected or revised. Even if any error or discrepancy on the part of any third party data source or sponsor is corrected or revised, neither the Strategy Sponsor nor any of its affiliates is under any obligation to incorporate any such correction or revision into the calculation of the value of the Strategy or the level of any Component.

Linked Products may be exposed to more or less risk, or perform better or worse, based upon the inputs received from the above suppliers or sources, than an actual investment in or linked to one or more of the Components. In addition, no assurance can be given that any model or methodology used by such suppliers or sources will have a positive effect on the performance of the Strategy. Therefore, the Strategy may not perform as well as a strategy using alternative data sources or data sources with a different model or methodology.

Sponsors of Components have authority to make determinations that could materially affect a Strategy

Determinations that the sponsors of the Components of a Strategy, including Goldman Sachs Group members, may make in connection with the composition, calculation and maintenance of the Components may materially affect the value of the Components and could, in turn, adversely affect the value of such Strategy. Those sponsors have no obligation to take the interests of the Strategy Sponsor or any holders of any Linked Product into consideration for any reason in carrying out their functions and have generally disclaimed all liability to the extent permitted by law.

In addition, the sponsors of the Components have licensed, and may continue to license, such Components for use by other market participants, for publication in newspapers and periodicals, for distribution by information and data dissemination services and for various other purposes, any of which may contribute to an increased or decreased level of investment in such Components, which could adversely affect the value of a Strategy.

The policies of the Strategy Sponsor and changes that affect a Strategy could affect the value of such Strategy

The decisions and policies of the Strategy Sponsor concerning the calculation of a Strategy could affect the value of such Strategy and, therefore, the amount payable on any Linked Product on the stated maturity date of such Linked Product (or on any other payment date) and the market value of such Linked Product before that date. The amount payable on any Linked Product and their market value could also be affected if the Strategy Sponsor changes these policies, for example, by changing the manner in which it calculates such Strategy, or if the Strategy Sponsor discontinues or suspends calculation or publication of such Strategy, in which case it may become difficult to determine the market value of such Linked Product. If such policy changes relating to a Strategy or the calculation or publication of a Strategy is discontinued or suspended, the calculation agent of any Linked Product (which may be Goldman Sachs International) may have discretion in determining the level of such Strategy on the relevant determination date and the amount payable on such Linked Product.

The policies of a sponsor and changes affecting a Component could affect the Strategy and its value

The policies of a sponsor concerning the calculation of the value of a Component, or additions, deletions or substitutions of Components and the manner in which changes affecting the Components could affect the value of a Component and, therefore, the value of such Strategy and any Linked Product. The value of a Strategy could also be affected if the relevant sponsor changes these policies, for example, by changing the manner in

which it calculates the value of the Component, or if the sponsor discontinues or suspends calculation or publication of the value of the Component, in which case it may become difficult to determine the value of a Strategy.

A Strategy relies on the use of third-party information

With respect to any Components and/or Input Data not sponsored by any member of the Goldman Sachs Group, a Strategy methodology relies on information from third-party sponsors of such data and other external and internal sources to obtain certain inputs necessary to compute the value of a Strategy. The inability of the Strategy Sponsor and/or the Strategy Calculation Agent to source such necessary data to calculate the relevant formulae of the Strategy may affect the value of such Strategy. Investors considering acquiring or making an investment in a Linked Product should carefully read and understand the information about such Components. However, the Goldman Sachs Group makes no warranty as to the correctness of that information and takes no responsibility for the accuracy of such data or the impact of any inaccuracy of such data on such Strategy.

Linked Products may be exposed to more or less risk, or perform better or worse, based upon the inputs received from the above suppliers or sources, than an actual investment in or linked to one or more of the Components.

A Strategy may use values determined using the Strategy Sponsor's own proprietary models

The Strategy may use the Strategy Sponsor's own internal mark of the value of or certain calculations in respect of certain Components which may be derived from proprietary models (the "Internal Data"). Investors in Linked Products may not have access to the Internal Data and any associated models.

There is no guarantee that such Internal Data will correspond with market data if any exist, or that would be determined by other market participants. They do not necessarily represent tradable prices.

The Internal Data will depend on the specification of, and inputs used in, the relevant model used by the Strategy Sponsor. A model with a different specification and/or using different inputs would produce different results. The Internal Data may change if required by the Strategy Sponsor's internal policies or applicable law or regulation, or if the models used to calculate it change. The Strategy Sponsor will not be obliged to consider a Strategy when making any changes to the Internal Data or such models and will not have any liability for the effect of such changes on a Strategy.

As such, changes in the value of a Strategy on any day may be opaque and not solely be related to the change in the market value of any relevant Components.

A Strategy may be calculated without reference to corrected data

In the event that the value of any component which is used for the calculation of the weight or quantity (as applicable) of any Component or any Input Data in relation to the Strategy is corrected after such time as it is used in the Strategy, the Strategy Sponsor shall be under no obligation to use such corrected value (and shall only take such steps as it considers appropriate for the purposes of the Strategy in response to such correction in accordance with its policies and procedures applicable at the relevant time) and may use the weight or quantity (as applicable) as calculated before such correction. As a result, the performance of a Strategy may differ from the performance had such corrected values been used, and possibly materially so.

Changes to administration of and reform of Affected Rates Benchmarks

The Strategy may use one or more Affected Rates Benchmarks as input data for determining the weights, signals or other values of its Components. The Strategy may also include components linked to such Affected Rates Benchmark (such as interest rate derivatives instruments) as its Components or use an Affected Rates Benchmark to convert the return type of the Strategy, amongst other things. Such Affected Rates Benchmarks are the subject of recent national, international and other regulatory guidance and proposals for reform. Some of these reforms are already effective whilst others are still to be implemented. These reforms may cause such Affected Rates Benchmarks to perform differently than in the past, to disappear entirely, or have other consequences which cannot be predicted. For example, USD LIBOR is no longer published or no longer published as a representative rate from 30 June 2023.

In the period prior to an Affected Rates Benchmark ceasing to be published or at the time it ceases to be published, the Strategy Sponsor may determine in a commercially reasonable manner to change the methodology of an affected Strategy, including but not limiting to determining replacement rates for an Affected Rates Benchmark and making other adjustments to account for the differences between the replacement rate and the original Affected Rates Benchmark, in order to permit the continued calculation of the value of the Strategy, to preserve the Strategy Purpose and/or to maintain its ability to hedge the Strategy. However, any such amendments are not yet certain and will only be determined at a future point in time. Those amendments could have unpredictable and adverse effect on the performance of the Strategy and/or any Linked Products to such Strategy, potentially materially so. In particular, changes to the way in which an existing Affected Rates Benchmark is calculated, or difference between the way the original Affected Rates Benchmark and a replacement rate is calculated could materially impact the value and/or performance of the Strategy in the future, or result in material economic mismatches for investors using Linked Products for hedging or similar purposes.

The Strategy Sponsor will only restate the Strategy Value upon the discovery of certain errors, and the Strategy Sponsor is not required to correct the Strategy Value as of any day more than a certain number of days prior to the discovery of such error by the Strategy Sponsor

Pursuant to the Strategy Description and the current policies and procedures of the Strategy Sponsor (which may be amended from time to time by the Strategy Sponsor), the Strategy Sponsor is not required to restate the Strategy Value for any discrepancy between the Strategy Description and the calculation of the Strategy Value, errors in calculation, publication errors, errors by third party data sources or providers, or the restatement of any underlying Assets, for any day more than a certain number of days prior to the first business day in London on or after which the Strategy Sponsor becomes aware of or identifies such error (such number of days being specified from time to time under such policies and procedures of the Strategy Sponsor, a public summary of which are available at <https://www.goldmansachs.com/disclosures/euro-benchmark-reg-iosco-principles-for-financial-benchmarks-f/summary-of-gs-policy-on-global-benchmark-incidents.pdf> (or any successor page)). A failure to restate the Strategy Value to account for such errors may decrease, potentially materially so, the return on any Linked Products relative to a corrected and restated Strategy Value.

(B) RISKS RELATED TO ACTIVELY MANAGED STRATEGIES

The Strategy is actively managed

The adjustable parameter values assigned to each adjustable parameter (which may include, without limitation, weights assigned to Components) are subject to a rebalancing by the Strategy Allocator, subject to any conditions set out in the Strategy Description (“**Rebalancing Conditions**”). There is no guarantee or assurance that any such rebalancing will enhance the performance of the Strategy. For so long as the Strategy Allocator

elects not to make any changes to the adjustable parameter value of the adjustable parameters, or no proposed changes to such adjustable parameter value are made that meet the Rebalancing Conditions, then such adjustable parameter values will remain unchanged.

There is no guarantee that a rebalancing will increase the value of the Strategy. None of the Strategy Sponsor, Strategy Calculation Agent or any of their affiliates shall be responsible for the adjustable parameter value selected by the Strategy Allocator or the performance of the Strategy. None of the Strategy Sponsor or the Strategy Calculation Agent have the right to, and nor will they, assess whether or not any proposed rebalancing is in the best interests of investors in Linked Products.

In addition, the Rebalancing Conditions may prevent the Strategy Allocator from rebalancing the adjustable parameter values of the adjustable parameters as rapidly, frequently or to the degree it considers appropriate in view of market, political, financial or other factors. As a result, investors in Linked Products may be exposed to more or less risk than investors engaging in the Components themselves or investing in managed products with fewer restrictions. The Rebalancing Conditions have been agreed to by the Strategy Sponsor and the Strategy Allocator as at the inception of the Strategy.

None of the Strategy Sponsor, the Strategy Calculation Agent or the Strategy Allocator or any of their respective affiliates make any representation express or implied that the Strategy will achieve a positive performance, or a higher performance than any other index or strategy, whether managed or not managed.

The Strategy Allocator

The Strategy Allocator is a third party not affiliated with the Strategy Sponsor or any of its affiliates and is not an agent of the Strategy Sponsor. The Strategy Allocator acts as an independent contractor and has not been appointed by the Strategy Sponsor or the Strategy Calculation Agent as a sub-advisor in respect of the Strategy or any Linked Product nor as an agent of the Strategy Sponsor or the Strategy Calculation Agent.

The Strategy Allocator has the right, but not the obligation, to propose changes to the adjustable parameter value of any adjustable parameter. If the Strategy Allocator elects not to submit a proposed parameter adjustment, the value of the Strategy may be adversely affected. In addition, if any proposed parameter adjustment is rejected by the Strategy Sponsor, no such rebalancing of the Strategy shall take place which may also have an adverse effect on the value of the Strategy.

Therefore, the value of the Strategy will depend not only on the methodology contained in the Strategy Description but also on the determinations made by the Strategy Allocator in respect of each proposed rebalancing. There is no guarantee that the Strategy Allocator will act rationally and in accordance with current market trends in determining the adjustable parameter values. Therefore, the ability of the Strategy to achieve its objective may be substantially affected by the abilities of, and determinations made by, the Strategy Allocator.

The Strategy Allocator's ability to determine the adjustable parameter values may depend, to a great extent, upon the expertise of key individuals associated with the day-to-day operations of the Strategy Allocator. Any withdrawal of any of these individuals could have an adverse effect on the Strategy and, consequently, any Linked Product.

The day on which any proposed rebalancing is implemented may be postponed or may not be the one proposed by the Strategy Allocator

The Strategy Sponsor or any other relevant person shall not be liable (whether in contract, tort or otherwise) to any person for the failure of the Strategy Sponsor to acknowledge receipt of a notification from the Strategy

Allocator outlining a proposed rebalancing. As a result of such failure or any other events as specified in the relevant Strategy Description (including but not limited to any potential disruptions with respect to implementing the rebalancing), the proposed adjustable parameter values may not take effect on the day proposed by the Strategy Allocator.

The Strategy Sponsor may reject a proposed rebalancing

If any proposed rebalancing does not satisfy the Rebalancing Conditions as of the relevant determination date, then the Strategy Sponsor may reject the proposal in its entirety and no rebalancing will occur.

Furthermore, if so specified in the relevant Strategy Description, the Strategy Sponsor may be under no obligation to effect all or any part of any proposed rebalancing and may reject the proposal in its entirety in its sole discretion and for any reason (which, for the avoidance of doubt and without limitation, could include where a proposed rebalancing would otherwise satisfy the relevant Rebalancing Conditions) and no rebalancing will occur.

In either case, any such rejection may have an adverse impact on the performance of the Strategy, perhaps materially so, and the determination of the Strategy Sponsor shall be conclusive and binding in all circumstances. In particular, the Strategy Sponsor will not take into account the interests of any investors in Linked Products when making such determination, and none of the Strategy Sponsor, Strategy Calculation Agent or any of their affiliates shall have any liability for or in connection with the performance of the Strategy (or any Linked Product) as a result thereof. Notwithstanding that the Strategy Sponsor may be entitled to reject any such proposed rebalancing, the Strategy Sponsor shall be entitled to rely upon and assume, and shall not in any circumstances be obliged to verify, that the Rebalancing Conditions in respect of a proposed rebalancing have been satisfied.

No rebalancing once implemented can be set aside on the basis that, as a factual matter, the Rebalancing Conditions were not satisfied. The determination of the Strategy Sponsor will be conclusive and binding in all circumstances without liability to the Strategy Sponsor or any of its affiliates.

The Strategy Sponsor may reject a proposed rebalancing if the Strategy Sponsor and/or any of its affiliates would be prevented from entering into transactions by any applicable internal policy, law or regulation

If, in respect of a proposed rebalancing, the Strategy Sponsor determines that the Strategy Sponsor and/or any of its affiliates would be prevented from entering into transactions in respect of any relevant Component by any applicable internal policy, law or regulation then such proposed rebalancing may be rejected in its entirety and no rebalancing will occur.

Each proposed rebalancing is irrevocable

Unless otherwise agreed by the Strategy Sponsor, each proposed rebalancing is irrevocable and may not be subsequently changed or cancelled by the Strategy Allocator following notification thereof. The inability of the Strategy Allocator to revoke or amend any proposed rebalancing may have an adverse impact upon the performance of the Strategy (which may be material).

The Strategy Sponsor will have knowledge of information regarding changes to the adjustable parameters used to calculate the Strategy prior to the implementation of such changes

In respect of any rebalancing, the Strategy Sponsor will possess information regarding the changes to the

adjustable parameters (if any) prior to the implementation of such changes on the relevant rebalancing day. Subject to its regulatory obligations and its internal policies, the Strategy Sponsor is under no obligation to disclose to any person any such information prior to the relevant rebalancing day. Policies and procedures have been established by the Strategy Sponsor to address any conflicts of interest that may arise as a result of possessing such information immediately prior to any rebalancing date and to control access to such information.

The value of the Strategy prior to the date of on which the Strategy Allocator is appointed will be calculated using adjustable parameter values retrospectively provided by the Strategy Allocator

The value of the Strategy in respect of each Strategy Calculation Day falling in the period commencing on, and including, the Strategy Inception Date and ending on, but excluding, the date on which the Strategy Allocator is appointed will be calculated using adjustable parameter values retrospectively provided by the Strategy Allocator. Such adjustable parameter values are provided by the Strategy Allocator retrospectively with the benefit of historical information and analysis relating to the performance of the Components and of relevant markets generally. There is no guarantee that the Strategy Allocator would have determined the same adjustable parameter values for each adjustable parameter if it had been appointed with effect from the Strategy Inception Date. Neither the Strategy Sponsor nor the issuer of any Linked Product provides any assurance or guarantee that the Strategy will operate or would have operated in the past in a manner consistent with the performance of Strategy prior to the date of on which the Strategy Allocator was appointed. As such, any historical returns of may not reflect the performance of and are no guarantee or assurance in respect of the performance or returns of, the Strategy over any time period.

A parameter adjustment may not result in any rebalancing of Components if the optimization constraints are not satisfied on the related parameter adjustment day

There can be no assurance or guarantee that, following the satisfaction of the parameter adjustment constraints and the implementation of any parameter adjustment in accordance with the related adjustable parameter values, there will be any combination of calculated weights in respect of the respective Components which utilise such adjustable parameter values and that satisfy the applicable optimization constraints in respect of the related parameter adjustment day. If the applicable optimization constraints are not satisfied in respect of such parameter adjustment day following the implementation of the related adjustable parameter values, the calculated weights of such Components may not change (notwithstanding that such optimization constraints may have been satisfied had a parameter adjustment been implemented on the reference date immediately preceding the related notification date).

The reference data used to evaluate any relevant allocation or parameter adjustment constraints may be unavailable

The reference data used by the Strategy Calculation Agent to evaluate whether or not any allocation constraints or parameter adjustment constraints have been satisfied may be unavailable and in such circumstances, by default, previously available data may be used to evaluate such constraints. In the event that such data is out of date or no longer valid, the discrepancies when compared to more current data (once available) could be significant and, as a result, the evaluation of whether or not any allocation constraints or parameter adjustment constraints have been satisfied could be materially different than it would have been if up to date data was available at the relevant time. This could have an adverse effect on the performance of the Strategy and/or any Linked Products.

Certain calculations used for the purposes of evaluating any relevant allocation or parameter

adjustment constraints may be determined by reference to the Strategy Calculation Agent's own proprietary models

If so specified in the Strategy Description, the product notional, unit divisor and/or any other relevant calculations that, in each case, may be used for the purposes of evaluating whether or not any allocation constraints or parameter adjustment constraints have been satisfied in respect of a proposed rebalancing, may be calculated by the Strategy Calculation Agent by reference to values or other information that is derived from its own proprietary models. There is no guarantee that the Strategy Allocator will have access to full details of such internal models or the values generated by such models. In addition, there is no guarantee that such internal values will correspond with any relevant market data or that would be determined by other market participants (and any such participants may use alternative models that would produce different results).

On a given proposed rebalancing day, one or more component stocks that are the subject of the relevant rebalancing may be on the RTL and, therefore, that may adversely affect the Strategy's performance

If so specified in the Strategy Description, where a company is placed on the RTL as a result of a potential restriction on Goldman Sachs' ability to principally transact in the stock or options of such company, its shares may be disqualified as a member of the component stock universe of the Strategy. Therefore, as a result, the Strategy Sponsor will not be able to effect any proposed rebalancing that references such component stocks even if the Strategy Sponsor had previously accepted any rebalancing request from the Strategy Allocator that referenced such component stock. Therefore, such disqualification (and the timing of such disqualification) may adversely affect the performance of the Strategy.

Any proposed rebalancing of the Strategy may be subject to disruption

Notwithstanding the time or day on which any notification relating to a proposed parameter adjustment is given by the Strategy Allocator, the relevant Strategy to which such notification relates will only be rebalanced with effect from the relevant rebalancing day, or rebalancing days, as applicable by reference to the change in number of units or target weights (howsoever defined or described in the relevant Strategy Description) of the relevant Component(s) in respect of such rebalancing day(s).

In certain circumstances, including but not limited to where any proposed parameter adjustment is provided in advance or where multiple proposed parameter adjustments are requested by the Strategy Allocator in respect of a single rebalancing day, the Strategy Sponsor may be unable to rebalance the Strategy on the specified rebalancing day or rebalancing days due to the occurrence of certain events (including but not limited to, Disruption Events) in the intervening time period between provision of the relevant notification and the specified rebalancing day(s). Where the Strategy Sponsor is unable to implement a rebalancing (in whole or in part), the Components will remain unchanged (except to the extent that such may be adjusted as a result of corporate actions affecting such Components). The inability to give effect to a proposed parameter adjustment for such reasons is likely to have an adverse impact the performance of the Strategy and any Linked Product.

The timing of a rebalancing day may be determined by the Strategy Calculation Agent in its sole and absolute discretion and may not be the one targeted by the Strategy Allocator

Where specified in the Strategy Description for the Strategy, the determination of whether a Strategy Calculation Day will constitute a rebalancing day in respect of a proposed rebalancing will be made by the Strategy Calculation Agent in its sole and absolute discretion and the actual rebalancing day in respect of such proposed rebalancing may therefore not be the one targeted by the Strategy Allocator. In addition, the timing of execution of a given instruction may be determined by the Strategy Calculation Agent and may be different to a given time specified by the Strategy Allocator. This discretion of the Strategy Calculation Agent to determine a rebalancing

day and a time of execution in respect of a proposed rebalancing may have an adverse impact on the performance of the Strategy, perhaps materially so, and the determination of the Strategy Calculation Agent shall be conclusive and binding in all circumstances.

The proposed calculated target quantities or preliminary component transaction quantities (as the case may be) may be calculated without reference to corrected data

If so specified in the Strategy Description for the Strategy, in the event that the value of any component which is used for the calculation of a proposed calculated target quantity or preliminary component transaction quantity (in each case, howsoever defined in the relevant Strategy Description) is corrected or restated after such time as it is used in any such calculation, the Strategy Calculation Agent will not use such corrected or restated value for the purpose of the relevant calculation and will instead use the relevant proposed calculated target quantity or preliminary component transaction quantity as calculated before such correction or restatement. As a result, the performance of the Strategy may differ from the performance had such corrected or restated values been used, and possibly materially so.

Trading in any relevant Component may be suspended or subject to any short sell circuit breaker

In certain circumstances, the Strategy Sponsor may not be able to execute a rebalancing in whole or in part due to external factors such as, but not limited to, trading suspensions or short sell circuit breakers, in each case, in accordance with regulatory measures or the rules of any relevant exchange.

The Strategy Sponsor may, in certain circumstances, instruct the Strategy Calculation Agent to take an alternative action to that prescribed in the Strategy Calculation Agent Methodology in relation to the adjustment of a Strategy following the occurrence of a corporate action in respect of a Component

Further to the risk factor entitled "The Strategy Sponsor and the Strategy Calculation Agent have the discretion to make determinations that could materially affect the Strategy and create conflicts of interest", the Strategy Sponsor may, in circumstances where it determines that it and/or its affiliates would (after using commercially reasonable efforts) be unable to, or would incur additional costs to, replicate any adjustment or lack thereof proposed in accordance with an applicable Strategy Calculation Agent Methodology following the occurrence of a corporate action in respect of a Component, instruct the Strategy Calculation Agent to take an alternative action (including but not limited to making a different adjustment) to allow the Strategy Sponsor and/or its affiliates to replicate the relevant adjustment or lack thereof and with the goal of preserving the original Strategy Purpose. Determinations made by the Strategy Sponsor in this regard could adversely affect the value of the Strategy or any Linked Product and the exercise by the Strategy Sponsor of such discretion could present them with a conflict of interest of the kind described in the section entitled "Conflicts of Interest" above.

In making any such determinations, the Strategy Sponsor will not be required to, and will not, take the interests of any investor of any Linked Product into account or consider the effect their determinations will have on the value of such a Linked Product. All determinations made by the Strategy Sponsor and shall be conclusive for all purposes and will bind all holders or investors in any Linked Product. The Strategy Sponsor shall not have any liability for such determinations.

Certain calculations may be subsequently adjusted to account for the occurrence of corporate actions in respect of a Component

If so specified in the relevant Strategy Description, certain calculations used for the purposes of determining the number of units, quantity or weight (howsoever defined) in respect of a Component may be subsequently adjusted by the Strategy Calculation Agent to account for the occurrence of any corporate actions that have

taken effect in respect of such Component in a defined period before any relevant rebalancing is implemented. Any such adjustment shall be applied by the Strategy Calculation Agent in accordance with the methodology outlined in the relevant Strategy Description and will not take into account the interests of any investors in Linked Products when making such adjustment.

Any relevant foreign exchange conversions specified in the Strategy Description may occur with a lag

The foreign exchange conversions specified in the Strategy Description occur with a specified lag (which may be equal to or greater than zero). In cases where such a lag is greater than zero, the Strategy will remain exposed to the risks associated with currency exchange rate fluctuations during the relevant lag period. Such currency exchange rate fluctuations may impact the returns in a negative way (potentially materially so) on any Linked Product relative to the returns in the event the lag was not in place.

The performance of the Strategy may be reduced by the deduction of certain notional costs that relate to actions or performance of third-parties

If so specified in the Strategy Description, the performance of the Strategy may be reduced by the deduction of a certain fees or a specified percentage rate representing the realised performance of the Strategy in excess of a given threshold (or “high water mark”) which will accrue for the benefit of the Strategy Allocator or other third-parties as specified in the Strategy Description. Such reduced performance will decrease the returns (potentially materially so) on any Linked Product relative to the returns in the event the deduction had not been applied and may be less than those that might have been possible from an investment which did not contain such a deduction as a feature.

Any rebalancing of a Strategy due to a cash resetting or automatic re-weighting mechanism may adversely affect the performance of the Strategy

If so specified in the Strategy Description, on any Strategy Calculation Day where any relevant cash resetting or automatic re-weighting mechanism take effect, the Components shall be rebalanced. The resulting quantity determined for each Component on such Strategy Calculation Day may be materially different from the quantity prevailing in relation to that Component prior to such rebalancing. Changes in the price of the Component subsequent to that rebalancing could have adverse consequences for the performance of the Strategy which may have been avoided if such a rebalancing had not occurred at all. Furthermore, such a rebalancing may impose transaction costs on the Strategy, which have the effect of reducing the value of the Strategy.

Dividends are subject to assumed tax rates which will have a negative impact on the Strategy

If so specified in the Strategy Description, the Strategy will deduct a notional dividend withholding tax from any relevant dividend amounts in respect of a Component, which is intended to reflect the withholding tax rate levied, or the potential tax rate that may be levied, by the country of incorporation or residence of the issuer of such Component. The assumed tax rate (which may be zero) will be determined by the Strategy Calculation Agent based on its view of applicable law and/or regulations, observable sources and/or market practice. The assumed tax rates may be amended from time to time by the Strategy Calculation Agent. If the assumed tax rate in respect of one or more Component is increased, then the Strategy Value may be affected.

The Strategy Sponsor or any of its affiliates (a “Hedging Party”) that has hedged its exposure to the Components will benefit if the effective rate of withholding tax that it incurs in carrying out its hedging activity is less than the synthetic tax withholding applied in respect of the Strategy. Any such benefit will not be passed on to investors in Linked Products.

Cost of maintaining a short cash balance

Subject to the parameters of the applicable Strategy Description, the Strategy may be permitted to hold an aggregated short cash balance position. Where a short cash balance position is in place, which would be a result of maintaining a leveraged position in non-cash components (subject to the allocation constraints set out in the Strategy Description) the Strategy may incur a cost of maintaining such position, as specified in the Strategy Description (expressed as a negative percentage). The deduction of such a cost will have a negative impact (perhaps materially so) on the performance of the Strategy.

Hedging activity and terms of dealing

A Hedging Party may hedge its exposure or potential or expected exposure to the Strategy (and other similar strategies), Linked Products and the Components with an affiliate or a third party. A Hedging Party may make significant returns on this hedging activity independently of the performance of the Strategy or the Components, including in scenarios where the levels at which it executes its hedging transactions are different from the levels specified in the methodology for determining the value of the Strategy (or otherwise where such Hedging Party does not hedge all of its exposure to such Strategy or any relevant Component).

Any returns on a Hedging Party's hedging activity or on any unhedged exposure will not be passed on to investors in Linked Products, and such investors will not have any rights in respect of a Hedging Party's hedge positions. Where a Hedging Party, in accordance with its internal policies and its Terms of Dealing (accessible via <http://www.goldmansachs.com/disclosures/gs-terms-of-dealing.pdf> (or any successor page thereto)), executes hedging activity as principal by trading in the Strategy (or other similar strategies) or the Components on, before or after the related rebalancing day(s), such trading may have an adverse impact on the level at which the Components are rebalanced (which may result in an adverse impact on the performance of the Strategy). Such hedging activity, and the size of such impact, will be linked to the amount of new and outstanding Linked Products at the relevant time and then-prevailing market conditions and may affect the market price of or liquidity in the relevant market of the Strategy or its Components and may result in profit, or loss, to the Hedging Party.

(1) Risks related to Strategies where the price and quantity of Components in respect of a rebalancing is determined by reference to hedging transactions executed by the Strategy Sponsor or any of its affiliates

Additional execution parameters will be determined at the discretion of the Hedging Party

Unless otherwise bilaterally agreed with the Strategy Allocator, the rebalancing price of a Component in respect of a rebalancing will be the weighted average price at which the Hedging Party has executed its hedging transactions. In executing such hedging transactions, the Hedging Party will take into account any specific execution instructions provided from time to time by the Strategy Allocator. However, (i) in the absence of any such execution instructions or (ii) in case such execution instructions do not contain all the required details such as the exact parameterisation of the execution algorithm to be employed by the Hedging Party (in each such case, "**Unspecified Execution Parameters**"), then the Hedging Party will, where applicable, exercise its discretion in determining such Unspecified Execution Parameters. It is possible that the Hedging Party's choice of the Unspecified Execution Parameters may result in a worse performance of the Strategy compared to the performance that could have been achieved with a different set of execution parameters. The Hedging Party is not required to take the interests of any person into account in determining the Unspecified Execution Parameters. None of the Hedging Party, Strategy Sponsor, Strategy Calculation Agent or any other Relevant Person shall be liable to any person for the choice of the Unspecified Execution Parameters and the impact of such choice on the performance of the Strategy or any relevant rebalancing.

Risks relating to the execution workflow in respect of a rebalancing

Any proposed rebalancing submitted by the Strategy Allocator will be received by the relevant Strategy Sponsor personnel and, therefore, involves aspects of manual intervention and interaction rather than being handled by a fully automated workflow. Although established standards and procedures will be followed in processing any such request, instructions may be subject to interpretation and, therefore, result in a different outcome to that which was targeted by the Strategy Allocator. Unless otherwise specified in the relevant Strategy Description, the Strategy Sponsor is under no obligation to validate and/or verify any relevant proposed rebalancing instructions (or any values contained in such instructions) received from the Strategy Allocator.

The implementation of any rebalancing may differ from the values specified by the Strategy Allocator in any proposed parameter adjustment

Notwithstanding that the Strategy Allocator has specified a proposed change in number of units, quantity or weights (howsoever defined) of any relevant Component in relation to a proposed rebalancing, the actual change in number of units, quantity or weights following such rebalancing shall be determined by reference to the actual number of units executed by the Hedging Party in its hedging transactions relating to such proposed rebalancing (if any) which may be impacted by, amongst other things, market conditions, order size, liquidity, volatility and other disruption events. Therefore, such actual change in number of units, quantity or weights may be less than the proposed change in number of units, quantity or weight specified by the Strategy Allocator and the Hedging Party shall not be under any obligation to execute hedging transactions of any given size or volume.

(C) RISKS RELATED TO STRATEGIES THAT CONTAIN SPECIFIC FEATURES

(I) Risks related to Strategies that are determined by reference to certain volatility calculations

The methodology used to calculate the price or level of a Component is specific to the Strategy

The price or level of a Component or any input relating to such Component (including, without limitation, a specific volatility value) shall be determined in accordance with the methodology and formula set out in the Strategy Description. Such methodology is specific to the Strategy and may differ to indices similar to the Strategy that use alternative methodologies or formulae (such as, for example, Black-Scholes option price formula). There is no guarantee that the use of such methodology or formula will result in the Strategy outperforming such other indices that use an alternative methodology or formula for such calculations.

(II) Risks related to single stock Strategies

Section 871(m) of the U.S. Internal Revenue Code

The United States Treasury Department has issued regulations under which amounts paid or deemed paid on certain financial instruments (“**871(m) financial instruments**”) that are treated as attributable to U.S. source dividends could be treated, in whole or in part depending on the circumstances, as a “dividend equivalent” payment that, as of the date of these General Strategy Terms, is subject to tax at a rate of 30 per cent. (or a lower rate under an applicable treaty), which in the case of any amounts or returns which an investor in Linked Products may receive under the terms of their investment, could be collected via withholding.

If these regulations were to apply, the counterparty to, or issuer of, such products may be required to withhold such taxes if any dividends are paid on any Component during the term of such investment. Any such investor may also be required to make certifications prior to the maturity of their investment in order to avoid or minimize withholding obligations, and the counterparty or issuer (as applicable) could withhold accordingly (subject to

such investor's potential right to claim a refund from the United States Internal Revenue Service) if such certifications are not received or are not satisfactory.

These regulations apply to certain 871(m) financial instruments (or a combination of financial instruments treated as having been entered into in connection with each other) that have a delta (as defined in the applicable Treasury regulations) of one and are issued (or significantly modified and treated as retired and reissued) on or after January 1, 2017, but will also apply to non-delta-one 871(m) financial instruments (or a combination of financial instruments treated as having been entered into in connection with each other) issued (or significantly modified and treated as retired and reissued) on or after January 1, 2023. Investors in Linked Products should consult their tax advisors concerning these regulations or subsequent official guidance and regarding any other possible alternative characterisations of such products for United States federal income tax purposes.

Potential reliance on a weight calculation agent

If so specified in the Strategy Description, the Strategy may rely on a weight calculation agent (as defined and further described in the relevant Strategy Description) to fulfil certain obligations in respect of each rebalancing, including determining the Components to be included in the Strategy and their respective weights. If such entity does not, and/or is unable to, perform its obligations in respect of the Strategy, the performance of the Strategy is likely to be materially affected. In such cases the Strategy Sponsor may postpone one or more rebalancings until the required data are available from such entity. If the appointment of such entity terminates for any reason it is likely that the performance of the Strategy will be impaired, possibly permanently. If for any reason, including as a result of such termination, the relevant data utilised by such entity to determine the Components to be included in the Strategy and their respective weights ceases to be available, it is likely that the Strategy Sponsor will be required to change the Strategy methodology in order to continue determining the Strategy.

Reliance on the Strategy Calculation Agent

The Strategy relies on the Strategy Calculation Agent, which may be a third party if so specified in the Strategy Description, to determine the value of the Strategy, amongst other obligations. If the Strategy Calculation Agent does not, and/or is unable to, perform its obligations in respect of the Strategy, the determination and publication of the value of the Strategy is likely to be materially delayed. In such cases the Strategy Sponsor will aim to replace the Strategy Calculation Agent but there is no guarantee that this will be achieved in a reasonable timeframe and the determination and publication of the value of the Strategy may be delayed for a material period of time. This is likely to have an adverse effect on Linked Products, including the possible termination of such Linked Products.

Potential reliance on a separate strategy calculation agent or corporate action methodology

If so specified in the Strategy Description, the Strategy may rely on a separate methodology to determine, amongst other things, how corporate actions are applied to the Components. Using a different methodology could lead to different outcomes and as such, any changes to such methodology could have a material impact on the Strategy. Unless the Strategy Sponsor also acts as the Strategy Calculation Agent and uses its own calculation methodology, the Strategy Sponsor will not be able to influence changes to such methodology.

However, the Strategy Sponsor may replace a methodology from time to time (including, without limitation, creating a new methodology to determine corporate actions and the relevant adjustments), in the accordance with the section of these General Strategy Terms entitled "*Change in Strategy Methodology*", and such replacement could have a material impact on the performance of the Strategy.

Exchanges closed on observation days and rebalancing days

The universe of potential stocks in respect of a Strategy may be broad and cover one or multiple jurisdictions and stock exchanges. Therefore, in relation to Strategies referencing a large pool of potential stocks, it is likely that on any observation day and/or rebalancing day the primary exchange(s) for a significant proportion of the Components included in the Strategy will be closed. Where the relevant primary exchange for a Component is closed, the Strategy may use one or more previous prices (or such other prices as determined by the Strategy Sponsor acting in good faith and a commercially reasonable manner) for such Component. As a result, such alternative prices may be used for a significant proportion of the universe of potential stocks when determining the Components and their weights. This may impact the performance of the Strategy as compared to a methodology that required all exchanges to be open on an observation day and/or a rebalancing day.

Exact rebalancing days unavailable

Given the universe of potential stocks may be broad and cover multiple jurisdictions and stock exchanges, the business day calendar used to determine the frequency of rebalancing days is a sub-set of the entire holiday calendar for all possible jurisdictions and stock exchanges. The exact calendar used by the Strategy may not be made public.

The weights assigned to the Components will be published on a delayed basis

The weights assigned to the Components will be published on a delayed basis following each rebalancing day. Investors in Linked Products may not be entitled to further information from the Strategy Sponsor regarding the weights of the Components. The Strategy Sponsor may also have entered into non-exclusive licensing agreements with certain of its third-party data suppliers in order to source the necessary data to calculate the Strategy. The formalities necessary to obtain access to such figures may deter potential investors in Linked Products on the secondary market.

Strategy Sponsor determination of the price of Component

To the extent that a Disruption Event has occurred in respect of a Component for any Strategy Calculation Day, the Strategy Sponsor may determine the price of the relevant Component in its commercially reasonable judgment, and in making such determination, the Strategy Sponsor may, but shall not be obliged to, have reference to the most recently available price of the relevant Component. If the Strategy Sponsor makes such a determination in respect of the price of an affected Component, it is likely that such price would be different from what it would have been if a Disruption Event had not occurred and this may have an adverse effect on the value of the Strategy.

Strategy Calculation Agent determination of adjustments to Component

To the extent that an Extraordinary Event has occurred in respect of a Component for any Strategy Calculation Day, the Strategy Calculation Agent may determine adjustments to the value of the Strategy and/or the price of a Component in accordance with the Strategy Calculation Agent Methodology. The determinations will be made by the Strategy Calculation Agent acting in good faith and a commercially reasonable manner. Such determinations may however differ from determinations made in respect of other indices or products by other third parties, potentially materially so.

(III) Risks related to Strategies that reference time weighted average prices

The Strategy uses time weighted average prices in the calculation of the value of the Strategy

The Strategy may, in certain circumstances, use a time weighted average price (a “TWAP”) in order to calculate the price or rate (as applicable) in respect of any relevant day. The TWAPs used in the calculation of the Strategy are calculated by the in accordance with a methodology set out in the Strategy Description which are specific to the Strategy. No assurances can be given that any such TWAP specification used in the calculation of the Strategy is optimal and will have a positive effect on the performance of the Strategy. Any such TWAP may be higher or lower than the reference price or rate (as applicable) in respect of the relevant reference asset and such time. There is no guarantee that the Strategy will outperform an index which is otherwise identical to the Strategy but uses the reference price or rate (as applicable) instead of the relevant TWAP in respect of such reference asset and there is a risk that the Strategy might underperform such an index.

The methodology for the calculation of any relevant TWAP could affect the value of the Strategy

The methodology for the calculation of any relevant TWAP could affect the value of the Strategy and, therefore, the amount payable on any Linked Product on the stated maturity date (or other specified payment dates) of such Linked Product and the market value of such Linked Product before that date. The amount payable on any Linked Products and their market value could also be affected if the entity that calculates such TWAP changes these policies, for example, by changing the manner in which it calculates any relevant TWAP, or if the relevant entity terminates the calculation or publication of such TWAP, in which case the Strategy Sponsor may have to use the reference price or rate (as applicable) for the relevant reference asset. If such policy changes relating to any relevant TWAP or the calculation or publication such TWAP is discontinued or suspended, the Strategy Sponsor will have discretion in determining the adjustments to be made to the Strategy in order to calculate the value of the Strategy.

The policies of the TWAP Sponsor and changes that affect the calculation of any relevant TWAP could affect the value of the GS Strategy

The policies of the relevant entity that calculates a TWAP concerning the calculation of any relevant TWAP could affect the value of the Strategy and, therefore, the amount payable on any Linked Products on the stated maturity date (or other specified payment dates) of such Linked Products and the market value of such Linked Products before that date. The amount payable on any Linked Product and its market value could also be affected if the relevant entity changes these policies, for example, by changing the manner in which it calculates any relevant TWAP, or if such relevant entity terminates the calculation or publication of such TWAP, in which case the Strategy Sponsor may have to use the reference price or rate (as applicable) for the relevant Component. If such policy changes relating to any relevant TWAP or the calculation or publication such TWAP is discontinued or suspended, the Strategy Sponsor will have discretion in determining the adjustments to be made to the Strategy in order to calculate the value of the Strategy.

The entity which calculates a TWAP has the discretion to make determinations that could materially affect the Strategy and create conflicts of interest

The relevant entity that calculates a TWAP in respect of a Strategy does not generally exercise any discretion and owes no fiduciary duties in respect of the Strategy or any Linked Product. However, the relevant TWAP Sponsor has a certain amount of discretion in the event of the occurrence of certain adjustment events or disruption events as outlined above.

Determinations made by the relevant entity could adversely affect the TWAP in respect of a reference asset and a TWAP window and consequently the value of the Strategy or any financial instrument that utilises such TWAP, such as Linked Products. The exercise by the relevant entity of its discretion could present it with a

conflict of interest of the kind described in the section of these General Strategy Terms entitled "*Conflicts of Interest*". In making those determinations, the relevant entity will not be required to, and will not, take the interests of holder of any Linked Product into account or consider the effect its determinations will have on the value of such Linked Product. All determinations made by the relevant entity shall be at its sole discretion and shall be conclusive for all purposes and will bind all holders of any Linked Product. The relevant entity shall not have any liability for such determinations.

The Strategy Sponsor and its affiliates may develop or trade in products linked to competing indices and/or strategies

The Strategy Sponsor may sponsor and calculate indices and/or strategies which have the same or similar objectives to (and have the same or similar Components as) the Strategy, but which have windows of time in which a TWAP is determined which overlap with, or are otherwise different to, those specified in respect of the Strategy and may sponsor and/or calculate more such indices and/or strategies in the future. Further, the Strategy Sponsor may issue or underwrite securities or trade other financial or derivative instruments or investments referenced to such other indices and/or strategies.

(IV) Risks related to Strategies that reference underlying synthetic asset transactions automatically created by transaction or operation modules

Synthetic asset transactions are created automatically by the transaction or operation modules

The quantities of the components in the Strategy may increase or decrease automatically, as a result of the synthetic asset transactions created by the transaction or operation modules on each relevant rebalancing day. Over time this may result in an automatic increase (or decrease) in the Strategy's exposure to the relevant components. Such exposure (which may be a "long" exposure or a "short" exposure) to the relevant components may become material over time and the value of the Strategy may be impacted to a greater degree by any movement in the price or value of such underlying components. Accordingly, such increased exposure to the relevant components may have a material impact upon the performance of the Strategy.

The creation of synthetic asset transactions may result in certain notional costs being incurred with respect to any basket rebalancing

Certain notional basket rebalancing costs which are embedded in the Strategy synthetically reflect the cost of establishing and unwinding synthetic asset transactions upon each basket rebalancing. Each such transaction created automatically by the transaction or operation modules on each rebalancing day will give rise to basket rebalancing costs which are deducted from the value of the Strategy.

Any increase in the number and notional amount of synthetic asset transactions generated by the transaction or operation modules will increase the level of the costs deducted from the value of the Strategy. A strategy which generates fewer or less frequent underlying synthetic transactions than the Strategy may have lower synthetic rebalancing costs than the Strategy.

Past performance of the Strategy affects the synthetic asset transactions determined by the Strategy and the components and prices selected by the Strategy

Synthetic asset transactions generated by the Strategy are calculated with reference to the basket value of the Strategy. In addition, the selection of components (and their corresponding prices) are dependent upon the market environment. Therefore, past values of the basket and the relevant components (and market performance) affect the current composition of the Strategy, and its exposure to individual components.

No synthetic asset transaction will occur with respect to any component or operation module following if the basket value on any day is equal to or less than zero (a “Negative Value Event”)

Unless otherwise stated in the Strategy Description, if a Negative Value Event occurs on any relevant day then no further basket rebalancing days will occur after such day. Following such Negative Value Event, no new synthetic asset transaction will occur with respect to any transaction or operation module or component. This means that, following the occurrence of a Negative Value Event, the Strategy will remain exposed to the value of the outstanding allocated universe of components and the value of the Strategy may potentially be reduced if the values of such components change. Given that the Strategy will no longer synthetically enter into new transactions, it will not gain new exposure to components and will not participate in any changes in value of components other than the ones comprised within the allocated universe of components as of the date of the Negative Value Event.

(V) Risks related to Strategies which contain certain other features

The Strategy may be subject to Non-Tradable Events

If a Non-Tradable Event is specified in the relevant Strategy Description and has occurred (which may include the occurrence of a Disruption Event) or is continuing in respect of a Component on any Strategy Calculation Day on which the value of the Strategy is scheduled to be calculated by the Strategy Sponsor in accordance with the Strategy Description, the units or weight of such Component held by the Strategy in respect of each relevant calculation session may not change until such Non-Tradable Event ceases to exist. The Strategy Sponsor may calculate a tradable level of the Strategy using the same methodology for calculating the value of the Strategy, but using tradable levels of such Component in place of its level (or ask level, bid level or mid-level, as the case may be). In such case, it is likely that the value of the Strategy will be different from what it would have been if such Non-Tradable Event had not occurred, and it may vary unpredictably and could be lower.

Following a Stop Loss Event, the Strategy may suffer significant losses

The Strategy may include a stop loss mechanism which aims to limit the maximum loss in the Strategy. However, the Strategy will not be able to unwind its positions in any affected trades immediately, only on the following Strategy Calculation Day. As a result, the Strategy could suffer significant losses before its positions in any affected trades are fully unwound.

Volatility and Strategy risk

A Strategy may have a daily volatility adjustment feature (if so specified in the relevant Strategy Description), which aims to provide a notional volatility-controlled exposure to the Components of such Strategy. This is achieved by periodically increasing or decreasing the exposure of such Strategy to the Components, based on the realized volatility of the Components over a certain period of time relative to a pre-determined volatility target. An increase in the realized volatility of a Component may decrease the exposure of such Strategy to such Component.

If the daily volatility adjustment feature is applicable, an underperformance of the Strategy compared to a similar Strategy without such feature could be observed in periods where the value of a Component in which a Strategy holds a synthetic long position is increasing and, at the same time, the realized volatility exceeds the volatility target. The daily volatility adjustment feature, if applicable, is not designed for short term investments both in terms of improved participation for option-based payoffs linked to the Strategy and in terms of the performance of the Strategy.

Potential investors should make their own investigations and form their own views as to the appropriateness or otherwise of such Strategy, taking into account their own circumstances. In particular, potential investors in Linked Products should note that such Strategy may not reflect the return that could be realized from a direct investment in the Components.

If a Strategy uses an optimisation computer software package, then such package may not determine the mathematically optimal result

As part of its pre-determined set of rules a Strategy may use a commercially available optimisation computer software package (an “**Optimiser**”) to solve a mathematical optimisation problem, which may be subject to certain optimisation constraints. For example, if specified in the Strategy Description, such Strategy may use an Optimiser to calculate the weights of certain Components with the aim of maximising or minimising one or more variables.

As the possible results may be a continuous function, there may be no simple function to test the various combinations of results. Consequently, it is necessary to use approximations contained in computation routines. There is no guarantee that in respect of any optimisation problem an Optimiser will determine the optimal set of results and it is possible that there exist alternative results that satisfy the relevant constraints. Furthermore, the Strategy Calculation Agent may from time to time change the Optimiser used in respect of a Strategy. Different Optimisers may be more or less likely to determine the optimal result for a Strategy and using them could lead to a different performance of a Strategy. If such Strategy employed a different Optimiser, the results of rebalancing could be different and possibly materially so. As such, the performance of the Strategy may be dependent on the choice of Optimiser and could be materially different if the Strategy Sponsor replaces the Optimiser at any time.

If specified in the relevant Strategy Description, the level at which Components are rebalanced will depend on the execution by the Strategy Sponsor

If so specified in the relevant Strategy Description in respect of one or more Components, then the level at which such rebalancing takes place will depend on the Strategy Sponsor’s execution level of its own hedge positions. The Strategy Sponsor will not owe any fiduciary duties in respect of such execution (and in particular will not be under any obligations of “best execution” or similar) to any investor in a Linked Product or to any other person.

In times of a whipsawing market in respect of an underlying asset of any Component, the Strategy may be unsuccessful in generating positive returns based upon any momentum risk premium

If the Strategy aims to capture positive returns arising from notional exposure to the momentum risk premium in respect of the underlying assets of a Component it shall rely on a degree of momentum in any trend identified in respect of such underlying assets (i.e. that a trend that is identified will be sustained for a period). In a whipsawing market for any underlying asset, being a market characterised by high volatility and large and/or frequent swings, there may be the rapid and frequent appearance of trends that do not subsequently develop and/or are swiftly reversed. In such circumstances, and where the methodology of the relevant Component is unable to adjust the notional exposure to the relevant underlying asset in sufficient time to limit any adverse effects of such a swing, the methodology of the Strategy may be unsuccessful in generating any positive returns and may perform less well than a strategy intended to capture alternative risk premia.

(VI) Risk related to Strategies that are Intraday Strategies

The Strategy Sponsor may elect to suspend the synthetic execution of new transactions within the Strategy and is not required to correct or restate the Strategy Value to account for specific disruptions

Intraday Strategies will (where applicable) be subject to different treatment from other strategies regarding certain disruptions. In particular, where the Strategy Sponsor determines that (in each case due directly or indirectly to the quality or unavailability of Intraday Data or failures in internal systems and/or data/risk processes) it or an Affiliate is unable (a) prior to a relevant window to determine the hedges required to be executed by the Strategy Sponsor or an Affiliate in relation to its exposure to such Intraday Strategy; or (b) to access any relevant financial market, trading venue or exchange to execute such hedges, including internal trading and order entry systems, then the Strategy Sponsor is likely to suspend the synthetic execution of new transactions within the Strategy. The timing of the re-commencement of trading within the Strategy following such suspension shall be determined by the Strategy Sponsor in its sole and absolute discretion. The Strategy Sponsor may elect to take various other steps in the event of any such issues or circumstances (as further described in the section “Disruption Events and Consequences” of these General Strategy Terms). Suspension of synthetic execution of new transactions and any other steps taken by the Strategy Sponsor will be likely to materially affect the value of the Strategy had such disruption event not occurred and/or such actions not been taken. Additionally, the Strategy Sponsor will not restate the Strategy Value in such circumstances to take account for any suspension and/or disruption. This may decrease, potentially materially so, the return on any Linked Products relative to a corrected and restated Strategy Value.

The Strategy Sponsor is not required to restate the strategy to account for incorrectly computed quantities of assets or components and the Strategy will be calculated without reference to corrected data

As referenced in the section entitled “Restatements of Input Data”, the Strategy Sponsor is not required to restate or correct a Strategy Value for an Intraday Strategy to account for incorrectly computed Asset or Component Quantities that may arise as a result of any discrepancy between the Strategy Description and the calculation of the Strategy Value, errors in calculation or computation of the Strategy, publication errors (where such calculation, computation or publication errors may include Goldman Sachs internal errors, including errors in the processing of third-party data) (together “Errors”). It is likely that the Strategy Sponsor will not restate the Strategy Value to account for any such Errors in any of these circumstances. If any Component or Input Data is restated, rebased, otherwise adjusted or modified or a level published or provided to the Strategy Calculation Agent in relation to such Component is corrected after its initial publication or provision, the Strategy Sponsor will not use such corrected value for the purpose of calculating the relevant Asset or Component Quantities and will instead use the applicable quantities as calculated before such correction. A failure to restate the Strategy Value to account for such Errors and/or to use corrected values to calculate an Asset or Component Quantity may adversely impact the performance of the Strategy and decrease (potentially materially so) the return on any Linked Product relative to a corrected and restated Strategy Value.

(D) RISKS RELATED TO SPECIFIC COMPONENTS

(I) Risks related to Strategies referencing Components that are shares, ETFs or funds

The reference level of Components which are shares, ETFs or funds may be adjusted to take account of net dividend payments and other potential adjustment events

On the date on which a Component which is a share, ETF or fund commences trading without the rights to receive a dividend, the reference level of such component will be adjusted by the Strategy Sponsor with the aim of increasing the level to a value as if the relevant dividend amount, net of tax, had not been declared. When

making such adjustment, the Strategy Sponsor will assume a notional tax rate in respect of the dividend, which will reduce the increase in the reference level for such Component. Such tax rates may vary according to changes in tax laws and procedures.

Any announced dividend in respect of a Component will be reduced by an assumed tax rate (which may be zero), which is intended to reflect the withholding tax rate levied, or the potential tax rate that may be levied, by the country of incorporation or residence of the issuer of such Component. The assumed tax rate (which may be zero) will be determined by the Strategy Sponsor using the relevant Strategy methodology based on its view of applicable law and/or regulations, observable sources and/or market practice. The assumed tax rates may be amended from time to time by the Strategy Sponsor. If the assumed tax rate in respect of one or more Components is increased, then the value of a Strategy may be affected.

The Strategy Sponsor and/or any affiliate that has hedged its exposure to any Component will benefit if the effective rate of withholding tax that it incurs through its hedging activity is less than the synthetic tax withholding applied in respect of the relevant Strategy and such benefit will not be passed on to the investors in Linked Products.

Following the determination by the Strategy Sponsor that an event has occurred that would have a diluting or concentrative effect in respect of a Component or following any adjustment to the settlement terms of listed options or futures contracts on such Component traded on an options or futures exchange, the Strategy Sponsor may make an adjustment to account for such effect. The Strategy Sponsor may, but need not, determine the appropriate adjustment by reference (amongst other things) to the adjustment in respect of such event made by the other equity market dealers and/or exchanges (including but not limited to the reference exchange for such Component, and options and futures exchanges related to such Component) or quoting services. Such adjustment may have an adverse effect on the performance of the Strategy.

(II) Risks related to Strategies referencing Components that are foreign currency exchange rates

Changes in foreign currency exchange rates can be volatile and unpredictable

Generally, rates of exchange between foreign currencies are volatile, and this volatility may continue in the future, in particular with regard to emerging market currencies. Fluctuations in currency exchange rates could adversely affect the performance of the Strategy. Some markets, especially emerging markets, carry significant risks for investors.

Government policy can adversely affect foreign currency exchange rates

Foreign currency exchange rates can either float or be fixed by sovereign governments. From time to time, governments use a variety of techniques, such as intervention by a country's central bank or imposition of regulatory controls or taxes, to affect the exchange rate of their currencies. Governments may also issue a new currency to replace an existing currency or alter the exchange rate or exchange characteristics by devaluation or revaluation of a currency. Therefore, the level of a Component (and therefore any Strategy referencing such Component) which references foreign currency exchange rates could be significantly and unpredictably affected by governmental actions. Even in the absence of governmental action directly affecting foreign currency exchange rates, political, military or economic developments in a country issuing either currency of a relevant currency pair or elsewhere could lead to significant and sudden changes in the foreign currency exchange rate between currency pairs as well as the level of any Component referencing such foreign currency exchange rate taken into account for the purposes of the calculation of the value of the Strategy.

The government or central bank that issues either currency of a relevant currency pair will have no involvement

in the offer and sale of the Strategy and no obligations to the Strategy Sponsor. Each such government or central bank may take actions that could adversely affect the value of the Strategy.

Foreign exchange rates are influenced by unpredictable factors

Generally, foreign exchange rates are a result of the supply of, and demand for, a given currency both domestically and internationally. Changes in exchange rates may result from the interactions of many factors including economic, financial, social and political conditions in Europe, the United States, any other jurisdiction whose currency is either currency of a relevant currency pair. These conditions include, for example, the overall growth and performance of the economies of the United States, the European Monetary Union (and the constituent nations thereof), any other jurisdiction whose currency is either currency of the relevant currency pair, the trade and current account balance between such countries, inflation, interest rate levels, the performance of global stock markets, the stability of the United States, European or other relevant jurisdictions' governments and banking systems, wars in which such nations or regions are directly or indirectly involved or that occur anywhere in the world, major natural disasters, and other foreseeable and unforeseeable events.

Certain relevant information relating to relevant jurisdictions (in respect of any currency pair) may not be as well-known or as rapidly or thoroughly reported in the United States as compared to US developments. It is possible that there would be a lack of availability of important information that can affect the value of the one currency against another in respect of the Strategy, and special efforts may be required to obtain such information on a timely basis. See also the risk factor entitled "*Government policy can adversely affect foreign currency exchange rates*" above.

Foreign exchange rate information may not be readily available

There is no systematic reporting of last-sale information for foreign currencies. Reasonable current bid and offer information is available in certain brokers' offices, in bank foreign currency trading offices, and to others who wish to subscribe for this information, but this information will not necessarily reflect the currency exchange rates relevant for determining the value of the Strategy. The absence of last-sale information and the limited availability of quotations to individual investors may make it difficult for many investors to obtain timely, accurate data about the state of the underlying foreign exchange markets.

(III) Risks related to Strategies referencing Components that are options contracts

The rationale for the Strategy is subject to certain trends and assumptions which may result in losses for the Strategy in the long term if underlying markets or prices move contrary to such trends or assumptions.

The rationale for the Strategy will be subject to certain trends and assumptions regarding the underlying market dynamics, including without limitation and by way of example, regarding the price at which implied volatility shall trade compared to the fair expectation of realised volatility and how such price reflects the natural demand for options compared to the supply of options contracts. It is possible that in the future that such underlying markets or supply and demand for the relevant reference asset(s) could change contrary to such trends and assumptions, which could in turn reduce or eliminate the source of gains for the Strategy.

The Components included in the Strategy may be removed or replaced if the existing Component has ceased to be published and has not been replaced by a successor options contract, or has ceased to be liquid, actively traded and generally available for trading, or will be terminated or delisted.

If a Component included in the Strategy has ceased to be published and has not been replaced by a successor

options contract, or has ceased to be liquid, actively traded and generally available for trading, or will be terminated or delisted, the Strategy Sponsor may elect to remove or replace such Component in order for the value of the Strategy to continue to be calculated. This may have an adverse impact on the value of the Strategy.

The Components included in the Strategy may be removed or replaced if the relevant price source makes a material change to the existing vanilla option or contract expiration

If the relevant price source makes, in the reasonable judgment of the Strategy Sponsor, a material change in the weighting or composition of, formula for, or method of calculating a Component or in any other way materially modifies such Component (other than a modification prescribed in that formula or method relating to the weighting or composition of such Component or other routine events or modifications), the Strategy Sponsor may elect to remove or replace such Component in order for the value of the Strategy to continue to be calculated. This may have an adverse impact on the value of the Strategy.

The Strategy may have variable sensitivity to the reference asset underlying the relevant options contract, levels of implied volatility of the relevant options contract and the realised volatility of the relevant options contract.

The Strategy notionally trades options contracts. Sensitivity of options to the moves in value of the reference asset underlying the relevant options contract, the implied volatility of the relevant options contract and the realised volatility of the relevant options contract can be volatile and hard to predict, including changing the sign within a short period of time. Therefore, the Strategy may exhibit performance that is not consistent through time and the Strategy may be path dependent.

(IV) Risks related to Strategies referencing Components that are over-the-counter interest rate derivative transactions

The adjustments made to the relevant swap rate or the annuity of any relevant forward swap contract may not achieve their objective

The methodology of a Strategy may provide for certain adjustments to be made to each of the swap rate and the annuity of a forward swap contract so that it reflects as closely as possible the level of a forward swap rate at which hypothetical transactions could be executed or the level of the annuity of such forward swap contract at which hypothetical transactions could be executed, as the case may be. There is no assurance that such adjustments will achieve the objective and that any swap rate or annuity so adjusted will correspond with, or be similar to, third party market values (if any such values exist) or any values that may be determined by other market participants.

The swap conventions applicable to any relevant forward swap contract are determined by the Strategy Sponsor in its discretion

If so specified in the methodology of a Strategy, the swap conventions applicable to any relevant forward swap contract are determined by the Strategy Sponsor in its discretion and may not reflect market-standard swap conventions for forward interest rate swap transactions or floating rate options that are adopted by the relevant market or accepted by all or most market participants. Such swap conventions determined by the Strategy Sponsor in respect of any relevant forward swap contract may not correspond with, or be similar to, the swap conventions used by other market participants or used to identify the swap components of other indices.

The spot swap rate may be unavailable from the relevant swap source

The forward swap rate is calculated utilizing several inputs including the spot swap rate from a prescribed swap source. In a scenario where this spot swap rate is unavailable, the forward swap rate shall be calculated using an alternative source. This could have an adverse effect on the performance of the Strategy and/or any Linked Products.

Liquidity in transactions relating to the Components may move to other clearing houses or trading venues or may move to transactions relating to other instruments

If (i) liquidity in transactions relating to a Component moves from a clearing house or trading venue on which such Component would generally be cleared or traded to a different clearing house or trading venue, in accordance with market convention or (ii) liquidity in transactions relating to a Component (as identified by the relevant swap conventions) moves to transactions relating to other Components identified by one or more different swap conventions, in accordance with market convention, the Strategy Sponsor has the discretion to replace or remove such Component or assign a zero weight to such Component or any instrument to which such Component is linked from the Strategy and to make such adjustments as may be necessary to reflect such changes(s). This could have an adverse effect on the performance of the Strategy and/or Linked Products.

Liquidity in transactions relating to a spot swap rate published by the relevant swap source may move to transactions relating to a spot swap rate published by a different data source

If liquidity in transactions relating to a spot swap rate published by the relevant swap source has moved to transactions relating to a spot swap rate published by a different data source (which may be a spot swap rate published by a different data source provider or a spot swap rate published by the same data source provider on a different screen page and/or at a different time), in accordance with market convention, the spot swap rate used to calculate the Strategy may be the spot swap rate published by such other data source, as determined by the Strategy Sponsor. This could have an adverse effect on the performance of the Strategy and/or any Linked Products.

(V) Risks related to Strategies referencing Components that are or reference commodities or commodity indices

An investment in the Strategy is subject to risks associated with foreign commodities markets

The Components (either directly or indirectly) may track the performance of a single commodity selected from a universe of different commodities in the commodity markets. Such commodities may be represented by commodity futures which (i) trade outside the United States on international exchanges, and/or (ii) are denominated in currencies other than United States dollars. An investor in a Linked Product should be aware that investments linked to the value of foreign commodity futures contracts involve particular risks.

Certain Components may be linked to commodity futures contracts on physical commodities on trading facilities located outside the United States. The regulations of the CFTC do not apply to trading on foreign trading facilities, and trading on foreign trading facilities may involve different and greater risks than trading on United States trading facilities. Certain foreign markets may be more susceptible to disruption than United States trading facilities due to the lack of a government-regulated clearinghouse system. Trading on foreign trading facilities also involves certain other risks that are not applicable to trading on United States trading facilities. Those risks may include exchange rate risk relative to the United States dollars, exchange controls, expropriation, burdensome or confiscatory taxation, and moratoriums, and political or diplomatic events. It will also likely be more costly and difficult for the Strategy Sponsor to enforce the laws or regulations of a foreign country or trading facility, and it is possible that the foreign country or trading facility may not have laws or regulations which adequately protect the rights and interests of investors in the commodity futures contracts

included in the Strategy. In addition, because foreign trading facilities may be open on days when the value of the Strategy is not published, the value of the commodity futures contracts included in the Strategy may change on days when the value of the Strategy is unavailable.

Suspension or disruptions of market trading in the commodity and related options futures markets may adversely affect the value of the Strategy

The commodity markets are subject to temporary distortions or other market disruptions due to various factors, including the lack of liquidity in the markets, the participation of speculators and government regulation and intervention. In addition, U.S. futures exchanges and some foreign exchanges have regulations that limit the amount of fluctuation in futures contract prices that may occur during a single business day. These limits are generally referred to as "daily price fluctuation limits" and the maximum or minimum price of a contract on any given day as a result of these limits is referred to as a "limit price." Once the limit price has been reached in a particular contract, no trades may be made at a different price. Limit prices have the effect of precluding trading in a particular contract. These circumstances could adversely affect the level of the components in the Strategy and, therefore, the value of the Strategy and, therefore, any Linked Products.

Commodity prices are characterised by high and unpredictable volatility, which could lead to high and unpredictable volatility of the Strategy

Commodity prices, and, consequently, the prices of corresponding commodity futures contracts, are affected by various factors, including, but not limited to, supply and demand, liquidity, weather conditions and natural disasters, government programs and policies, political, military, terrorist and economic events as set out in more detail below.

- ***Supply and demand*** - The planning and management of commodities supplies is very time-consuming. This means that the scope for action on the supply side is limited and it is not always possible to adjust production swiftly to take account of demand. Demand can also vary on a regional basis. Transport costs for commodities in regions where these are needed also affect their prices. The fact that some commodities take a cyclical pattern, such as agricultural products which are only produced at certain times of the year, can also result in major price fluctuations.
- ***Liquidity*** - Not all commodities markets are liquid and able to quickly and adequately react to changes in supply and demand. The fact that there are only a few market participants in the commodities markets means that speculative investments can have negative consequences and may distort prices.
- ***Weather conditions and natural disasters*** - Unfavourable weather conditions can influence the supply of certain commodities for the entire year. This kind of supply crisis can lead to severe and unpredictable price fluctuations. Diseases and epidemics can also influence the prices of agricultural commodities.
- ***Governmental programs and policies, national and international political, military and economic events and trading activities in commodities and related contracts*** - Commodities are often produced in emerging market countries, with demand coming principally from industrialised nations. The political and economic situation is however far less stable in many emerging market countries than in the developed world. They are generally much more susceptible to the risks of rapid political change and economic setbacks. Political crises can affect purchaser confidence, which can as a consequence affect commodity prices. Armed conflicts can also impact on the supply and demand for certain commodities. It is also possible for industrialised nations to impose embargos on imports and exports of goods and services. This can directly and indirectly impact commodity prices. Furthermore, numerous

commodity producers have joined forces to establish organisations or cartels in order to regulate supply and influence prices.

These factors may adversely affect the value of the Strategy and, therefore, any Linked Product in varying ways, and different factors may cause the value and volatility of different commodities to move in inconsistent directions and at inconsistent rates.

Commodities are subject to legal and regulatory regimes that may change in ways that could affect the value of the Strategy and/or affect the ability of the Strategy Sponsor, an issuer or other relevant entities to enter into or maintain hedging transactions

Commodities are subject to legal and regulatory regimes in the United States and, in some cases, in other countries that may change in ways that could negatively affect the value of the Strategy and are expected to increase the cost of transacting derivatives. This could have an adverse impact on the value of the Strategy.

Exposure to commodity futures contracts through an investment in the Strategy that references commodity indices compared to "spot" prices

- ***Rolling*** - It is typical in commodity markets to take the price of the first-nearby commodity futures contract with respect to a commodity (that is, as of a given date, the commodity futures contract first to expire following such date) as a reference for the "spot" price of such commodity. Over time such "spot" price will vary for two reasons. Firstly, the price of the first-nearby commodity futures contract will vary over time due to market fluctuations. Secondly, when the commodity futures contract which is considered to be the first-nearby contract changes from contract expiration "X" to contract expiration "Y" (as contract expiration "X" is approaching expiry), there is a discrete change in the price of the "prevailing" first-nearby commodity futures contract. If contract expiration "Y" is trading at a premium to contract expiration "X" (referred to as a "contango" market, as described in further detail below), the discrete change will represent a "jump" in the "spot" price. If contract expiration "Y" is trading at a discount to contract expiration "X" (referred to as a "backwardated" market, as described in further detail below) the discrete change will represent a "drop" in price.
- ***Effect of "jump" or "drop"*** - Since a "jump" or "drop" does not correspond to a change in price of any given commodity futures contract, these economics cannot be captured by a futures-linked investment such as the Strategy. Therefore, all other things being equal (in particular, assuming no change in the relative price of the various contract expirations with respect to the relevant commodity futures contract), in a "contango" market a long-only futures-linked investment may be expected to underperform the "spot" price (due to not capturing the "jump" in spot price) and in a "backwardated" market a long-only futures-linked investment may be expected to outperform the "spot" price (due to not capturing the "drop" in spot price).
- "Backwardation" occurs when the price of a near-dated commodity futures contract is greater than the price of a longer-dated commodity futures contract, the market for such contracts is referred to as in "backwardation". "Contango" occurs when the price of the near-dated commodity futures contract is lower than the price of the longer-dated commodity futures contract, the market for such contracts is referred to as in "contango".
- Accordingly, investors in Linked Products that references commodity indices as components may receive a lower payment upon redemption of such financial instrument than such investor would have received if he or she had invested directly in commodities underlying such commodity indices or a financial instrument whose redemption or settlement amount was based upon the spot price of physical

commodities or commodity futures contracts that were scheduled to expire on the maturity date of the financial instrument.

The Strategy does not track the performance of any relevant underlying commodity index and is likely to deliver returns that differ from the performance of such commodity indices

Whilst the Strategy may reference certain commodity indices (whether directly or indirectly), an investment in Linked Products is not comparable to and should not be benchmarked against an investment in a financial instrument linked to the value of such commodity indices. This is because the differences between the Strategy and such commodity indices are likely to produce different values for the Strategy and such commodity indices at any given time and, therefore, may produce differing returns.

Change in the composition or discontinuance of an underlying commodity index included in the Strategy could affect the value of the Strategy

The Strategy may reference certain underlying commodity indices (whether directly or indirectly). These commodity indices are calculated and maintained by the relevant index sponsor, who is also responsible for the composition of such commodity index. Such index sponsor will have no involvement in the offer and sale of any Linked Products and will have no obligation to any purchaser of such Linked Products. The index sponsor of such commodity index may take any actions in respect of such commodity index without regard to the interests of the Strategy Sponsor of the Strategy or any investors in Linked Products, and any of these actions could adversely affect the value of the Strategy together with the market value of any Linked Products.

The relevant index sponsor can substitute the commodity futures contracts underlying such commodity index (for example, if a commodity futures contract referenced by such commodity index were to be delisted, terminated or replaced by the relevant exchange on which such underlying commodity futures contract is traded) or make other changes to the methodology for calculating such commodity index. The composition of commodity index may also change over time as additional commodity contracts satisfy the eligibility criteria or commodity contracts currently included in such commodity index fail to satisfy such criteria. Such changes to the composition of any commodity index included in the Strategy may affect the level of such commodity index as any newly added commodity futures contract may perform significantly worse or better than the commodity futures contract it replaces, which in turn, may affect the value of the Strategy. The sponsor of commodity index included in the Strategy may also alter, discontinue or suspend calculation or dissemination of such commodity index. In such circumstances, the Strategy Sponsor would have the discretion to make determinations with respect to the value of the Strategy including for the purposes of calculating the amount payable on any Linked Product.

Any commodity index referenced by the Strategy may in the future include commodity futures contracts that are not traded on regulated futures exchanges

Any commodity indices referenced by the Strategy shall be based solely on commodity futures contracts traded on regulated futures exchanges (referred to in the United States as "designated contract markets"). At present, such proprietary strategies continue to be comprised exclusively of regulated commodity futures contracts. However, any such proprietary strategies referenced by the Strategy may in the future include over-the-counter contracts (such as swaps and forward contracts) traded on trading facilities that are subject to lesser degrees of regulation or, in some cases, no substantive regulation. As a result, trading in such commodity futures contracts, and the manner in which prices and volumes are reported by the relevant trading facilities, may not be subject to the same provisions of, and the protections afforded by, the U.S. Commodity Exchange Act 1936, as amended, or other applicable statutes and related regulations, that govern trading on regulated futures

exchanges. In addition, many electronic trading facilities have only recently initiated trading and do not have significant trading histories. As a result, the trading of commodity futures contracts on such facilities and the inclusion of such commodity futures contracts in any proprietary strategy referenced by the Strategy may be subject to certain risks not presented by most exchange-traded futures contracts, including risks related to the liquidity and price histories of the relevant commodity futures contracts.

Some of the commodity indices included in the Strategy may be subject to pronounced risks of pricing volatility

As a general matter, the risk of low liquidity or volatile pricing around the maturity date of a commodity futures contract is greater than in the case of other futures contracts because (among other factors) a number of market participants take physical delivery of the underlying commodities. Many commodities, like those in the energy and industrial metals sectors, have liquid futures contracts that expire every month. Therefore, these futures contracts are rolled forward every month. Futures contracts based on certain other commodities, most notably agricultural and livestock products, tend to have only a few contract months each year that trade with substantial liquidity. Thus, these commodities, with related futures contracts that expire infrequently, roll forward less frequently than every month, and can have further pronounced pricing volatility during extended periods of low liquidity. The risk of aberrational liquidity or pricing around the maturity date of a commodity futures contract is greater than in the case of other futures contracts because (among other factors) a number of market participants take delivery of the underlying commodities. In respect of commodity indices that represent energy, it should be noted that due to the significant level of continuous consumption, limited reserves, and oil cartel controls, energy commodities are subject to rapid price increases in the event of perceived or actual shortages. These factors (when combined or in isolation) may affect the price of commodity futures contracts and, as a consequence, the performance of the Strategy.

(VI) Risks related to Strategies referencing Components that are credit indices

The Strategy Sponsor and its affiliates are members in Credit Derivatives Determinations Committees and such membership may be adverse to interests of investors in Linked Products

Goldman, Sachs & Co., Goldman Sachs International and other affiliates may be members of one or more Credit Derivatives Determinations Committees in relation to a relevant credit index, and none of them will have any obligation to take into account the interests of investors in Linked Products. Any resolution or determination by a member of the Credit Derivatives Determinations Committees could be adverse to the interests of such investors.

DISCLAIMERS

The following list of disclaimers does not purport to be a complete list or explanation of all the disclaimers associated with the Strategies.

POTENTIAL INVESTORS SHOULD REFER TO THE RELEVANT GENERAL DESCRIPTION, SPECIFICATIONS ANNEX AND/OR OTHER DOCUMENTATION ELEMENT IN RESPECT OF EACH STRATEGY FOR SPECIFIC DISCLAIMERS RELATING TO SUCH STRATEGY.

THE STRATEGIES ARE TRADEMARKS OF THE GOLDMAN SACHS GROUP.

THE GOLDMAN SACHS GROUP DOES NOT GUARANTEE THE QUALITY, ACCURACY AND/OR COMPLETENESS OF A STRATEGY, ITS METHODOLOGY, ITS CALCULATION, ANY DATA OR INFORMATION INCLUDED THEREIN, OR ANY DATA OR INFORMATION ON WHICH IT IS BASED, OR THE STRATEGY DESCRIPTION AND/OR ANY SPECIFICATIONS ANNEX, AND THE STRATEGY SPONSOR SHALL HAVE NO LIABILITY FOR ANY ERRORS, OMISSIONS, DELAYS OR INTERRUPTIONS HEREIN OR THEREIN OR RELATING TO ANY OF SUCH MATTERS ON THE PART OF ANY THIRD PARTY OR OTHERWISE.

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IN CALCULATING A STRATEGY, THE STRATEGY CALCULATION AGENT WILL OBTAIN AND USE DATA AND INFORMATION FROM THIRD PARTY SOURCES. NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) WILL INDEPENDENTLY VERIFY SUCH INFORMATION, GUARANTEES THE QUALITY, ACCURACY AND/OR THE COMPLETENESS OF SUCH DATA OR INFORMATION AND CONSEQUENTLY NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) GUARANTEES THE QUALITY, ACCURACY AND/OR COMPLETENESS OF A STRATEGY. NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) SHALL BE LIABLE (WHETHER IN CONTRACT, TORT OR OTHERWISE) TO ANY PERSON FOR ANY INACCURACY, OMISSION, MISTAKE OR ERROR IN THE COMPUTATION, OR DISSEMINATION OF THE VALUE OF A STRATEGY AND NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR IS UNDER ANY OBLIGATION TO ADVISE ANY PERSON OF ANY INACCURACY, OMISSION, MISTAKE OR ERROR IT BECOMES AWARE OF.

NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) MAKES ANY EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES AS TO (I) THE ADVISABILITY OF PURCHASING OR ASSUMING ANY RISK IN CONNECTION WITH ANY LINKED PRODUCT, (II) THE VALUE OF A STRATEGY AT ANY PARTICULAR TIME ON ANY PARTICULAR DATE, (III) THE RESULTS TO BE OBTAINED BY ANY INVESTOR IN A PRODUCT LINKED TO THE PERFORMANCE OF A STRATEGY OR ANY COMPONENT OF A STRATEGY OR (IV) ANY OTHER MATTER.

INVESTORS CONSIDERING ACQUIRING ANY LINKED PRODUCT SHOULD CONSULT THEIR OWN ACCOUNTING, TAX, INVESTMENT AND LEGAL ADVISORS BEFORE DOING SO. NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) IS ACTING AS AN ADVISOR OR FIDUCIARY.

BEFORE INVESTORS INVEST IN ANY LINKED PRODUCT, THEY MUST READ AND UNDERSTAND THE STRATEGY DESCRIPTION SETTING OUT THE RULES, METHODOLOGY, DEFINITIONS, DISCLAIMERS, CONFLICTS OF INTEREST, RISK FACTORS AND OTHER INFORMATION APPLICABLE TO THE STRATEGY. IN PARTICULAR, AN INVESTOR MUST PAY PARTICULAR ATTENTION TO THE CONFLICTS OF INTEREST AND RISK FACTORS APPLICABLE TO THE STRATEGY SET OUT IN THE STRATEGY DESCRIPTION.

NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) MAKES, AND EACH OF THEM DISCLAIMS, ANY EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO A STRATEGY, ANY DATA OR INFORMATION INCLUDED THEREIN OR ANY DATA OR INFORMATION ON WHICH IT IS BASED.

EACH STRATEGY HAS BEEN STRUCTURED AND THE VALUE OF A STRATEGY IS CALCULATED AND DETERMINATIONS RELATING TO THE STRATEGY ARE MADE, WITHOUT REGARD TO ANY TRANSACTION LINKED TO SUCH STRATEGY. THE STRATEGY SPONSOR AND THE STRATEGY CALCULATION AGENT HAVE NO OBLIGATION TO TAKE THE INTERESTS OF ANY PERSON INTO CONSIDERATION IN STRUCTURING A STRATEGY, CALCULATING THE VALUE OF A STRATEGY, EXERCISING ANY DISCRETION IN RELATION TO A STRATEGY OR MAKING DETERMINATIONS RELATING TO SUCH STRATEGY, AS THE CASE MAY BE. THE STRATEGY SPONSOR AND THE STRATEGY CALCULATION AGENT SHALL NOT BE LIABLE FOR ANY LOSS SUFFERED BY ANY PERSON (INCLUDING ANY INVESTOR IN, OR ANY ISSUER, ARRANGER OR OTHER PERSON OF, A PRODUCT LINKED TO THE PERFORMANCE OF ANY STRATEGY OR ANY COMPONENT) AS A RESULT OF EXERCISING, OR REFRAINING FROM EXERCISING, ITS DISCRETION IN RESPECT OF ANY STRATEGY.

WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL THE STRATEGY CALCULATION AGENT OR THE STRATEGY SPONSOR HAVE ANY LIABILITY (WHETHER IN CONTRACT, TORT OR OTHERWISE) TO ANY PERSON FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL OR ANY OTHER DAMAGES (INCLUDING LOST PROFITS) EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

NOTHING IN THIS DISCLAIMER SHALL EXCLUDE OR LIMIT LIABILITY TO THE EXTENT SUCH EXCLUSION OR LIMITATION IS NOT PERMITTED BY LAW.

ESG DISCLOSURES

ESG Disclosures pursuant to REGULATION (EU) 2019/2089 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 November 2019 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks.

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY	
Item 1. Name of the benchmark administrator.	Goldman Sachs International
Item 2. Type of benchmark	For the purpose of ESG disclosure any of the following types of benchmarks may incorporate this General Strategy Terms as part of its benchmark methodology: Equity, Other
Item 3. Name of the benchmark or family of benchmarks.	For the purpose of ESG Disclosure, this methodology document may apply to the below families of benchmark: <ul style="list-style-type: none"> - Equity Benchmark Family (external only) - Equity Benchmark Family (external and internal) - Equity ESG Benchmark Family (external only) - Credit Benchmark Family (external only) - Credit Benchmark Family (external and internal) - Cross Asset Benchmark Family (external only) - Cross Asset Benchmark Family (external and internal) - Cross Asset ESG Benchmark Family (external and internal)
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No

THE GOLDMAN SACHS TRANSACTION-BASED BASKET STRATEGIES

GENERAL DESCRIPTION

Dated: 30 January 2024

Table of Contents

1.	Introduction, Strategy Purpose and Important Information.....	2
	A. Introduction	2
	B. Strategy Purpose of the Strategies	2
	C. Important Information	3
2.	Description of the Strategies.....	5
	A. Composition of the Components.....	5
	B. Determination of Component Timely Values	5
	C. Composition of the Basket	6
	D. Time Stamps	6
	E. Calculation of the Strategy Value.....	7
	F. The Effect on a Strategy Value of Deductions Representing Costs and Expenses	8
	G. Non-Tradable Events	8
3.	Transaction Modules and the Determination of the Component Quantities.....	10
	A. Transaction Modules.....	10
	B. Transactions.....	10
	C. Transaction Module Cash Type	11
	D. Transaction Module Quantity Type and Transaction Quantities.....	12
	E. Basket States	12
	F. Amendment and Cancellation of Transactions	13
4.	Computation of Strategy Values	14
5.	Composition Look-Through	17
	A. Composition of the Basket if Composition Look-Through is Applicable	17
	B. Transactions if Composition Look-Through is Applicable.....	18
6.	Publication of Strategy Values	19
7.	Reproduction and Re-Distribution, Notice to Recipients	20

1. Introduction, Strategy Purpose and Important Information

A. Introduction

The Goldman Sachs Transaction-Based Basket Strategies (each, a "**Strategy**" and together, the "**Strategies**") are a group of notional rules-based proprietary Strategies which Goldman Sachs International (or its successor) as strategy sponsor (the "**Strategy Sponsor**") may create from time to time.

Each Strategy is initially calculated and published by the entity designated in the Specifications Annex (as defined below) and may thereafter by such person as the Strategy Sponsor may appoint from time to time to make certain determinations and calculations and to publish the value of the Strategies as described in the Strategy Description (as defined below) (the "**Strategy Calculation Agent**"). The Strategy Sponsor does not have any obligation to ensure that the Strategy Calculation Agent continues to publish the value of a Strategy and the Strategy Calculation Agent may discontinue publication at any time.

The description of each Strategy comprises this document (the "**General Description**"), the "**Specifications Annex**" and may also comprise other documentation elements (each an "**Other Documentation Element**"). The list of documentation elements comprising the "**Strategy Description**" of a Strategy are set out in the Specifications Annex.

References in this General Description to the "**Strategy**" shall be construed as references to the relevant Strategy named in the Specifications Annex in respect of such Strategy and all provisions in the General Strategy Terms, this General Description and any Other Documentation Element shall be construed, unless otherwise stated, in relation to such Strategy. Capitalised terms used but not defined in this General Description shall have the meanings given to them in the Strategy Description.

INVESTORS IN ANY PRODUCT LINKED TO A STRATEGY ARE ADVISED TO READ AND UNDERSTAND THE GENERAL STRATEGY TERMS, THIS GENERAL DESCRIPTION, THE RELEVANT SPECIFICATIONS ANNEX AND ANY OTHER DOCUMENTATION ELEMENT. IN PARTICULAR, BUT WITHOUT LIMITATION, INVESTORS MUST READ ANY SECTIONS HEADED "RISK FACTORS", "CONFLICTS OF INTEREST" AND "DISCLAIMERS" (HOWSOEVER DEFINED OR HEADED) IN EACH SUCH DOCUMENT PRIOR TO MAKING ANY INVESTMENT DECISION.

B. Strategy Purpose of the Strategies

Each Strategy is designed to provide investors with a synthetic exposure to the performance of a basket (the "**Basket**") of Components, which may include assets from one or more asset classes and/or geographical areas and which may be denominated in various currencies.

In respect of the "**Strategy Inception Date**", each Component underlying a Strategy is assigned a quantity (in respect of each Component, the "**Component Quantity**") which will be the "**Initial Component Quantity**" in respect of such Component. The Initial Component Quantity in respect of a Component shall either be (i) a fixed amount, (ii) determined on the Strategy Inception Date based on Transactions generated by one or more Transaction Modules or (iii) zero, in each case, as specified or determined in accordance with the Specifications Annex. If no Initial Component Quantity is specified in the Specifications Annex in respect of a Component then the Initial Component Quantity of such Component shall be:

- (i) Equal to the Strategy Initial Value if such Component is the Strategy Currency Cash Component.
- (ii) Otherwise: Zero.

Thereafter, the Component Quantities of the Components are determined on each Strategy Calculation Day based on Transactions that are generated by the Transaction Modules. Each Transaction Module consists of parameters or specifications, the values of which determine

the Transactions, if any, generated by such Transaction Module, and accordingly, the Component Quantity in respect of each Component.

Each Strategy is denominated in a currency specified in the Specifications Annex (the “**Strategy Currency**”). The Specifications Annex and/or Other Documentation Elements of a Strategy may specify that such Strategy has an internal simulated currency hedge mechanism, in respect of Components which are denominated in a currency (the “**Component Currency**”) other than the Strategy Currency (each a “**Foreign Currency**”) that seeks to offset a portion of the positive or negative effects of currency exchange rate fluctuations in such Component Currency against the Strategy Currency on the value of the Strategy.

The general principles described in this Section 1.B “*Strategy Purpose of the Strategies*” of this General Description along with any other overview or description contained in the relevant Specifications Annex and the General Strategy Terms are referred to as the “**Strategy Purpose**” of a Strategy.

C. Important Information

The information set out in this General Description reflects the policies of the Strategy Sponsor and is subject to change in accordance with the General Strategy Terms and/or any Other Documentation Elements in respect of a Strategy.

The purposes, aims and intentions of the algorithms and methodologies summarised in the Strategy Description may not be achieved. Investors should read each of this General Description, the relevant Specifications Annex, the General Strategy Terms and any Other Documentation Element in their entirety. Investors should pay particular attention to the risk factors and conflicts of interest set out therein.

Each of Section 2 “*Description of the Strategies*”, Section 3 “*Transaction Modules and the Determination of the Component Quantities*” and Section 6 “*Publication of Strategy Values*” of this General Description are subject to, and qualified by, Section 4 “*Computation of Strategy Values*” of this General Description. In particular, in the event of any inconsistency between the aforementioned sections, Section 4 “*Computation of Strategy Values*” of this General Description shall prevail.

The value of a Strategy could become negative, unless otherwise specified in the relevant Specifications Annex.

A Strategy may be:

- (i) a systematic Strategy (i.e. operated according to a set of pre-determined rules as set out in the Strategy Description in respect of such Strategy);
- (ii) an actively managed Strategy (where the Component Quantity or the Transaction Quantity in respect of each Component may be changed periodically by a third party (a “**Strategy Allocator**”, as may be specified in the relevant Specifications Annex) in its discretion, subject to certain controls and constraints set out in the Strategy Description); or
- (iii) a combination of (i) and (ii), as set out in the Strategy Description.

Investors should read any relevant risk factors in the Strategy Description to fully understand the risks of a fully systemic or actively managed Strategy, as applicable.

Each Strategy as referenced in (i), (ii) and (iii) above operates according to a set of pre-determined rules as summarised in the Strategy Description, and the Strategy Sponsor and Strategy Calculation Agent do not exercise discretion except in the limited circumstances summarised in the Strategy Description. Neither of the Strategy Sponsor or Strategy Calculation Agent owes any person any fiduciary duties in respect of a Strategy and neither

are required to take the interest of any person into account in making any determinations with respect thereto.

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Each version of this document is dated. Upon each update to a new version of this document, the most recent version shall be deemed to be in force from the date of such update and replace in its entirety the preceding version such that, in the event of any conflict between the preceding version and the most recent version, the most recent version shall prevail.

2. Description of the Strategies

A. Composition of the Components

The Components of a Strategy and any information (including any additional risk factors) related to them are specified in the Specifications Annex for such Strategy. Each Strategy shall be comprised of a number of:

- (i) underlying assets (including, without limitation, indices, shares, futures contracts, funds, exchange traded funds, options, foreign exchange forward contracts, over-the-counter derivative instruments and other types of financial instruments) (each a “**Non-Cash Component**”) and
- (ii) notional amounts representing cash positions in the Component Currency of each Component (each a “**Cash Component**”), including the cash position denominated in the Strategy Currency (the “**Strategy Currency Cash Component**”) and cash positions denominated in currencies other than the Strategy Currency (each a “**Foreign Currency Cash Component**”, if any),

in each case, as specified in the relevant Specifications Annex.

The Specifications Annex of a Strategy will specify the Non-Cash Components which are immediate underlyers of the Strategy (the “**Immediate Components**”). The relevant Specifications Annex may further specify if each Immediate Component is a “**Terminal Component**” or “**Non-Terminal Component**”. If not so specified, an Immediate Component shall be considered to be a Terminal Component. The Cash Components of a Strategy shall be considered Terminal Components and shall also be part of the Immediate Components of a Strategy.

The Component Quantity in respect of a Cash Component decreases when the Basket synthetically invests in units of a Non-Cash Component with a positive Component Timely Value and a Component Currency corresponding to such Cash Component. The Component Quantity of a Cash Component increases when the Basket synthetically disposes of units in a Non-Cash Component with a positive Component Timely Value and a Component Currency corresponding to such Cash Component.

A Non-Cash Component and Cash Component shall be considered a “**Component**” in respect of a Strategy from (and including) the first Strategy Transaction Time Stamp and Strategy Calculation Day on which a Transaction is effected that assigns a non-zero Component Quantity to such Non-Cash Component or Cash Component (as the case may be), in each case, as further set out in the Strategy Description. Therefore, the Components in respect of a Strategy may change over time.

The “**Allocated Components**” in respect of a given Strategy Calculation Day and Time Stamp are all Components with a non-zero Component Quantity (which may be a positive or negative amount).

B. Determination of Component Timely Values

The Component Timely Value of a Component is defined in respect of each Input Data Observation Time Stamp (as defined below) on each “**Component Business Day**” (as specified in the Specifications Annex) in respect of such Component.

The “**Component Timely Value**” of a Component in respect of a Component Business Day and a Time Stamp is:

- (i) in respect of a Non-Cash Component, as determined in accordance with the formula or methodology in respect of such Non-Cash Component specified in the Specifications Annex and any relevant Other Documentation Elements; and

(ii) in respect of a Cash Component, a constant value of one (1).

If the Component Timely Value Floor (as specified in the Specifications Annex) is applicable in respect of a Component and the Component Timely Value of such Component on a Strategy Calculation Day and Time Stamp would be zero or less than zero, then the Component Timely Value in respect of such Strategy Calculation Day and Time Stamp and each subsequent Strategy Calculation Day and Time Stamp shall be zero. If the Component Timely Value Floor in respect of a Component is not specified as applicable (or does not contain any specification regarding the Component Timely Value Floor in respect of a Component) then the Component Timely Value of such Component may be a negative value.

The Strategy Calculation Agent may, in its sole discretion, make adjustments to the determination of the Component Timely Value of a Component under certain circumstances as further described in the Strategy Description.

The Component Timely Value of a Component in respect of (i) a Strategy Calculation Day which is not a Component Business Day in respect of such Component; and/or (ii) any time or time period that is not an Input Data Observation Time Stamp in respect of such Component (either (i) or (ii) constitutes a “**Non Component Timely Value Observation Time**”), shall, in each case, be determined in accordance with the Component Timely Value Convention (as specified in the Specifications Annex). Such Component Timely Value Convention may, without limitation, calculate the Component Timely Value of such Component by reference to previous Component Timely Values. If no Component Timely Value Convention is specified in the Specifications Annex then the Component Timely Value of a Component at such Non Component Timely Value Observation Time shall be the Component Timely Value of such Component in respect of the immediately preceding Input Data Observation Time Stamp.

C. Composition of the Basket

The Basket intends to track the value of the Components, as converted into the Strategy Currency and weighted by their respective Component Quantities. The Component Quantities in respect of the Components are assigned and rebalanced periodically via Transactions which are generated by Transaction Modules. Such rebalancing of the Component Quantities of a Component may take place on any Strategy Calculation Day and on any Strategy Transaction Time Stamp. Please see Section 3 “*Transaction Modules and the Determination of Component Quantities*” of this General Description for an overview of the determination of the Component Quantities and their periodic rebalancing via Transactions.

Under certain circumstances, as described in the Strategy Description, the Strategy Calculation Agent may delay the rebalancing of one or more Components.

The Component Quantity of a Component in respect of a Strategy Calculation Day and Time Stamp can be positive, negative or zero. A Strategy may have a long or short exposure (or no exposure), from time to time, to each of the Components. The sum of the actual weights of all Non-Cash Components may be greater than, equal to, or less than 100 per cent. A Strategy will provide a leveraged exposure to the Non-Cash Components if such sum exceeds 100 per cent and will provide a diluted exposure to the Components if such sum falls below 100 per cent.

D. Time Stamps

Subject as further described in the Strategy Description, each of the calculation of the Strategy Value, the notional execution of Transactions generated by Transaction Modules and the valuation of the Components or other input data shall be effected at specific Time Stamps.

The “**Time Stamps**” in respect of a Strategy Calculation Day and a Strategy shall consist of each of the following:

- (i) the Strategy Valuation Time Stamps (as defined in Section 2.E “*Calculation of the Strategy Value*”);
- (ii) the Strategy Transaction Time Stamps (as defined in Section 3.B “*Transactions*”); or
- (iii) the “**Input Data Observation Time Stamps**”, which specify at which time(s) a Strategy may observe the values of a Component or other input data,

in each case, as further specified in the Strategy Description.

Each Time Stamp may refer to:

- (i) the end of a Strategy Calculation Day; or
- (ii) a specific time or window of time on a Strategy Calculation Day as specified in the relevant Strategy Description.

Therefore, the Component Quantity in respect of a Component may fluctuate between Strategy Calculation Days and during the course of a Strategy Calculation Day.

E. Calculation of the Strategy Value

The value of a Strategy (the “**Strategy Value**”) is calculated on each “**Strategy Calculation Day**” (as specified in the Specifications Annex) and published in respect of each Strategy Valuation Time Stamp on such Strategy Calculation Day.

The “**Strategy Valuation Time Stamps**” in respect of a Strategy consist of:

- (i) the end of day time stamp (“**EOD Strategy Valuation Time Stamp**”); and
- (ii) if specified in the relevant Specifications Annex, one or more “**Intraday Strategy Valuation Time Stamps**”.

On each Strategy Calculation Day, the Strategy Value in respect of each Strategy will be calculated on the EOD Strategy Valuation Time Stamp and, if applicable, on each Intraday Strategy Valuation Time Stamp.

Unless the documentation of any Linked Products explicitly references any Intraday Strategy Valuation Time Stamps, any references to the “Strategy Value” of a Strategy in the documentation of Linked Products shall be construed as references to the EOD Strategy Valuation Time Stamp on the relevant Strategy Calculation Day.

The Strategy Value as of the Strategy Inception Date (the “**Strategy Initial Value**”) may be specified in the Specifications Annex. If no Strategy Initial Value is specified in the relevant Specifications Annex then the Strategy Initial Value of a Strategy shall be 100. On the Strategy Inception Date, a Strategy will only have one Strategy Value (being the Strategy Value in respect of the EOD Strategy Valuation Time Stamp), irrespective of the number of Strategy Valuation Time Stamps specified in the Specifications Annex.

On each Strategy Calculation Day and on each Strategy Valuation Time Stamp following the Strategy Inception Date, the Strategy Value is calculated based on:

- (i) the Component Timely Value of each Component, weighted by its respective Component Quantity, and
- (ii) the value of any applicable currency exchange rate used to convert the Component Timely Value of a Component from the relevant Component Currency to the Strategy Currency (the “**Currency Exchange Rate**” in respect of a Component Currency).

The calculation of a Strategy Value is described in more detail in Section 4 “*Computation of Strategy Values*” of this General Description.

If the Strategy Value Floor (as specified in the Specifications Annex) is applicable in respect of a Strategy and the Strategy Value on a Strategy Calculation Day and Strategy Valuation Time Stamp would be zero or less than zero, then the Strategy Value in respect of such Strategy Calculation Day and such Strategy Valuation Time Stamp and each subsequent Strategy Calculation Day and Strategy Valuation Time Stamp shall be zero. If the Specification Annex does not state that the Strategy Value Floor is applicable (or does not contain any specification regarding the Strategy Value Floor), then the Strategy Value in respect of a Strategy Calculation Day and on a Strategy Valuation Time Stamp may be a negative value.

Under certain circumstances described in the Strategy Description, the Strategy Calculation Agent may delay or amend the calculation of the Strategy Value.

The Specifications Annex may define the “**Strategy Trading Days**” in respect of a Strategy.

F. The Effect on a Strategy Value of Deductions Representing Costs and Expenses

A Strategy may be calculated so as to include deductions that synthetically reflect the replication costs that a hypothetical investor may incur if such hypothetical investor were to enter into, maintain and/or dispose of, a series of direct investment positions to provide the same exposure to the Components of such Strategy (including, without limitation, transaction costs, servicing costs, financing costs and roll costs). If specified as applicable in the Specifications Annex of any given Strategy, such deductions will be implemented via Transaction Modules which reduce the Component Quantity of one or more Cash Components, which in turn will have the effect of reducing the Strategy Value. As a result, the Strategy Value of such Strategy from time to time may be reduced by these deductions.

In addition, if so specified in the Specifications Annex, a Strategy Deduction Rate will be deducted from the Strategy Value in respect of each Strategy Calculation Day falling after the Strategy Inception Date. The “**Strategy Deduction Rate**” is an annual rate, expressed as a percentage of the Strategy Value. If specified as applicable in the relevant Specifications Annex for any given Strategy, the Strategy Deduction Rate will be implemented via a Transaction Module which reduces the Component Quantity of one or more Cash Components, which in turn will have the effect of reducing the Strategy Value.

Further details regarding such notional costs and deductions in respect of a Strategy can be found in the Strategy Description.

G. Non-Tradable Events

The Strategy Description may define “**Non-Tradable Events**” in respect of one or more Components.

Subject as provided in Section 3.F “*Amendment and Cancellation of a Transaction*” of this General Description, if a Non-Tradable Event occurs in respect of a Component (a “**Non-Tradable Component**”) in respect of a Strategy Calculation Day and Strategy Valuation Time Stamp, the Strategy Sponsor will calculate a tradable value of the Strategy (a “**Strategy Tradable Value**”) in respect of such Strategy Calculation Day and Strategy Valuation Time Stamp using the same methodology for calculating the Strategy Value as set out in Section 4 “*Computation of Strategy Values*” of this General Description save that the “**Component Tradable Value**” (determined in accordance with the specifications of such Non-Tradable Component as set out in the Strategy Description) in respect of the Non-Tradable Component shall be used in place of the Component Timely Value in the “Strategy Value” formula in Section 4 “*Computation of Strategy Values*”. For the avoidance of doubt, if a Non-Tradable Event occurs then the execution of Transactions and the computation of Transaction Quantities shall be performed in accordance with the methodology described in the relevant Specifications Annex or the Other Documentation Elements and no such replacement of the

Component Timely Value with the Component Tradable Value shall take place for the purpose of determining such Transactions or computing such Transaction Quantities.

If no Non-Tradable Event has occurred in respect of any Component in respect of a Strategy Calculation Day and Strategy Valuation Time Stamp, the Strategy Tradable Value in respect of such Strategy Calculation Day and Strategy Valuation Time Stamp shall be equal to the Strategy Value in respect of such Strategy Calculation Day and Strategy Valuation Time Stamp.

If a Non-Tradable Event has occurred in respect of a Component in respect of a Strategy Calculation Day and Strategy Valuation Time Stamp then, unless specified otherwise in the Strategy Description, such Component Tradable Value shall be equal to the Component Timely Value of such Component as of the relevant Strategy Valuation Time Stamp on the immediately following Strategy Calculation Day on which no Non-Tradable Events prevail in respect of such Component.

The Component Tradable Value of a Component in respect of (i) a Strategy Calculation Day which is not a Component Business Day in respect of such Component; and/or (ii) any time or time period that is not an Input Data Observation Time Stamp in respect of such Component (either (i) or (ii) constitutes a “**Non Component Tradable Value Observation Time**”), shall, in each case, be determined in accordance with the Component Tradable Value Convention (as specified in the Specifications Annex). Such Component Tradable Value Convention may, without limitation, calculate the Component Tradable Value of such Component by reference to following Component Tradable Values. If no Component Tradable Value Convention is specified in the Specifications Annex then the Component Tradable Value of a Component at such Non Component Tradable Value Observation Time shall be the Component Tradable Value of such Component in respect of the immediately following Input Data Observation Time Stamp.

3. Transaction Modules and the Determination of the Component Quantities

A. Transaction Modules

Each Strategy uses one or more algorithms (each being a “**Transaction Module**”) to change the Component Quantity of the Components. The Transaction Modules applicable to a Strategy (the “**Applicable Transaction Modules**”) shall be set out in the relevant Strategy Description and the parameters of the Transaction Modules are specified in the Specifications Annex.

The algorithms underlying a Transaction Module may be systematic, actively managed, or a combination thereof. Transaction Modules may be used for various purposes including, without limitation, to implement the economic rationale of a Strategy and to make certain adjustments to a Strategy to make it a tradable and replicable strategy. Changes to the composition of the Basket of a Strategy are generally effected via Transactions which are generated by Transaction Modules.

B. Transactions

Each Transaction Module shall compute synthetic transactions in respect of one or more Components (each a “**Transaction Component**” in respect of such Transaction). Such computed synthetic transaction in respect of a Strategy Calculation Day, a Strategy Transaction Time Stamp and each individual Transaction Component is a “**Transaction**”.

A Transaction has the following attributes:

- (i) the Strategy Calculation Day on which such Transaction is executed;
- (ii) the “**Strategy Transaction Time Stamp**” on which such Transaction is notionally executed on the relevant Strategy Calculation Day;
- (iii) the Transaction Component to which such Transaction relates;
- (iv) the Transaction Quantity;
- (v) the Transaction Price;
- (vi) the Associated Transaction Module (being the name of the Transaction Module that has generated such Transaction);
- (vii) any relevant data fields which are associated with such Transaction (as specified in the description of the relevant Transaction Module);
- (viii) the Transaction Module Cash Type in respect of the Transaction Module that has generated such Transaction (as further described in Section 3.C “*Transaction Module Cash Type*” below); and
- (ix) the Transaction Module Quantity Type that has generated such Transaction (as further described in Section 3.D “*Transaction Module Quantity Type and Transaction Quantities*” below).

The “**Transaction Price**” with respect to a Transaction shall be, unless otherwise specified in the description of the relevant Transaction Module, the Component Timely Value in respect of the Transaction Component and the relevant Strategy Transaction Time Stamp on the relevant Strategy Calculation Day.

In respect of a Transaction Module, a Strategy Calculation Day and a Strategy Transaction Time Stamp, a Strategy may generate more than one Transaction. For the avoidance of doubt, a single Transaction will only have the effect of changing the Component Quantity of a single Component.

In respect of each Transaction:

- (i) the Strategy Calculation Day on which such Transaction is executed shall be the **“Transaction Module Execution Day”** of the relevant Transaction Module which has generated such Transaction; and
- (ii) the Strategy Transaction Time Stamp on which such Transaction is executed shall be **“Transaction Module Execution Time Stamp”** of the relevant Transaction Module which has generated such Transaction.

The Component Quantity of a Component in respect of a Time Stamp and a Strategy Calculation Day will be an amount equal to the sum of (i) the Initial Component Quantity in respect of such Component and (ii) the sum of the Transaction Quantities of all Transactions relating to such Component which have been effected up to (and including) such Time Stamp on such Strategy Calculation Day.

Under certain circumstances described in the Strategy Description, the Strategy Calculation Agent in its sole discretion, may delay, modify or cancel a Transaction.

The Transaction Modules in respect of a Strategy shall be executed, and the corresponding Transactions shall be computed, during the course of each Strategy Calculation Day in the order of their respective Transaction Module Execution Time Stamps. In the event that more than one Transaction Module has the same Transaction Module Execution Time Stamp in respect of a Strategy Calculation Day, the relevant Transaction Modules shall be executed in the order in which they appear in the Strategy Description, unless Transaction Module Execution Order Numbers have been specified in the Specifications Annex, in which case the relevant Transaction Modules shall be executed in accordance with their Transaction Module Execution Order Numbers. Unless otherwise specified in the relevant Specifications Annex, the Transaction Module Execution Time Stamp in respect of a Transaction Module shall be the end of the relevant Strategy Calculation Day.

C. Transaction Module Cash Type

The **“Transaction Module Cash Type”** in respect of a Transaction Module will either be:

- (i) **“Value Neutral”**, meaning that a Transaction generated by such Transaction Module will not lead to a change in the Strategy Value; or
- (ii) **“Value Effective”**, meaning that a Transaction generated by such Transaction Module will lead to a change in the Strategy Value.

The Transaction Module Cash Type of a Transaction Module will be specified in the Specifications Annex or the Other Documentation Elements of a Strategy.

Any Transaction (a **“Value Neutral Transaction”**) generated by a Transaction Module with the Transaction Module Cash Type specified as “Value Neutral” will result in the automatic generation of a second Transaction (an **“Offsetting Cash Transaction”**) in the Cash Component (the **“Offsetting Cash Component”**) that corresponds to the Component Currency of the relevant Transaction Component of the Value Neutral Transaction. The attributes of such Offsetting Cash Transaction shall be as follows:

- (i) the Strategy Calculation Day of the Offsetting Cash Transaction shall be equal to the Strategy Calculation Day of the Value Neutral Transaction;
- (ii) the Strategy Transaction Time Stamp of the Offsetting Cash Transaction shall be equal to the Strategy Transaction Time Stamp of the Value Neutral Transaction;
- (iii) the Transaction Component of the Offsetting Cash Transaction shall be the Offsetting Cash Component; and

- (iv) and the Transaction Quantity of the Offsetting Cash Transaction shall be equal to:

$$TQ_{Offset} = -1 \times TQ_{ValueNeutral} \times TP_{ValueNeutral}$$

where:

Subscript_(Offset) refers to the Offsetting Cash Transaction;

Subscript_(ValueNeutral) refers to the Value Neutral Transaction;

TQ_{Offset} is the Transaction Quantity of the Offsetting Cash Transaction;

$TQ_{ValueNeutral}$ is the Transaction Quantity of the Value Neutral Transaction; and

$TP_{ValueNeutral}$ is the Transaction Price of the Value Neutral Transaction.

D. Transaction Module Quantity Type and Transaction Quantities

The “**Transaction Module Quantity Type**” in respect of a Transaction Module shall be either “Additive” or “Target”. The Transaction Module Quantity Type of a Transaction Module will be specified in the relevant Other Documentation Element.

The “**Transaction Quantity**” in respect of a Transaction specifies the number of units by which the Component Quantity of a Component will change as a result of a Transaction. A positive Transaction Quantity has the effect of increasing the Component Quantity of a Component and, vice versa, a negative Transaction Quantity has the effect of decreasing the Component Quantity of a Component. The Transaction Quantity in respect of a Transaction generated by a Transaction Module shall be determined as follows:

- (i) in respect of a Transaction generated by a Transaction Module with the Transaction Module Quantity Type specified as “Additive”, the Transaction Quantity shall be equal to the “**Preliminary Component Transaction Quantity**” in respect of such Transaction Module (as specified in the relevant Other Documentation Element); and
- (ii) in respect of a Transaction generated by a Transaction Module with the Transaction Module Quantity Type specified as “Target”, the Transaction Quantity will be calculated as follows:

$$TQ_x = TQ_x^{Preliminary} - q_i^{Preceding}$$

where:

Subscript_(x) refers to the relevant Transaction;

Subscript_(i) refers to the relevant Component;

TQ_x is the Transaction Quantity of the relevant Transaction;

$TQ_x^{Preliminary}$ is the Preliminary Component Transaction Quantity of the relevant Transaction as determined in accordance with the Other Documentation Elements; and

$q_i^{Preceding}$ is the Component Quantity of Component_(i) immediately before the execution of such Transaction.

E. Basket States

The generation of Transactions may result in the list of Components and/or their Component Quantities (together the “**Basket State**”) being amended in respect of a relevant Strategy Calculation Day and Strategy Transaction Time Stamp. The Basket State in respect of a Strategy Calculation Day and Strategy Transaction Time Stamp may be used as an input in

the calculation of Transactions generated by a Transaction Module in respect of a further Strategy Transaction Time Stamp if so specified in the relevant Other Documentation Element.

F. Amendment and Cancellation of Transactions

Notwithstanding Section 2.G “*Non-Tradable Events*” of this General Description, and if so specified in the Strategy Description, if a Non-Tradable Event occurs in respect of a Component, one or more Transactions generated by a Transaction Module may be amended, postponed or cancelled (each a “**Non-Tradable Transaction**”). Please refer to the Specifications Annex and Other Documentation Elements for further details.

4. Computation of Strategy Values

Strategy Value The Strategy Value on the Strategy Inception Date is equal to the Strategy Initial Value.

On each Strategy Calculation Day (t) from (but excluding) the Strategy Inception Date the Strategy Value in respect of a Strategy Valuation Time Stamp (u) will be calculated as follows:

$$S_{t,u} = \sum_{i=1}^n q_{i,t,u} \times A_{i,t,u} \times FX_{i,t,u}$$

Where:

Subscript (t) refers to the relevant Strategy Calculation Day;

Subscript (u) refers to the relevant Strategy Valuation Time Stamp;

Subscript (i) refers to the relevant Component;

n is the number of Components contained in the Basket at Strategy Valuation Time Stamp u on Strategy Calculation Day (t) ;

$q_{i,t,u}$ is the Component Quantity (i) in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp u ;

$A_{i,t,u}$ is the Component Timely Value (i) in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp u ; and

$FX_{i,t,u}$ is the applicable Currency Exchange Rate to convert one unit of the Component Currency of Component (i) into the Strategy Currency in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp u .

Component Quantity The Component Quantity in respect of a Component, a Strategy Calculation Day and a Time Stamp shall be computed as follows:

$$q_{i,t,u} = q_i^{initial} + \sum_x TQ_x$$

where:

Subscript (i) refers to the relevant Component;

Subscript (t) refers to the relevant Strategy Calculation Day;

Subscript (u) refers to the relevant Time Stamp;

Subscript (x) refers to each Transaction for which Component i is the Transaction Component and:

- (i) which has occurred on any Strategy Calculation Day preceding Strategy Calculation Day t ; or
- (ii) which has occurred on or before Time Stamp u on Strategy Calculation Day t .

$q_i^{initial}$ is Initial Component Quantity of Component i ;

TQ_x is the Transaction Quantity of the relevant Transaction.

Currency Exchange Rate

The Currency Exchange Rate shall be one (1) in respect of each Strategy Calculation Day and Time Stamp for the case where the relevant Component Currency is equal to the Strategy Currency.

The Currency Exchange Rate to convert one unit of the relevant Component Currency into the Strategy Currency in respect of a Strategy Calculation Day and a Strategy Valuation Time Stamp shall be calculated by the Strategy Calculation Agent using the currency exchange rates of the relevant non U.S. Dollar currencies in such currency pair against the U.S. Dollar, as published by the relevant Currency Exchange Rate Source.

The days and times on which the Currency Exchange Rates are usually fixed and published, as determined by the Strategy Calculation Agent, by the Currency Exchange Rate Source are referred to herein as "**Currency Fixing Days**" and "**Currency Fixing Time Stamps**", respectively.

Unless a different "**Currency Exchange Rate Convention**" is specified in the relevant Specifications Annex, if any Strategy Calculation Day and Time Stamp is not a Currency Fixing Day and Currency Fixing Time Stamp then the Currency Exchange Rate in respect of such day and such Time Stamp shall be the Currency Exchange Rate published by the Currency Exchange Rate Source in respect of the relevant Currency Fixing Time Stamp on the immediately preceding Currency Fixing Day.

Basket Transaction Cost Rate

On any given Strategy Calculation Day (t) from (and including) the Strategy Inception Date the Basket Transaction Cost Rate in respect of a Strategy Valuation Time Stamp (u) is calculated as follows:

$$TC_{t,u}^B = \sum_{i=1}^n (TC_{i,t,u}^A \times |w_{i,t,u}^B|)$$

Where:

Subscript (t) refers to the relevant Strategy Calculation Day;

Subscript (u) refers to the relevant Strategy Valuation Time Stamp;

n is the number of Components contained in the Basket at Strategy Valuation Time Stamp u on Strategy Calculation Day (t);

$TC_{i,t,u}^A$ is the Component Transaction Cost Rate in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp (u) for Component (i); and

$w_{i,t,u}^B$ is the Component Weight Equivalent in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp (u) for Component (i).

Component Weight Equivalent

On any given Strategy Calculation Day (t) from (and including) the Strategy Inception Date, the Component Weight Equivalent in respect of each Component and a Time Stamp (u) is calculated as follows:

$$w_{i,t,u}^B = q_{i,t,u} \times \frac{A_{i,t,u} \times FX_{i,t,u}}{S_{t,u}}$$

Where:

Subscript (i) refers to the relevant Component;

Subscript (t) refers to the relevant Strategy Calculation Day;

Subscript (u) refers to the relevant Time Stamp;

$q_{i,t,u}$ is the Component Quantity (i) in respect of Strategy Calculation Day (t) and Time Stamp u ;

$A_{i,t,u}$ is the Component Timely Value (i) in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp u ;

$FX_{i,t,u}$ is the applicable Currency Exchange Rate to convert one unit of the Component Currency of Component (i) into the Strategy Currency in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp u ; and

$S_{t,u}$ is the Strategy Value in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp u .

5. Composition Look-Through

If Composition Look-Through is not specified to be applicable in the relevant Specifications Annex (or if the relevant Specifications Annex does not contain any specification regarding the Composition Look-Through) then the following provisions of this Section 5 “*Composition Look-Through*” are not applicable in respect of a Strategy. Otherwise, if “**Composition Look-Through**” is specified to be applicable in the relevant Specifications Annex, then the following provisions of this Section 5 “*Composition Look-Through*” shall apply.

A. Composition of the Basket if Composition Look-Through is Applicable

A Strategy will determine the Non-Cash Components of the Basket and the corresponding Component Quantities via a mechanism which decomposes the Immediate Components of a Strategy into its Terminal Components, such that the Basket solely consists of Terminal Components as its only Non-Cash Components. The “**Terminal Components**” of a Strategy consist of:

- (i) all Immediate Components of the Strategy which are not explicitly specified to be Non-Terminal Components in the Strategy Description (the “**Immediate Terminal Components**”); and
- (ii) the Terminal Components contained within each Immediate Component of the Strategy when such Immediate Component is specified to be a Non-Terminal Component (the “**Indirect Terminal Components**”).

The Components of the Basket of a Strategy for the purpose of computing the Strategy Value shall consist of:

- (i) the Terminal Components of the Strategy as defined above; and
- (ii) each Cash Component of the Strategy.

The following shall not be considered to be Components of the Basket for the purpose of computing the Strategy Value:

- (i) each Immediate Component which is a Non-Terminal Component; and
- (ii) each Cash Component which is an underlyer of an Immediate Component.

A given type of Terminal Component may appear more than once in the composition of the Basket. For instance, it may be an Immediate Terminal Component and an Indirect Terminal Component at the same time. Equally, it may be an Indirect Terminal Component which is contained in multiple Immediate Components of the Strategy at the same time.

Consequently, the Component Quantity of a Terminal Component in respect of a Strategy Calculation Day and a Strategy Valuation Time Stamp shall be computed as:

$$q_{i,t,u} = \sum_{j \in M} q_{j,t,u}^{Immediate} \times q_{i,t,u}^{Indirect}$$

Where:

Subscript (t) refers to the relevant Strategy Calculation Day;

Subscript (u) refers to the relevant Strategy Valuation Time Stamp;

Subscript (j) refers to the relevant Terminal Component;

Subscript (i) refers to an Immediate Component which is contained in set *M*;

M is the set of Immediate Components which either:

- (i) is a Terminal Component of type i ; or
- (ii) contains a Terminal Component of type i either as an Immediate Terminal Component or as an Indirect Terminal Component at Strategy Valuation Time Stamp u on Strategy Calculation Day (t) ;

$q_{j,t,u}^{Immediate}$ is the Component Quantity of Immediate Component j in respect of Strategy Calculation Day t and Strategy Valuation Time Stamp u ; and

$q_{i,t,u}^{Indirect}$ is equal to:

- (iii) one (1) if the relevant Immediate Component j is an Immediate Terminal Component of type i of the Strategy; or otherwise
- (iv) the Component Quantity of the Indirect Terminal Component i within Immediate Component j in respect of Strategy Calculation Day t and Strategy Valuation Time Stamp u .

B. Transactions if Composition Look-Through is Applicable

If a Transaction Module executes a Transaction whereby the Transaction Component is a Non-Terminal Component then such Transaction (the "**Non-Terminal Component Transaction**") shall be void and instead be replaced with one or multiple Transactions with respect to the relevant Indirect Terminal Components which are contained within such Non-Terminal Component (each a "**Terminal Component Transaction**"). A separate Terminal Component Transaction shall be generated in respect of each Indirect Terminal Component which is contained within such Non-Terminal Component on the relevant Strategy Calculation Day and Strategy Transaction Time Stamp. The attributes of each Terminal Component Transaction shall be identical to the attributes of the Non-Terminal Component Transaction (including, without limitation, the Transaction Module Quantity Type and the Transaction Module Cash Type), save that:

- (i) The Transaction Component shall be the relevant Indirect Terminal Component;
- (ii) The Preliminary Component Transaction Quantity shall be the product of:
 - (A) the Preliminary Component Transaction Quantity of the Non-Terminal Component Transaction; multiplied by
 - (B) the Component Quantity of the relevant Indirect Terminal Component within the Non-Terminal Component on the relevant Strategy Calculation Day and Strategy Transaction Time Stamp, whereby such Component Quantity shall reflect all Transactions which have taken effect on such Strategy Calculation Day and Strategy Transaction Time within the Non-Terminal Component; and
- (iii) The Transaction Price shall be, unless otherwise specified in the description of the relevant Transaction Module, the Component Timely Value in respect of the Terminal Component on the relevant Strategy Transaction Time Stamp and Strategy Calculation Day.

If the relevant Non-Terminal Component Transaction has been generated by a Transaction Module with the Transaction Module Cash Type being specified as "Value Neutral" then an Offsetting Cash Transaction shall be generated in respect of each Terminal Component Transaction and no Offsetting Cash Transaction shall occur in respect of the void Non-Terminal Component Transaction.

6. Publication of Strategy Values

The Strategy Calculation Agent will publish the Strategy Value of a Strategy in respect of each Strategy Valuation Time Stamp in respect of a Strategy Calculation Day on the “**Strategy Publication Data Source**” according to the “**Strategy Value Publication Precision**” (in each case, as may be set out in the Specifications Annex) in accordance with the Strategy Description. Unless otherwise specified in the relevant Specifications Annex, the Strategy Publication Data Source in respect of a Strategy shall be <https://marquee.gs.com/studio> or any successor page. Also unless otherwise specified in the relevant Specifications Annex, the Strategy Value Publication Precision in respect of a Strategy shall be 2 decimal places with 0.005 rounded upwards.

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**US EQUITY FUTURES ROLLING STRATEGY INDEX
METHODOLOGY**

JULY 25, 2014

US EQUITY FUTURES ROLLING STRATEGY INDEX

Overview

The following overview of the US Equity Futures Rolling Strategy Index is a summary and, as such, is necessarily incomplete. This overview should be read in conjunction with, and is qualified in its entirety by, the more detailed description of the US Equity Futures Rolling Strategy Index and its operation that follows in this document.

The US Equity Futures Rolling Strategy Index (the “**US Equity Futures Strategy Index**” or the “**Index**”) is a proprietary index designed to provide investors with exposure to the total return (including income from interest accruing at the relevant overnight interest rate (as described below)) of E-mini futures contracts on the S&P 500® Index currently listed for trading on the Chicago Mercantile Exchange (the “**CME**”). We refer to these E-mini futures contracts as the “**US Equity Futures Contracts**”. For further information on the US Equity Futures Contracts and the S&P 500® Index, please see the sections below entitled “The E-mini S&P 500® Index Futures Contracts” and “The S&P 500® Index”.

Each US Equity Futures Contract expires on a specific quarter end date (one of March, June, September or December). At any given time, there is more than one listed US Equity Futures Contract on the CME (for example, with expirations of September 2014, December 2014, March 2015, June 2015 and September 2015), and the Index will include the first nearby US Equity Futures Contract that has not reached expiration or a roll period (the September 2014 contract in the example). As the first nearby US Equity Futures Contract comes to its expiration on the third Friday of the relevant month (September), it will be replaced by the next US Equity Futures Contract (December 2014 in our example), which is known as the second nearby futures contract. This replacement process is referred to as “rolling”. Rolling will be carried out during the three CME exchange business days starting from, and including, the third to last CME exchange business day prior to the last trade date of the expiring US Equity Futures Contract (*i.e.*, the third to last CME exchange business day prior to the third Friday of the expiration month) to, and including, the last CME exchange business day prior to the last trade date of such expiring US Equity Futures Contract. Such period is referred to as the “**roll period**”. For further information on the roll methodology, please refer to the section entitled “Roll Methodology” below.

The Index is calculated in United States dollars on a total return basis and the value of the Index (the “**Index Value**”) is calculated on each CME exchange business day (as defined in “Daily Strategy Value Calculation”).

Goldman Sachs International (the “**Index Sponsor**”) has retained S&P Opco, LLC (a subsidiary of S&P Dow Jones Indices LLC) to serve as calculation agent (the “**Calculation Agent**”) for the Index. In the event the Index Committee (as described below) appoints a replacement Calculation Agent, a public announcement will be made via press release.

Unless otherwise indicated, any public announcement contemplated by this Methodology shall be posted at:

<http://www.GS.com/index-methodologies>

We are not incorporating by reference such website or any other website or any materials from any website into this index methodology.

US Equity Futures Strategy Index – Various Roles

The US Equity Futures Strategy Index is sponsored by Goldman Sachs International but is calculated by the Calculation Agent. The US Equity Futures Strategy Index operates in accordance with a set of pre-determined rolling methodologies and set of formulae, and the Calculation Agent does not exercise any

discretion with respect thereto except in limited cases where a US Equity Futures Contract Valuation Price is not published or otherwise unavailable. The US Equity Futures Strategy Index is, therefore, not a managed index. As the Index Sponsor, Goldman Sachs International is not acting as an investment adviser or performing a discretionary management role with respect to the US Equity Futures Strategy Index and, as a result, has no fiduciary duty to any person in respect of the US Equity Futures Strategy Index. The Index Committee may exercise discretion, however, in a limited number of exceptional circumstances, including, without limitation, where the S&P 500® Index is rebased or otherwise adjusted or modified or where a US Equity Futures Contract Valuation Price is not published or otherwise unavailable.

US Equity Futures Strategy Index Starting Value

The US Equity Futures Strategy Index has been given a starting value of 100 as of December 31, 1991, which is the base date (“**Base Date**”).

Daily Strategy Value Calculation

The US Equity Futures Strategy Index is a U.S. dollar denominated index and is calculated on each day on which the CME is open for trading (a “**CME exchange business day**”). The value of the US Equity Futures Strategy Index on each CME exchange business day will be calculated as the *product* of (i) the value of the US Equity Futures Strategy Index as of the immediately preceding CME exchange business day *multiplied* by (ii) the *sum* of (x) the daily return ratio of the value of the US Equity Futures Contracts (calculated as described below) on such CME exchange business day *plus* (y) the overnight interest rate for the immediately preceding CME exchange business day *multiplied* by the applicable day count fraction based on the number of calendar days in the calculation period.

Daily Return Ratio of the Value of the US Equity Futures Contracts: On each CME exchange business day (other than during the roll period as described below), the daily return ratio of the value of US Equity Futures Contracts is calculated as the *quotient* of (a) the US Equity Futures Contract Valuation Price on the relevant CME exchange business day *divided* by (b) the US Equity Futures Contract Valuation Price on the immediately preceding CME exchange business day. During each roll period, the daily return ratio of the values of the US Equity Futures Contracts is calculated as the *quotient* of (a) the US Equity Futures Contract Valuation Price of the second nearby US Equity Futures Contract on such CME exchange business day *divided* by (b) the US Equity Futures Contract Valuation Price of the second nearby US Equity Futures Contract on the immediately preceding CME exchange business day, rather than the first nearby US Equity Futures Contract to the extent the Index’s investment has been rolled over.

US Equity Futures Contract Valuation Price: The US Equity Futures Contract Valuation Price on each CME exchange business day is the official daily settlement price per US Equity Futures Contracts quoted by the CME on such CME exchange business day.

Overnight Interest Rate: The overnight interest rate used for purposes of calculating the value of the US Equity Futures Strategy Index is the overnight interest rate as published on Global Insight DRI page USD-FEDERAL-FUNDS-H15, which follows the ACT/360 day count fraction convention (meaning the actual number of days in the relevant period divided by 360). If this overnight interest rate is not published or is otherwise unavailable for any CME exchange business day, then the last available overnight interest rate published on such page will be used as the overnight interest rate for such CME exchange business day.

Unavailability of US Equity Futures Contract Valuation Price: The Calculation Agent will not, however, calculate the value of the US Equity Futures Strategy Index, or will calculate such value pursuant to a different methodology (as described below under “Price of US Equity Futures Contracts Unavailable – Unavailable Within the Roll Period”), as the case may be, at any time where the US Equity Futures Contract Valuation Price for the first nearby and/or the second nearby US Equity Futures Contracts, as applicable, is not published or is otherwise unavailable as further described below.

Publication of Changes to the Methodology

Changes to the Methodology made by the Index Committee will be publicly announced at least 60 CME exchange business days prior to their effective date. Adjustments made by the Calculation Agent in response to the unavailability of the US Equity Futures Contract Valuation Price will be publicly announced as promptly as is reasonably practicable.

Index Committee

An Index Committee is responsible for overseeing the Index and the Methodology, while the Calculation Agent is responsible for the day to day implementation of the Methodology, for the calculation of the Index, including responding to events as described under “Price of US Equity Futures Contracts Unavailable”, and for publication of the Index Value. The Index Committee is committed to maintaining the Index as a liquid, tradable index. The Index Committee is currently comprised of three full-time employees of The Goldman Sachs Group, Inc. or one or more of its affiliates.

The Index Committee may exercise limited discretion with respect to the Index, as contemplated by the Methodology. Any such changes or actions are publicly announced as promptly as is reasonably practicable and normally at least five CME exchange business days prior to their effective date. The Calculation Agent may from time to time consult the Index Committee on matters of interpretation with respect to the Methodology and when the price of the US Equity Futures Contracts are unavailable. Because the Index Committee considers information about changes to the Index and related matters that may be potentially market moving and material, all Index Committee discussions, including those with the Calculation Agent, are confidential. The Index Committee will determine the successor of any of its members.

Roll Methodology

Each US Equity Futures Contract has an expiration on specified quarter end dates (March, June, September or December). At any given time, the US Equity Futures Strategy Index will include the first nearby US Equity Futures Contract. As the first nearby US Equity Futures Contract comes to expiration, it is replaced by the second nearby US Equity Futures Contract. For example, a US Equity Futures Contract may specify a June expiration. As time passes, the contract expiring in June is replaced by a US Equity Futures Contract with a September expiration during the relevant roll period. This process is referred to as “rolling”.

Roll Period: Rolling will be carried out during the three CME exchange business days starting from, and including, the third to last CME exchange business day prior to the last trade date of the first nearby US Equity Futures Contract to, and including, the last CME exchange business day prior to the last trade date of such US Equity Futures Contracts. Such period is referred to from time to time as the “roll period”. On each CME exchange business day of the roll period, one third of the notional investment in the first nearby US Equity Futures Contract will be rolled into the second nearby US Equity Futures Contract, and the prices at which the US Equity Futures Contracts are rolled will be based on the US Equity Futures Contract Valuation Prices for each of the first nearby and second nearby US Equity Futures Contracts. Rolling will, however, be carried out pursuant to a different methodology when at any time during the roll period the US Equity Futures Contract Valuation Prices for either or both of the first nearby and second nearby US Equity Futures Contracts are not published or are otherwise unavailable as further described below.

Price of US Equity Futures Contracts Unavailable

Unavailable Outside of the Roll Period: If, on any CME exchange business day that does not fall within the roll period, the US Equity Futures Contract Valuation Price for the first nearby US Equity Futures Contract is not published or is otherwise unavailable, then the Calculation Agent will not calculate any value for the US Equity Futures Strategy Index but will publish the last available value.

In such an instance, if, on the immediately following CME exchange business day, the US Equity Futures Contract Valuation Price for the first nearby US Equity Futures Contract is available, the daily return ratio of the value of the US Equity Futures Contracts will be calculated as the *quotient* of (a) the US Equity Futures Contract Valuation Price on that immediately following CME exchange business day *divided* by (b) the last available US Equity Futures Contract Valuation Price; *provided, however*, that, for the avoidance of doubt, if such immediately following CME exchange business day is the first day of the roll period and the US Equity Futures Contract Valuation Price for the second nearby US Equity Futures Contract is not published or is otherwise unavailable on that immediately following CME exchange business day, then, as further described below, the Calculation Agent will not calculate any value for the US Equity Futures Strategy Index but will publish the last available value.

Unavailable Within the Roll Period: If the US Equity Futures Contract Valuation Price is not published or is otherwise unavailable for either or both of the first nearby and second nearby US Equity Futures Contracts at any time during the roll period, then that rolling will be carried out pursuant to the following alternative rolling methodology:

- **Case 1:** If (a) the US Equity Futures Contract Valuation Price is not published or is otherwise unavailable on the first CME exchange business day of the roll period for either or both of the first nearby and second nearby US Equity Futures Contracts *and* (b) the US Equity Futures Contract Valuation Price is available on the second CME exchange business day of the roll period for both the first nearby and second nearby US Equity Futures Contracts, then:
 - one half of the notional investment in the first nearby US Equity Futures Contract will be rolled into the second nearby US Equity Futures Contract on that second CME exchange business day of the roll period; *and*
 - if the US Equity Futures Contract Valuation Price is also available on the third CME exchange business day of the roll period for both the first nearby and second nearby US Equity Futures Contracts, then the second half of the notional investment in the first nearby US Equity Futures Contract will be rolled over into the second nearby US Equity Futures Contract on that third CME exchange business day of the roll period; *but*
 - if the US Equity Futures Contract Valuation Price is not published or is otherwise unavailable on such third CME exchange business day of the roll period for either or both of the first nearby and second nearby US Equity Futures Contracts, then rolling of any remaining portion of the notional investment in the first nearby US Equity Futures Contract will be carried out as set out below under Case 4.
- **Case 2:** If the US Equity Futures Contract Valuation Price is not published or is otherwise unavailable on both the first and second CME exchange business days of the roll period for either or both of the first nearby and second nearby US Equity Futures Contracts, then:
 - if the US Equity Futures Contract Valuation Price is available on the third CME exchange business day of the roll period for both the first nearby and second nearby US Equity Futures Contracts, then the entire notional investment in the first nearby US Equity Futures Contract will be rolled into the second nearby US Equity Futures Contract on the third CME exchange business day of the roll period; *but*
 - otherwise, the rolling of any remaining portion of the notional investment in the first nearby US Equity Futures Contract will be carried out as set out below under Case 4.
- **Case 3:** If the US Equity Futures Contract Valuation Price is available on the first CME exchange business day of the roll period for both of the first nearby and second nearby US Equity Futures Contracts (on which day one-third of the notional investment in the first nearby US Equity Futures Contract is rolled over into the second nearby US Equity Futures Contract), but the US Equity Futures Contract Valuation Price is not published or is otherwise unavailable on the second CME exchange

business day of the roll period for either or both of the first nearby and second nearby US Equity Futures Contracts, then the remaining two-thirds of the notional investment in the first nearby US Equity Futures Contract will be rolled into the second nearby US Equity Futures Contract on the third CME exchange business day of the roll period, *unless* the US Equity Futures Contract Valuation Price is not published or is otherwise unavailable on such third CME exchange business day of the roll period for either or both of the first nearby and second nearby US Equity Futures Contracts (in which case the rolling of any remaining portion of the notional investment in the first nearby US Equity Futures Contract will be carried out as set out below under Case 4).

- **Case 4:** In any situation where the US Equity Futures Contract Valuation Price for either or both of the first nearby and second nearby US Equity Futures Contracts is not published or is otherwise unavailable on the third CME exchange business day of the roll period (including where such price is not published or is otherwise unavailable on both the first and third CME exchange business days of the roll period only, on both the second and third CME exchange business days of the roll period only or on all three CME exchange business days of the roll period), then any remaining amount of the notional investment in the first nearby US Equity Futures Contract will be rolled into the second nearby US Equity Futures Contract on the last trade date of the first nearby US Equity Futures Contract, which is the CME exchange business day immediately following the third CME exchange business day of the roll period. On such last trade date, rolling will be effected by using the special opening quotation for the first nearby US Equity Futures Contract and the first traded price for the second nearby US Equity Futures Contract, provided that if, on such last trade date, the special opening quotation for the first nearby US Equity Futures Contract and/or the first traded price for the second nearby US Equity Futures Contract is not published or otherwise unavailable, then the first nearby US Equity Futures Contract will be sold at the US Equity Futures Contract Valuation Price for such first nearby US Equity Futures Contract on the last reference day (as defined below) and the second nearby US Equity Futures Contract will be bought at the US Equity Futures Contract Valuation Price for such second nearby US Equity Futures Contract on the last reference day.

On each CME exchange business day on which rolling does not occur because the US Equity Futures Contract Valuation Price is not published or is otherwise unavailable for either or both of the first nearby and second nearby US Equity Futures Contracts (such day, a “no-roll CME exchange business day”; for the avoidance of doubt, a no-roll CME exchange business day may include any CME exchange business day of the roll period), the Calculation Agent will not calculate any value for the US Equity Futures Strategy Index but will publish the last available value.

If, on any CME exchange business day immediately following such no-roll CME exchange business day, the US Equity Futures Contracts are rolled over pursuant to the alternative methodology described above, then the Calculation Agent will apply alternative calculation methods to compute the level of the US Equity Futures Strategy Index on such CME exchange business day, which can be summarized as follows:

On such CME exchange business day immediately following such no-roll CME exchange business day, the level of the US Equity Futures Strategy Index will be computed as the *product* of:

- the value of the US Equity Futures Strategy Index as of the last CME exchange business day on which the US Equity Futures Contract Valuation Prices for both of the first nearby and second nearby US Equity Futures Contracts were available (such day, the “last reference day”); *multiplied* by
- the *sum* of:
 - (i) the *daily return ratio* reflecting either:
 - (a) if such CME exchange business day falls within the roll period, the weighted performance of the first nearby US Equity Futures Contract and the weighted

performance of the second nearby US Equity Futures Contract from the last reference day to such CME exchange business day; or

- (b) if such CME exchange business day is a last trade date of the first nearby US Equity Futures Contract, the *product* of (x) the weighted performance of the first nearby US Equity Futures Contract from the last reference day up to the rolling effected as of the opening of the market on such last trade date, (y) the weighted performance of the second nearby US Equity Futures Contract from the last reference day up to the rolling effected as of the opening of the market on such last trade date and (z) the performance of the second nearby US Equity Futures Contract, including the second nearby contracts into which any remaining portion of the first nearby US Equity Futures Contract are rolled over on such last trade date, calculated based on the opening price and the official daily settlement price of the second nearby US Equity Futures Contract on such last trade date (for the avoidance of doubt, if the official daily settlement price of the second nearby US Equity Futures Contract is not published or is otherwise unavailable on such last trade date, then the Calculation Agent will not calculate any value for the US Equity Futures Strategy Index but will publish the last available value),

plus

- (ii) the overnight interest rate for the calculation period.

Publication

The value of the US Equity Futures Strategy Index is published on the Bloomberg page FRSIUUSE <Index> (or any successor page).

Historical Data

The Base Date for the Index is a date earlier than that on which the Calculation Agent began calculating the Index. Therefore, historical information provided from the Base Date to the date on which the Calculation Agent began calculating the index is hypothetical and is provided as an illustration of how the Index would have performed during the period had the Calculation Agent begun calculating the Index on the Base Date using the Methodology. This data does not reflect actual performance, nor was a contemporaneous investment model run of the Index.

Historical levels of the Index are calculated with reference to the US Equity Futures Contract Valuation Prices determined based on the latest available data published by the CME.

US Equity Futures Strategy Index Calculation Formulae

The formulae for the calculation of the US Equity Futures Strategy Index are presented below. Investors, however, should be aware that these formulae do not reflect the alternative rolling and calculation methodologies applied when the value of the relevant US Equity Futures Contracts is not published or is otherwise unavailable (as further described above).

$$TRI_t = \left(r_t + \frac{i_{t-n}}{360} \cdot n \right) TRI_{t-n};$$

$$\left\{ \begin{array}{l} r_t = \frac{{}_c P_{1,t}}{{}_c P_{1,t-n}}, \\ \text{when NOT in the 3-day roll period} \\ r_t = \left(1 - \frac{m-1}{3} \right) \cdot \frac{{}_c P_{1,t}}{{}_c P_{1,t-n}} + \frac{m-1}{3} \cdot \frac{{}_c P_{2,t}}{{}_c P_{2,t-n}} \\ \text{when on the } m^{\text{th}} \text{ day of the roll period, } m = 1, 2, 3 \end{array} \right.$$

Where

t = The relevant CME exchange business day;

TRI_t = The value of US Equity Futures Strategy Index as of day t;

i_{t-n} = Overnight interest rate as of (t - n);

n = The number of actual calendar days between t and the immediately preceding CME exchange business day (t - n);

r_t = Daily price return of the value of the US Equity Futures Contracts on t;

cP{1,t} = US Equity Futures Contract Valuation Price of the first nearby US Equity Futures Contract on t; *provided* that, for the avoidance of doubt, once the rolling has been effected in accordance with the above roll methodology and there is no remaining amount to be rolled, the first nearby US Equity Futures Contract shall mean the US Equity Futures Contracts into which the notional investment has been rolled; and

cP{2,t} = US Equity Futures Contract Valuation Price of the second nearby US Equity Futures Contract on t.

Note: All calculations are based on seven significant figures (rounded at the eighth significant figure), and the value is published up to two decimal places (rounded at the third decimal place).

Adjustment; Rebasement

Investors should be aware that if the terms of the US Equity Futures Contracts are modified or the S&P 500® Index is rebased or otherwise adjusted or modified, the Index Committee may take such steps as it considers appropriate in response to such modification, rebasement or adjustment.

THE E-MINI S&P 500® INDEX FUTURES CONTRACTS

The E-mini S&P 500® Index futures contracts underlying the US Equity Futures Strategy Index are quarterly three-month contracts to buy or sell standardized trading “units”. At the time the US Equity Futures Strategy Index invests in them, the futures contracts will have a term to maturity of approximately three months. One trading unit of E-mini S&P 500® Index futures contracts equals US\$50 *multiplied* by the S&P 500® Index (price return version). The E-mini S&P 500® Index futures contract closest to expiration at any given time is known as the “first nearby” futures contract, and the E-mini S&P 500® Index futures contract that is second closest to expiration at any given time is known as the “second nearby” futures contract.

The S&P 500® Index

According to S&P Dow Jones Indices, which created the S&P 500® Index in 1957, the S&P 500® is widely regarded as the best single gauge of large cap U.S. equities. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization. Additional

information on the S&P 500® Index is available through a variety of media sources and at <http://us.spindices.com/indices/equity/sp-500>. None of these media materials, the S&P website nor any of the material it includes is incorporated by reference herein.

Licensing Information

Goldman Sachs International is the sole licensing agent for the Index. Questions about licensing the Index can be directed to the individuals listed under “Contact Information” below.

Contact Information

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Calculation Agent Website

<http://www.standardandpoors.com/>

The US Equity Futures Rolling Strategy Index (the “Index”) is the exclusive property of Goldman Sachs International, which has contracted with S&P Opco, LLC (a subsidiary of S&P Dow Jones Indices LLC) (“S&P Dow Jones Indices”) to calculate and maintain the Index based on an objective pre-agreed methodology. S&P® is a registered trademark of Standard & Poor’s Financial Services LLC (“SPFS”); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC (“Dow Jones”); and, these trademarks have been licensed to S&P Dow Jones Indices. Neither S&P Dow Jones Indices, SPFS, Dow Jones nor any of their affiliates sponsor and promote the Index and none shall be liable for any errors or omissions in calculating the Index.

The Index relies on information published by the exchange regarding the price of the US Equity Futures Contracts as well as other matters. The Calculation Agent and Index Sponsor make no warranty as to the correctness of that information and take no responsibility for the accuracy of such data or the impact of any inaccuracy of such data on the levels of the US Equity Futures Strategy Index.

GOLDMAN SACHS GENERAL BASKET STRATEGY BASE DESCRIPTION

Version 4.1

Dated: 20 November 2019

Section A: General

1. Introduction

This documentation element, the Goldman Sachs General Basket Strategy Base Description, as may be amended from time to time (this "**General Basket Strategy Base Description**") comprises certain rules, methodology, definitions, disclaimers, conflicts of interest and other information applicable to certain notional rules-based proprietary strategies which Goldman Sachs International or its successor(s) (the "**Strategy Sponsor**") may create from time to time (each, a "**GS Strategy**" and together, the "**GS Strategies**").

The most recently published version of the Goldman Sachs General Index Provisions (as updated from time to time, the "**General Index Provisions**") are incorporated into and shall apply to, and must be read together with, this documentation element.

For the purposes of applying the General Index Provisions to this documentation element, each expression in the General Index Provisions set out in the column of the table below entitled "Reference in the General Index Provisions" shall be read and construed for the purposes of this documentation element as a reference to the word or expression appearing in the same row in the table in the column entitled "Reference in this documentation element":

	Reference in the General Index Provisions	Reference in this documentation element
1.	"Index"	"Strategy"
2.	"Index Business Day"	"Strategy Calculation Day"
3.	"Index Component"	"Component"
4.	"Index Calculation Agent"	"Strategy Sponsor"
5.	"Disruption Event"	Each of the "Exchange Rate Disruption Event", "Force Majeure Event", "Market Disruption Event" and "Non-Tradable Event"

This General Basket Strategy Base Description should also be read in conjunction with the relevant description (the "**Relevant General Strategy Description**") comprising certain other rules, methodology, definitions and other information applicable to a particular GS Strategy, as well as any other documentation element(s) referred to in such Relevant General Strategy Description and/or in such other documentation elements (the "**Other Relevant Strategy Documentation Elements**"), in each case, where such documentation element is specified to be applicable to such GS Strategy.

This General Basket Strategy Base Description, together with the General Index Provisions, a Relevant General Strategy Description and any Other Relevant Strategy Documentation Elements will constitute the "**Strategy Rules**" in respect of a particular GS Strategy.

2. The GS Strategy

The GS Strategy consists of certain "**immediate components**". Each immediate component is either designated as a "**terminal component**" or a "**non-terminal component**".

The purpose of this General Basket Strategy Base Description is to describe (i) how the size of the exposure (represented by the number of units) of each immediate component and each terminal component to which a GS Strategy is exposed is determined, and in turn, (ii) how the level of a GS Strategy is calculated by reference to the levels of the terminal components included in such GS Strategy and the number of units of such terminal components included in such GS Strategy on any day, as well as the impact of any transaction costs and/or servicing costs which may be applicable in respect of the terminal components included in a GS Strategy and/or

any servicing costs which may be applicable in respect of the GS Strategy. The identity of the immediate components and the determination of the immediate component weights are as specified or described in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements. Information relating to any terminal component which is included in the GS Strategy as constituent parts of a non-terminal component shall be set out in the relevant rules in respect of such non-terminal component, unless otherwise specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements of the GS Strategy.

Section B: Calculation of the Strategy Tradable Level and Strategy Timely Level

The level (the "**Strategy Tradable Level**") of a GS Strategy in respect of each Strategy Calculation Day will depend on the daily mark-to-market change in the value of the position in each Terminal Component included in such GS Strategy. The Strategy Tradable Level of each GS Strategy will be calculated by the Strategy Sponsor in accordance with paragraph 1 of this Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level*.

Unless "Strategy Floored at Zero" is specified to be "Not Applicable" in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, the Strategy Tradable Level shall be floored at zero, meaning that if the methodology set out in this Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level* would otherwise result in a Strategy Tradable Level on a Strategy Calculation Day t of less than zero, the Strategy Tradable Level shall be deemed to be zero on such Strategy Calculation Day t and all subsequent Strategy Calculation Days. If "Strategy Floored at Zero" is specified to be "Not Applicable" the Strategy Tradable Level may be negative on any Strategy Calculation Day, and in respect of each Reference Date on which the Strategy Timely Level is less than or equal to zero, the units of all Immediate Components (and therefore the value of the positions of all Terminal Components) included in the GS Strategy will be equal to zero on the Rebalancing Date corresponding to such Reference Date. Consequently, if the Strategy Tradable Level continues to be less than or equal to zero for a prolonged period of time, the value of the position in all Terminal Components will continue to be zero and the Strategy Tradable Level will become static at or below zero.

If a Non-Tradable Event occurs on any Strategy Calculation Day t in respect of the GS Strategy, the Strategy Sponsor will not be able to calculate the Strategy Tradable Level in respect of such Strategy Calculation Day t until a later date. Therefore, the Strategy Sponsor will also calculate a level (the "**Strategy Timely Level**") of a GS Strategy in respect of each Strategy Calculation Day. The Strategy Timely Level will be calculated by the Strategy Sponsor in accordance with paragraph 2 of this Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level*.

1. Calculation of the Strategy Tradable Level for a GS Strategy

In respect of a GS Strategy, the Strategy Tradable Level in respect of (i) the Strategy Inception Date shall be equal to the Initial Strategy Level, and (ii) each Strategy Calculation Day t following the Strategy Inception Date shall be calculated by the Strategy Sponsor in accordance with the following formula:

$$S_t = S_{t-1} \times (1 + OIR_t \times DCF_t) + \left[\sum_c \left(FX_t(c) \times (V_{t,t-1}(c) - V_{t-1,t-1}(c)) \right) \right] - \text{Total Costs}_t$$

Where the summation is taken over each Terminal Component c included in the GS Strategy on Strategy Calculation Day $t-1$ or Strategy Calculation Day t , and:

"**DCF_t**" or the "**Overnight Interest Rate Day Count Fraction**," means, in respect of a Strategy Calculation Day t , the Overnight Interest Rate Day Count Fraction in respect of the period commencing on, and including, Strategy Calculation Day $t-1$ and ending on, but excluding, Strategy Calculation Day t ;

"**FX_t(c)**" means the Tradable Level of the Currency Conversion Component in respect of Terminal Component c and Strategy Calculation Day t ;

"**OIR_t**" means the Overnight Interest Rate in respect of the earlier of (A) Strategy Calculation Day $t-1$ and (B) the second last Overnight Interest Rate Business Day that falls prior to or on Strategy Calculation Day t , provided that if no Overnight Interest Rate Data Source is specified in the Relevant Specifications Annex, the Overnight Interest Rate shall be zero;

"**S_t**" means the Strategy Tradable Level in respect of Strategy Calculation Day t ;

"**Total Costs_t**" means, in respect of a Strategy Calculation Day t , an amount determined by the Strategy Sponsor in accordance with the following formula:

$$\text{Total Costs}_t = TC_t + \left[\sum_c SC_t(c) \right] + SSC_t$$

Where the summation is taken over each Terminal Component c included in the GS Strategy on Strategy Calculation Day t , and:

"**SC_t(c)**" means the servicing costs in respect of Terminal Component *c* in respect of Strategy Calculation Day *t*, as determined by the Strategy Sponsor in accordance with the following formula:

$$SC_t(c) = \text{Abs}(FX_{t-1}(c) \times SCWM_{t-1}(c) \times U_{t-1}(c)) \times SCR(c) \times \frac{\text{days}}{365}$$

Where:

"**Abs(x)**" is the absolute value function evaluated for the number *x*;

"**FX_{t-1}(c)**" means the Tradable Level of the Currency Conversion Component in respect of Terminal Component *c* and Strategy Calculation Day *t-1*;

"**SCR(c)**" means the Servicing Cost Rate in respect of Terminal Component *c*;

"**days**" means the number of calendar days falling in the period commencing on, and including, Strategy Calculation Day *t-1* and ending on, but excluding, Strategy Calculation Day *t*;

"**L_{t-1}(c)**" means the Tradable Level of Terminal Component *c* in respect of Strategy Calculation Day *t-1*;

"**SCWM_{t-1}(c)**" means, (i) if a Servicing Cost Weight Multiplier in respect of Terminal Component *c* in respect of Strategy Calculation Day *t-1* is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, such Servicing Cost Weight Multiplier, or (ii) if no Servicing Cost Weight Multiplier is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, *L_{t-1}(c)*; and

"**U_{t-1}(c)**" means the Units of Terminal Component *c* in respect of Strategy Calculation Day *t-1*.

"**SSC_t**" means the strategy servicing costs in respect of Strategy Calculation Day *t*, as determined by the Strategy Sponsor in accordance with the following formula:

$$SSC_t = \text{Abs}(S_{t-1}) \times SSCR \times \frac{\text{days}}{365}$$

Where:

"**Abs(x)**" is the absolute value function evaluated for the number *x*;

"**days**" means the number of calendar days falling in the period commencing on, and including, Strategy Calculation Day *t-1* and ending on, but excluding, Strategy Calculation Day *t*;

"**S_{t-1}**" means the Strategy Tradable Level in respect of Strategy Calculation Day *t-1*;

"**SSCR**" means the Strategy Servicing Cost Rate;

"**TC_t**" means, in respect of Strategy Calculation Day *t*, the aggregate of the transaction costs in respect of each Transaction Cost Class, as determined by the Strategy Sponsor in accordance with the following formula:

$$TC_t = \sum_{cc} TC_t(cc)$$

Where the summation is taken over each Transaction Cost Class relating to the Terminal Components included in the GS Strategy on Strategy Calculation Day *t*, and:

"**TC_t(cc)**" means the transaction costs in respect of Transaction Cost Class *cc* and Strategy Calculation Day *t*, as determined by the Strategy Sponsor in accordance with the following formula:

$$TC_t(cc) = TCR(cc) \times \text{Abs} \left(\sum_c FX_t(c) \times TCWM_t(c, cc) \times (U_t(c) - U_{t-1}(c)) \right)$$

Where the summation is taken over each Terminal Component c which is a part of Transaction Cost Class cc on Strategy Calculation Day $t-1$ or t ; and:

"**Abs(x)**" is the absolute value function evaluated for the number x ;

"**FX_t(c)**" means the Tradable Level of the Currency Conversion Component in respect of Terminal Component c and Strategy Calculation Day t ;

"**TCR(cc)**" means the Transaction Cost Rate in respect of Transaction Cost Class cc ;

"**TCWM_t(c, cc)**" means the Transaction Cost Weight Multiplier in respect of Transaction Cost Class cc and Terminal Component c on Strategy Calculation Day t ;

"**U_t(c)**" means the Units of Terminal Component c in respect of Strategy Calculation Day t ; and

"**U_{t-1}(c)**" means the Units of Terminal Component c in respect of Strategy Calculation Day $t-1$.

"**t-1**" means the Strategy Calculation Day preceding Strategy Calculation Day t ; and

"**V_{t,s}(c)**" means the value of the position in Terminal Component c , valued using the Tradable Level of Terminal Component c in respect of a Strategy Calculation Day t and the Units of Terminal Component c on Strategy Calculation Day s , as determined by the Strategy Sponsor in accordance with the following formula:

$$V_{t,s}(c) = L_t(c) \times U_s(c)$$

Where:

"**L_t(c)**" means the Tradable Level of Terminal Component c in respect of Strategy Calculation Day t ; and

"**U_s(c)**" means the Units of Terminal Component c in respect of Strategy Calculation Day s .

2. Calculation of the Strategy Timely Level for a GS Strategy

The Strategy Sponsor will calculate the Strategy Timely Level of a GS Strategy on each Strategy Calculation Day t as follows:

- (i) if no Non-Tradable Event occurs in respect of the GS Strategy on such Strategy Calculation Day t , the Strategy Timely Level shall be equal to the Strategy Tradable Level in respect of such Strategy Calculation Day t ; or
- (ii) if a Non-Tradable Event occurs in respect of the GS Strategy on such Strategy Calculation Day t , the Strategy Timely Level will be calculated using the same methodology for calculating the Strategy Tradable Level, save that (a) the Timely Level of each Terminal Component (and the Currency Conversion Component in respect of such Terminal Component) shall be used in place of its Tradable Level, and (b) each reference to "Strategy Tradable Level" in paragraph 1 of this Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level* shall be deemed to be replaced with "Strategy Timely Level".

3. Publication of the GS Strategy

If so specified in the Relevant General Strategy Description or the Other Relevant Strategy Documentation Elements, the Strategy Sponsor will publish the Strategy Timely Level and/or the Strategy Tradable Level on the Strategy Publication Data Source.

If a Strategy Value Publication Precision is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, the Strategy Timely Level and/or the Strategy Tradable Level will be published to the number of significant figures equal to such Strategy Value Publication Precision.

Section C: Calculation of the number of Units of a Terminal Component

A GS Strategy will provide exposure to each Terminal Component included in such GS Strategy, by notionally entering into a position (which may be "long" or "short") in such Terminal Component. A GS Strategy's quantity of exposure to a particular Terminal Component is called the number of units ("**Units**") of such Terminal Component. In order to calculate the Units of each Terminal Component, the Strategy Sponsor will first calculate the number of units (the "**Immediate Units**") of each Immediate Component (which may be a Terminal Component or a Non-Terminal Component) in accordance with paragraph 1 of this Section C: *Calculation of the number of Units of a Terminal Component*. Thereafter, the Strategy Sponsor will calculate the Units of each Terminal Component by reference to the Immediate Units of the relevant Immediate Component(s) in accordance with paragraph 2 of this Section C: *Calculation of the number of Units of a Terminal Component*.

1. Calculation of the Immediate Units of an Immediate Component

The "Immediate Units" of an Immediate Component *ic* included in a GS Strategy in respect of (i) each Strategy Calculation Day falling in the period commencing on, and including, the Strategy Inception Date and ending on, but excluding, the immediately following Rebalancing Date, shall be equal to zero and (ii) each Strategy Calculation Day *t* other than a Strategy Calculation Day mentioned in (i) above shall be determined by the Strategy Sponsor in accordance with the following formula:

$$IU_t(ic) = \sum_r Units_{t,r}(ic)$$

Where the summation is taken over each Rebalancing Date *r* falling on or prior to Strategy Calculation Day *t*, and where:

"**Units_{t,r}(ic)**" means the units of Immediate Component *ic* on Strategy Calculation Day *t* in respect of Rebalancing Date *r* falling on or prior to Strategy Calculation Day *t*, as determined by the Strategy Sponsor in accordance with the following formula:

$$Units_{t,r}(ic) = \left(\frac{ICW_r(ic)}{\text{Holding Period Rebalancing Days}} \times \frac{S_{\text{RefDate}(r)}}{USF_{\text{RefDate}(r)}(ic) \times FX_{\text{RefDate}(r)}(ic)} \times \frac{FI_{r,ic}(t) - FO_{r,ic}(t)}{\text{NumFadeDays}} \right)$$

provided that if $L_{\text{RefDate}(r)}(ic)$ is less than or equal to zero, then $Units_{t,r}(ic)$ shall be deemed to be zero, and:

"**FI_{r,ic}(t)**" means the number of Fade-In Days in respect of Rebalancing Date *r* and Immediate Component *ic* falling on or prior to Strategy Calculation Day *t*;

"**FO_{r,ic}(t)**" means the number of Fade-Out Days in respect of Rebalancing Date *r* and Immediate Component *ic* falling on or prior to Strategy Calculation Day *t*;

"**FX_{RefDate(r)}(ic)**" means the Timely Level of the Currency Conversion Component in respect of Immediate Component *ic* and RefDate(*r*);

"**Holding Period Rebalancing Days**" means one (1), or if a positive integer is specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, such positive integer;

"**ICW_r(ic)**" means the Immediate Component Weight in respect of Immediate Component *ic* determined in respect of Rebalancing Date *r*;

"**IU_t(ic)**" means the Immediate Units of Immediate Component *ic* in respect of Strategy Calculation Day *t*;

"**USF_{RefDate(r)}(ic)**" means, if (i) a Units Scaling Factor is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, such Units Scaling Factor, or (ii) no Units Scaling Factor is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, $L_{\text{RefDate}(r)}(ic)$;

"**L_{RefDate(r)}(ic)**" means the Timely Level of Immediate Component *ic* in respect of RefDate(*r*);

"**NumFadeDays**" or "**Number of Fading Days**" means one (1), or if a positive integer is specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, such positive integer;

"**RefDate(r)**" means the Reference Date in respect of Rebalancing Date r ; and

"**S_{RefDate(r)}**" means the Strategy Timely Level in respect of RefDate(r), or if such Strategy Timely Level is negative, then zero (0).

2. Calculation of the Units of a Terminal Component

The Units of a Terminal Component c included in a GS Strategy in respect of Strategy Calculation Day t will be determined by the Strategy Sponsor in accordance with the following formula:

$$U_t(c) = \sum_{ic} IU_t(ic) \times U_{ic,t}(c)$$

Where the summation is over each Immediate Component ic included in such GS Strategy, and where:

"**IU_t(ic)**" means the Immediate Units of Immediate Component ic in respect of Strategy Calculation Day t ;

"**U_{ic,t}(c)**" means the Units of Terminal Component c included in Immediate Component ic in respect of Strategy Calculation Day t , as determined by the Strategy Sponsor in accordance with the following paragraphs:

- (i) if Terminal Component c is Immediate Component ic , one; or
- (ii) if Terminal Component c is a Terminal Component included in Immediate Component ic , then the Units of Terminal Component c included in Immediate Component ic in respect of Strategy Calculation Day t , as determined in accordance with the relevant rules in respect of Immediate Component ic ; or
- (iii) otherwise, zero; and

"**U_t(c)**" means the Units of Terminal Component c in respect of Strategy Calculation Day t .

Section D: Associated Immediate Components

In respect of each GS Strategy for which an Immediate Component Template is specified in the Relevant General Strategy Description or the Other Relevant Strategy Documentation Elements, on each Strategy Calculation Day such GS Strategy will notionally hold long positions (by assigning a positive weight) and/or notionally hold short positions (by assigning a negative weight) in each Associated Immediate Component defined by such Immediate Component Template.

On any Strategy Calculation Day an Immediate Component Template will define a set of Associated Immediate Components (the "**Associated Immediate Component Set**" in respect of such Immediate Component Template and such Strategy Calculation Day) and such Immediate Component Template will include all of the specifications required to define each Associated Immediate Component belonging to such Associated Immediate Component Set. Each Associated Immediate Component will be deemed to be included in such GS Strategy with effect from the Execution Start Date in respect of a particular Rebalancing Date (the "**Associated Immediate Component Start Date**" in respect of such Associated Immediate Component) and will cease to be an Associated Immediate Component after the Last Fade-Out Day in respect of such Rebalancing Date and the Immediate Component Template corresponding to such Associated Immediate Component. As a result, the Associated Immediate Components included in an Associated Immediate Component Set and a GS Strategy will vary over time.

Where any variable or characteristic is to be specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of an Immediate Component, such variable or characteristic may be specified in respect of an Immediate Component Template and such variable or characteristic so specified will apply to each Associated Immediate Component in the relevant Associated Immediate Component Set.

Section E: Consequences of Adjustment Events

1. Strategy Adjustment Events relating to a GS Strategy

If, in respect of a GS Strategy and any Strategy Calculation Day, a Strategy Adjustment Event has occurred, then the Strategy Sponsor may determine, in its discretion and acting in a commercially reasonable manner, to make such determinations or adjustments to the terms of such GS Strategy, including to the methodology and/or to replace the relevant data sources, as it deems appropriate to account for such Strategy Adjustment Event and, as applicable, to the extent necessary to calculate the Strategy Timely Level and the Strategy Tradable Level in respect of such Strategy Calculation Day (for which purpose it may use its own internal models and other market data sources as it reasonably determines is necessary) whilst preserving the intended commercial purpose of the GS Strategy.

If the Strategy Sponsor determines that no such determination(s) or adjustment(s) would achieve a commercially reasonable result and/or that it is no longer possible or practicable to calculate the level of the GS Strategy, the Strategy Sponsor may terminate the calculation and the publication of the GS Strategy without notice.

2. Adjustment Events relating to Components

(i) If any Component is:

- (a) not calculated and announced by the relevant Sponsor or Price Source, as the case may be, for such Component, but is calculated and announced by a successor sponsor or price source acceptable to the Strategy Sponsor, then such successor sponsor or price source, as the case may be, will be deemed to be that Sponsor or Price Source; or
- (b) replaced by a successor instrument, strategy, index or basket, as applicable, using the same or a substantially similar specification or formula and method of calculation as used in the calculation of such Component, as determined by the Strategy Sponsor, then such replacement instrument, strategy, index or basket, as the case may be, will be deemed to be that Component,

and in each case, the Strategy Sponsor may make such adjustment(s) to the Strategy Rules or to the composition of the GS Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner.

(ii) If, in respect of a Component that is an index or a strategy, and any Strategy Calculation Day, the Strategy Sponsor determines that:

- (a) the relevant Sponsor makes, in the reasonable judgment of the Strategy Sponsor, a material change in the weighting or composition of, formula for, or method of calculating such Component, as the case may be or in any other way materially modifies such Component (other than a modification prescribed in that formula or method relating to the weighting or composition of such Component or other routine events or modifications), effective on or after such Strategy Calculation Day; or
- (b) the relevant Sponsor fails or is not scheduled to calculate and announce the level of such Component on such Strategy Calculation Day, or, on or prior to such Strategy Calculation Day, such Component has ceased to be calculated by the relevant Sponsor, and has not been replaced by a successor index, strategy or basket; or
- (c) a Market Disruption Event occurs in respect of the Currency Cross of the relevant Currency Conversion Component on such Strategy Calculation Day; or
- (d) in the reasonable judgment of the Strategy Sponsor, the level of such Component on such Strategy Calculation Day contains a manifest error,

then the Strategy Sponsor shall calculate the level of such Component, in lieu of a published level for such Component using the same formula for, and method of, calculating the level of such Component last in effect prior to the occurrence of any of the circumstances described above (utilising any adjustment to such formula or method that the Strategy Sponsor determines to be commercially reasonable) or in the event that the Strategy Sponsor determines, in its reasonable judgment, that the occurrence of any of the foregoing circumstances could adversely affect the GS Strategy, it may (in good faith and acting in a commercially reasonable manner) elect to replace or remove (or assign a zero weight to) the relevant Component from the GS Strategy at the earliest possible opportunity as it determines to be commercially

reasonable and make such other changes to the GS Strategy as may be necessary, in its commercially reasonable judgment, to effect such change.

- (iii) If, in respect of an Instrument and any Strategy Calculation Day:
- (a) the Strategy Sponsor determines that any Instrument has ceased to be published by the relevant Price Source, and has not been replaced by successor instrument;
 - (b) the Strategy Sponsor determines that there has been a material change (or it has been announced that a material change will be made) to (I) the content, composition or constitution of any Instrument, or (II) the formula for or method of calculating any Instrument Valuation Data, or (III) the delivery, expiry or settlement terms of such Instrument;
 - (c) the Strategy Sponsor, in its reasonable judgment, (I) determines that such Instrument has ceased to be a liquid, actively traded Instrument that is generally available for trading, or that such Instrument has been the subject of a Market Disruption Event for at least five consecutive Strategy Calculation Days (provided that the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, determine that for the purposes of determining the level of the GS Strategy on any Strategy Calculation Day, such event shall constitute a Non-Tradable Event in respect of such Instrument and in such case, the Strategy Sponsor will also calculate the level of the relevant Instrument or any Component to which such Instrument is linked on the First Tradable Date), or (II) anticipates that such Instrument or any Instrument Valuation Data, notwithstanding that it is available for trading, will cease to be liquid and actively traded or will be terminated or delisted by the relevant Price Source; or
 - (d) in respect of any Instrument defined in sub-section 3 (*Interest Rate Swaps Definitions*) of Section G: Asset Class Specific Definitions of this General Basket Strategy Base Description, the Strategy Sponsor, in its reasonable judgment, determines that (I) liquidity in transactions relating to such Instrument has moved (or anticipates that liquidity in transactions relating to such Instrument will move) from a clearing house or trading venue, as the case may be, on which such Instrument would generally be cleared or traded, as the case may be, to a different clearing house or trading venue, as the case may be, in accordance with market convention, (II) liquidity in transactions relating to such Instrument (as identified by the relevant Swap Conventions) has moved (or anticipates that liquidity in transactions relating to such Instrument will move) to transactions relating to other Instruments identified by one or more different Swap Conventions, in accordance with market convention, or (III) notwithstanding that such Instrument is and will continue to be available for trading, any Instrument Valuation Data, will (or may at a future date determined by the Strategy Sponsor in its discretion and acting in a commercially reasonable manner) cease to be an accurate reflection of the Swap Conventions with respect to such Instrument,

then the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, (A) make such determinations or adjustments to the terms of the GS Strategy, including to the methodology and relevant data sources, as it deems appropriate to account for such Adjustment Event and, as applicable, to the extent necessary for the Strategy Timely Level and the Strategy Tradable Level to continue to be calculated (for which purpose it may use its own internal models and other market data sources as it reasonably determines is necessary), or (B) elect to replace or remove (or, where applicable, assign a zero weight to) such Instrument or any Component to which such Instrument is linked from the GS Strategy at the earliest possible opportunity as it determines to be commercially reasonable in order for the Strategy Timely Level and the Strategy Tradable Level to continue to be calculated notwithstanding the relevant circumstances, and in such case, the Strategy Sponsor may make such adjustment(s) to the Strategy Rules or to the composition of the GS Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner, to reflect such change(s).

- (iv) If, in respect of an Overnight Interest Rate and any Strategy Calculation Day, the Strategy Sponsor determines that a material change has been made (or it is announced that a material change will be made) to the formula for, or the method of, calculating such Overnight Interest Rate, then the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, elect to replace such Overnight Interest Rate from the GS Strategy at the earliest possible opportunity as it determines to be commercially reasonable in order for the Strategy Timely Level and the Strategy Tradable Level to continue to be calculated notwithstanding the relevant circumstances, and in such case, the Strategy Sponsor may make such adjustment(s) to the Strategy Rules or to the composition of the GS Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner, to reflect such change(s).
- (v) If the level of a Component as published by the relevant Sponsor, the Instrument Valuation Data in respect of an Instrument, the Spot Exchange Rate in respect of any Currency Conversion Component or the Overnight Interest Rate, as the case may be, each as published by the relevant Price Source, on any

Strategy Calculation Day (for the purposes of this paragraph 2(v) a "**Relevant Day**") is subsequently corrected and the Strategy Sponsor determines that the correction is published or made available by the Sponsor or Price Source, as the case may be, on a timely basis on the immediately following Strategy Calculation Day, then such corrected level, price or rate, as the case may be, shall be deemed to be the relevant level, price or rate for the Relevant Day, and the Strategy Sponsor shall use the corrected level, price or rate as the case may be, in its calculation of the Strategy Timely Level or Strategy Tradable Level, as applicable.

3. Adjustments relating to third party information or data

If, in respect of any third party information or data relied on or which is used to determine, or which constitutes, any weight(s), signal(s) or other input used in the calculation of the GS Strategy (the "**Third Party Data**"):

- (i) the Strategy Sponsor discovers, or is notified by the third party responsible for collecting, calculating, distributing or publishing such Third Party Data (the "**Third Party Data Source**") of, an error or discrepancy in such Third Party Data, the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, disregard such error or discrepancy and shall not be under any obligation to use the corrected Third Party Data in its calculation of the Strategy Timely Level or the Strategy Tradable Level, as applicable, or to correct or revise the Strategy Timely Level or the Strategy Tradable Level of the GS Strategy following the release of the corrected Third Party Data by the Third Party Data Source; or
- (ii) (a) the Third Party Data Source ceases to publish such Third Party Data (or the Third Party Data Source announces that it will cease to publish such Third Party Data), and such Third Party Data is not replaced by any equivalent information or data, or (b) there is a material change in the formula for or method of calculating, or the content or frequency of publication of, such Third Party Data, or (c) the Third Party Data Source fails to calculate or publish such Third Party Data for an extended period of time, in the reasonable judgement of the Strategy Sponsor, then the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, (I) elect to replace or remove (or assign a zero weight to) the Component(s) affected by the unavailability or material change(s) to such information or data from the GS Strategy at the earliest possible opportunity as it determines to be commercially reasonable in order for the Strategy Timely Level or the Strategy Tradable Level of the GS Strategy to continue to be calculated notwithstanding the relevant circumstances, or (II) use third party information or data from an alternative data source which it determines to be comparable to such Third Party Data and to be appropriate in order to preserve the original economic objective of the GS Strategy (and such third party information or data will be deemed to be Third Party Data for the purposes of the GS Strategy), or (III) make such adjustment(s) to the Strategy Rules or to the composition of the GS Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner, to reflect such unavailability or change(s), or (IV) if the Strategy Sponsor determines that none of the above adjustment(s) would achieve a commercially reasonable result and/or that it is no longer possible or practicable to calculate the GS Strategy, terminate the calculation and publication of the GS Strategy without notice.

4. Delay in publication of third party information or data

Subject to paragraph 3 of this Section E: *Consequences of Adjustment Events*, if a Third Party Data Source fails to publish or make available on the scheduled publication date for any reason any Third Party Data used by the Strategy Sponsor to calculate the Strategy Timely Level or the Strategy Tradable Level of the GS Strategy in respect of a Strategy Calculation Day, the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, use the Third Party Data last published or made available by such Third Party Data Source to calculate the Strategy Timely Level or the Strategy Tradable Level of the GS Strategy in respect of such Strategy Calculation Day.

Section F: General Definitions

Terms not otherwise defined in this General Basket Strategy Base Description in respect of a GS Strategy shall have the meanings given to them below.

"Adjustment Events" means each of the events described in Section E: *Consequences of Adjustment Events* in this General Basket Strategy Base Description.

"Asset Class Specific Definitions" means the definitions in Section G: *Relevant Asset Class Specific Definitions* of this General Basket Strategy Base Description, provided that each paragraph of Section G: *Relevant Asset Class Specific Definitions* of this General Basket Strategy Base Description shall only apply to an Instrument as defined in such paragraph or a Component that is calculated by reference to such an Instrument and in respect of which the Style specified is contained in the Timely and Tradable Level Table included in such paragraph.

"Associated Immediate Component" means, in respect of an Immediate Component Template and any Strategy Calculation Day, each component defined by such Immediate Component Template on such Strategy Calculation Day. Each Associated Immediate Component will also be a Terminal Component.

"Associated Immediate Component Set" shall have the meaning given to such term in Section D: *Associated Immediate Components* of this General Basket Strategy Base Description.

"Associated Immediate Component Start Date" shall have the meaning given to such term in Section D: *Associated Immediate Components* of this General Basket Strategy Base Description.

"Component" means a Terminal Component or a Non-Terminal Component.

"Component Execution Day" means, in respect of a Component or an Immediate Component Template, each day determined in accordance with the Style of such Component or Immediate Component Template and as described in the Timely and Tradable Level Table in respect of such Component or Immediate Component Template, provided that if no Component Execution Days are specified in respect of such Style, the Component Execution Days in respect of such Component or Immediate Component Template shall be each Trading Day in respect of such Component or Immediate Component Template.

"Component Ticker" means, in respect of a Component, the Bloomberg ticker reference (or any official successor thereto) corresponding to such Component as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements (or if not so specified and if such Component is a Terminal Component included in an Immediate Component, as determined in accordance with the rules of such Immediate Component).

"Currency Business Day" means, in respect of a Currency Conversion Component or a Currency Cross, each day specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of such Currency Conversion Component or Currency Cross, or if not so specified, either (a) if the relevant Currency Cross is a Non-USD Currency Cross, each day that is a Currency Business Day for the Denominated Dollar Cross in respect of such Currency Cross and a Currency Business Day for the Underlying Dollar Cross, or (b) otherwise, each day on which the Spot Exchange Rate in respect of the relevant Currency Cross is scheduled to be published on the relevant Spot Exchange Rate Price Source.

"Currency Conversion Component" means, in respect of:

- (i) a Component, the Currency Cross with a Denominated Currency equal to the Strategy Calculation Currency and an Underlying Currency equal to the Quoted Currency of such Component; or
- (ii) an Immediate Component Template, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

For the purposes of determining the Timely Level or the Tradable Level of a Currency Conversion Component, the Style of such Currency Conversion Component shall be deemed to be "FX-Spot". For the avoidance of doubt, if (a) in respect of a Component, the Quoted Currency is the same as the Strategy Calculation Currency or (b) in respect of an Immediate Component Template, Currency Conversion Component is specified as "Not Applicable", or is not so specified, in each case there will be no Currency Conversion Component in respect of such Component or Immediate Component Template, and for the purposes of any calculations, the Timely Level and the Tradable Level of the Currency Conversion Component in respect of such Component or Immediate Component Template shall be deemed to be one (1).

"Currency Cross" means, in respect of two currencies, the Denominated Currency and the Underlying Currency, a rate expressed as the number of units of the Denominated Currency per unit of the Underlying Currency.

"Denominated Currency" means, in respect of a Currency Cross, the currency specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Denominated Dollar Cross" means, in respect of a Non-USD Currency Cross and the Denominated Currency in respect of such Non-USD Currency Cross (the **"Original Denominated Currency"** for the purposes of this definition of Denominated Dollar Cross), the Currency Cross in respect of which the Denominated Currency is USD and the Underlying Currency is the Original Denominated Currency.

"Disjoint Execution" will be specified as either "Applicable" or "Not Applicable" in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall be deemed to be specified as "Not Applicable".

"Exchange Rate Disruption Event" means, in respect of a Currency Cross and a Strategy Calculation Day, any one of the following events, as determined by the Strategy Sponsor:

- (i) the relevant Spot Exchange Rate has ceased to be published by the relevant Price Source, and has not been replaced by a successor Price Source; or
- (ii) Dual Currency Event: the Underlying Currency or the Denominated Currency in respect of such Currency Cross splits into dual or multiple currencies; or
- (iii) Inconvertibility Event: an event has occurred in, or affecting, any jurisdiction whose currency is either the Underlying Currency or the Denominated Currency in respect of such Currency Cross, as the case may be, that generally makes it impossible to convert the Underlying Currency into the Denominated Currency or, as the case may be, the Denominated Currency into the Underlying Currency, through customary legal channels; or
- (iv) Exchange Rate Unavailability: it is or becomes impossible or not reasonably practicable for the Strategy Sponsor to obtain a currency exchange rate for such Currency Cross (including the Spot Exchange Rate) from the relevant Price Source or any other source for purposes of the GS Strategy, or to obtain a firm quote for a currency exchange rate for such Currency Cross (including the Spot Exchange Rate); or
- (v) Non-Transferability Event: (a) an event has occurred in, or affecting, any jurisdiction whose currency is the Underlying Currency that generally makes it impossible to deliver (I) the Denominated Currency from accounts inside such jurisdiction to accounts outside such jurisdiction or (II) the Underlying Currency between accounts inside such jurisdiction or to a party that is a non-resident of such jurisdiction, or (b) an event has occurred in, or affecting, any jurisdiction whose currency is the Denominated Currency that generally makes it impossible to deliver (I) the Underlying Currency from accounts inside such jurisdiction to accounts outside such jurisdiction or (II) the Denominated Currency between accounts inside such jurisdiction or to a party that is a non-resident of such jurisdiction; or
- (vi) Governmental Authority Default: a default, event of default, or other similar condition or event (however described) with respect to any security or indebtedness for borrowed money of, or guaranteed by, any Governmental Authority, including, but not limited to, (a) the failure of timely payment in full of any principal, interest, or other amounts due (without giving effect to any applicable grace periods) in respect of any such security, indebtedness, or guarantee, (b) a declared moratorium, standstill, waiver, deferral, repudiation, challenge of the validity, or rescheduling of any principal, interest, or other amounts due in respect of any such security, indebtedness, or guarantee, or (c) the amendment or modification of the terms and conditions of payment of any principal, interest, or other amounts due in respect of any such security, indebtedness, or guarantee without the consent of all holders of such obligation. For these purposes, the determination of the existence or occurrence of any default, event of default, or other similar condition or event shall be made without regard to any lack or alleged lack of authority or capacity of such Governmental Authority to issue or enter into such security, indebtedness, or guarantee; or
- (vii) Nationalisation Event: any expropriation, confiscation, requisition, nationalisation or other action by a relevant Governmental Authority which deprives any market participant of all or substantially all of its assets in any jurisdiction whose currency is the Underlying Currency or the Denominated Currency; or
- (viii) Inability to Transact: the occurrence or existence at any time, of any event or circumstance that disrupts or impairs (a) the ability of market participants in general to effect transactions in relation to the Underlying Currency or the Denominated Currency in a notional size required in relation to any product or transaction linked to a GS Strategy, (b) impairs the liquidity of transactions in relation to the Underlying Currency or the Denominated Currency, (c) the ability to obtain market values of, the Underlying Currency or the

Denominated Currency, or (d) the ability of any market participant, after using commercially reasonable efforts, to acquire, establish, re-establish, substitute, maintain, unwind, or dispose of any hedge position relating to the GS Strategy or any transaction linked to the GS Strategy or to realise, recover or remit the proceeds of any such transaction; or

- (ix) Currency Merger: the Underlying Currency or the Denominated Currency ceases to exist and is replaced by another currency.

"Execution Day" means, in respect of an Immediate Component or an Immediate Component Template, as determined by the Strategy Sponsor in accordance with paragraph (i) or (ii) below:

- (i) if Disjoint Execution is specified as "Applicable" in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, each day that (a) is a Strategy Calculation Day, (b) is a Currency Business Day in respect of the Currency Conversion Component of such Immediate Component or Immediate Component Template (if applicable) and (c) is a Component Execution Day in respect of such Immediate Component or Immediate Component Template (as applicable); or
- (ii) if Disjoint Execution is specified as "Not Applicable" in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements or is deemed to be "Not Applicable" in accordance with the definition of Disjoint Execution, each day that (a) is a Strategy Calculation Day, (b) is a Currency Business Day in respect of the Currency Conversion Component of all Components or Immediate Component Templates included in the GS Strategy (if applicable) and (c) is a Component Execution Day in respect of all Components and Immediate Component Templates included in the GS Strategy (if applicable).

"Execution Lag" means, in respect of an Immediate Component, the non-negative integer specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, zero (0).

"Execution Start Date" means, in respect of a Rebalancing Date and an Immediate Component or an Immediate Component Template;

- (i) if the Execution Lag in respect of such Immediate Component or Immediate Component Template (as applicable) is specified as zero (0), the first Execution Day in respect of such Immediate Component or Immediate Component Template (as applicable) falling on or after such Rebalancing Date;
- (ii) otherwise, the first Execution Day in respect of such Immediate Component or Immediate Component Template (as applicable) falling on or immediately after the number of Trading Days in respect of such Immediate Component or Immediate Component Template equal to the Execution Lag from, but excluding, such Rebalancing Date.

"Fade-In Days" means, in respect of a Rebalancing Date and an Immediate Component, the sequence of consecutive Execution Days in respect of such Immediate Component equal in number to the Number of Fading Days, beginning on, and including, the Execution Start Date in respect of such Rebalancing Date and such Immediate Component.

"Fade-Out Days" means, in respect of a Rebalancing Date (for the purposes of this definition of Fade-Out Days, the **"Relevant Rebalancing Date"**) and an Immediate Component, the Fade-In Days in respect of such Immediate Component and the Rebalancing Date falling the number of Rebalancing Dates equal to the Holding Period Rebalancing Days following the Relevant Rebalancing Date.

"First Tradable Date" means, in respect of a Strategy Calculation Day t and:

- (i) an Instrument or a Currency Conversion Component, the first Strategy Calculation Day (measured from, and including, Strategy Calculation Day t) on which no Non-Tradable Event exists in respect of such Instrument or Currency Conversion Component (as applicable), provided that if one or more Non-Tradable Event(s) in respect of such Instrument or Currency Conversion Component (as applicable) exists on Strategy Calculation Day t and each of the five (5) Strategy Calculation Days, immediately following Strategy Calculation Day t , then the sixth (6th) Strategy Calculation Day immediately following Strategy Calculation Day t shall be deemed to be the First Tradable Date, notwithstanding the fact that a Non-Tradable Event may be existing on such sixth (6th) Strategy Calculation Day, provided that if the Strategy Sponsor expects that no Non-Tradable Event will exist in respect of such Instrument or Currency Conversion Component (as applicable) shortly after such sixth (6th) Strategy Calculation Day (determined by the Strategy Sponsor in its discretion and acting in a commercially reasonable manner), the Strategy Sponsor may postpone the First Tradable Date to the first Strategy Calculation Day on which no Non-Tradable Event Exists in respect of such Instrument or Currency Conversion Component (as applicable),

provided further that the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, determine that such event also results in an Adjustment Event; and

- (ii) a Component, the First Tradable Date to fall latest in time in respect of such Strategy Calculation Day t and all Instruments and Currency Conversion Components used to calculate the level of such Component.

"Force Majeure Event" means, in respect of a GS Strategy, an event or circumstance (including, without limitation, a systems failure, fire, building evacuation, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance) that is beyond the reasonable control of the Strategy Sponsor and that, in the Strategy Sponsor's sole and absolute discretion, is likely to have a material adverse effect on any Instrument or Component.

"General Basket Strategy Base Description" shall have the meaning given to such term in Section A: *General* of this document.

"General Index Provisions" shall have the meaning given to such term in Section A: *General* of this General Basket Strategy Base Description.

"Governmental Authority" means, in respect of a Currency Cross, in relation to the primary jurisdiction whose currency is the relevant Underlying Currency or the relevant Denominated Currency, any de facto or de jure government (or any agency or instrumentality thereof), court, tribunal, administrative, executive, legislative or other governmental authority, or any other entity (private or public) charged with the regulation of the financial markets (including the central bank) of such jurisdiction (which with respect to the Euro shall include the European Union as well as any member state thereof from time to time whose currency is the Euro).

"GS Strategy" shall have the meaning given to such term in Section A: *General* of this General Basket Strategy Base Description.

"Holding Period Rebalancing Days" shall have the meaning given to such term in paragraph 1 of Section C: *Calculation of the number of Units of a Terminal Component* of this General Basket Strategy Base Description.

"Immediate Component" means, in respect of any Strategy Calculation Day;

- (i) an immediate component included in a GS Strategy as determined from time to time in accordance with the provisions of the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, provided that (a) if an Immediate Component Start Date is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of such immediate component, such Strategy Calculation Day falls on or after such Immediate Component Start Date and (b) if an Immediate Component End Date is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of such immediate component, such Strategy Calculation Day falls on or before the First Tradable Date in respect of such immediate component and the final Fade-Out Day in respect of the Rebalancing Date falling on or immediately prior to such Immediate Component End Date; and
- (ii) an Associated Immediate Component, provided that such Strategy Calculation Day falls in the period commencing on, and including, the Associated Immediate Component Start Date in respect of such Associated Immediate Component and ending on, and including the Last Fade-Out Day in respect of the Rebalancing Date by reference to which such Associated Immediate Component Start Date is determined.

"Immediate Component End Date" means, if specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of an Immediate Component, the date after which there will be no new positions entered in respect of such Immediate Component.

"Immediate Component Start Date" means, if specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of an Immediate Component, the date from which such Immediate Component will be deemed to be included in a GS Strategy.

"Immediate Component Template" means, in respect of an Associated Immediate Component Set, the template that includes the specifications required to define each Associated Immediate Component belonging to such Associated Immediate Component Set (including, but not limited to, the Style of such Associated Immediate Components), as more particularly described in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Immediate Component Weight" means, in respect of an Immediate Component and a Rebalancing Date, the weight assigned to such Immediate Component in respect of such Rebalancing Date, as determined in

accordance with the provisions set out in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Immediate Units" means, in respect of an Immediate Component and a Strategy Calculation Day, the size of the position in such Immediate Component on such Strategy Calculation Day held by the GS Strategy, as determined in accordance with the provisions set out in Section C: *Calculation of the number of Units of a Terminal Component* of this General Basket Strategy Base Description.

"Initial Strategy Level" means the Strategy Tradable Level on the Strategy Inception Date, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Instrument" means each tradable instrument defined as such in the Asset Class Specific Definitions.

"Instrument Trading Day" means, in respect of an Instrument, each day defined as such in the Asset Class Specific Definitions corresponding to such Instrument.

"Instrument Valuation Data" means, in respect of an Instrument, any level, price, rate or data specified as such in the Asset Class Specific Definitions corresponding to such Instrument.

"Last Fade-Out Day" means, in respect of a Rebalancing Date (for the purposes of this definition of Last Fade-Out Day, the **"Relevant Rebalancing Date"**) and an Immediate Component Template, the final Execution Day in the sequence of consecutive Execution Days in respect of such Immediate Component Template equal in number to the Number of Fading Days beginning on, and including, the Execution Start Date in respect of such Immediate Component Template and the Rebalancing Date falling the number of Rebalancing Dates equal to the Holding Period Rebalancing Days following the Relevant Rebalancing Date.

"Market Disruption Event" means, in respect of a Strategy Calculation Day and:

- (i) in respect of a Component, any one of the following events, as determined by the Strategy Sponsor:
 - (a) each event specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements (or if not so specified and if such Component is a Terminal Component included in an Immediate Component, as determined in accordance with the rules of such Immediate Component);
 - (b) if such Component is a Non-Terminal Component, the occurrence on such Strategy Calculation Day of a Market Disruption Event in respect of any Terminal Component included in such Component;
 - (c) the occurrence of a Market Disruption Event (or other analogous event) in respect of any Instrument, Currency Cross, or other asset, instrument or rate (including, but not limited to, an option, exchange rate or interest rate) included in such Component or used in the calculation of the level of, such Component; or
 - (d) if such Component is an Instrument, each event specified as a Market Disruption Event in the Asset Class Specific Definitions corresponding to such Instrument;
- (ii) in respect of an Instrument that is not a Component, each event specified as such in the Asset Class Specific Definitions corresponding to such Instrument;
- (iii) in respect of a Currency Cross, the occurrence of any one of the following events, as determined by the Strategy Sponsor:
 - (a) an Exchange Rate Disruption Event in respect of such Currency Cross; or
 - (b) the occurrence or existence, on such Strategy Calculation Day at any time, of a suspension of, or limitation imposed on, trading on the London interbank market or the interbank market of the city or cities determined by the Strategy Sponsor to be the principal financial centre(s) for the Underlying Currency or the Denominated Currency;
- (iv) in respect of an Overnight Interest Rate, if it has become impossible or otherwise impracticable to obtain such Overnight Interest Rate or any rate used to calculate such Overnight Interest Rate; or
- (v) any asset, instrument or rate other than an Instrument (including, but not limited to, an option, exchange rate or interest rate) included in a Component or used in the calculation of the level of a Component, the

occurrence of a Market Disruption Event (or other analogous event) on such Strategy Calculation Day, as determined in accordance with the rules of such Component unless otherwise specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"MDE Linked Component" means, in respect of a Terminal Component included in such GS Strategy (for the purposes of this definition, the **"Relevant Terminal Component"**):

- (i) each Terminal Component specified to be a MDE Linked Component relating to the Relevant Terminal Component in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements; or
- (ii) if the Relevant Terminal Component is a Terminal Component included in an Immediate Component, each MDE Linked Component in respect of the Relevant Terminal Component as determined in accordance with the rules of such Immediate Component; or
- (iii) each MDE Linked Component in respect of a Terminal Component which is in turn an MDE linked Component in respect of the Relevant Terminal Component.

"Non-Terminal Component" means each component specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Non-Tradable Event" means, in respect of a Strategy Calculation Day and:

- (i) a Component, the occurrence of any one of the following events, as determined by the Strategy Sponsor:
 - (a) such Strategy Calculation Day is not a Trading Day for such Component; or
 - (b) a Market Disruption Event is occurring or existing in respect of such Component on such Strategy Calculation Day; or
 - (c) if such Component is a Terminal Component, a Market Disruption Event is occurring or existing in respect of one or more MDE Linked Components in respect of such Component on such Strategy Calculation Day; or
 - (d) if such Component is an Instrument, each event specified as such in the Asset Class Specific Definitions corresponding to such Instrument;
- (ii) an Instrument that is not a Component, each event specified as such in the Asset Class Specific Definitions corresponding to such Instrument;
- (iii) a Currency Conversion Component, the occurrence of any one of the following events, as determined by the Strategy Sponsor:
 - (a) such Strategy Calculation Day is not a Currency Business Day in respect of such Currency Conversion Component; or
 - (b) a Market Disruption Event is occurring or existing in respect of the relevant Currency Cross on such Strategy Calculation Day;
- (iv) a GS Strategy, the occurrence of a Non-Tradable Event in respect of (a) any Terminal Component included in such GS Strategy or (b) any Currency Conversion Component in respect of any such Terminal Component (if applicable).

"Non-USD Currency Cross" means a Currency Cross in respect of which neither the Denominated Currency nor the Underlying Currency are USD.

"Number of Fading Days" shall have the meaning given to such term in paragraph 1 of Section C: *Calculation of the number of Units of a Terminal Component* of this General Basket Strategy Base Description.

"Other Relevant Strategy Documentation Elements" shall have the meaning given to such term in Section A: General of this General Basket Strategy Base Description.

"Overnight Interest Rate" means, in respect of a day, the value published on the Overnight Interest Rate Data Source in respect of such day. If such day is not an Overnight Interest Rate Business Day, the value published for the immediately preceding day that is an Overnight Interest Rate Business Day.

"Overnight Interest Rate Business Day" means, each day specified as such in the Total Return Specifications table in the Relevant Specifications Annex.

"Overnight Interest Rate Data Source" means the data source(s) specified to be the "Overnight Interest Rate Data Source" in the Total Return Specifications table in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Overnight Interest Rate Day Count Fraction" means, in respect of any period of time, the day count fraction specified as such in the Total Return Specifications table in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Price Source" means, (i) in respect of an Instrument or the Instrument Valuation Data in respect of such Instrument, as defined in the Asset Class Specific Definitions in respect of such Instrument, (ii) in respect of a Currency Conversion Component, the Spot Exchange Rate Price Source in respect of the relevant Currency Cross and (iii) in respect of the Overnight Interest Rate, the Overnight Interest Rate Data Source.

"Quoted Currency" means, in respect of a Component, the currency in which the Timely Level and Tradable Level of such Component is expressed, as determined in accordance with the Style of such Component and as described in the Timely and Tradable Level Table in respect of such Component.

"Rebalancing Date" means, in respect of a Reference Date, each day specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Reference Date" means each day specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Relevant General Strategy Description" shall have the meaning given to such term in Section A: *General* of this General Basket Strategy Base Description.

"Servicing Cost Rate" means, in respect of a Terminal Component, a rate per annum as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements (or if not so specified and if such Terminal Component is included in an Immediate Component, as determined in accordance with the rules of such Immediate Component).

"Servicing Cost Weight Multiplier" means, in respect of a Terminal Component and a Strategy Calculation Day, the value specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Sponsor" means, in respect of a Component, the corporation or entity that, in the determination of the Strategy Sponsor, is responsible for setting and reviewing the rules and procedures and the methods of calculation and adjustments, if any, related to such Component and announces or publishes (directly or through an agent) the level of such Component on each day on which the level of such Component is scheduled to be published, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements (or if not so specified and if such Component is a Terminal Component included in an Immediate Component, as determined in accordance with the rules of such Immediate Component).

"Spot Exchange Rate" means, in respect of a Currency Cross and any day, the spot exchange rate of the Underlying Currency for the Denominated Currency, expressed as the number of units of the Denominated Currency per unit of the Underlying Currency on such day, as published by the relevant Spot Exchange Rate Price Source, and, if such rate is published by the relevant Spot Exchange Rate Price Source as the number of units of the Underlying Currency per unit of the Denominated Currency, such published level may be inverted in order to be expressed as the number of units of the Denominated Currency per unit of the Underlying Currency. If such day is not a Currency Business Day for the relevant Currency Cross, or such spot exchange rate is otherwise unavailable for any other reason, the Spot Exchange Rate shall be deemed to be the relevant spot exchange rate as of the first preceding Currency Business Day on which the relevant Spot Exchange Rate Price Source published such spot exchange rate. If such Currency Cross is a Non-USD Currency Cross, the Spot Exchange Rate will be calculated by the Strategy Sponsor as being equal to the *quotient* of (i) the Spot Exchange Rate in respect of the relevant Underlying Dollar Cross *divided* by (ii) the Spot Exchange Rate in respect of the relevant Denominated Dollar Cross. For the avoidance of doubt, if the relevant Underlying Currency is the same currency as the relevant Denominated Currency, the Spot Exchange Rate shall be deemed to be one (1).

"Spot Exchange Rate Price Source" means, in respect of a Currency Cross, the data source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Strategy Adjustment Event" means, in respect of a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) Force Majeure Event;
- (ii) a material change in national or international financial, political, legal or economic conditions that would likely prejudice the calculation and publication of the Strategy Tradable Level; or
- (iii) the European Union membership of any member of the European Union is discontinued, suspended or terminated, or any member of the European Union disaffirms, disclaims, repudiates or rejects in whole or in part any obligation arising from its European Union membership under the relevant treaties; or
 - (a) the Euro ceases to be the lawful currency of any member of the European Union; or
 - (b) any member of the European Union takes, or indicates its intention to take, any action in furtherance of, or indicates its consent to, approval of, or acquiescence in, any of the foregoing events.

"Strategy Calculation Currency" means the calculation currency of the Strategy, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, United States dollars ("**USD**").

"Strategy Calculation Day" means each day specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall mean any day on which the offices of Goldman, Sachs & Co. in New York are open for business.

"Strategy Floored at Zero" will be specified as either "Applicable" or "Not Applicable", as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall be deemed to be specified as "Applicable".

"Strategy Inception Date" means the first date in respect of which the Strategy Tradable Level and Strategy Timely Level is calculated, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Strategy Publication Data Source" means the publication data source (which may be a Bloomberg ticker or otherwise) on which the Strategy Tradable Level and/or the Strategy Timely Level of a GS Strategy shall be published, if so specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Strategy Rules" shall have the meaning given to such term in Section A: *General* of this General Basket Strategy Base Description.

"Strategy Servicing Cost Rate" means a rate per annum as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, zero (0).

"Strategy Sponsor" shall have the meaning given to such term in Section A: *General* of this General Basket Strategy Base Description.

"Strategy Timely Level" shall have the meaning given to such term in Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level* of this General Basket Strategy Base Description.

"Strategy Tradable Level" shall have the meaning given to such term in Section B: *Calculation of the Strategy Tradable Level and Strategy Timely Level* of this General Basket Strategy Base Description.

"Strategy Value Publication Precision" means the number specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Style" means, in respect of a Component, a Currency Conversion Component or an Immediate Component Template, the method in accordance with which the Timely Level, the Tradable Level, the Quoted Currency and the Component Execution Days (if applicable) of such Component, Currency Conversion Component or the relevant Associated Immediate Components are determined, as described in the Timely and Tradable Level Table in respect of such Component, Currency Conversion Component or Immediate Component Template and

as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements (or if not so specified and if such Component is a Terminal Component included in an Immediate Component, as determined in accordance with the rules of such Immediate Component). The Style of each Associated Immediate Component shall be the Style specified in respect of the Immediate Component Template which defined such Associated Immediate Component.

"**TARGET Business Day**" means each day on which the Trans-European Automated Real-time Gross Settlement Express Transfer (TARGET2) system or any successor is open for the settlement of payments in Euro.

"**Terminal Component**" means either:

- (i) an Immediate Component which is specified to be a Terminal Component in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements; or
- (ii) a Component specified as a Terminal Component in respect of an Immediate Component which is a Non-Terminal Component, as determined in accordance with the rules of such Immediate Component.

"**Third Party Data**" shall have the meaning given to such term in paragraph 3 of Section E: *Consequences of Adjustment Events* of this General Basket Strategy Base Description.

"**Third Party Data Source**" shall have the meaning given to such term in paragraph 3 of Section E: *Consequences of Adjustment Events* of this General Basket Strategy Base Description.

"**Timely and Tradable Level Table**" means (i) in respect of a Component or an Immediate Component Template, the Timely and Tradable Level Table set out below or in the relevant Asset Class Specific Definitions (as applicable) or (ii) in respect of a Currency Conversion Component, the Timely and Tradable Level Table set out below, in each case describing the Style specified in respect of such Currency Conversion Component, Component or Immediate Component Template:

Style	Timely/Tradable/ Quoted Currency/Component Execution Days	Provisions
FX-Spot	Timely	The Timely Level of a Currency Conversion Component on any day shall be the Spot Exchange Rate in respect of the relevant Currency Cross and such day.
FX-Spot	Tradable	The Tradable Level of a Currency Conversion Component on Strategy Calculation Day <i>t</i> shall be the Timely Level in respect of such Strategy Calculation Day, unless a Non-Tradable Event is occurring in respect of such Currency Conversion Component or the Component <i>c</i> corresponding to such Currency Conversion Component on such Strategy Calculation Day, in which case the Tradable Level of such Currency Conversion Component shall be the Spot Exchange Rate in respect of the relevant Currency Cross on the day (the " Resolution Day " for the purposes of this definition of Tradable Level only) that is the First Tradable Date in respect of such Currency Conversion Component and the Strategy Calculation Day that falls on the First Tradable Date in respect of such Component <i>c</i> and Strategy Calculation Day <i>t</i> , provided that if a Non-Tradable Event in respect of such Currency Conversion Component exists on the Resolution Day, the Tradable Level of such Currency Conversion Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
FX-Spot	Quoted Currency	The Quoted Currency of a Currency Conversion Component shall be the Denominated Currency of the relevant Currency Cross.
B	Timely	The Timely Level of a Component on any day will be calculated in accordance with the definition of "Strategy Timely Level" specified in the relevant rules in respect of such Component.

Style	Timely/Tradable/ Quoted Currency/Component Execution Days	Provisions
B	Tradable	The Tradable Level of a Component on a Strategy Calculation Day will be calculated in accordance with the definition of "Strategy Tradable Level" specified in the relevant rules in respect of such Component, provided that if such Tradable Level would be determined on a day which would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
B	Quoted Currency	The Quoted Currency of a Component shall be the "Strategy Calculation Currency" specified in the relevant rules in respect of such Component, or if not so specified, shall be USD.
B	Component Execution Days	The Component Execution Days of a Component shall be each day that is a "Strategy Trading Day" as specified in the relevant rules in respect of such Component, or if not so specified, each day that is a Trading Day in respect of such Component.
C	Timely	The Timely Level of a Component on any day will be calculated in accordance with the definition of "Strategy Closing Level" specified in the relevant rules in respect of such Component.
C	Tradable	The Tradable Level of a Component on a Strategy Calculation Day will be calculated in accordance with the definition of "Strategy Tradable Level" specified in the relevant rules in respect of such Component, provided that if such Tradable Level would be determined on a day which would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
C	Quoted Currency	The Quoted Currency of a Component shall be specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall be USD.

"Timely Level" means, in respect of a Component or a Currency Conversion Component and any day, the "timely" level, price or rate of such Component or Currency Conversion Component (as the case may be) on such day, as determined in accordance with the Style of such Component or Currency Conversion Component and as described in the Timely and Tradable Level Table corresponding to such Component or Currency Conversion Component, provided that if such day is not a day on which the level of such Component or Currency Conversion Component is scheduled to be published, then the Timely Level of such Component or Currency Conversion Component for such day shall be deemed to be the Timely Level of such Component or Currency Conversion Component on the immediately preceding day on which such Component or Currency Conversion Component is scheduled to be published.

"Tradable Level" means, in respect of a Component or a Currency Conversion Component, and a Strategy Calculation Day, the "tradable" level or price of such Component or Currency Conversion Component (as the case may be) on such Strategy Calculation Day, as determined in accordance with the Style of such Component or Currency Conversion Component and as described in the Timely and Tradable Level Table in respect of such Component or Currency Conversion Component.

"Trading Day" means, in respect of:

- (i) a Non-Terminal Component, a day which is (I) a Trading Day for all the Terminal Components included in such Non-Terminal Component and (II) a day on which such Component is scheduled to be published;
- (ii) a Terminal Component, a day which is (I) an Instrument Trading Day for such Terminal Component and any Instruments included in or referenced by such Component, (II) a day on which any other asset,

instrument or rate (including, but not limited to, an option, exchange rate or interest rate) included in such Component or used in the calculation of the level of such Component, is scheduled to be traded or published, as applicable, and (III) a day on which such Component is scheduled to be published or traded (as applicable);

- (iii) an Immediate Component Template, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements; and
- (iv) a GS Strategy, each day which is (a) a Trading Day for all the Terminal Components included in such GS Strategy, (b) a Currency Business Day for all Currency Conversion Components in respect of such Terminal Components and (c) a Strategy Calculation Day for the GS Strategy (if applicable).

"Transaction Cost Class" means a class of one or more Terminal Components with a common Transaction Cost Rate. A Terminal Component will be part of each Transaction Cost Class which such Terminal Component is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements as being a part of (or if not so specified and if such Terminal Component is a Terminal Component included in an Immediate Component, as determined in accordance with the relevant rules of such Immediate Component), provided that each Terminal Component that is not specified to be part of any Transaction Cost Class in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, will be deemed to constitute a separate Transaction Cost Class and the Transaction Cost Rate in respect of each such Transaction Cost Class shall be equal to the Transaction Cost Rate in respect of the relevant Terminal Component.

"Transaction Cost Rate" means, in respect of a Transaction Cost Class or a Terminal Component, a rate specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of such Transaction Cost Class or such Terminal Component, as applicable (or if not so specified and if such Terminal Component is a Terminal Component included in an Immediate Component, as determined in accordance with the relevant rules of such Immediate Component).

"Transaction Cost Weight Multiplier" means, in respect of Strategy Calculation Day, a Terminal Component and a Transaction Cost Class in respect of which such Terminal Component is a part of (or constitutes), as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of such Terminal Component and such Transaction Cost Class, or if not so specified, the Tradable Level of each such Terminal Component in respect of such Strategy Calculation Day.

"Treasury Bill Rate" means, in respect of any Strategy Calculation Day, the 91-day discount rate for U.S. Treasury Bills, as reported by the U.S. Department of the Treasury's Treasury Direct service at <http://www.treasurydirect.gov/instit/instit.htm?upcoming> on the most recent weekly auction date falling on or prior to such Strategy Calculation Day.

"Underlying Currency" means, in respect of a Currency Cross, the currency specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Underlying Dollar Cross" means, in respect of a Non-USD Currency Cross and the Underlying Currency in respect of such Non-USD Currency Cross (the **"Original Underlying Currency"** for the purposes of this definition of Underlying Dollar Cross), the Currency Cross in respect of which the Denominated Currency is USD and the Underlying Currency is the Original Underlying Currency.

"Units" means, in respect of a Terminal Component and a Strategy Calculation Day, the size of the position in such Terminal Component on such Strategy Calculation Day held by the GS Strategy, as determined in accordance with the provisions set out in Section C: *Calculation of the number of Units of a Terminal Component* of this General Basket Strategy Base Description.

"Units Scaling Factor" means, in respect of an Immediate Component, the number specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

Section G: Asset Class Specific Definitions

1. Futures Definitions

Terms defined in this sub-section 1 of Section G: Asset Class Specific Definitions of this General Basket Strategy Base Description shall only apply to (a) each tradable instrument defined as an Instrument in this sub-section and (b) each Component calculated by reference to such an Instrument and for which the Style specified is contained in the Timely and Tradable Level Table set out in this sub-section or in the Timely and Tradable Level Table set out in Section F: General Definitions of this General Basket Strategy Base Description. This sub-section and shall be read in conjunction with the definitions in Section F: General Definitions of this General Basket Strategy Base Description.

"Contract Expiration" means in respect of a Futures Contract, the version of that Futures Contract associated with a relevant date, month or term specified for delivery of, or settlement in respect of, the underlying of such Futures Contract (which must be a date, month or term reported or capable of being determined from information reported in or by the relevant Price Source) on, during or after which delivery or settlement will occur. References to the price of a Contract Expiration shall mean the price of such Futures Contract with respect to such Contract Expiration.

"Daily Contract Reference Price" means, in respect of a Contract Expiration and any day, the settlement price of such Contract Expiration on such day, expressed in the currency in which such Contract Expiration is settled, that is generally used by participants in the related cash or over-the-counter market as a benchmark for transactions related to such Contract Expiration and which is announced by the relevant Price Source. If such day is not an Exchange Business Day for such Contract Expiration or if the settlement price is not available on such day for any other reason, the Daily Contract Reference Price shall be deemed to be the settlement price for such Contract Expiration as of the last day on which the relevant Trading Facility was open for trading for its regular trading session, notwithstanding such Trading Facility closing prior to its scheduled closing time.

"Exchange Business Day" means, in respect of a Contract Expiration, any day on which the relevant Trading Facility for such Contract Expiration is scheduled to be open for trading for its regular trading session, notwithstanding any such Trading Facility closing prior to its scheduled closing time.

"Futures Contract" means any contract that provides for the physical delivery of, or is based on the price of, an underlying. All references to the term **"Futures Contract"** shall be deemed to include all Contract Expirations with respect to the Futures Contract in question.

"Instrument" means a Contract Expiration which is a Component or which is used to calculate the level of a Component or the GS Strategy.

"Instrument Trading Day" means an Exchange Business Day.

"Instrument Valuation Data" means the Daily Contract Reference Price.

"Market Disruption Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) the Daily Contract Reference Price of such Contract Expiration for such Strategy Calculation Day remains at a "limit price" which means that the price of such Contract Expiration on such day has increased or decreased from the previous day's settlement price for such Contract Expiration by the maximum amount permitted under the applicable rules of the relevant Trading Facility; or
- (ii) there is a failure by the relevant Trading Facility or other Price Source to announce or publish the Daily Contract Reference Price for such Strategy Calculation Day, provided that such Strategy Calculation Day is also an Exchange Business Day in respect of such Contract Expiration; or
- (iii) trading in such Contract Expiration on the relevant Trading Facility is suspended or interrupted subsequent to the opening of trading and trading in such Contract Expiration does not recommence at least ten (10) minutes prior to the regular scheduled close of trading in such Contract Expiration, or in the event trading in such Contract Expiration does recommence at least ten (10) minutes prior to the regular scheduled close of trading, trading does not continue until the regular scheduled close of trading in such Contract Expiration.

"Non-Tradable Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) such Strategy Calculation Day is not an Exchange Business Day for such Contract Expiration; or
- (ii) a Market Disruption Event is occurring or existing in respect of such Contract Expiration on such Strategy Calculation Day; or
- (iii) an adjustment event as set out in paragraph 2(iii)(c) of Section E: *Consequences of Adjustment Events* of this General Basket Strategy Base Description is occurring or existing in respect of such Contract Expiration on such Strategy Calculation Day.

"Price Source" means, in respect of a Contract Expiration and the relevant Daily Contract Reference Price, the relevant publication source (or such other source of reference, including but not limited to, a Trading Facility) publishing, containing or reporting the Daily Contract Reference Price used by the relevant Sponsor.

Timely and Tradable Level Table

Style	Timely/ Tradable/ Quoted Currency/ Component Execution Days	Provisions
A	Timely	The Timely Level of a Component on any day will be determined by the Strategy Sponsor as the official closing level of such Component as published on the relevant Component Ticker on such day, subject to adjustment in accordance with the provisions of the General Basket Strategy Base Description
A	Tradable	The Tradable Level of a Component on a Strategy Calculation Day will be determined as follows: <ul style="list-style-type: none"> (i) if no Non-Tradable Event occurs in respect of such Component on such Strategy Calculation Day, the Tradable Level of such Component for such Strategy Calculation Day will be equal to the Timely Level of such Component on such Strategy Calculation Day; or (ii) if no MDE Linked Component is specified in respect of such Component and a Non-Tradable Event occurs in respect of any Contract Expiration (the "Affected Contract Expiration") included in such Component on such Strategy Calculation Day, the Tradable Level of such Component for such Strategy Calculation Day will be calculated by the Strategy Sponsor on the First Tradable Date in accordance with the formula for, and method of, calculating such Component, using the Tradable Contract Price (instead of the Daily Contract Reference Price) for the Affected Contract Expiration in respect of such Strategy Calculation Day, and the Strategy Sponsor may make such adjustment(s) to the formula for, and method of, calculating such Component as it determines in a commercially reasonable manner to be appropriate in order to effect such calculation; or (iii) if one or more MDE Linked Components are specified in respect of such Component and a Non-Tradable Event occurs in respect of such Component on such Strategy Calculation Day, the Tradable Level of such Component for such Strategy Calculation Day will be equal to the Timely Level of such Component on the first Strategy Calculation Day following such Strategy Calculation Day on which no Non-Tradable Event occurs in respect of such Component.
A	Quoted Currency	The Quoted Currency of a Component shall be specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, or if not so specified, shall be USD.
Rates	Timely	The Timely Level of a Component on any day will be determined by the Strategy Sponsor in accordance with the definition of "Index Value" in

Style	Timely/ Tradable/ Quoted Currency/ Component Execution Days	Provisions
		<p>respect of the last "Index Business Day" on or before such day, as specified in the relevant rules in respect of such Component, provided that if the "Index Sponsor" has deferred calculation and publication of the "Index Value" due to a "Market Disruption Event" in accordance with the relevant rules in respect of such Component, the Timely Level of a Component shall be the last "Index Value" of such Component on or before such day in which no "Market Disruption Event" has caused the publication of the "Index Value" to be deferred.</p> <p>Each term referred to in this definition of Timely Level only that is surrounded by quotation marks will be as specified in the relevant rules in respect of such Component.</p>
Rates	Tradable	<p>The Tradable Level of a Component on a Strategy Calculation Day shall be the Timely Level in respect of such Strategy Calculation Day, unless a Non-Tradable Event is occurring in respect of such Component and such Strategy Calculation Day, in which case the Tradable Level of a Component shall be the "Index Value" specified in the relevant rules in respect of such Component in respect of the first day on or after such Strategy Calculation Day on which no Non-Tradable Event is occurring in respect of such Component and which is a Strategy Calculation Day for the GS Strategy (such day, the "Resolution Day" for the purposes of this definition of Tradable Level only), provided that if the Resolution Day would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.</p>
Rates	Quoted Currency	<p>The Quoted Currency of a Component shall be the "Index Currency" specified in the relevant rules in respect of such Component.</p>
Rates	Component Execution Days	<p>The Component Execution Days of a Component shall be each day that is an "Index Trading Day" as specified in the relevant rules in respect of such Component, or if not so specified, each day that is a Trading Day in respect of such Component.</p>

"Tradable Contract Price" means, in respect of a Contract Expiration and a Strategy Calculation Day, the Daily Contract Reference Price of such Contract Expiration on the First Tradable Date in respect of such Strategy Calculation Day, unless a Non-Tradable Event exists on such First Tradable Date, in which case the Tradable Contract Price in respect of such Contract Expiration for such Strategy Calculation Day shall be determined by the Strategy Sponsor in a commercially reasonable manner.

"Trading Facility" means, in respect of a Contract Expiration, the exchange, facility or platform on or through which such Contract Expiration is traded.

2. FX Forwards Definitions

Terms defined in this sub-section 2 of Section G: *Asset Class Specific Definitions of this General Basket Strategy Base Description* shall only apply to (a) each tradable instrument defined as an Instrument in this sub-section and (b) each Component calculated by reference to such an Instrument and for which the Style specified is contained in the *Timely and Tradable Level Table* set out in this sub-section or in the *Timely and Tradable Level Table* set out in Section F: *General Definitions of this General Basket Strategy Base Description*. This sub-section shall be read in conjunction with the definitions in Section F: *General Definitions of this General Basket Strategy Base Description*.

"Currency Settlement Day" means, in respect of a Currency Cross:

- (i) if such Currency Cross is a Non-USD Currency Cross, each day which is a Currency Settlement Day in respect of the relevant Denominated Dollar Cross and the relevant Underlying Dollar Cross; or
- (ii) otherwise, each day which is a Denominated Currency Business Day and an Underlying Currency Business Day in respect of such Currency Cross.

"Denominated Currency Business Day" means, in respect of the relevant Currency Cross and the Denominated Currency, (i) if such Denominated Currency is the Euro, each TARGET Business Day, or (ii) otherwise, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in the principal financial centre of such Denominated Currency.

"Forward Contract Business Day" means, in respect of the relevant Currency Cross, each day that is a Currency Business Day in respect of such Currency Cross and on which any relevant Forward Exchange Rate is scheduled to be published on the relevant Forward Exchange Rate Price Source.

"Forward Contract Expiration" means a hypothetical agreement between two parties to enter into a transaction to sell (a notional short position) or purchase (a notional long position) a specific notional amount of the relevant Underlying Currency in exchange for a notional amount of the relevant Denominated Currency on a pre-determined future date (the **"Forward Contract Expiration Date"**). If a Non-Tradable Event occurs in respect of a Forward Contract Expiration on the corresponding scheduled Forward Contract Expiration Date (the **"Original Forward Contract Expiration Date"** for the purposes of this definition), the Forward Contract Expiration Date shall be deemed to be the First Tradable Date in respect of such Forward Contract Expiration and the Original Forward Contract Expiration Date.

"Forward Contract Expiration Date" shall have the meaning given to such term in the definition of "Forward Contract Expiration" in this sub-section 2 of Section G: *Asset Class Specific Definitions* of this General Basket Strategy Base Description.

"Forward Contract Settlement Date" means, in respect of a Forward Contract Expiration, the Spot Settlement Date in respect of the relevant Currency Cross and the relevant Forward Contract Expiration Date.

"Forward Exchange Rate" means, in respect of a Currency Cross, a Forward Tenor, and any day *t*:

- (i) if such Forward Tenor is specified as "Spot", the Spot Exchange Rate in respect of such Currency Cross and day *t*; or
- (ii) otherwise, the forward exchange rate of the relevant Underlying Currency for the relevant Denominated Currency in respect of such Forward Tenor and such day, expressed as the number of units of the Denominated Currency per unit of the Underlying Currency, as published by the relevant Forward Exchange Rate Price Source, and, if necessary, such published level may be added to the relevant Spot Exchange Rate and/or, if such rate is published by the relevant Forward Exchange Rate Price Source as the number of units of the Underlying Currency per unit of the Denominated Currency, shall be inverted in order to be expressed as the number of units of the Denominated Currency per unit of the Underlying Currency. If such day is not a Forward Contract Business Day in respect of such Currency Cross, or such forward exchange rate is otherwise unavailable for any other reason, the Forward Exchange Rate shall be deemed to be the relevant forward exchange rate as of the first preceding Forward Contract Business Day on which the Forward Exchange Rate Price Source published such forward exchange rate. If such Currency Cross is a Non-USD Currency Cross, the Forward Exchange Rate will be calculated by the Strategy Sponsor as being equal to the *quotient* of (i) the Forward Exchange Rate in respect of such Forward Tenor, day *t*, and the relevant Underlying Dollar Cross *divided* by (ii) the Forward Exchange Rate in respect of such Forward Tenor, day *t*, and the relevant Denominated Dollar Cross. For the avoidance of doubt, if the relevant Underlying Currency is the same currency as the relevant Denominated Currency, the Forward Exchange Rate shall be deemed to be one (1).

"Forward Exchange Rate Price Source" means, in respect of a Currency Cross and a Forward Tenor, the data source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements in respect of the relevant Forward Exchange Rate.

"Forward Tenor" means, in respect of a Currency Cross and any day t , a specified period of time (being a specified number of days, weeks, months or years, as the case may be) commencing from day t in respect of which the relevant Forward Exchange Rate Price Source is scheduled to publish the Forward Exchange Rate of the relevant Underlying Currency for the relevant Denominated Currency (expressed as the number of units of the Denominated Currency per unit of the Underlying Currency) and where the Forward Tenor "Spot" means zero (0) days.

"Forward Settlement Date" means, in respect of the relevant Currency Cross, a Forward Tenor and any day t , as determined by the Strategy Sponsor in accordance with paragraph (i) or (ii) below (as applicable):

- (i) if such Forward Tenor is specified as "Spot", the Spot Settlement Date in respect of such Currency Cross and such day t ; or
- (ii) otherwise:
 - (a) if such Currency Cross is a Non-USD Currency Cross, the Forward Settlement Date shall be the first Currency Settlement Day in respect of such Currency Cross falling on or after the later of (I) the Forward Settlement Date in respect of the relevant Denominated Dollar Cross, such Forward Tenor and day t , and (II) the Forward Settlement Date in respect of the relevant Underlying Dollar Cross, such Forward Tenor and day t ; or
 - (b) otherwise, the date falling the period of time equal to the Forward Tenor after the Spot Settlement Date in respect of such Currency Cross and such day t (such date, " t^* " for the purposes of this limb (ii)(b) of this definition of Forward Settlement Date), adjusted in accordance with paragraphs (I), (II), or (III) below:
 - (I) if such Forward Tenor is specified as a number of "Months" and such Spot Settlement Date is the last Currency Settlement Day of the calendar month in which it falls, the Forward Settlement Date shall be the last Currency Settlement Day of the month in which t^* falls;
 - (II) if such Forward Tenor is specified as a number of "Months" and such Spot Settlement Date is not the last Currency Settlement Day of the month in which it falls, the Forward Settlement Date shall be the earlier of (x) first Currency Settlement Day falling on or immediately following t^* , or (y) the last Currency Settlement Day of the month in which t^* falls;
 - (III) if such Forward Tenor is not specified as a number of "Months", the Forward Settlement Date shall be the first Currency Settlement Day falling on or immediately following t^* .

"Instrument" means a Forward Contract Expiration which is a Component or which is used to determine the level of a Component or the GS Strategy.

"Instrument Trading Day" means a Forward Contract Business Day.

"Instrument Valuation Data" means the relevant Spot Exchange Rate or the relevant Forward Exchange Rate, as the case may be.

"Market Disruption Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) a Market Disruption Event in respect of the relevant Currency Cross;
- (ii) the relevant Forward Exchange Rate has ceased to be published by the relevant Price Source and has not been replaced by a successor Price Source; or
- (iii) it is or becomes impossible or not reasonably practicable for the Strategy Sponsor to obtain a currency exchange rate for the relevant Currency Cross (including any relevant Forward Exchange Rate) from the relevant Price Source or any other source for purposes of the GS Strategy, or to obtain a firm quote for a currency exchange rate for the relevant Currency Cross (including any relevant Forward Exchange Rate) specified for use for purposes of the GS Strategy.

"Non-Tradable Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) such Strategy Calculation Day is not a Forward Contract Business Day for the Currency Cross in respect of such Forward Contract Expiration; or
- (ii) a Market Disruption Event is occurring or existing in respect of such Forward Contract Expiration on such Strategy Calculation Day; or
- (iii) an adjustment event as set out in paragraph 2(iii)(c) of Section E: *Consequences of Adjustment Events* of this General Basket Strategy Base Description is occurring or existing in respect of such Forward Contract Expiration on such Strategy Calculation Day.

"Price Source" means, in respect of a Forward Contract Expiration and the relevant Spot Exchange Rate or the relevant Forward Exchange Rate, the relevant Spot Exchange Rate Price Source or the relevant Forward Exchange Rate Price Source as the case may be.

"Reference Long Forward Tenor" means, in respect of a Forward Contract Expiration and any day, the first Forward Tenor in the Set of Available Forward Tenors in respect of such Forward Contract Expiration for which the Forward Settlement Date in respect of such day and such Forward Tenor falls on or after the Forward Contract Settlement Date in respect of such Forward Contract Expiration.

"Reference Short Forward Tenor" means, in respect of a Forward Contract Expiration and any day, the last Forward Tenor in the Set of Available Forward Tenors in respect of such Forward Contract Expiration for which the Forward Settlement Date in respect of such day and such Forward Tenor falls on or before the Forward Contract Settlement Date in respect of such Forward Contract Expiration, or if there is no such Forward Tenor, then the Reference Short Forward Tenor shall be deemed to be "Spot".

"Set of Available Forward Tenors" means, in respect of a Forward Contract Expiration, the list of Forward Tenors specified as such in respect of the Immediate Component Template that defines such Forward Contract Expiration in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements and such set of Forward Tenors shall be deemed to be ordered by the length of the period in respect of each such Forward Tenor such that the shortest period shall be the first Forward Tenor and the longest period shall be the last Forward Tenor. If "Spot" is not specified in the Set of Available Forward Tenors, the Set of Available Forward Tenors shall be deemed to include "Spot" (and "Spot" shall be deemed to be the first Forward Tenor in the Set of Available Forward Tenors).

"Settlement Delay" means, in respect of the relevant Currency Cross, the non-negative integer specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Settlement Convention" means, in respect of the relevant Currency Cross, will be specified as either "b" or "s", as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Spot Settlement Date" means, in respect of the relevant Currency Cross and any day t , the date determined by the Strategy Sponsor in accordance with paragraph (i) or (ii) below, as applicable:

- (i) if such Currency Cross is a Non-USD Currency Cross, the Spot Settlement Date shall be first Currency Settlement Day in respect of such Currency Cross falling on or after the later of (a) the Spot Settlement Date in respect of the relevant Denominated Dollar Cross and day t and (b) the Spot Settlement Date in respect of the relevant Underlying Dollar Cross and day t ; or
- (ii) otherwise:
 - (a) if the Settlement Convention in respect of such Currency Cross is specified as "b", the Spot Settlement Date shall be the first Currency Settlement Day (" t^* " for the purposes of this limb (ii)(a) of this definition of Spot Settlement Date) such that the number of relevant Currency Settlement Days from, and including, day t , to, but excluding, t^* is equal to the Settlement Delay in respect of such Currency Cross; or
 - (b) if the Settlement Convention in respect of such Currency Cross is specified as "s" and:
 - (I) the Denominated Currency in respect of such Currency Cross is USD, the Spot Settlement Date shall be the first Currency Settlement Day (" t^* " for the purposes of this limb (ii)(b)(I) of this definition of Spot Settlement Date) such that the number of Underlying Currency

Business Days falling in the period commencing on, but excluding, day t , and ending on, and including, t^* is at least equal to the Settlement Delay in respect of such Currency Cross; or

- (II) the Underlying Currency in respect of such Currency Cross (the "**Original Currency Cross**" for the purposes of this limb (ii)(b)(II) of this definition of Spot Settlement Date) is USD, the Spot Settlement Date in respect of the Currency Cross in respect of which the Denominated Currency is USD and the Underlying Currency is the Denominated Currency of the Original Currency Cross.

"Timely and Tradable Level Table" means the following table:

Style	Timely/ Tradable/ Quoted Currency/ Component Execution Days	Provisions
FX- Forward	Timely	<p>The Timely Level in respect of Forward Contract Expiration FC and any day t shall be determined by the Strategy Sponsor in accordance with paragraph (i) or (ii) below (as applicable):</p> <p>(i) if the relevant Currency Cross is a Non-USD Currency Cross, the Timely Level shall be the <i>quotient</i> of (a) the Timely Level in respect day t and a Forward Contract Expiration with the same specifications (for the avoidance of doubt, including the same Forward Contract Settlement Date) as Forward Contract Expiration FC (except that the Currency Cross is the relevant Underlying Dollar Cross) <i>divided</i> by (b) the Timely Level in respect of day t and a Forward Contract Expiration with the same specifications (for the avoidance of doubt, including the same Forward Contract Settlement Date) as Forward Contract Expiration FC (except that the Currency Cross is the relevant Denominated Dollar Cross);</p> <p>(ii) otherwise, the Timely Level will be equal to the "Interpolated Forward Exchange Rate", as determined by the Strategy Sponsor in accordance with the formula below:</p> $FX_t(FC) = FwdS_t(CC) + \left((FwdL_t(CC) - FwdS_t(CC)) \times \frac{Tenor_t(S,FC)}{Tenor_t(S,L)} \right)$ <p>Provided that (a) if day t is not a Forward Contract Business Day in respect of the relevant Currency Cross the Timely Level shall be the Timely Level in respect of Forward Contract Expiration FC and the Forward Contract Business Day immediately preceding day t and (b) if the Reference Short Forward Tenor in respect of Forward Contract Expiration FC and day t is the same Forward Tenor as the Reference Long Forward Tenor in respect of Forward Contract Expiration FC and day t, $FX_t(FC)$ shall be deemed to be equal to $FwdS_t(CC)$.</p> <p>Where:</p> <p>"$FX_t(FC)$" means the Interpolated Forward Exchange Rate in respect of such Forward Contract Expiration FC and day t;</p> <p>"$FwdL_t(CC)$" means the Forward Exchange Rate in respect of the relevant Currency Cross, day t and the Reference Long Forward Tenor in respect of such Forward Contract Expiration FC and day t;</p> <p>"$FwdS_t(CC)$" means the Forward Exchange Rate in respect of the relevant Currency Cross, day t and the Reference Short Forward Tenor in respect of such Forward Contract Expiration FC and day t;</p> <p>"$Tenor_t(S,FC)$" means, in respect of any day t, Forward Contract Expiration FC and the Reference Short Forward Tenor in respect of such day t and such Forward Contract Expiration FC, as determined by the Strategy Sponsor in</p>

Style	Timely/ Tradable/ Quoted Currency/ Component Execution Days	Provisions
		<p>accordance with paragraph (i) or (ii) below:</p> <p>(i) if the Forward Settlement Date in respect of the relevant Currency Cross, day <i>t</i> and such Reference Short Forward Tenor (for the purposes of this definition the "Relevant Forward Settlement Date") is the Forward Contract Settlement Date in respect of such Forward Contract Expiration <i>FC</i>, zero (0); or</p> <p>(ii) otherwise, the number of calendar days falling in the period commencing on, and including, the Relevant Forward Settlement Date and ending on, but excluding, the Forward Contract Settlement Date in respect of such Forward Contract Expiration <i>FC</i>; and</p> <p>"Tenor_(S,L)" means, in respect of any day <i>t</i>, the Reference Short Forward Tenor in respect of such day <i>t</i> and Forward Contract Expiration <i>FC</i> and the Reference Long Forward Tenor in respect of such day <i>t</i> and Forward Contract Expiration <i>FC</i>, the number of calendar days falling in the period commencing on, and including, the Forward Settlement Date in respect of such Reference Short Forward Tenor and such day <i>t</i> and ending on, but excluding, the Forward Settlement Date in respect of such Reference Long Forward Tenor and such day <i>t</i>.</p> <p>For the avoidance of doubt, if (i) there are any adjustments to Strategy Calculation Days, the Currency Settlement Days in respect of the relevant Currency Cross or the Forward Contract Business Days in respect of the relevant Currency Cross after day <i>t</i> or (ii) a Non-Tradable Event occurs after day <i>t</i>, that would, when utilised in the calculation of the Interpolated Forward Exchange Rate in accordance with the methodology set out above, generate a different rate than the Interpolated Forward Exchange Rate that was determined by the Strategy Sponsor on day <i>t</i>, the Interpolated Forward Exchange Rate shall not be restated.</p>
FX-Forward	Tradable	<p>The Tradable Level of a Component on a Strategy Calculation Day shall be the Timely Level in respect of such day, unless a Non-Tradable Event is occurring in respect of such Component and such Strategy Calculation Day, in which case the Tradable Level of a Component shall be determined in accordance with the definition of the Timely Level of such Component, provided that references to "<i>t</i>" in the definitions used to determine the Timely Level shall be deemed to be replaced by reference to the first day following such Strategy Calculation Day on which no Non-Tradable Event is occurring and which is a Strategy Calculation Day (such day, the "Resolution Day" for the purposes of this definition of Tradable Level only), provided that if the Resolution Day would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.</p>
FX-Forward	Quoted Currency	<p>The Quoted Currency of a Component shall be the Denominated Currency in respect of the relevant Currency Cross.</p>

"Underlying Currency Business Day" means, in respect of the relevant Currency Cross and the Underlying Currency, (i) if such Underlying Currency is the Euro, each TARGET Business Day, or (ii) otherwise, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in the principal financial centre of such Underlying Currency.

3. Interest Rate Swaps Definitions

Terms defined in this sub-section 3 of Section G: Asset Class Specific Definitions of this General Basket Strategy Base Description shall only apply to (a) each tradable instrument defined as an Instrument in this sub-section and (b) each Component calculated by reference to such an Instrument and for which the Style specified is contained in the Timely and Tradable Level Table set out in this sub-section or in the Timely and Tradable Level Table set out in Section F: General Definitions of this General Basket Strategy Base Description. This sub-section shall be read in conjunction with the definitions in Section F: General Definitions of this General Basket Strategy Base Description.

"ISDA Definitions" means the 2006 ISDA Definitions, as published by the International Swaps and Derivatives Association, Inc. If the ISDA Definitions are subsequently amended or supplemented, the Strategy Sponsor may (but is not obliged to), in its discretion and acting in a commercially reasonable manner, determine that one or more definitions set out herein shall be amended or supplemented accordingly.

"Annuity" means, in respect of an IR Swap, a value which when multiplied by a small change in the related Swap Rate, aims to measure the change in the value of such IR Swap that would result from such change in the related Swap Rate, as determined in accordance with the relevant Annuity Model and as described in the Timely and Tradable Level Table.

"Annuity Model" means, in respect of an IR Swap, either (i) "Annuity Model AM1" or (ii) "Annuity Model AM2", in each case being a mathematical model used to determine the Annuity in respect of such IR Swap and/or certain data inputs used to determine the Annuity in respect of such an IR Swap, as specified and more particularly described in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements. If the methodology of an Annuity Model is subsequently amended or supplemented, the Strategy Sponsor may (but is not obliged to), in its discretion and acting in a commercially reasonable manner, utilise such amended or supplemented methodology to determine the Annuity in respect of the relevant IR Swap.

"Annuity Model AM1" means the ISDA Standard Model dated as of 8 November 2014, being a simplified annuity model published by the International Swaps and Derivatives Association at the following page (or any applicable successor thereto): [http://www.cdsmodel.com/cdsmodel/assets/cds-model/docs/Interest%20Rate%20Curve%20Specification%20-%20All%20Currencies%20\(Updated%20November%208%202014\)%20Final.pdf](http://www.cdsmodel.com/cdsmodel/assets/cds-model/docs/Interest%20Rate%20Curve%20Specification%20-%20All%20Currencies%20(Updated%20November%208%202014)%20Final.pdf) and, for which the source code implementation can be found at the following page (or any applicable successor thereto): <http://www.cdsmodel.com/cdsmodel/documentation.html>. If any conflict shall exist between such documentation and source code, the source code shall prevail. Discount Factors shall be calculated in accordance with the Annuity Model AM1 by constructing a zero curve using inputs such as, but not limited to, the relevant Spot Lag, the relevant Swap Fixed Leg Convention, the relevant Swap Floating Leg Convention, the relevant money market conventions, money market rates and maturity dates, swap rates and maturity dates in accordance with the relevant Annuity Source, where the relevant business day calendar shall be deemed to be "none" for all Quoted Currencies, and the Bad Day Convention shall be deemed to be "M" for all Quoted Currencies.

"Annuity Model AM2" means the GS Annuity Model.

"Annuity Source" means, in respect of an IR Swap and an Annuity Model, the data source from which certain data inputs (which may include, but are not limited to, swap rates and deposit rates) required to calculate the Annuity of such IR Swap in accordance with such Annuity Model are obtained.

"Combination Weight" means, in respect of each Forward Swap Contract in a Forward Swap Combination Contract, the weight allocated to such Forward Swap Contract (which may be positive or negative) in such Forward Swap Combination Contract, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Current Annuity Source" means, in respect of an IR Swap and an Annuity Model, the Annuity Source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Current Price Source" means, in respect of an IR Swap, the relevant Current Swap Source or the relevant Current Annuity Source, as the case may be.

"Current Swap Source" means, in respect of an IR Swap, the data source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, provided that, if the Strategy Sponsor, in its reasonable judgment, determines that liquidity in transactions relating to the spot swap rate in respect of such IR Swap has moved (or anticipates that liquidity in transactions relating to such spot swap rate will move) to transactions relating to a spot swap rate published by a different data source (which may be a spot swap rate published by a different data source provider or a spot swap rate published by the same data

source provider on a different screen page and/or at a different time), in accordance with market convention, the Current Swap Source shall be such other data source as determined by the Strategy Sponsor in its discretion, acting in a commercially reasonable manner.

"Day Count Fraction" in respect of a Forward Swap Contract and the fixed amounts or floating amounts (as applicable) notionally payable thereunder, has the meaning given to such term in the ISDA Definitions (and each reference to a "Calculation Period" in the ISDA Definitions shall be deemed to be a reference to the fixed amount calculation period or the floating amount calculation period, as applicable, under such Forward Swap Contract).

"Decision Date" means, in respect of a Rebalancing Date (and determined in relation to such Rebalancing Date in accordance with the Decision Date Rule), the Strategy Calculation Day on which the Strategy Sponsor determines the Immediate Component Weight of each of the Immediate Components included in a GS Strategy for such Rebalancing Date.

"Decision Date Rule" means the rule used to determine the Decision Date in respect of each Rebalancing Date, as specified in the Relevant Specifications Annex.

"Discount Factor" means, in respect of two dates, an Annuity Model and an Annuity Source, the amount of currency a hypothetical market participant is willing to pay on the first date in exchange for one unit of currency to be received on the second date.

"EUR" means euro.

"EURIBOR" means, in respect of a relevant day, the interest rate for deposits for a period of the designated maturity in EUR which appears on the Reuters Screen EURIBOR01 Page (or any successor thereto) as of 11:00 a.m. Brussels Time on such relevant day.

"First Tradable Date Convention" means, in respect of an IR Swap and any date (for the purposes of this definition, the **"Relevant Date"**) specified to be subject to adjustment in accordance with such First Tradable Date Convention, if a Non-Tradable Event occurs on the original date on which the Relevant Date is scheduled to fall, then the Relevant Date shall be deemed to be the First Tradable Date in respect of such IR Swap and such original date.

"Forward Swap Contract" means any IR Swap with the same terms as the Quoted Currency, the Swap Start Date, the Swap Term and the Swap Conventions specified in respect of an Immediate Component Template in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Forward Swap Combination Contract" means a set of one or more Forward Swap Contracts (as identified by the related Immediate Component Template), each with its respective Combination Weight in such Forward Swap Combination Contract.

"GBP" means Pound Sterling.

"GS Annuity Model" means, in respect of any day, the Goldman Sachs proprietary mathematical model used as of such day to determine the Annuity in respect of an IR Swap as the sum of the relevant discount factors weighted by the corresponding day count fractions in respect of such IR Swap. The GS Annuity Model is also used to adjust the annuity of an IR Swap that is determined by reference to published spot swap rates, deposit rates and the Annuity Model AM1, so that it reflects as closely as possible the level of the annuity of such IR Swap at which hypothetical transactions could be executed. The GS Annuity Model may change from time to time and the Strategy Sponsor will not be obliged to consider any GS Strategy when making any such changes and will not have any liability for the effect of such changes on any GS Strategy.

"GS Interest Rate Curve" means the Goldman Sachs proprietary interest rate curve data prevailing from time to time which contains spot interest rate data (including but not limited to spot swap rates and deposit rates) and is calculated in accordance with a Goldman Sachs proprietary methodology that can be used to adjust a published spot swap rate so that it reflects as closely as possible the level of a forward swap rate at which hypothetical transactions could be executed. Spot interest rate data from the GS Interest Rate Curve may also be used by the Strategy Sponsor to calculate the Annuity of an IR Swap in accordance with the relevant Annuity Model.

"Instrument" means a Forward Swap Contract, a Reference Spot Swap Contract or Forward Swap Combination Contract (as applicable) which is a Component or which is used to determine the level of a Component or the GS Strategy.

"Instrument Trading Day" means a Swap Business Day.

"Instrument Valuation Data" means any Swap Rate which is used to determine the level of a Component or the GS Strategy.

"IR Swap" means a hypothetical interest rate swap transaction (which may be a spot interest rate swap transaction or a forward interest rate swap transaction) between two parties, pursuant to which:

- (i) one party is required to pay, in respect of each specified floating rate period during the term of such transaction, an amount denominated in the Quoted Currency and calculated at a specified floating rate of interest on a specified notional amount of the Quoted Currency; and
- (ii) the other party is required to pay, in respect of each specified fixed rate period during the term of such transaction an amount denominated in the Quoted Currency and calculated at a specified fixed rate of interest on such specified notional amount of the Quoted Currency.

All references to the term **"IR Swap"** (save where the context otherwise requires) shall be deemed to include all Forward Swap Contracts or Reference Spot Swap Contracts with respect to the IR Swap in question.

"JPY" means Japanese Yen.

"LIBOR" means, in respect of a relevant day, the interest rate for deposits for a period of the designated maturity in the relevant currency, which appears on:

- (i) the Reuters Screen LIBOR01 Page (or any successor thereto) as of 11:00 a.m. London Time on such relevant day if the relevant currency is USD;
- (ii) the Reuters Screen LIBOR01 Page (or any successor thereto) as of 11:00 a.m. London Time on such relevant day if the relevant currency is GBP; or
- (iii) the Reuters Screen LIBOR01 Page (or any successor thereto) as of 11:00 a.m. London Time on such relevant day if the relevant currency is JPY.

"Market Disruption Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) any data input used to calculate (a) the Swap Rate of the relevant Forward Swap Contract or the relevant Reference Spot Swap Contract, (b) the Annuity of a Forward Swap Contract or (c) any other data input which is used to determine the level of such Instrument, is not published, calculated by or otherwise made available by both the relevant Current Price Source and the relevant Previous Price Source on such Strategy Calculation Day, provided that such Strategy Calculation Day is also a Swap Business Day in respect of such Instrument, or, such data input has ceased to be published or calculated by the relevant Price Source and has not been replaced by a successor Price Source;
- (ii) it is or becomes impossible or not reasonably practicable for the Strategy Sponsor to obtain a Swap Rate or Annuity which is used to determine the level of an Instrument from the relevant Price Source or any other source for purposes of the GS Strategy; or
- (iii) the occurrence or existence at any time, of any event or circumstance that (a) disrupts or impairs the ability of any market participant, after using commercially reasonable efforts, to acquire, establish, re-establish, substitute, maintain, unwind, or dispose of all or any portion of any hedge position relating to such Instrument or the GS Strategy, or any transaction linked to the GS Strategy, or to realise, recover or remit the proceeds of any such hedge position, or (b) causes or would cause any such market participant to incur a materially increased cost in doing so, including due to any capital requirements or other law or regulation.

"Non-Tradable Event" means, in respect of an Instrument and a Strategy Calculation Day, the occurrence of any one of the following events, as determined by the Strategy Sponsor:

- (i) such Strategy Calculation Day is not a Swap Trading Day; or
- (ii) a Market Disruption Event is occurring or existing in respect of such Instrument on such Strategy Calculation Day;

an adjustment event as described in paragraph 2(iii)(c) of Section E: *Consequences of Adjustment Events* of this General Basket Strategy Base Description is occurring or existing in respect of such Instrument on such Strategy Calculation Day. "**Previous Annuity Source**" means, in respect of an IR Swap and an Annuity Model, the Annuity Source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"**Previous Price Source**" means, in respect of an IR Swap, the relevant Previous Swap Source or the relevant Previous Annuity Source, as the case may be.

"**Previous Swap Source**" means, in respect of an IR Swap, the data source specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"**Price Source**" means, in respect of an IR Swap, the relevant Current Swap Source, the relevant Previous Swap Source, the relevant Current Annuity Source or the relevant Previous Annuity Source, as the case may be.

"**Reference Spot Swap Contract**" means, in respect of a Forward Swap Contract and any day t , an IR Swap with the same terms as the Swap Term, the Quoted Currency and the Swap Conventions as such Forward Swap Contract, but in respect of which:

- (i) the Swap Start Date is day t , subject to adjustment in accordance with the Swap Business Day Convention;
- (ii) the Swap Effective Date is the day falling the number of Swap Business Days equal to the Spot Lag after day t , subject to adjustment in accordance with the Swap Business Day Convention;
- (iii) the Swap Maturity Date is the Swap Business Day falling the number of months or years equal to the Swap Term after such Swap Effective Date, subject to adjustment in accordance with the Swap Business Day MF Convention; and
- (iii) all other relevant dates defined in respect of such IR Swap shall be adjusted accordingly to reflect such Swap Effective Date and such Swap Maturity Date, in each case subject to adjustment in accordance with the Swap Business Day Convention or the Swap Business Day MF Convention, as applicable.

"**Spot Lag**" means, in respect of an IR Swap, the non-negative integer specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"**Swap Business Day**" means, in respect of an IR Swap and the relevant Quoted Currency and unless otherwise specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements:

- (i) if such Quoted Currency is EUR, each TARGET Business Day;
- (ii) if such Quoted Currency is JPY, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in Tokyo and London;
- (iii) if such Quoted Currency is USD, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in New York and London; or
- (iv) otherwise, each day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in the principal financial centre of such Quoted Currency.

"**Swap Business Day Convention**" means, in respect of any date (for the purposes of this definition, the "**Relevant Date**") specified to be subject to adjustment in accordance with such Swap Business Day Convention, if the original date on which the Relevant Date is scheduled to fall is not a Swap Business Day, then the Relevant Date will be the Swap Business Day immediately following such original date.

"**Swap Business Day MF Convention**" means, in respect of any date (for the purposes of this definition, the "**Relevant Date**") specified to be subject to adjustment in accordance with such Swap Business Day MF Convention, if the original date on which the Relevant Date is scheduled to fall is not a Swap Business Day, then the Relevant Date will be the Swap Business Day immediately following such original date, unless that day falls in the next calendar month, in which case that date will be the first preceding day that is a Swap Business Day.

"Swap Clearing Convention" means, in respect of a Forward Swap Contract, the then prevailing generally accepted clearing venue to which such Forward Swap Contract should or could be submitted for clearing, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Swap Conventions" means, in respect of a Forward Swap Contract, the Swap Floating Leg Reference Rate, the Swap Floating Leg Convention, the Swap Fixed Leg Convention, and the Swap Clearing Convention (and any other convention or parameter specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements).

"Swap Effective Date" means, in respect of an IR Swap, the first day of the term of such IR Swap. In respect of a Forward Swap Contract, the Swap Effective Date shall be the date falling the number of Swap Business Days equal to the relevant Spot Lag after the relevant Swap Start Date.

"Swap Fixed Leg Calculation Period" means, in respect of an IR Swap, each period from, and including, a Swap Fixed Leg Payment Date to, but excluding, the next following Swap Fixed Leg Payment Date during the relevant Swap Term, provided that (i) the initial Swap Fixed Leg Calculation Period will commence on, and include, the relevant Swap Effective Date, and (ii) the final Swap Fixed Leg Calculation Period will end on, but exclude, the relevant Swap Maturity Date.

"Swap Fixed Leg Conventions" means, in respect of an IR Swap, each of (i) the frequency of each payment date in respect of which fixed amounts are notionally payable under the terms of such IR Swap, and (ii) the Day Count Fraction to be applied in the calculation of such fixed amounts.

"Swap Fixed Leg Payment Dates" means, in respect of an IR Swap and unless otherwise specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, the set of periodic payment dates during the relevant Swap Term in respect of which fixed amounts are notionally payable under the terms of such IR Swap, as determined in accordance with the relevant Swap Fixed Leg Convention, such that each payment date shall fall on the same day of the month as the relevant Unadjusted Swap Maturity Date and subject to adjustment in accordance with the Swap Business Day MF Convention. The last Swap Fixed Leg Payment Date in respect of an IR Swap shall be the relevant Swap Maturity Date.

"Swap Floating Leg Reference Rate" means, in respect of an IR Swap, the reference rate of interest for the relevant Quoted Currency which is used to calculate the floating amounts that are notionally payable under the terms of such IR Swap, as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements. If, in respect of an IR Swap and any day, the Strategy Sponsor determines that any of the following events has occurred:

- (i) the supervisor of the benchmark administrator of such Swap Floating Leg Reference Rate makes a public statement announcing the bankruptcy of such administrator (and there is no successor administrator);
- (ii) the benchmark administrator of such Swap Floating Leg Reference Rate makes a public statement announcing it has ceased or will cease to provide the benchmark permanently or indefinitely (and there is no successor administrator);
- (iii) the supervisor of the benchmark administrator of such Swap Floating Leg Reference Rate makes a public statement that the benchmark has been or will be permanently or indefinitely discontinued;
- (iv) the supervisor of the benchmark administrator of such Swap Floating Leg Reference Rate makes a public statement that the benchmark may no longer be used; or
- (v) the Strategy Sponsor determines that there has been a material change (or it has been announced that a material change will be made) to the definition, methodology or formula for calculating such Swap Floating Leg Reference Rate,

and if such IR Swap is a Component or is used to determine the level of a Component, the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, replace or remove such IR Swap or any Component to which such IR Swap is linked from the GS Strategy at the earliest possible opportunity as it determines to be commercially reasonable in order for the Strategy Timely Level and the Strategy Tradable Level to continue to be calculated notwithstanding the relevant circumstances, and in such case, the Strategy Sponsor may make such adjustment(s) to the Strategy Rules or to the composition of the GS Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner, to reflect such change(s).

"Swap Floating Leg Conventions" means, in respect of an IR Swap, each of (i) the frequency of each payment date in respect of which floating amounts are notionally payable under the terms of such IR Swap, and (ii) the Day Count Fraction to be applied in the calculation of such floating amounts.

"Unadjusted Swap Maturity Date" means, in respect of an IR Swap, the last day of the term of such IR Swap. In respect of an IR Swap, the Swap Maturity Date shall be the date falling the number of months or years equal to the relevant Swap Term after the relevant Swap Effective Date. For the avoidance of doubt if such resulting date shall fall on 29th of February in a non-leap year, 28th of February of such year shall be used instead.

"Swap Maturity Date" means the Unadjusted Swap Maturity Date subject to adjustment in accordance with the Swap Business Day MF Convention.

"Swap Rate" means, in respect of an IR Swap, the fixed rate of interest (expressed as a per annum rate) which is used to calculate the fixed amounts that are notionally payable under the terms of such IR Swap.

"Swap Start Date" means, in respect of an IR Swap, the date specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, subject to adjustment in accordance with the First Tradable Date Convention.

"Swap Term" means, in respect of an IR Swap, the scheduled term of such IR Swap (for the avoidance of doubt prior to any adjustment in accordance with the Swap Business Day MF Convention) as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Swap Trading Day" means, in respect of an IR Swap and the relevant Quoted Currency and unless otherwise specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements:

- (i) if such Quoted Currency is USD, each Swap Business Day which is also a Strategy Calculation Day and such day is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on <http://www.sifma.org/Services/Holiday-Schedule/>;
- (ii) if such Quoted Currency is CAD, each Swap Business Day which is also a Strategy Calculation Day, and on such day commercial banks and foreign exchange markets settle payments and are open for general business (including dealings in foreign exchange and foreign currency deposits) in New York, and such day is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on <http://www.sifma.org/Services/Holiday-Schedule/>; or
- (iii) otherwise, each Swap Business Day which is also a Strategy Calculation Day.

"Target Annuity" means, in respect of a Forward Swap Combination Contract, the value specified as such in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

"Timely and Tradable Level Table" means the following table:

Style	Timely/ Tradable/ Quoted Currency	Provisions
IR-Swap	Timely	<p>The Timely Level in respect of Forward Swap Contract <i>FS</i> and any day <i>t</i> shall be determined by the Strategy Sponsor as follows:</p> $L_t(FS) = (FSR_s(FS) - FSR_t(FS)) \times A_t(FS)$ <p>If such day <i>t</i> is not a Swap Trading Day then $L_t(FS)$ shall be the Timely Level in respect of Forward Swap Contract <i>FS</i> and the immediately preceding Swap Trading Day.</p> <p>Where:</p> <p>"FSR_s(FS)" means the Swap Rate in respect of such Forward Swap Contract <i>FS</i> and Execution Start Date <i>s</i>, as determined in accordance with the definition of FSR_t(FS) provided that each reference to "day <i>t</i>" is deemed to be a reference to "Execution Start Date <i>s</i>";</p> <p>"L_t(FS)" means the Timely Level in respect of such Forward Swap Contract <i>FS</i> and</p>

day t ,

"**FSR_t(FS)**" means the Swap Rate in respect of such Forward Swap Contract FS and day t , as determined by the Strategy Sponsor in accordance with the formula below:

$$FSR_t(FS) = SR_t(S, CSS) + SRA_{t-1}(FS, PSS)$$

If such day t is not a day on which the Current Swap Source CSS is scheduled to publish $SR_t(S, CSS)$, or such rate is otherwise not published or available on such day t , then $FSR_t(FS)$ shall be deemed to be the Swap Rate $SR_t(FS, PSS)$ in respect of Forward Swap Contract FS , and day t , as determined in accordance with the Previous Swap Source PSS .

Where:

"**Current Swap Source CSS** " means the Current Swap Source in respect of Reference Spot Swap Contract S ;

"**Previous Swap Source PSS** " means the Previous Swap Source in respect of Reference Spot Swap Contract S or the Forward Swap Contract FS ;

"**Reference Spot Swap Contract S** " means the Reference Spot Swap Contract in respect of Forward Swap Contract FS and day t ;

"**SR_t(S, CSS)**" means the Swap Rate in respect of Reference Spot Swap Contract S , and day t , being the spot swap rate published by the Current Swap Source CSS in respect of such Reference Spot Swap Contract S on day t ;

"**SRA_{t-1}(FS, PSS)**" means, in respect of Forward Swap Contract FS , and Swap Business Day $t-1$, a value used to adjust the spot swap rate published by the Current Swap Source CSS so that it reflects as closely as possible the level of a forward swap rate at which hypothetical transactions could be executed, as determined by the Strategy Sponsor in accordance with the following formula:

$$SRA_{t-1}(FS, PSS) = SR_{t-1}(FS, PSS) - SR_{t-1}(S, PSS)$$

"**SR_t(FS, PSS)**" means the Swap Rate in respect of Forward Swap Contract FS and day t , as determined in accordance with the Previous Swap Source PSS ;

"**SR_{t-1}(FS, PSS)**" means the Swap Rate in respect of Forward Swap Contract FS and Swap Business Day $t-1$, as determined in accordance with the Previous Swap Source PSS ;

"**SR_{t-1}(S, PSS)**" means the Swap Rate in respect of Reference Spot Swap Contract S and Swap Business Day $t-1$, as determined in accordance with the Previous Swap Source PSS ; and

"**t-1**" means the Swap Business Day immediately preceding day t ;

"**A_t(FS)**" means the Annuity in respect of Forward Swap Contract FS and day t , as determined by the Strategy Sponsor in accordance with the following formula:

$$A_t(FS) = A_t(FS, CAS, AM1) + AA_{t-1}(FS, PAS, AM1, AM2)$$

Where:

"**A_t(FS,CAS,AM1)**" means the Annuity in respect of such Forward Swap Contract *FS* and day *t*, as determined in accordance with the Current Annuity Source *CAS* and the Annuity Model *AM1*. If such day *t* is not a day on which the Current Annuity Source *CAS* is scheduled to publish any value used in the methodology of the Annuity Model *AM1* for the purposes of calculating such Annuity, or any such value is otherwise not published or available on such day *t* (each such value, an "**Affected Value**"), then *A_t(FS,CAS,AM1)* in respect of such day *t* shall be calculated by the Index Sponsor using, in place of any Affected Values, such values published by the Previous Annuity Source *PAS* on day *t*;

"**AA_{t-1}(FS,PAS,AM1,AM2)**" means, in respect of Forward Swap Contract *FS* and Swap Business Day *t-1*, a value which aims to adjust the annuity calculated in accordance with the Annuity Model *AM1* and using data published by the Current Annuity Source *CAS* so that it reflects as closely as possible the level of the annuity of such Forward Swap Contract *FS* at which hypothetical transactions could be executed, as determined by the Strategy Sponsor in accordance with the following formula:

$$AA_{t-1}(FS, PAS, AM1, AM2) = A_{t-1}(FS, PAS, AM2) - A_{t-1}(FS, PAS, AM1)$$

"**A_{t-1}(FS,PAS,AM2)**" means the Annuity in respect of such Forward Swap Contract *FS* and Swap Business Day *t-1*, as determined by the Strategy Sponsor in accordance with the Previous Annuity Source *PAS* and the Annuity Model *AM2*;

"**A_{t-1}(FS,PAS,AM1)**" means the Annuity in respect of such Forward Swap Contract *FS* and Swap Business Day *t-1*, as determined by the Strategy Sponsor in accordance with the Previous Annuity Source *PAS* and the Annuity Model *AM1*;

"**Current Annuity Source CAS**" means the Current Annuity Source in respect of Forward Swap Contract *FS* and the Annuity Model *AM1*;

"**Previous Annuity Source PAS**" means the Previous Annuity Source in respect of Forward Swap Contract *FS* and the Annuity Model *AM1* or the Annuity Model *AM2*, as the case may be; and

"**t-1**" means the Swap Business Day immediately preceding day *t*;

"**Annuity**" in respect of a Forward Swap Contract *FS*, Annuity Source *AS*, Annuity Model *AM*, and day *t* shall be determined by the Strategy Sponsor in accordance with the following formula:

$$A_t(FS, AS, AM) = \sum_i DCF(t_i, t_{i+1}) \times \frac{df(SSED, t_{i+1}, AS, AM)}{df(SSED, FSED, AS, AM)}$$

Where the summation is taken over the Swap Effective Date and each subsequent Swap Fixed Leg Payment Date *t_i* in respect of Forward Swap Contract *FS*, and:

"**AS**" means the Current Annuity Source or Previous Annuity Source, as applicable, in respect of a Forward Swap Contract *FS*;

"**AM**" means Annuity Model *AM1* or Annuity Model *AM2*, as applicable, in

		<p>respect of a Forward Swap Contract <i>FS</i>;</p> <p>"DCF(t_i, t_{i+1})" means the Day Count Fraction for the fixed amounts notionally payable in respect of such Forward Swap Contract Fraction in respect of day t_i and day t_{i+1};</p> <p>"df(SSED, FSED, AS, AM)" means the Discount Factor in respect of the Swap Effective Date <i>SSED</i> of the relevant Reference Spot Swap Contract, the Swap Effective Date <i>FSED</i> of Forward Swap Contract <i>FS</i>, the Annuity Source <i>AS</i>, and the Annuity Model <i>AM</i>; and</p> <p>"df(SSED, t_{i+1}, AS, AM)" means the Discount Factor in respect of the Swap Effective Date <i>SSED</i> of the relevant Reference Spot Swap Contract, day t_{i+1}, the Annuity Source <i>AS</i> and the Annuity Model <i>AM</i>.</p>
IR-Swap	Tradable	<p>The Tradable Level of a Component on a Strategy Calculation Day shall be the Timely Level in respect of such day, unless a Non-Tradable Event is occurring in respect of such Component and such Strategy Calculation Day, in which case the Tradable Level of a Component shall be determined in accordance with the definition of the Timely Level of such Component, provided that references to "<i>t</i>" in the definitions used to determine the Timely Level shall be deemed to be replaced by reference to the first day following such Strategy Calculation Day on which no Non-Tradable Event is occurring and which is a Strategy Calculation Day (such day, the "Resolution Day" for the purposes of this definition of Tradable Level only), provided that if the Resolution Day would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.</p>
IR-Swap	Quoted Currency	<p>The Quoted Currency of a Component shall be as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.</p>
IR-Swap-Combination	Timely	<p>The Timely Level in respect of Forward Swap Combination Contract <i>FSC</i> and any day <i>t</i> shall be determined by the Strategy Sponsor as follows:</p> $L_t(FSC) = \sum_i CW(FS_i) \times AF_s(FS_i) \times L_t(FS_i)$ <p>If such day <i>t</i> is not a Swap Trading Day then $L_t(FSC)$ shall be the Timely Level in respect of Forward Swap Combination Contract <i>FSC</i> and the immediately preceding Swap Trading Day.</p> <p>Where the summation is taken over each Forward Swap Contract <i>i</i> included in the Forward Swap Combination Contract on Strategy Calculation Day <i>t</i>, and:</p> <p>"CW(FS_i)" means the Combination Weight in respect of Forward Swap Contract <i>FS_i</i> in such Forward Swap Combination Contract <i>FSC</i> and any day <i>t</i>;</p> <p>"AF_s(FS_i)" means, in respect of Forward Swap Contract <i>FS_i</i>, a value which aims to adjust the annuity of Forward Swap Contract <i>FS</i> to the Target Annuity, as determined by the Strategy Sponsor as follows:</p> <ol style="list-style-type: none"> (i) if no Target Annuity is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, $AF_s(FS_i)$ shall be equal to one (1); (ii) if a Target Annuity is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements, $AF_s(FS_i)$ shall be determined by the Strategy Sponsor in accordance with the following formula:

		$AF_s(FS_i) = \frac{TA(FSC)}{A_s(FS_i)}$ <p>Where:</p> <p>"TA(FSC)" means the Target Annuity in respect of Forward Swap Combination Contract <i>FSC</i>;</p> <p>"L_t(FS_i)" means the Timely Level in respect of Forward Swap Contract <i>FS_i</i> and any day <i>t</i>. If such day <i>t</i> is not a day on which the Current Swap Source CSS is scheduled to publish a Swap Rate <i>SR_t(S,CSS)</i> of the Reference Spot Swap Contract <i>S</i> in respect of any Forward Swap Contract <i>FS_i</i> and day <i>t</i>, or any such rate is otherwise not published or available on such day <i>t</i>, then <i>FSR_t(FS_i)</i> used to determine <i>L_t(FS_i)</i> for all Forward Swap Contracts <i>FS_i</i> shall be deemed to be the Swap Rate <i>SR_t(FS_i,PSS)</i> in respect of Forward Swap Contract <i>FS_i</i>, and day <i>t</i>, as determined in accordance with the Previous Swap Source <i>PSS</i>;</p> <p>"L_t(FSC)" means the Timely Level in respect of Forward Swap Combination Contract <i>FSC</i> and any day <i>t</i>, and</p> <p>"A_s(FS_i)" means the Annuity in respect of Forward Swap Contract <i>FS_i</i> and Decision Date <i>s</i>, as determined in accordance with the definition of <i>A_t(FS)</i> provided that each reference to "day <i>t</i>" is deemed to be a reference to "Decision Date <i>s</i>" and each reference to "Forward Swap Contract <i>FS</i>" is deemed to be a reference to "Forward Swap Contract <i>FS_i</i>". If such Decision Date <i>s</i> is not a Swap Business Day, then each reference to "Decision Date <i>s</i>" is deemed to be a reference to the Swap Business Day immediately preceding such Decision Date <i>s</i>.</p>
IR-Swap-Combina tion	Tradable	The Tradable Level of a Component on a Strategy Calculation Day shall be the Timely Level in respect of such day, unless a Non-Tradable Event is occurring in respect of such Component and such Strategy Calculation Day, in which case the Tradable Level of a Component shall be determined in accordance with the definition of the Timely Level of such Component, provided that references to " <i>t</i> " in the definitions used to determine the Timely Level shall be deemed to be replaced by reference to the first day following such Strategy Calculation Day on which no Non-Tradable Event is occurring and which is a Strategy Calculation Day (such day, the " Resolution Day " for the purposes of this definition of Tradable Level only), provided that if the Resolution Day would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Tradable Level of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
IR-Swap-Combina tion	Quoted Currency	The Quoted Currency of a Component shall be as specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements.

GOLDMAN SACHS GENERAL INDEX PROVISIONS

Version 2.2

Dated: 15 June 2017

The following sections comprise the Goldman Sachs General Index Provisions:

Introduction, Application, Copyright and Incorporation

[Section A: Determinations of the Index Sponsor and Index Calculation Agent](#)
~~Section A: Determinations of the Index Sponsor and Index Calculation Agent~~

Section B: Change in Methodology, Index Committee and Termination

Section C: Availability and Publication of Index Values and Adjustments

Section D: Disclaimers

Section E: Conflicts of Interest

Section F: Risk Factors

Introduction, Application, Copyright and Incorporation

1. Introduction

This document, the Goldman Sachs General Index Provisions (as may be amended from time to time as provided herein, the "**General Index Provisions**") comprises certain rules, disclaimers, risk factors and other information applicable to certain notional rules-based proprietary indices which Goldman Sachs International or its successor(s) (the "**Index Sponsor**") may create from time to time (each, a "**GS Index**" and together, the "**GS Indices**").

In respect of a GS Index, these General Index Provisions should be read in conjunction with the following documents (to the extent that they are specified to be applicable and/or incorporated by reference therein):

- (i) the relevant base description comprising certain rules, methodology, definitions, disclaimers, conflicts of interest and other information applicable to such GS Index (in respect of such GS Index, the "**Relevant Base Description**");
- (ii) the relevant description comprising certain other rules, methodology, definitions, disclaimers, conflicts of interest and other information applicable to such GS Index, if applicable (in respect of such GS Index, the "**Relevant General Description**"); and
- (iii) any other documentation element(s) referred to in such Relevant General Description and/or in such other documentation elements (the "**Other Relevant Documentation Elements**"), in each case, where such documentation element is specified to be applicable to such GS Index.

These General Index Provisions may be amended or modified from time to time at the discretion of the Index Sponsor in accordance with the terms set out herein and upon each amendment or modification this document shall be updated to a new version. Following an update, the most recent version shall be deemed to be in force from the date of such update and replace in its entirety the preceding version such that, in the event of any conflict between the preceding version and the most recent version, the most recent version shall prevail.

2. Application

These General Index Provisions, when read together with the Relevant Base Description, the Relevant General Description (if applicable) and the Other Relevant Documentation Elements in respect of a GS Index, will constitute the "**Index Rules**" in respect of such GS Index.

Capitalised terms used in these General Index Provisions but not defined herein have the meaning given to them in the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements, as the case may be. In respect of each GS Index, in the event of any inconsistency between the provisions of the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements and the provisions of these General Index Provisions, the provisions of the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements will prevail. In respect of each GS Index, in the event of any inconsistency between the provisions of the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements, the provisions shall prevail according to the order specified in such documentation elements.

A GS Index may be linked to one or more other GS Indices, each of which may in turn be linked to one or more other GS Indices, and so on (each such index, an "**Underlying GS Index**"). In such case, potential investors should also refer to the relevant index description or rules relating to each such Underlying GS Index (which may or may not comprise these General Index Provisions, a Relevant Base Description, a Relevant General Description or Other Relevant Documentation Elements) for the specific description, methodology, rules, disclaimers, risk factors and/or conflicts of interest applicable to such Underlying GS Index.

In respect of each GS Index, the Index Sponsor will appoint a calculation agent (in respect of such GS Index, the "**Index Calculation Agent**") as specified in the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements to make certain determinations and calculations and to publish the value of such GS Index as more particularly described in the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements. The Index Sponsor does not have any obligation to ensure that the relevant Index Calculation Agent continues to publish, and the Index Sponsor may discontinue publication of, the value of any GS Index at any time. The Index Sponsor may at any time in respect of a GS Index appoint one or more replacement Index Calculation Agents, including itself or an affiliate.

The Index Sponsor may also appoint other agents and/or third party data providers in relation to a GS Index to obtain certain inputs necessary to compute the value of such GS Index. The Index Sponsor does not have any obligation to ensure that these agents and/or third party providers continue to provide inputs necessary to compute the value of a GS Index. The Index Sponsor may change any agent and/or third party data provider appointed in respect of a GS Index at any time.

None of the GS Indices are sponsored, endorsed, sold, or promoted by the sponsor of any underlying index, financial instrument, asset, price, level, component or other underlying (each, an "**Index Component**") comprising, directly or indirectly, a GS Index, other than where the Index Sponsor is also the sponsor of such Index Component. Such sponsor(s) does(do) not make any representation whatsoever, whether express or implied, either as to the results to be obtained from the use of any such Index Component and/or the prices, levels or values at which any Index Component stands at any particular time on any particular date or otherwise.

Each GS Index is a synthetic product and the exposure of each GS Index to any position in an Index Component (which may itself represent a notional investment in one or more other Index Components) is purely notional. There is no actual portfolio of underlying indices, financial instruments, assets or other underlyings or components to which any person is entitled or in which any person has any ownership interest (whether legal, beneficial or otherwise), and there is no obligation on the Index Sponsor or the Index Calculation Agent to promote or purchase, enter into, and/or hold positions in any Index Component, or transactions or investments that are linked to any Index Component at any time. References in any Index Rules to any investment, disposal or acquisition of any Index Component should not be construed as imposing any obligation on the Index Sponsor, the Index Calculation Agent or any person to actually acquire or dispose of any such Index Component, investment or other property but are references to and relate solely to the calculation of the value of each GS Index.

Investors in any product linked to a GS Index should read and understand these General Index Provisions. **IN PARTICULAR, PRIOR TO MAKING ANY INVESTMENT DECISION, INVESTORS MUST READ SECTION D: DISCLAIMERS, SECTION E: CONFLICTS OF INTEREST AND SECTION F: RISK FACTORS OF THESE GENERAL INDEX PROVISIONS, IN ADDITION TO THE ADDITIONAL DISCLAIMERS, CONFLICTS OF INTEREST AND RISK FACTORS (IF ANY) SET OUT IN THE RELEVANT BASE DESCRIPTION, THE RELEVANT GENERAL DESCRIPTION AND/OR THE OTHER RELEVANT DOCUMENTATION ELEMENTS IN RESPECT OF EACH GS INDEX.**

3. Copyright

The Index Sponsor owns the copyright and all other rights to the applicable GS Indices. No use or publication may be made of a GS Index or any value thereof without the prior written approval of the Index Sponsor.

4. Incorporation

Any or all of the provisions and sections of these General Index Provisions may be incorporated into and made applicable to the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements in respect of a GS Index. When the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements in respect of a GS Index incorporates these General Index Provisions,

unless such documentation element states otherwise, the version of these General Index Provisions in effect as of the calendar day immediately prior to the date of such documentation elements to fall latest in time shall be deemed to be applicable, as may be updated from time to time.

Section A: Determinations of the Index Sponsor and Index Calculation Agent

In respect of each GS Index, all determinations and calculations that involve the exercise of expert judgement or discretion (other than those that are purely mechanical and, where relevant, implemented in accordance with the relevant Index Rules) made by the Index Sponsor or the Index Calculation Agent, as applicable, in respect of a GS Index shall be made in good faith and in a commercially reasonable manner. All such determinations and calculations will be made in accordance with policies and procedures of the Index Sponsor or the Index Calculation Agent (as applicable) and will (in the absence of manifest error) be final, conclusive and binding. Neither the Index Sponsor nor the Index Calculation Agent shall have any responsibility to any person for any errors or omissions in respect of any determination or calculation. In making any determinations with respect to a GS Index, the Index Sponsor and Index Calculation Agent do not owe any person any fiduciary duties in respect of a GS Index and are not required to take the interests of any person into account in making any determination with respect thereto.

Section B: Change in Methodology, Index Committee and Termination

1. Change in Methodology

In calculating and determining the value of any GS Index, the Index Calculation Agent will, subject as provided below, employ the methodology described in the relevant Index Rules with respect to calculating and determining the value of the GS Index and its application of such methodology shall (in the absence of manifest error) be conclusive and binding. While the Index Calculation Agent expects to employ the methodology described in the relevant Index Rules (in respect of each GS Index, the "**Index Methodology**") at all times to calculate and determine the value of each GS Index, it is possible that market, legal, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to, any changes to or any suspension or termination of or any other events affecting a GS Index and/or any Index Component (each as more particularly described in the relevant Index Rules in respect of such GS Index), or any other events affecting the ability of a third party data source to supply the necessary data for the purposes of calculating the value of a GS Index) will arise that would, in the view of the Index Sponsor, necessitate or make desirable a modification or change of such Index Methodology in order to preserve the ability of such GS Index to accomplish its intended commercial purpose. The Index Sponsor reserves the right to make any other changes to the composition of a GS Index or to the relevant Index Methodology or to any third party data source used to calculate the value of a GS Index as the Index Sponsor may, in its sole discretion, determine to be necessary as a result of market, legal, regulatory, judicial, financial, fiscal or other circumstances.

Accordingly, the Index Sponsor shall be entitled to make such modifications and/or changes to the Index Methodology or to any data obtained from a third party data source which is used to calculate the value of such GS Index without notice as it in its sole and absolute discretion deems appropriate, necessary or desirable, including (without limitation):

- (i) to correct any manifest error or proven error contained in the Index Rules;
- (ii) to cure, correct or supplement any ambiguity or contradictory or defective provision contained in the Index Rules;
- (iii) change the frequency of calculation of the value of a GS Index and to make such adjustment to the Index Methodology as it determines, in good faith and in a commercially reasonable manner, to be necessary to take account of the amended frequency of calculation;
- (iv) to permit the Index Calculation Agent to continue calculating and determining the value of the GS Index if market, legal, regulatory, judicial, financial, fiscal or other circumstances arise which were not reasonably foreseeable by the Index Sponsor as of the date of the relevant Index Rules and which have not been deliberately caused by the Index Sponsor, and such circumstances would prevent the Index Calculation Agent from calculating and determining the value of the GS Index, and would necessitate a modification or change of the relevant Index Methodology in order for the value of such GS Index to continue to be calculated and determined notwithstanding the relevant circumstances; and/or
- (v) to preserve the intended commercial purpose of such GS Index, where such modification and/or change is of a formal, minor or technical nature.

In making any such modifications described above in respect of a GS Index, the Index Sponsor and/or Index Committee, as applicable, will ensure that such modifications or changes will result in a methodology that is consistent in its intended commercial purpose with the relevant Index Methodology in respect of such GS Index. However, the Index Sponsor and Index Calculation Agent do not owe any person any fiduciary duties in respect of a GS Index and are not required to take the interests of any person into account in making any such modifications with respect thereto.

In the event that ambiguities arise in the calculation of the value of any GS Index, the Index Sponsor will resolve such ambiguities and, if necessary for resolution, make changes to the composition of such GS Index or the methodology of calculating such GS Index. In the event that the Index Sponsor determines that any calculation or determination in respect of any GS Index is incorrect, the Index

Sponsor may, if practicable, correct calculations or determinations and publish or cause to be published such correct calculations or determinations.

In the event that the value of any Index Component which is utilised for any calculation or determination in respect of a GS Index is subsequently corrected, the Index Calculation Agent may, if practicable, use such corrected value for the purpose of such calculation or determination, and, to the extent necessary and practicable, may adjust any prior calculation or determination.

2. Index Committee

The Index Sponsor may, but is not required to, establish an index committee (the "**Index Committee**") in respect of a GS Index. The Index Committee, if established, may comprise employees of the Index Sponsor and at least an equal number of external members with a relevant academic or professional background, as selected by the Index Sponsor in its sole and absolute discretion. The Index Sponsor may propose any modifications and/or changes to the Index Methodology of the kind described in paragraphs (i) to (v) above, without limitation, to the Index Committee for its consideration.

If an Index Committee is established, a meeting of the Index Committee will be considered quorate if (a) a majority of the Index Committee is in attendance, and (b) at least half of those in attendance are external members. For any decision of the Index Committee to be approved, the Index Committee must vote by a simple majority, including at least one external member, to approve such decision.

The role, responsibilities and powers of the Index Committee, if established, will be pre-defined by the Index Sponsor and will be limited to approving changes to the relevant Index Methodology or to any data obtained from a third party data source which is used to calculate the value of such GS Index, in each case where the Index Sponsor has made a proposal as it is permitted to do so and as contemplated above. In addition, the Index Committee, if established, may be given the power to make proposals to cure, correct or supplement ambiguities, defective provisions, errors, omissions and inconsistencies and to make administrative changes that are not economically significant. The Index Calculation Agent may from time to time consult with the Index Committee on matters of interpretation with respect to the methodology of a GS Index. For the avoidance of doubt, the Index Committee, if established, will not have greater powers than the Index Sponsor at any time.

In making or proposing any such modifications described above in respect of a GS Index, the Index Committee will ensure that such modifications or changes will result in a methodology that is consistent with the intended commercial purpose of such GS Index.

The Index Committee, if established, will keep a record of any approved amendments. Such record, and the agenda and minutes of each and any meeting of the Index Committee, will be made available to investors upon their request using the contact details given under Section C: *Availability and Publication of Index Values and Adjustments* of these General Index Provisions.

3. Termination

The Index Sponsor may, in its sole and absolute discretion, at any time, for any reason (including without limitation, because it is no longer possible or practicable to calculate the value of a GS Index) and without notice, terminate the calculation and publication of any GS Index.

Section C: Availability and Publication of Index Values and Adjustments

1. General

Unless otherwise specified in the Relevant Base Description, the Relevant General Description and/or the Other Relevant Documentation Elements, the Index Calculation Agent will make available the value of each GS Index on each Index Business Day.

In respect of each GS Index, in the event that the value of any Index Component which is utilized for any calculation or determination of the value of such GS Index or the value of such GS Index is subsequently corrected, the Index Sponsor may determine the adjustment or correction to be made to the terms and values of such GS Index and, to the extent necessary or desirable, will adjust any relevant terms and values of such GS Index to account for such correction.

The Index Sponsor may, following the occurrence of certain exchange rate disruption event, non-tradable events, market disruption events or force majeure events (each a "Disruption Event"), as more particularly described in the Relevant Base Description, Relevant General Description and/or the Other Relevant Documentation Elements) in respect of a GS Index, make certain determinations (as more particularly described in the relevant Base Description and/or the relevant Index Supplement) in respect of such GS Index.

2. Index values

The value in respect of each GS Index will be published on the relevant index publication data source or any successor page (as more particularly described in the Relevant Base Description, the Relevant General Description (if applicable) or the Other Relevant Documentation Elements) in respect of such GS Index.

Information about the past performance of a GS Index and its volatility can be obtained at the relevant index publication data source.

3. Miscellaneous

In respect of each GS Index, the availability of any publication described in this Section C: *Availability and Publication of Index Values and Adjustments* may be restricted by means determined as appropriate for such purpose by the Index Sponsor or Index Calculation Agent, in each case in its sole and absolute discretion, including, but not limited to, password protection restricting access to a limited set of persons in accordance with arrangements agreed between the Index Sponsor or Index Calculation Agent and such persons.

The Index Sponsor may, at any time and without notice, change the place and/or method of publication of the value in respect of any GS Index and/or change the frequency of publication of the value in respect of any GS Index, in its sole and absolute discretion.

Each of the Index Sponsor and the Index Calculation Agent accepts no legal liability to any person for publishing or not continuing to publish for any period of time the value of any GS Index at any particular place or any particular time.

In respect of each GS Index, the Index Sponsor will have policies and procedures in place governing the frequency with which it conducts internal reviews with respect to such GS Index and the frequency with which it consults with investors in products linked to such GS Index.

Section D: Disclaimers

The following list of disclaimers does not purport to be a complete list or explanation of all the disclaimers associated with the GS Indices.

POTENTIAL INVESTORS SHOULD REFER TO THE RELEVANT BASE DESCRIPTION, THE RELEVANT GENERAL DESCRIPTION AND/OR THE OTHER RELEVANT DOCUMENTATION ELEMENTS IN RESPECT OF EACH GS INDEX FOR SPECIFIC DISCLAIMERS RELATING TO SUCH GS INDEX.

THE GS INDICES ARE TRADEMARKS OF THE GOLDMAN SACHS GROUP.

THE GOLDMAN SACHS GROUP DOES NOT GUARANTEE THE QUALITY, ACCURACY AND/OR COMPLETENESS OF A GS INDEX, ITS METHODOLOGY, ITS CALCULATION, ANY DATA OR INFORMATION INCLUDED THEREIN, OR ANY DATA OR INFORMATION ON WHICH IT IS BASED, OR THE INDEX RULES AND THE INDEX SPONSOR SHALL HAVE NO LIABILITY FOR ANY ERRORS, OMISSIONS, DELAYS OR INTERRUPTIONS HEREIN OR THEREIN OR RELATING TO ANY OF SUCH MATTERS ON THE PART OF ANY THIRD PARTY OR OTHERWISE.

NEITHER THE INDEX SPONSOR NOR THE INDEX CALCULATION AGENT (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) SHALL HAVE ANY RESPONSIBILITY TO ANY PERSON (WHETHER AS A RESULT OF NEGLIGENCE OR OTHERWISE) FOR ANY DETERMINATION MADE OR ANYTHING DONE (OR OMITTED TO BE DETERMINED OR DONE), INCLUDING WITHOUT LIMITATION ANY AMENDMENTS TO OR SUBSTITUTIONS OF ANY INDEX COMPONENTS, IN RESPECT OF ANY GS INDEX OR PUBLICATION OF THE VALUE OF ANY GS INDEX (OR THE FAILURE TO PUBLISH THE VALUE OF ANY GS INDEX) AND ANY USE TO WHICH ANY PERSON MAY PUT ANY GS INDEX OR THE VALUE OF ANY GS INDEX. EACH OF THE INDEX SPONSOR AND THE INDEX CALCULATION AGENT ACTS AS PRINCIPAL AND NOT AS FIDUCIARY AND OWES NO FIDUCIARY DUTIES IN RESPECT OF EACH GS INDEX.

IN CALCULATING THE VALUE OF ANY GS INDEX, THE INDEX CALCULATION AGENT WILL OBTAIN AND USE DATA AND INFORMATION FROM THIRD PARTY SOURCES. NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) WILL INDEPENDENTLY VERIFY SUCH INFORMATION, GUARANTEES THE QUALITY, ACCURACY AND/OR THE COMPLETENESS OF SUCH DATA OR INFORMATION AND CONSEQUENTLY NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) GUARANTEES THE QUALITY, ACCURACY AND/OR COMPLETENESS OF ANY GS INDEX. NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) SHALL BE LIABLE (WHETHER IN CONTRACT, TORT OR OTHERWISE) TO ANY PERSON FOR ANY INACCURACY, OMISSION, MISTAKE OR ERROR IN THE COMPUTATION OR DISSEMINATION OF THE VALUE OF ANY GS INDEX AND NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR IS UNDER ANY OBLIGATION TO ADVISE ANY PERSON OF ANY INACCURACY, OMISSION, MISTAKE OR ERROR IT BECOMES AWARE OF.

NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) MAKES ANY EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES AS TO (I) THE ADVISABILITY OF PURCHASING OR ASSUMING ANY RISK IN CONNECTION WITH ANY TRANSACTION LINKED TO ANY GS INDEX, (II) THE VALUE OF ANY GS INDEX AT ANY PARTICULAR TIME ON ANY PARTICULAR DATE, (III) THE RESULTS TO BE OBTAINED BY ANY INVESTOR IN A PRODUCT LINKED TO THE PERFORMANCE OF ANY GS INDEX OR ANY INDEX COMPONENT, OR (IV)

ANY OTHER MATTER.

INVESTORS CONSIDERING ACQUIRING ANY PRODUCT LINKED TO A GS INDEX SHOULD CONSULT THEIR OWN ACCOUNTING, TAX, INVESTMENT AND LEGAL ADVISORS BEFORE DOING SO. NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) IS ACTING AS AN ADVISOR OR FIDUCIARY.

BEFORE INVESTORS INVEST IN ANY PRODUCT LINKED TO A GS INDEX, THEY MUST READ AND UNDERSTAND THE INDEX RULES SETTING OUT THE RULES, METHODOLOGY, DEFINITIONS, DISCLAIMERS, CONFLICTS OF INTEREST, RISK FACTORS AND OTHER INFORMATION APPLICABLE TO SUCH GS INDEX. IN PARTICULAR, AN INVESTOR MUST PAY PARTICULAR ATTENTION TO THE CONFLICTS OF INTEREST AND RISK FACTORS APPLICABLE TO SUCH GS INDEX SET OUT IN THE INDEX RULES.

NEITHER THE INDEX CALCULATION AGENT NOR THE INDEX SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) MAKES, AND EACH OF THEM DISCLAIMS, ANY EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY GS INDEX OR ANY DATA OR INFORMATION INCLUDED THEREIN OR ANY DATA OR INFORMATION ON WHICH IT IS BASED.

EACH GS INDEX HAS BEEN STRUCTURED, THE VALUE OF EACH GS INDEX IS CALCULATED AND DETERMINATIONS RELATING TO EACH GS INDEX ARE MADE, WITHOUT REGARD TO ANY TRANSACTION LINKED TO SUCH GS INDEX. THE INDEX SPONSOR AND THE INDEX CALCULATION AGENT HAVE NO OBLIGATION TO TAKE THE INTERESTS OF ANY PERSON INTO CONSIDERATION IN STRUCTURING A GS INDEX, CALCULATING THE VALUE OF SUCH GS INDEX, EXERCISING ANY DISCRETION IN RELATION TO ANY GS INDEX OR MAKING DETERMINATIONS RELATING TO SUCH GS INDEX, AS THE CASE MAY BE. THE INDEX SPONSOR AND THE INDEX CALCULATION AGENT SHALL NOT BE LIABLE FOR ANY LOSS SUFFERED BY ANY PERSON (INCLUDING ANY INVESTOR IN, OR ANY ISSUER, ARRANGER OR OTHER PERSON OF, A PRODUCT LINKED TO THE PERFORMANCE OF ANY GS INDEX OR ANY INDEX COMPONENT) AS A RESULT OF EXERCISING, OR REFRAINING FROM EXERCISING, ITS DISCRETION IN RESPECT OF ANY GS INDEX.

WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT SHALL THE INDEX CALCULATION AGENT OR THE INDEX SPONSOR HAVE ANY LIABILITY (WHETHER IN CONTRACT, TORT OR OTHERWISE) TO ANY PERSON FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL OR ANY OTHER DAMAGES (INCLUDING LOST PROFITS) EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES.

NOTHING IN THIS DISCLAIMER SHALL EXCLUDE OR LIMIT LIABILITY TO THE EXTENT SUCH EXCLUSION OR LIMITATION IS NOT PERMITTED BY LAW.

Section E: Conflicts of Interest

The following list of conflicts does not purport to be a complete list or explanation of all the conflicts of interests associated with the GS Indices.

POTENTIAL INVESTORS SHOULD REFER TO THE RELEVANT BASE DESCRIPTION, THE RELEVANT GENERAL DESCRIPTION AND/OR THE OTHER RELEVANT DOCUMENTATION ELEMENTS IN RESPECT OF EACH GS INDEX FOR SPECIFIC CONFLICTS OF INTEREST RELATING TO SUCH GS INDEX.

Overview of the roles of the Goldman Sachs Group ("GSG")

GSG members may have multiple roles in connection with the GS Indices:

- If Goldman Sachs International is the Index Calculation Agent of a GS Index, Goldman Sachs International is responsible for calculating and publishing the value of each GS Index in its capacity as Index Calculation Agent and for making certain determinations in respect of a GS Index from time to time in its capacity as Index Sponsor.
- The GS Indices are designed by, and are operated in accordance with, a methodology developed by the Index Sponsor. Among other things, the Index Sponsor will set the parameters within which each GS Index operates. The Index Sponsor does not have any obligation to ensure that the Index Calculation Agent continues to calculate and publish the value of each GS Index. Except in the limited circumstances set out in the relevant Index Rules, the Index Sponsor does not generally exercise any discretion in relation to the operation of each GS Index. The Index Sponsor owes no fiduciary duties in respect of each GS Index.
- GSG is a full-service financial services group and, consequently, is engaged in a range of activities that could affect the value of a GS Index and any Index Component either positively or negatively as further described below.
- GSG may be sponsors and/or calculation agents of one or more Index Components and in such capacity(ies) may have the power to make determinations that could materially affect the value of such GS Index.
- GSG may from time to time have a direct or indirect ownership interest in any third party data providers with respect to a GS Index or any Index Component (including, without limitation, any calculation agent).

Potential conflicts of interest

GSG will perform its obligations in a manner that it considers commercially reasonable but may face conflicts between the roles it performs in respect of a GS Index and its own interests. In particular, in its other businesses, GSG may have, or enter into transactions to create, a physical, economic or other interest (including an adverse and/or short interest, as the case may be) in a GS Index, products linked thereto, and/or any Index Component and investments referenced by or linked to any Index Component and may exercise remedies or take other action with respect to its interests as it deems appropriate.

The following actions could adversely affect the value of a GS Index:

- GSG may actively trade products linked to such GS Index, any Index Component, investments referenced by or linked to an Index Component and any other related investments. These activities could adversely affect the value of such GS Index, which could in turn affect the return on, and the value of, any products linked to such GS Index.
- GSG may have access to information relating to such GS Index, products linked to such GS Index, and/or an Index Component or investments referenced by or linked to an Index Component. GSG is not obliged to use that information for the benefit of any person acquiring

or entering into any products linked to such GS Index.

- Certain activities conducted by GSG may conflict with the interests of those acquiring products linked to such GS Index. It is possible that GSG could receive substantial returns in respect of these activities while the value of any investment referenced to such GS Index may decline. For example:
 - GSG and other parties may issue or underwrite additional securities or trade other financial or derivative instruments or investments referenced to such GS Index or other similar indices or strategies and/or any Index Component. An increased level of investment and trading in these securities, instruments or investments may negatively affect the performance of such GS Index and could affect the value of such GS Index and, therefore, the amount payable at maturity (or on any other payment date) on any products linked to such GS Index and the value of any such products before that date. Such securities, instruments or investments may also compete with other products linked to such GS Index. By introducing competing products into the marketplace in this manner, GSG could adversely affect the market value of any products linked to such GS Index and the amount paid by it on such products at maturity (or on any other payment date). To the extent that GSG serves as issuer, agent or underwriter of those securities or other similar instruments or investments, its interests in respect of those securities, instruments or investments may be adverse to the interests of an investor of any products linked to such GS Index.
 - Although GSG is not obliged to do so, it may elect to hedge its exposure or potential or expected exposure to such GS Index, any products linked thereto, and/or any Index Component, or any investment referenced by or linked to an Index Component with an affiliate or a third party. Such affiliate or third party, in turn, is likely to directly or indirectly hedge any of its exposure or potential or expected exposure, including through transactions taking place on the futures and/or options markets. Where GSG chooses to hedge its exposure or potential or expected exposure, it may adjust or unwind such hedges by purchasing or selling products linked to such GS Index, and/or an Index Component, any investments referenced by or linked to an Index Component or any other product on or before the date such GS Index is valued for purposes of any investments referenced by such GS Index. GSG may also enter into, adjust or unwind hedging transactions relating to other instruments linked to such GS Index and/or an Index Component. Any such hedging activity may adversely affect the value of such GS Index and any products linked to such GS Index. In this regard:
 - GSG could receive substantial returns with respect to these hedging activities while the value of such GS Index and/or the value of any product linked to such GS Index may decline.
 - If GSG has hedged its exposure to an Index Component and incurs an effective rate of withholding tax that is less than the synthetic tax withholding applied in respect of a GS Index, GSG could receive substantial returns.
 - GSG could receive substantial returns if it trades in an Index Component on or before a rebalancing day and/or at levels which are different from the levels specified in the methodology for determining the value of such GS Index. Such trading may have an adverse impact on the level at which a rebalancing occurs, which will result in an adverse impact on the performance of such GS Index. In addition, such trading could generate significant returns to the Index Sponsor that will not be passed on to the investors in products linked to such GS Index.
 - Certain activities conducted by GSG may conflict with the interests of those acquiring products linked to such GS Index. For example, as described above, GSG may elect to hedge its obligations, if any, with an affiliate or a third party. It is possible that GSG could receive substantial returns with respect to these activities irrespective of the performance of such GS Index and including while the value of any investment referenced to such GS Index may decline.

- GSG may also engage in trading for its proprietary accounts, for other accounts under its management or to facilitate transactions, including block transactions, on behalf of customers relating to one or more products linked to a GS Index, an Index Component or any constituent thereof and/or any investment referenced by or linked to an Index Component or any constituent thereof. In the course of these transactions, GSG's customers may receive information about such GS Index before it is made available to other investors. Any of these activities could also adversely affect the value of such GS Index directly or indirectly by affecting the level of an Index Component or any constituent thereof or the investments referenced by or linked to an Index Component or any constituent thereof and, therefore, the market value of any products linked to such GS Index and the amount paid on any such product at maturity.
- In its capacity as sponsor of such GS Index, Goldman Sachs International will have discretion under certain circumstances to make various determinations that affect such GS Index and products linked to such GS Index, including, but not limited to, those situations more particularly described in the relevant Index Rules. Goldman Sachs International may use these determinations to calculate how much cash it must pay at maturity or upon any early redemption of any such product linked to such GS Index or on any other payment date, including products issued by the GSG members. The exercise by Goldman Sachs International of this discretion could adversely affect the value of such GS Index and/or any such product linked to such GS Index. It is possible that the exercise by the Index Sponsor of its discretion to change the relevant Index Methodology may result in substantial returns in respect of GSG's trading activities for its proprietary accounts, for other accounts under its management or to facilitate transactions on behalf of customers relating to one or more products linked to such GS Index, and/or the Index Components thereof or any investment referenced by or linked to the Index Components.
- In its capacity as sponsor of one or more Index Components, GSG may be entitled to exercise discretion over decisions that would have an adverse impact on the value of such GS Index, including, without limitation, discontinuing publication of the level of one or more Index Components. GSG will exercise any such discretion without regard to any GS Index or investors in any products linked thereto.
- GSG may in the future create and publish other indices or strategies, the concepts of which are similar, or identical, to that of a GS Index or one or more of the Index Components. The Index Components as specified in the Index Rules for such GS Index however, are the only components that will be used for the calculation of such GS Index. Accordingly, no other published indices should be treated by any investor as the level of any Index Component (except as the Index Sponsor or Index Calculation Agent may so determine, as described above).
- GSG may publish research, express opinions or provide recommendations (for example, with respect to an Index Component) that are inconsistent with investing in products linked to such GS Index, and which may be revised at any time. Any such research, opinions or recommendations may or may not recommend that investors buy or hold the relevant Index Component and could affect the value and or performance of such GS Index or of products linked to such GS Index.
- GSG may have ownership interests in sponsors of Index Components and as such may be able to influence the methodology and other features of such Index Components. In addition, GSG members may provide pricing or other data that is directly used in the calculation of the price, level or value of such Index Components (or the components thereof). The activities of GSG as contributor to any Index Components may be adverse to the interests of investors and/or counterparties to products linked to any such Index Components and may have an impact on the performance of such Index Components.

Section F: Risk Factors

The following list of risk factors does not purport to be a complete list or explanation of all the risks associated with the GS Indices. Risk factors in relation to any financial instrument or product (a "product") which is linked to the performance of a GS Index may be set out in the relevant documents in respect of such product.

POTENTIAL INVESTORS SHOULD REFER TO THE RELEVANT BASE DESCRIPTION, THE RELEVANT GENERAL DESCRIPTION AND/OR THE OTHER RELEVANT DOCUMENTATION ELEMENTS IN RESPECT OF EACH GS INDEX FOR SPECIFIC RISK FACTORS RELATING TO SUCH GS INDEX.

General Risk Factors

Investors in a GS Index could lose their entire investment

The value of a GS Index depends on the performance of the Index Components, each of which may increase or decrease in value. Neither a GS Index nor any of the Index Components includes any element of capital protection or guaranteed return. The value of any Index Component, or a GS Index itself, may fall below its initial value.

If a floor is not specified to be applicable in respect of a GS Index or an Index Component then the level of that GS Index or Index Component may fall below zero and have a negative value. In this case an investment linked to a GS Index may incur losses which exceed the notional value of such investment.

If a floor is specified to be applicable in respect of a GS Index or an Index Component then the level of that GS Index or Index Component may fall to zero. In such a case, the level will remain at zero and any investment linked solely to such GS Index may have lost all of its value, in which case there will be no chance of such investment thereafter recovering.

No assurance can be given that the methodology underlying each GS Index will be successful in producing positive returns or that such GS Index will outperform any other alternative investment strategy.

Furthermore, it should be noted that the results that may be obtained from investing in any product linked to a GS Index or otherwise participating in any transaction linked to a GS Index might well be significantly different from the results that could theoretically be obtained from a direct investment in the Index Component(s) or any related derivatives.

Changes in market structure and/or increased investment in similar products may negatively affect the value of a GS Index

As a result of changes in market structure and/or due to increased investment in products using the same or similar investment rationale to that of a GS Index or any Index Component, the underlying market or economic characteristics that such GS Index or Index Component attempts to capture, measure or replicate may change, cease to exist, and/or lead to negative expected returns over any time period. This may have a negative impact on the value of a GS Index and such GS Index will not be adjusted to take account of any such changes.

Past performance of a GS Index is no guide to future performance

The actual performance of the GS Index over the life of any product linked to the GS Index as well as the amount payable at maturity or on settlement may bear little relation to the historical levels of the GS Index. It is not possible to predict the future performance of the GS Index.

Historical analysis or other statistical analysis in respect of a GS Index is no guarantee of the performance of such GS Index

Certain presentations and historical analysis, or other statistical analysis materials in respect of the operation and/or potential returns of a GS Index which may be provided are based on a number of assumptions, historical estimates, simulated analyses and hypothetical circumstances to estimate how such a GS Index may have performed prior to the Index Launch Date (as defined below). Neither the Index Sponsor nor the issuer of any product linked to a GS Index provides any assurance or guarantee that such GS Index will operate or would have operated in the past in a manner consistent with those materials. As such, any historical returns projected in such materials or any hypothetical simulations based on these analyses or hypothetical levels, which are provided in relation to a GS Index, may not reflect the performance of, and are no guarantee or assurance in respect of the performance or returns of, such GS Index over any time period.

An investor in a product linked to a GS Index will have no rights with respect to the Index Component(s)

The investment exposure provided by a GS Index is synthetic. An investment referenced to a GS Index will therefore not make an investor a holder of, or give an investor a direct investment position in, any Index Component (or any components thereof).

The GS Indices are not actively managed

Each GS Index will be operated in accordance with the methodology set forth in the relevant Index Rules. There will be no active management of a GS Index so as to enhance returns beyond those embedded in such GS Index.

Market participants often adjust their investments promptly in view of market, political, financial or other factors. An actively managed investment may potentially respond more directly and appropriately to immediate market, political, financial or other factors than a non-actively managed strategy such as a GS Index. No assurance can be given that a GS Index will replicate or outperform a comparable strategy which is actively managed and the return on a GS Index may be lower than the return on an actively managed strategy.

The weights of the Index Components may total more or less than 100 per cent

A GS Index's absolute overall exposure to the Index Components may be greater or less than 100 per cent.

If the sum of the absolute weights of the Index Components is greater than 100 per cent the GS Index will employ leverage. In the current instance, leverage means that a GS Index will have increased exposure to changes, which may be positive or negative, in the levels of the Index Components, magnifying the volatility and risk. The performance of the GS Index will be adversely affected should the level of "long" Index Components decrease and/or the value of "short" Index Components increase.

If the sum of the absolute weights of the Index Components is less than 100 per cent the GS Index will have a reduced exposure to the Index Components and may underperform as compared to a GS Index where the exposure was greater.

An Excess Return GS Index will nearly always underperform a Total Return GS Index

A GS Index which is calculated on an excess return basis is the excess return version of one or more total return indices. To determine the value of an excess return index, the performance of the total return index is reduced by the return that could be earned on a synthetic cash deposit at a notional interest rate. Thus, the performance of an excess return index will nearly always (where such rates of return are positive) be less than the performance of the equivalent total return index.

A Total Return GS Index may exhibit excess return characteristics

A GS Index which is calculated on a total return basis may include Index Components which are calculated on an excess return basis. In such case even though the GS Index is calculated on a total return basis it will exhibit characteristics of an excess return version.

No assurance can be given that a GS Index will produce "absolute returns"

Alternative investments such as financial instruments linked to a GS Index may often be purchased on the basis of their potential to produce "absolute returns", or returns independent of the overall direction of the relevant markets. However, there can be no assurance that a GS Index will actually be successful at producing consistently positive returns or returns independent of the overall direction of the relevant markets, nor does the Index Sponsor or the issuer of financial instruments linked to a GS Index make any representation or warranty, express or implied, that a GS Index will do so in the future.

The actual weights of Index Components may vary following each rebalancing

The actual weight of each of the Index Components may be different than the assigned weights, and therefore the relative contribution of each Index Component to the value of the GS Index may vary from time to time, depending on the performance of each of the Index Components relative to the other Index Components since such immediately preceding rebalancing. The longer the period between each rebalancing, the greater the likelihood that there will be a significant variance between the absolute values of the weights of the Index Components, and the GS Index may therefore have an exposure to an Index Component further below or in greater excess of its assigned weight than it would if the period were shorter, which may result in a greater skewing of the absolute nature of the investment positions with respect to the Index Components and increase the overall risk profile of the GS Index.

The negative performance of one or more Index Components in a GS Index may outweigh the positive performance of other Index Components in such GS Index

The value of a GS Index will go up or down depending on the overall performance of each of the Index Components in a GS Index. The negative performance of one or more positively weighted Index Components in a GS Index (and/or the positive performance of one or more negatively weighted Index Components in a GS Index) may outweigh the positive performance of other positively weighted Index Components in a GS Index (and/or the negative performance of one or more negatively weighted Index Components in a GS Index). Even in the case of a positive performance of one or more Index Components in a GS Index, the value of the GS Index as a whole may go down if the performance of the other Index Components is negative to a greater extent.

Index Components assigned a weight of zero will not contribute to the level of the GS Index

Some Index Components may be assigned a weight of zero in respect of a rebalancing day and, in such case, the GS Index shall not have any exposure to such Index Components until the next rebalancing day (if any) on which such Index Components are assigned a non-zero weight. As a result, any changes in the performance of such immediate components will not affect the level of the GS Strategy for the relevant period following such rebalancing day.

A GS Index may provide short exposure to one or more of the Index Components

A GS Index may specify that the weight of an Index Component may be less than zero, i.e., a short position in such Index Component. A short position in an Index Component means that a GS Index will have negative exposure to such Index Component and the value of such GS Index will be negatively affected if the value of such Index Component should increase and positively affected if the value of such Index Component should decrease. Therefore, investors should be aware that an investment linked to a GS Index may decline in value in a period, even if the value of such Index Component increases during that timeframe. Further, given that short positions may create exposure to uncapped losses, increases in the value of such Index Component could result in a decrease in the value of such GS Index that is greater than the weight in respect of such Index Component and may result in the value of the GS Index falling to zero.

Correlation of performances among the Index Components may reduce the performance of a GS Index

Performances of the Index Components of a GS Index may become highly correlated from time to

time, including, but not limited to, periods in which there is a substantial decline in a particular sector or asset type represented by the Index Components. High correlation during periods of negative returns among the Index Components may have an adverse effect on the level of a GS Index.

A GS Index may not be a fully diversified portfolio

Diversification is generally considered to reduce the amount of risk associated with generating returns. A GS Index may be concentrated in a particular asset class or sector and there can be no assurance that a GS Index will be sufficiently diversified at any time to reduce or minimize risks of volatility. The more concentrated the GS Index is in certain asset classes or sectors, the greater degree of volatility the GS Index may exhibit, and this could in turn result in an adverse effect on the returns of the GS Index.

In addition, certain asset classes or sectors may suffer the same adverse performance following a general downturn or other economic or political event, and this could in turn have an adverse effect on the returns of the GS Index.

Prices in the relevant underlying indices, financial instruments or assets constituted in an Index Component may be volatile

The value of an Index Component may be derived in whole or in part from the value of certain underlying indices, financial instruments or assets. The prices or levels of such underlying indices, financial instruments or assets may be volatile, with price movements being influenced by a multitude of factors, including, but not limited to, supply and demand, applicable market conditions, government policies and programs, political and economic events and rates of inflation, currency devaluations and revaluations, and sentiment in the relevant market. This may make the value of an Index Component volatile, which may in turn make the level of a GS Index volatile.

Volatility and GS Index risk

A GS Index may have a daily volatility adjustment feature (if so specified in the Relevant Base Description and/or Relevant General Description), which aims to provide a notional volatility-controlled exposure to the Index Components of such GS Index. This is achieved by periodically increasing or decreasing the exposure of such GS Index to the Index Components, based on the realized volatility of the Index Components over a certain period of time relative to a pre-determined volatility target. An increase in the realized volatility of an Index Component may decrease the exposure of such GS Index to such Index Component.

If the daily volatility adjustment feature is applicable, an underperformance of the GS Index compared to a similar GS Index without such feature could be observed in periods where the value of an Index Component in which a GS Index holds a synthetic long position is increasing and, at the same time, the realized volatility exceeds the volatility target. The daily volatility adjustment feature, if applicable, is not designed for short term investments both in terms of improved participation for option-based payoffs linked to the GS Index and in terms of the performance of the GS Index.

Potential investors should make their own investigations and form their own views as to the appropriateness or otherwise of such GS Index, taking into account their own circumstances. In particular, potential investors in products linked to such GS Index should note that such GS Index may not reflect the return that could be realized from a direct investment in the Index Components.

As some Index Components may not be denominated in the currency of the GS Index, a GS Index may be subject to currency exchange rate risks

Each GS Index is calculated in a particular currency (the "**Index Currency**"). While some of the Index Components may be denominated in the Index Currency, a GS Index may also comprise Index Components denominated in other currencies. A GS Index may therefore be exposed to currency exchange rate risks. The impact on the value of a GS Index will depend on the extent to which these other currencies, if any, strengthen or weaken against the Index Currency and the relative weight of each such other currency represented in the GS Index. Currency exchange rates vary over time. Changes in a particular currency exchange rate result from the interaction of many factors directly or

indirectly affecting economic or political conditions, including rates of inflation, interest rate levels, balances of payment among countries, the extent of governmental surpluses or deficits and other financial, economic, military and political factors, among others.

A GS Index may have a limited operating history and may perform in unanticipated ways

A GS Index may be a relatively new strategy. Where limited historical performance data exists with respect to the Index Components referenced by such GS Index and the GS Index itself, any investment in respect of which returns are linked to the performance of a GS Index or its Index Components may involve greater risk than an investment linked to returns generated by an investment strategy with a proven track record. While a longer history of actual performance could provide more reliable information on which to assess the validity of a GS Index and on which to base an investment decision, the fact that a GS Index and the Index Components are relatively new would not allow this. There can be no guarantee or assurance that a GS Index or its Index Components will operate in a manner consistent with the data available.

Index Inception Date and Back-testing

The Index Sponsor will designate an "Index Inception Date", on which the value of the strategy is equal to the "Initial Index Level" as specified in the rules of the relevant GS Index. The levels of the GS Index in the period from such Index Inception Date, to a date (the "**Index Launch Date**") no later than the date on which investment products linked to such GS Index are first implemented (which may be materially later than the Index Inception Date) will be calculated on the basis of back-tested data ("**Back-testing**").

GS Index levels for such period are hypothetical, and are calculated at or around the Index Launch Date in accordance with the relevant GS Index methodology but using historical data available to the Index Sponsor at the time of calculation. If such historical data is not available or is incomplete for any particular day, the Index Sponsor may use alternate sources of data in place of such historical data, and/ or may substitute alternative values (which may be determined by the Index Sponsor), as it deems necessary to calculate such hypothetical level of the GS Index.

If such historical data was available or complete, or if different sources or values were used in such Back-testing, the GS Index levels for such period would be different, potentially materially so. Accordingly, such GS Index levels may not reflect the performance of, and are no guarantee or assurance in respect of the performance or returns of, the GS Index over any time period from the Index Launch Date. Furthermore, any Back-testing is based on information and data provided to the Index Sponsor by third parties. The Index Sponsor will not have independently verified or guaranteed the accuracy and/or the completeness of such information or data provided and is not responsible for any inaccuracy, omission, mistake or error in such information, data and/or back-testing.

Some GS Index parameters are partially based on simulated data

Some parameters of a GS Index may have been determined by reference to simulated time series data which start before the Index Launch Date for such GS Index. Such simulated data are based on various assumptions, do not reflect actual trading and are subject to various market data limitations. As a result, the performance of the simulated time series data may differ from the actual historical performance of a GS Index and this difference may be material. The future performance of a GS Index will depend, among other things, on the choice of the parameters as described in the Relevant General Description and/or Other Relevant Documentation Elements for the relevant GS Index. As such, the performance of such GS Index could be materially different if the relevant parameters were determined based on the actual performance of such GS Index rather than based on simulated time series data.

Gains from an investment linked to a GS Index will be adjusted by deductions included in the calculation of the value of such GS Index

Notional embedded costs may be included within a GS Index and will reduce the level of such GS Index. Such amounts will be deducted from the performance of a GS Index with the intention of reflecting synthetically one or more of (i) the cost of maintaining exposure to, and replicating

performance of, each Index Component (the "**Servicing Costs**") (ii) the cost of entering into and/or unwinding transactions relating to an Index Component following each rebalancing of such Index Component in the GS Index (the "**Transaction Costs**") and/or (iii) the index servicing costs (the "**Index Servicing Costs**"). The relevant Servicing Costs and the relevant Transaction Costs for each Index Component will vary depending on the Index Component. Servicing Costs are applicable on an ongoing basis for such time as the GS Index maintains exposure to the Index Component. Deductions to account for Transaction Costs in relation to an Index Component are made only as a result of a rebalancing of such Index Component. The Index Servicing Costs are applicable to the GS Index rather than the Index Components and are applicable on an ongoing basis for such time as the level of the GS Index is greater than zero. These embedded costs will reduce the level of such GS Index.

Notional transaction costs, servicing costs and index servicing costs embedded in a GS Index may be greater than actual costs incurred in hedging transactions of the Index Sponsor or its affiliates

The transaction costs, servicing costs and/or index servicing costs which are embedded and reflected in the calculation of a GS Index will be calculated by reference to pre-determined rates and will not necessarily reflect the actual or realised transaction costs and/or servicing costs that would be incurred by an investor in the relevant Index Components or their underlying constituents, which could be larger or smaller from time to time. The Index Sponsor (or its affiliates) may benefit if the transaction costs, servicing costs and/or index servicing costs embedded in a GS Index exceed the actual transaction costs and/or servicing costs that are incurred by the Index Sponsor (or its affiliates) in hedging transactions that may be entered into in respect of such GS Index, each Index Component and/or any underlying component thereof.

The value of each Index Component and of each underlying component may be adjusted by certain deductions

Each Index Component and the underlying components thereof may also embed notional cost deductions, the effect of which is to reduce the level of the Index Component or component thereof, as applicable. Such notional costs deductions are intended to reflect, synthetically, certain costs incurred in respect of such Index Component (or component thereof, as applicable) which are equivalent in type and nature to the costs described above in respect of a GS Index. Any such deductions from the level or value of an Index Component or underlying component thereof shall have the effect of reducing the level of the relevant GS Index.

Under certain market conditions, the Index Sponsor could significantly increase the costs that are deducted from a GS Index

Under certain market conditions, the Index Sponsor of a GS Index may determine to increase significantly the costs that are deducted from the GS Index, and there may be no fixed limits on the levels of these costs. Although this determination is constrained by the procedure described in the Relevant Base Description and/or Relevant General Description, it is possible that the increased cost may be significantly greater than the levels originally assigned to them. Further, although a period of such market conditions may last only a short time, the increased cost could be deducted from a GS Index for an extended period of time. This could materially adversely affect the performance and value of a GS Index.

The Index Sponsor's hedging activity may affect the level of a GS Index

By executing products linked to a GS Index ("**Linked Products**"), Goldman Sachs International and/or its affiliates ("**GS**") will have an exposure to such GS Index and its Index Components. GS will take risk positions to hedge this exposure in its sole discretion and in a principal capacity. Investors in any Linked Product will not have any rights in respect of any GS hedge positions, including any shares, futures, options, commodities or currencies. GS may execute its hedging activity by trading in the Index Components of a GS Index on or before the related rebalancing day. Such trading may have an adverse impact on the level at which a basket of Index Components is rebalanced which will result in an adverse impact on the performance of an Index. GS's hedging activity, and hence the size of such impact, will be linked to the amount of new and outstanding Linked Products at the relevant time. Additionally, GS may generate revenues if it executes its hedging activity at different levels from

those used to determine the value of a GS Index or on a rebalancing of such GS Index. Such hedging activity could generate significant returns to GS that will not be passed on to investors in Linked Products.

A GS Index and its components are calculated and rebalanced according to the methodology for such GS Index, which includes assumptions as to transaction and servicing costs. GS will generate revenues in relation to a GS Index if the cost that GS incurs through its hedging activities are less than the assumed costs used in the methodology for a GS Index.

Section 871(m) of the U.S. Internal Revenue Code

The United States Treasury Department has issued regulations under which amounts paid or deemed paid on certain financial instruments ("**871(m) financial instruments**") that are treated as attributable to U.S.-source dividends could be treated, in whole or in part depending on the circumstances, as a "dividend equivalent" payment that is subject to tax at a rate of 30 per cent. (or a lower rate under an applicable treaty), which in the case of any amounts or returns which an investor in products linked to a GS Index may receive under the terms of their investment, could be collected via withholding. If these regulations were to apply, the counterparty to, or issuer of, such products may be required to withhold such taxes if any dividends are paid on any underlying component of the GS Index during the term of such investment. Any such investor may also be required to make certifications prior to the maturity of their investment in order to avoid or minimize withholding obligations, and the counterparty or issuer (as applicable) could withhold accordingly (subject to such investor's potential right to claim a refund from the United States Internal Revenue Service) if such certifications are not received or are not satisfactory. These regulations generally apply to any payment made on or after 1 January 2017 with respect to any 871(m) financial instrument issued on or after 1 January 2017. Investors in products linked to a GS Index should consult their tax advisors concerning these regulations or subsequent official guidance and regarding any other possible alternative characterisations of such products for United States federal income tax purposes.

Each GS Index may be subject to ~~Disruption Events non-tradable events, market disruption events or force majeure events~~

If certain ~~Disruption Events non-tradable events, market disruption events or force majeure events~~ in respect of a GS Index (each as more particularly described in the relevant Index Rules) occur on any Index Business Day (as defined in the relevant Index Rules) or such other day(s) on which the value of such GS Index is scheduled to be calculated or published, the value of a GS Index may not be determined on such scheduled Index Business Day and/or other determinations and/or adjustments may be made in the discretion of the Index Sponsor, and the method of determining such GS Index and/or its value may be changed. In such case, it is likely that the value of such GS Index will be different from what it would have been if such ~~Disruption Events non-tradable event, market disruption event or force majeure event~~ had not occurred, and it may vary unpredictably and could be lower.

The Index Sponsor and/or the Index Calculation have the discretion to make determinations that could materially affect a GS Index and create conflicts of interest

The Index Sponsor and the Index Calculation Agent do not generally exercise any discretion in relation to the operation of a GS Index and owe no fiduciary duties in respect of the GS Indices. The Index Sponsor has a certain amount of discretion in the event of, amongst other things, the occurrence of certain ~~Disruption Events non-tradable events, market disruption events or force majeure events~~ in respect of each GS Index (each as more particularly described in the relevant Index Rules). Determinations made by the Index Sponsor and, if applicable, the Index Calculation Agent could adversely affect the value of a GS Index or any product linked to a GS Index and the exercise by the Index Sponsor of its discretion could present it with a conflict of interest of the kind described in Section E: *Conflicts of Interest*. In making those determinations, the Index Sponsor and/or the Index Calculation Agent will not be required to, and will not, take the interests of any investor of any such product into account or consider the effect its determinations will have on the value of such a product. All determinations made by the Index Sponsor and/or the Index Calculation Agent shall be at its sole discretion and shall be conclusive for all purposes and will bind all investors of any products linked to a GS Index. The Index Sponsor and/or the Index Calculation Agent shall not have any liability for such determinations.

GSG members may, if it is acting as sponsor of one or more of the Index Components in respect of a GS Index, have the authority to make determinations in respect of such Index Components that could materially affect such GS Index and create conflicts of interest

GSG members may also act as sponsor of one or more of the Index Components in respect of a GS Index. In that capacity, each of them has the power in such capacity to make certain determinations that could materially affect the value of such Index Components and, in turn, the value of such GS Index, and the exercise by each such member of its discretion in its capacity as sponsor of such Index Components could present it with a conflict of interest of the kind described in Section E: *Conflicts of Interest*.

Trading and other transactions by GSG could materially affect the value of any product linked to a GS Index

GSG is a full-service financial services firm engaged in a range of market activities. GSG may issue, arrange for the issue of, or enter into products referenced to, a GS Index and/or the Index Components and arrange for the distribution of these products or underlyings, including the payment of distribution fees and commissions to any intermediaries. These activities could adversely affect the value of a GS Index and/or the value of the Index Components, and may present GSG with a conflict of interest of the kind described in Section E: *Conflicts of Interest*.

Information provided by the Index Sponsor or GSG about the value of any Index Components may not be indicative of future performance

Any information about the performance of any Index Components provided by the Index Sponsor or GSG (as applicable) will be or has been furnished as a matter of information only, and an investor in a product linked to a GS Index should not regard the information as indicative of the range of, or trends in, fluctuations in the levels or values that may occur in the future. Such information will likely differ from the actual values and levels used under the relevant methodology used to calculate such GS Index.

Information about each GS Index may only be available through the Index Sponsor or GSG

The Index Sponsor or GSG (as applicable) may not provide investors of any product linked to a GS Index with further information in relation to such GS Index beyond what is provided in the relevant Index Rules, and further information may not be generally available. The Index Sponsor or GSG (as applicable) has entered into non-exclusive licensing agreements with certain of its third party data suppliers in order to source the necessary data to calculate each GS Index. The formalities necessary to obtain access to such figures may deter potential investors from buying a product linked to a GS Index on the secondary market.

The Index Sponsor and the Index Calculation Agent may rely upon third party and other external and internal data sources which may be inaccessible and/or inaccurate, and the inputs used by the Index Calculation Agent or the Index Sponsor to run the index calculations may affect the value of such GS Index

The Index Sponsor and the Index Calculation Agent may rely upon third party brokers or external dealers and other external and internal sources to obtain certain inputs necessary to compute the value of each GS Index which may be inaccessible and/or inaccurate and the inputs used by them to determine the weights of the Index Components and/or to compute the value of a GS Index may affect the value of such GS Index. Investors considering acquiring or making an investment in a product linked to such GS Index should carefully read and understand the information about such Index Components. Information about the Index Components can be found on the Bloomberg Pages specified in the Relevant General Description and/or Other Relevant Documentation Elements.

The inability of the Index Calculation Agent to source necessary data to calculate the relevant formulae of each GS Index may affect the value of such GS Index. In addition, the Index Sponsor and the Index Calculation Agent makes no warranty as to the correctness or completeness of that information and takes no responsibility for the accuracy of such data or the impact of any inaccuracy of such data on the value of each GS Index.

Products linked to a GS Index may be exposed to more or less risk, or perform better or worse, based upon the inputs received from the above suppliers or sources, than an actual investment in or linked to one or more of the Index Component(s).

Sponsors of Index Components have authority to make determinations that could materially affect a GS Index

Determinations that the sponsors of the Index Components of a GS Index, including GSG members, may make in connection with the composition, calculation and maintenance of the Index Components may materially affect the value of the Index Components and could, in turn, adversely affect the value of such GS Index. Those sponsors have no obligation to take the interests of the Index Sponsor or any investors of any investment referenced or linked to a GS Index into consideration for any reason in carrying out their functions and have generally disclaimed all liability to the extent permitted by law.

In addition, the sponsors of the Index Components have licensed, and may continue to license, such Index Components for use by other market participants, for publication in newspapers and periodicals, for distribution by information and data dissemination services and for various other purposes, any of which may contribute to an increased or decreased level of investment in such Index Components, which could adversely affect the value of a GS Index.

The policies of the Index Sponsor and changes that affect a GS Index could affect the value of the GS Index

The decisions and policies of the Index Sponsor concerning the calculation of the value of a GS Index could affect the value of such GS Index and, therefore, the amount payable on any products linked to such GS Index on the stated maturity date of such products (or on any other payment date) and the market value of such products before that date. The amount payable on any products linked to a GS Index and their market value could also be affected if the Index Sponsor changes these policies, for example, by changing the manner in which it calculates such GS Index, or if the Index Sponsor discontinues or suspends calculation or publication of such GS Index, in which case it may become difficult to determine the market value of such products. If such policy changes relating to a GS Index or the calculation or publication of a GS Index is discontinued or suspended, the calculation agent of any products linked to such GS Index (which may be Goldman Sachs International) will have discretion in determining the level of such GS Index on the relevant determination date and the amount payable on such products.

The policies of a sponsor and changes affecting an Index Component could affect the GS Index and its value

The policies of a sponsor concerning the calculation of the value of an Index Component, or additions, deletions or substitutions of Index Components and the manner in which changes affecting the Index Components could affect the value of an Index Component and, therefore, the value of such GS Index and any product linked to such GS Index. The value of a GS Index could also be affected if the relevant sponsor changes these policies, for example, by changing the manner in which it calculates the value of the Index Component, or if the sponsor discontinues or suspends calculation or publication of the value of the Index Component, in which case it may become difficult to determine the value of the GS Index.

A GS Index may be calculated without reference to corrected data

In the event that the value of any component which is used for the calculation of the weight of any Index Component in relation to the GS Index is corrected after such time as it is used in the GS Index, the Index Calculation Agent shall be under no obligation to use such corrected value and may use the weights as calculated before such correction. As a result the performance of a GS Index may differ from the performance had such corrected values been used, and possibly materially so.

A GS Index may be changed or become unavailable

The Index Sponsor shall have the right to alter the methodology used to calculate a GS Index or to discontinue publication of the value of such GS Index and such event may result in a decrease in the

value of or return on any product linked to such GS Index.

The Index Sponsor reserves the right to form an Index Committee for the purposes of considering certain changes. Any changes may be made without regard to the interests of an investor of any product linked to such GS Index.

If a GS Index uses an optimisation computer software package then such package may not determine the mathematically optimal result, and may be changed from time to time.

As part of its pre-determined set of rules a GS Index may use a commercially available optimisation computer software package (an "**Optimiser**") to solve a mathematical optimisation problem, which may be subject to certain optimisation constraints. For example, if specified in the rules of a GS Index such GS Index may use an Optimiser to calculate the weights of certain Index Components with the aim of maximising or minimising one or more variables.

As the possible results may be a continuous function, there may be no simple function to test the various combinations of results. Consequently, it is necessary to use approximations contained in computation routines. There is no guarantee that in respect of any optimisation problem an Optimiser will determine the optimal set of results and it is possible that there exist alternative results that satisfy the relevant constraints. Further, the Index Calculation Agent may from time to time change the Optimiser used in respect of a GS Index. Different Optimisers may be more or less likely to determine the optimal result for a GS Index, and using them could lead to a different performance of a GS Index. If such GS Index employed a different Optimiser, the results of rebalancing could be different and possibly materially so. As such, the performance of the GS Index may be dependent on the choice of Optimiser and could be materially different if the Index Sponsor replaces the Optimiser at any time.

Risk factors relating to Index Components which reference foreign exchange rates

Changes in foreign currency exchange rates can be volatile and unpredictable

Generally, rates of exchange between foreign currencies are volatile, and this volatility may continue in the future, in particular with regard to emerging market currencies. Fluctuations in currency exchange rates could adversely affect the performance of the GS Index. Some markets, especially emerging markets, carry significant risks for investors.

Government policy can adversely affect foreign currency exchange rates

Foreign currency exchange rates can either float or be fixed by sovereign governments. From time to time, governments use a variety of techniques, such as intervention by a country's central bank or imposition of regulatory controls or taxes, to affect the exchange rate of their currencies. Governments may also issue a new currency to replace an existing currency or alter the exchange rate or exchange characteristics by devaluation or revaluation of a currency. Therefore, the level of an Index Component (and therefore any GS Index referencing such Index Component) which references foreign currency exchange rates could be significantly and unpredictably affected by governmental actions. Even in the absence of governmental action directly affecting foreign currency exchange rates, political, military or economic developments in a country issuing either currency of a relevant currency pair or elsewhere could lead to significant and sudden changes in the foreign currency exchange rate between currency pairs as well as the level of any Index Component referencing such foreign currency exchange rate taken into account for the purposes of the calculation of the level of the GS Index.

The government or central bank that issues either currency of a relevant currency pair will have no involvement in the offer and sale of the GS Index and no obligations to the Index Sponsor. Each such government or central bank may take actions that could adversely affect the value of the GS Index.

Foreign exchange rates are influenced by unpredictable factors

Generally, foreign exchange rates are a result of the supply of, and demand for, a given currency both domestically and internationally. Changes in exchange rates may result from the interactions of many factors including economic, financial, social and political conditions in Europe, the United States, any other jurisdiction whose currency is either currency of a relevant currency pair. These conditions include, for example, the overall growth and performance of the economies of the United States, the European Monetary Union (and the constituent nations thereof), any other jurisdiction whose currency is either currency of the relevant currency pair, the trade and current account balance between such countries, inflation, interest rate levels, the performance of global stock markets, the stability of the United States, European or other relevant jurisdictions' governments and banking systems, wars in which such nations or regions are directly or indirectly involved or that occur anywhere in the world, major natural disasters, and other foreseeable and unforeseeable events.

Certain relevant information relating to relevant jurisdictions (in respect of any currency pair) may not be as well known or as rapidly or thoroughly reported in the United States as compared to US developments. It is possible that there would be a lack of availability of important information that can affect the value of the one currency against another in respect of the GS Index, and special efforts may be required to obtain such information on a timely basis. See also the risk factor entitled "Government policy can adversely affect foreign currency exchange rates" above.

Foreign exchange rate information may not be readily available

There is no systematic reporting of last-sale information for foreign currencies. Reasonable current bid and offer information is available in certain brokers' offices, in bank foreign currency trading offices, and to others who wish to subscribe for this information, but this information will not necessarily reflect the currency exchange rates relevant for determining the level of the GS Index. The absence of last-sale information and the limited availability of quotations to individual investors may make it difficult for many investors to obtain timely, accurate data about the state of the underlying foreign exchange markets.

INDEX SUPPLEMENT

THE GOLDMAN SACHS FUTURES BASED INDICES – The Goldman Sachs Bond Futures Indices

Date: 8 March 2019

This Index Supplement relates to the Goldman Sachs Bond Futures Indices (each a “**Futures Based Index**” or an “**Index**”) and must be read in conjunction with the Goldman Sachs Futures Based Indices Base Description (the “**Base Description**”) (which incorporates the applicable version of the Goldman Sachs General Index Provisions) produced by Goldman Sachs International, dated 14 December 2012.

In respect of an Index, the Base Description (and the applicable version of the Goldman Sachs General Index Provisions incorporated therein), together with this Index Supplement (and for the avoidance of doubt, the specific parameters applicable to such Index as set out herein), will constitute the “**Index Rules**” in respect of such Index and the terms of this Index Supplement shall be construed in accordance with the relevant terms of the Base Description (incorporating the applicable version of the Goldman Sachs General Index Provisions). For the avoidance of doubt, in respect of each Index, each reference in the Base Description to “the applicable Index Supplement” shall be deemed to refer to this Index Supplement (and for the avoidance of doubt, the specific parameters applicable to such Index as set out herein). This Index Supplement is produced in the form of a single physical document for convenience only.

Each Index is intended to express the notional returns accruing to a hypothetical investor from an algorithmic futures trading strategy that seeks to gain a long exposure to a Designated Contract Expiration of a Designated Contract. The Designated Contract specified with respect to an Index is set out in Table 1 and Table 2 below under column titled “Designated Contract” and the Designated Contract Expiration specified with respect to an Index is set out in Table 1 and Table 2 below under column titled “Designated Contract Expiration”.

Capitalised terms used in this Index Supplement but not defined herein shall have the meaning specified in the Base Description (or in the applicable version of the Goldman Sachs General Index Provisions incorporated therein) and to the extent of any inconsistency between the provisions of this Index Supplement and the provisions of the Base Description (or the applicable version of the Goldman Sachs General Index Provisions incorporated therein), the provisions of this Index Supplement will prevail.

In summary, the methodologies and rules used to calculate the Futures Based Index are set out in the Goldman Sachs General Index Provisions, the Base Description and this Index Supplement.

PLEASE REFER TO SECTION D: DISCLAIMERS, SECTION E: CONFLICTS OF INTEREST AND SECTION F: RISK FACTORS SET OUT IN THE GENERAL INDEX PROVISIONS, AND SECTION 6: RISK FACTORS IN THE BASE DESCRIPTION IN ADDITION TO THE ADDITIONAL RISK FACTORS (IF ANY) SET OUT BELOW.

1. GENERAL TERMS	
Type of Index:	Proportional
Underlier Return Type:	Proportional
Additive Index Notional	Not Applicable
Index Currency:	In respect of each Index, as specified in Table 1, Table 2 and Table 3 below.

Index Business Day:	In respect of each Index, as specified in Table 1, Table 2 and Table 3 below.
Index Trading Day:	In respect of each Index, as specified in Table 1, Table 2 and Table 3 below.
Index Historical Date:	In respect of each Index, as specified in Table 1, Table 2 and Table 3 below.
Index Inception Date:	In respect of each Index, as specified in Table 1, Table 2 and Table 3 below.
Initial Index Value:	100
Index Publication Data Source:	In respect of each Index, as specified in Table 1, Table 2 and Table 3 below.
Index Calculation Agent:	Goldman Sachs International
Index Sponsor:	Goldman Sachs International, reachable at the following telephone number: +44 (0)20 777 41 000
2. ADDITIONAL RISK FACTORS	Not Applicable
3. ADDITIONAL DISCLAIMERS	<p>The Index Calculation Agent may use hypothetical back-tested data in the calculation of an Index Value prior to the Index Inception Date</p> <p>In respect of an Index, each Index Value in respect of the period commencing on (and including) the Index Historical Date and ending on (and including) the Index Inception Date (the "Index Back-test Period") is calculated by the Index Calculation Agent based on certain data available to the Index Calculation Agent as of the Index Inception Date (such data being the "Historical Data"). The Index Calculation Agent may in its sole and absolute discretion use alternate sources of data and other proxies in place of the Historical Data if, in the determination of the Index Calculation Agent, such Historical Data is unavailable and/or incomplete.</p>
4. ADDITIONAL TERMS	Not Applicable
5. ADDITIONAL DEFINITIONS	<p>"First Nearby Contract Expiration" means, in respect of a Potential Notional Position, the Designated Contract in respect of such Potential Notional Position and each Selection Date for such Potential Notional Position, the Contract Expiration in respect of such Designated Contract associated with a Last Trading Date that is the first to occur after such Selection Date.</p> <p>"Second Nearby Contract Expiration" means, in respect of a Potential Notional Position, the Designated Contract in respect of such Potential Notional Position, each Selection Date for such Potential Notional Position and the First Nearby Contract Expiration, the Contract Expiration in respect of such Designated Contract associated with a Last Trading Date occurring immediately after the Last Trading Date of the First</p>

	Nearby Contract Expiration.
6. ADDITIONAL MARKET DISRUPTION EVENTS	<p>Not Applicable.</p> <p>In respect of any Designated Contract which is an ASX Treasury Bond Future, the reference to “the relevant Daily Contract Reference Price” in sub-paragraph (v) of the definition of “Market Disruption Event” shall be deemed to include any component input to such Daily Contract Reference Price required for the calculation thereof.</p>

In respect of each Index:

Designated Contract	As specified in Table 1, Table 2 and Table 3 below.
Contract Expirations	The March, June, September, and December contract expirations of the relevant Designated Contract specified in Table 1, Table 2 and Table 3 below.
Trading Facility	In respect of each Index and the corresponding Designated Contract, as specified in Table 1, Table 2 and Table 3 below.
In respect of each Contract Expiration to which the Designated Contract relates	
Daily Contract Reference Price	As specified in Table 1, Table 2 and Table 3 below.
Daily Contract Reference Price Data Source	As specified in Table 1, Table 2 and Table 3 below.
Tradable Dates and Times	As specified in Table 1, Table 2 and Table 3 below.
Latest Tradable Date	As specified in Table 1, Table 2 and Table 3 below.

In respect of each Index listed in Table 1, the Designated Contract for such Index, the Designated Contract Expiration for such Index and each Potential Notional Position in respect of such Index:

Potential Notional Position	1	2	3	4
Selection Date(s)	Four Index Trading Days prior to the Latest Tradable Date of each Designated Contract Expiration	See left	See left	See left
Designated Contract	The Designated Contract for such Index	See left	See left	See left
Designated Contract Expiration	The Designated Contract Expiration for such Index	See left	See left	See left
Underlying Weighting	1/4	1/4	1/4	1/4
Additive Underlier Scaling Factor	Not Applicable	See left	See left	See left
Potential Entry Date and Time	As specified in Table 1 below.	See left	See left	See left
Potential Exit Date and Time	As specified in Table 1 below.	See left	See left	See left
Entry Price	The Daily Contract Reference Price in respect of the Designated Contract Expiration on the Entry Date and Time	See left	See left	See left
Exit Price	The Daily Contract Reference Price in respect of the Designated Contract Expiration on the Exit Date and Time	See left	See left	See left
Fee	As specified in Table 1 below.	See left	See left	See left

Table 1

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year JGB Future Index N1 Class C	JPX 10 year JGB Futures (with specifications as set out on the JPX website: http://www.jpjx.co.jp/english/derivatives/products/jgb/jgb-futures/01.html)	1	The closing time of the JPX afternoon session on the first Index Trading Day following a Selection Date for such Potential Notional Position.	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the closing time of the JPX afternoon session on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Japan Exchange Group (JPX)	In respect of a Designated Contract Expiration and any Index Business Day, the futures price of such Designated Contract Expiration as of the JPX afternoon session close on such Index Business Day, as published on the Daily Contract Reference Price Data Source.	Thomson Reuters	In respect of a Designated Contract Expiration and any Index Trading Day, the closing time of the JPX afternoon session on such Index Trading Day.	JPY	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Japan Exchange Group is scheduled to be open	Each day (other than a Saturday or a Sunday) on which the Japan Exchange Group is scheduled to be open	04Jun90	1Jun17	In respect of a Designated Contract Expiration, five Designated Contract Business Days prior to the 20th calendar day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	In respect of a Designated Contract Expiration, the Index Trading Day immediately prior to the day that is two Designated Contract Business Days prior to the First Notice Day.	Bloomberg Ticker: GSCCB01 Index
		2	The closing time of the JPX afternoon session on the second Index Trading Day following a Selection Date for such Potential Notional Position.	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the closing time of the JPX afternoon session on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The closing time of the JPX afternoon session on the third Index Trading Day following a Selection Date for such Potential Notional Position.	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the closing time of the JPX afternoon session on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The closing time of the JPX afternoon session on the fourth Index Trading Day following a Selection Date for such Potential Notional Position.	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the closing time of the JPX afternoon session on the fourth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year Canadian Government Bond Future Exchange Close Index N1 Class C	Ten Year Government of Canada Bond Futures (with specifications as set out on the Montreal Exchange website: https://www.m-x.ca/products/taux_int_cgb_en.php)	1	The daily close for Ten Year Government of Canada Bond Futures on the Montreal Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Ten Year Government of Canada Bond Futures on the Montreal Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Montreal Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the Montreal Exchange	The Montreal Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for Ten Year Government of Canada Bond Futures on the Montreal Exchange on such Index Trading Day.	CAD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Montreal Exchange is scheduled to be open and to settle prices for Ten Year Government of Canada Bond Futures	Each day (other than a Saturday or a Sunday) (i) on which the Montreal Exchange is scheduled to be open and to settle prices for Ten Year Government of Canada Bond Futures; (ii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday; (iii) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday; and	21Nov94	1Jun17	In respect of a Designated Contract Expiration, the third Designated Contract Business Day prior to the first Designated Contract Business Day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCCN01 Index
		2	The daily close for Ten Year Government of Canada Bond Futures on the Montreal Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Ten Year Government of Canada Bond Futures on the Montreal Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for Ten Year Government of Canada Bond Futures on the Montreal Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Ten Year Government of Canada Bond Futures on the Montreal Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for Ten Year Government of Canada Bond Futures on the Montreal Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Ten Year Government of Canada Bond Futures on the Montreal Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year Australian Treasury Future Exchange Close Index N1 Class C	ASX 10 Year Treasury Bond Futures (with specifications as set out on the Australian Stock Exchange website: http://www.asx.com.au/products/interest-rate-derivatives/bond-derivatives.htm)	1	The daily close for ASX 10 Year Treasury Bond Futures on the Australian Stock Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for ASX 10 Year Treasury Bond Futures on the Australian Stock Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Australian Stock Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the price calculated in accordance with Schedule A	The Australian Stock Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for ASX 10 Year Treasury Bond Futures on the Australian Stock Exchange on such Index Trading Day.	AUD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Australian Stock Exchange is scheduled to be open and to settle prices for ASX 10 Year Treasury Bond Futures	Each day (other than a Saturday or a Sunday) (i) on which the Australian Stock Exchange is scheduled to be open and to settle prices for ASX 10 Year Treasury Bond Futures; (ii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday; (iii) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday; and.	07Mar95	1Jun17	In respect of a Designated Contract Expiration, the fifteenth calendar day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs (or the next succeeding Designated Business Day if it is not a Designated Contract Business Day)	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCKM01 Index
		2	The daily close for ASX 10 Year Treasury Bond Futures on the Australian Stock Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for ASX 10 Year Treasury Bond Futures on the Australian Stock Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for ASX 10 Year Treasury Bond Futures on the Australian Stock Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for ASX 10 Year Treasury Bond Futures on Australian Stock Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for ASX 10 Year Treasury Bond Futures on the Australian Stock Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for ASX 10 Year Treasury Bond Futures on Australian Stock Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 3-year Australian Treasury Future Exchange Close Index N1 Class C	ASX 3 Year Treasury Bond Futures (with specifications as set out on the Australian Stock Exchange website: http://www.asx.com.au/products/interest-derivatives/bond-derivatives.htm)	1	The daily close for ASX 3 Year Treasury Bond Futures on the Australian Stock Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for ASX 3 Year Treasury Bond Futures on the Australian Stock Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Australian Stock Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the price calculated in accordance with Schedule A	The Australian Stock Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for ASX 3 Year Treasury Bond Futures on the Australian Stock Exchange on such Index Trading Day.	AUD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Australian Stock Exchange is scheduled to be open and to settle prices for ASX 3 Year Treasury Bond Futures	Each day (other than a Saturday or a Sunday) (i) on which the Australian Stock Exchange is scheduled to be open and to settle prices for ASX 3 Year Treasury Bond Futures; (ii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday; (iii) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday; and.	07Mar95	1Jun17	In respect of a Designated Contract Expiration, the fifteenth calendar day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs (or the next succeeding Designated Contract Business Day if it is not a Designated Contract Business Day)	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCYM01 Index
		2	The daily close for ASX 3 Year Treasury Bond Futures on the Australian Stock Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for ASX 3 Year Treasury Bond Futures on the Australian Stock Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for ASX 3 Year Treasury Bond Futures on the Australian Stock Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for ASX 3 Year Treasury Bond Futures on Australian Stock Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for ASX 3 Year Treasury Bond Futures on the Australian Stock Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for ASX 3 Year Treasury Bond Futures on Australian Stock Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 2-year Treasury Future Exchange Close Index N1 Class C	US 2-year Treasury Note Future (with specifications as set out on the CME website: http://www.cmegroup.com/trading/international/us-treasury/2-year-us-treasury-note_contract_specifications.html)	1	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the CME	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for US Treasury futures on the Chicago Mercantile Exchange on such Index Trading Day.	USD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 2-year Treasury Note Futures	Each day (other than a Saturday or a Sunday) (i) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 2-year Treasury Note Futures, (ii) which is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iii) which is not a day denoted as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iv) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (v) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday.	24Aug90	8Mar19	In respect of a Designated Contract Expiration, the last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCTU01 Index
		2	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 5-year Treasury Future Exchange Close Index N1 Class C	US 5-year Treasury Note Future (with specifications as set out on the CME website: http://www.cmegroup.com/trading/international/rates/us-treasury/5-year-us-treasury-note_contract_specifications.html)	1	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the CME	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for US Treasury futures on the Chicago Mercantile Exchange on such Index Trading Day.	USD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 5-year Treasury Note Futures	Each day (other than a Saturday or a Sunday) (i) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 5-year Treasury Note Futures, (ii) which is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iii) which is not a day denoted as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iv) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (v) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday.	23May 88	8Mar19	In respect of a Designated Contract Expiration, the last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCFV01 Index
		2	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year Treasury Future Exchange Close Index N1 Class C	US 10-year Treasury Note Futures (with specifications as set out on the CME website: http://www.cmegroup.com/trading/international/us-treasury/10-year-us-treasury-note_contract_specifications.html)	1	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the CME	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for US Treasury futures on the Chicago Mercantile Exchange on such Index Trading Day.	USD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 10-year Treasury Note Futures	Each day (other than a Saturday or a Sunday) (i) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 10-year Treasury Note Futures, (ii) which is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iii) which is not a day denoted as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iv) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (v) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday.	23Nov84	8Mar19	In respect of a Designated Contract Expiration, the last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCT01 Index
		2	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 30-year Treasury Future Exchange Close Index N1 Class C	US 30-year Treasury Note Futures (with specifications as set out on the CME website: http://www.cmegroup.com/trading/international/us-treasury/30-year-us-treasury-bond_contract_specifications.html)	1	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the CME	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for US Treasury futures on the Chicago Mercantile Exchange on such Index Trading Day.	USD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 30-year Treasury Note Futures	Each day (other than a Saturday or a Sunday) (i) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 30-year Treasury Note Futures, (ii) which is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iii) which is not a day denoted as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iv) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (v) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday.	22Nov77	8Mar19	In respect of a Designated Contract Expiration, the last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCUS01 Index
		2	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year Gilt Future Exchange Close Index N1 Class C	Long Gilt Futures (with specifications as set out on the NYSE Euronext website: https://www.theice.com/products/37650336/Long-Gilt-Future)	1	The daily close for Long Gilt Futures on the NYSE Euronext Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long Gilt Futures on the NYSE Euronext Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	NYSE Liffe	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the NYSE Euronext Exchange	NYSE Liffe	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for Long Gilt Futures on the NYSE Euronext Exchange on such Index Trading Day.	GBP	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the NYSE Liffe Exchange is scheduled to be open and to settle prices for Long Gilt Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which the NYSE Liffe Exchange is scheduled to be open and to settle prices for Long Gilt Futures; (iii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday and (iv) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday	18Feb83	8Mar19	In respect of a Designated Contract Expiration, the second last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCG01 Index
		2	The daily close for Long Gilt Futures on the NYSE Euronext Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long Gilt Futures on the NYSE Euronext Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for Long Gilt Futures on the NYSE Euronext Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long Gilt Futures on the NYSE Euronext Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for Long Gilt Futures on the NYSE Euronext Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long Gilt Futures on the NYSE Euronext Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year Treasury Ultra Future Exchange Close Index N1 Class C	Ultra 10-year USTreasury Note Futures (with specifications as set out on the CME website: https://www.cmegrading/interest-rates/us-treasury/ultra-10-year-us-treasury-note_contract_specifications.html)	1	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the CME	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for US Treasury futures on the Chicago Mercantile Exchange on such Index Trading Day.	USD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for Ultra 10-year USTreasury Note Futures	Each day (other than a Saturday or a Sunday) (i) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for Ultra 10-year USTreasury Note Futures, (ii) which is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iii) which is not a day denoted as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iv) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (v) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday.	22Feb16	8Mar19	In respect of a Designated Contract Expiration, the last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCUX01 Index
		2	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 30-year Treasury Ultra Future Exchange Close Index N1 Class C	Ultra 30-year USTreasury Note Futures (with specifications as set out on the CME website: https://www.cmegroup.com/trading/interest-rates/ultra-treasury/ultra-t-bond.html)	1	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the CME	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for US Treasury futures on the Chicago Mercantile Exchange on such Index Trading Day.	USD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for Ultra 30-year USTreasury Note Futures	Each day (other than a Saturday or a Sunday) (i) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for Ultra 30-year USTreasury Note Futures, (ii) which is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iii) which is not a day denoted as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iv) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (v) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday.	19Feb10	8Mar19	In respect of a Designated Contract Expiration, the last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCWNO1 Index
		2	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														

In respect of each Index listed in Table 2, the Designated Contract for such Index, the Designated Contract Expiration for such Index and each Potential Notional Position in respect of such Index:

Potential Notional Position	1	2	3	4	5	6
Selection Date(s)	Six Index Trading Days prior to the Latest Tradable Date of each Designated Contract Expiration	See left	See left	See left	See left	See left
Designated Contract	The Designated Contract for such Index	See left	See left	See left	See left	See left
Designated Contract Expiration	The Designated Contract Expiration for such Index	See left	See left	See left	See left	See left
Underlying Weighting	1/6	1/6	1/6	1/6	1/6	1/6
Additive Underlier Scaling Factor	Not Applicable	See left	See left	See left	See left	See left
Potential Entry Date and Time	As specified in Table 2 below.	See left	See left	See left	See left	See left
Potential Exit Date and Time	As specified in Table 2 below.	See left	See left	See left	See left	See left
Entry Price	The Daily Contract Reference Price in respect of the Designated Contract Expiration on the Entry Date and Time	See left	See left	See left	See left	See left
Exit Price	The Daily Contract Reference Price in respect of the Designated Contract Expiration on the Exit Date and Time	See left	See left	See left	See left	See left
Fee	As specified in Table 2 below.	See left	See left	See left	See left	See left

Table 2

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 2-year Schatz Future Exchange Close Index N1 Class C	Euro-Schatz Futures (with specifications as set out on the Eurex Exchange website : http://www.eurexchange.com/exchange-en/products/int/tix/government-bonds/16134/)	1	The daily close for Euro-Schatz Futures on the Eurex Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Schatz Futures on the Eurex Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the Eurex	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for Euro-Schatz Futures on the Eurex Exchange on such Index Trading Day.	EUR	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Eurex Exchange is scheduled to be open and to settle prices for Euro-Schatz Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which the Eurex Exchange is scheduled to be open and to settle prices for Euro-Schatz Futures; (iii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday; (iv) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday; and (v) which is not the 1 st of May.	20May 99	1Jun17	In respect of a Designated Contract Expiration, the second Designated Contract Business Day prior to the tenth calendar day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	In respect of a Designated Contract Expiration, the Index Trading Day immediately prior to the day that is three Designated Contract Business Days prior to the First Notice Day.	Bloomberg Ticker: GSCDDU01 Index
		2	The daily close for Euro-Schatz Futures on the Eurex Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Schatz Futures on the Eurex Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for Euro-Schatz Futures on the Eurex Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Schatz Futures on the Eurex Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for Euro-Schatz Futures on the Eurex Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Schatz Futures on the Eurex Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														
		5	The daily close for Euro-Schatz Futures on the Eurex Exchange on the fifth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Schatz Futures on the Eurex Exchange on the fifth Index Trading Day occurring after the immediately following Selection Date														
		6	The daily close for Euro-Schatz Futures on the Eurex Exchange on the sixth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Schatz Futures on the Eurex Exchange on the sixth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 5-year Bobl Future Exchange Close Index N1 Class C	Euro-Bobl Futures (with specifications as set out on the Eurex Exchange website : http://www.eurexchange.com/exchange-en/products/int/fix/governments-bonds/15644/)	1	The daily close for Euro-Bobl Futures on the Eurex Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bobl Futures on the Eurex Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the Eurex	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for Euro-Bobl Futures on the Eurex Exchange on such Index Trading Day.	EUR	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Eurex Exchange is scheduled to be open and to settle prices for Euro-Bobl Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which the Eurex Exchange is scheduled to be open and to settle prices for Euro-Bobl Futures; (iii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday; (iv) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday; and (v) which is not the 1 st of May.	22Feb99	11Jun17	In respect of a Designated Contract Expiration, the second Designated Contract Business Day prior to the tenth calendar day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	In respect of a Designated Contract Expiration, the Index Trading Day immediately prior to the day that is three Designated Contract Business Days prior to the First Notice Day.	Bloomberg Ticker: GSCCOE01 Index
		2	The daily close for Euro-Bobl Futures on the Eurex Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bobl Futures on the Eurex Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for Euro-Bobl Futures on the Eurex Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bobl Futures on the Eurex Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for Euro-Bobl Futures on the Eurex Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bobl Futures on the Eurex Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														
		5	The daily close for Euro-Bobl Futures on the Eurex Exchange on the fifth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bobl Futures on the Eurex Exchange on the fifth Index Trading Day occurring after the immediately following Selection Date														
		6	The daily close for Euro-Bobl Futures on the Eurex Exchange on the sixth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bobl Futures on the Eurex Exchange on the sixth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year Bund Future Exchange Close Index N1 Class C	Euro-Bund Futures (with specifications as set out on the Eurex Exchange website : http://www.eurexchange.com/exchange-en/products/int/fix/governments-bonds/14770/)	1	The daily close for Euro-Bund Futures on the Eurex Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bund Futures on the Eurex Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the Eurex	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for Euro-Bund Futures on the Eurex Exchange on such Index Trading Day.	EUR	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Eurex Exchange is scheduled to be open and to settle prices for Euro-Bund Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which the Eurex Exchange is scheduled to be open and to settle prices for Euro-Bund Futures; (iii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday; (iv) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday; and (v) which is not the 1 st of May.	22Feb99	11Jun17	In respect of a Designated Contract Expiration, the second Designated Contract Business Day prior to the tenth calendar day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	In respect of a Designated Contract Expiration, the Index Trading Day immediately prior to the day that is three Designated Contract Business Days prior to the First Notice Day.	Bloomberg Ticker: GSCCRX01 Index
		2	The daily close for Euro-Bund Futures on the Eurex Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bund Futures on the Eurex Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for Euro-Bund Futures on the Eurex Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bund Futures on the Eurex Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for Euro-Bund Futures on the Eurex Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bund Futures on the Eurex Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														
		5	The daily close for Euro-Bund Futures on the Eurex Exchange on the fifth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bund Futures on the Eurex Exchange on the fifth Index Trading Day occurring after the immediately following Selection Date														
		6	The daily close for Euro-Bund Futures on the Eurex Exchange on the sixth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Bund Futures on the Eurex Exchange on the sixth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 30-year Buxl Future Exchange Close Index N1 Class C	Euro-Buxl Futures (with specifications as set out on the Eurex Exchange website : https://www.eurex.com/exchange-products/int/fix/government-bonds/Euro-Buxl-Futures-137324)	1	The daily close for Euro-Buxl Futures on the Eurex Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Buxl Futures on the Eurex Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the Eurex	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for Euro-Buxl Futures on the Eurex Exchange on such Index Trading Day.	EUR	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Eurex Exchange is scheduled to be open and to settle prices for Euro-Buxl Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which the Eurex Exchange is scheduled to be open and to settle prices for Euro-Buxl Futures; (iii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday; (iv) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday; and (v) which is not the 1 st of May.	24Nov05	8Mar19	In respect of a Designated Contract Expiration, the second Designated Contract Business Day prior to the tenth calendar day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	In respect of a Designated Contract Expiration, the Index Trading Day immediately prior to the day that is three Designated Contract Business Days prior to the First Notice Day.	Bloomberg Ticker: GSCCUB01 Index
		2	The daily close for Euro-Buxl Futures on the Eurex Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Buxl Futures on the Eurex Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for Euro-Buxl Futures on the Eurex Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Buxl Futures on the Eurex Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for Euro-Buxl Futures on the Eurex Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Buxl Futures on the Eurex Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														
		5	The daily close for Euro-Buxl Futures on the Eurex Exchange on the fifth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Buxl Futures on the Eurex Exchange on the fifth Index Trading Day occurring after the immediately following Selection Date														
		6	The daily close for Euro-Buxl Futures on the Eurex Exchange on the sixth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-Buxl Futures on the Eurex Exchange on the sixth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year OAT Future Exchange Close Index N1 Class C	Euro-OAT Futures (with specifications as set out on the Eurex Exchange website : http://www.eurexchange.com/exchange-en/products/intfix/government-bonds/Euro-OAT-Futures/154590)	1	The daily close for Euro-OAT Futures on the Eurex Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-OAT Futures on the Eurex Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published on the Daily Contract Reference Price Data Source	Thomson Reuters	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for Euro-OAT Futures on the Eurex Exchange on such Index Trading Day.	EUR	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Eurex Exchange is scheduled to be open and to settle prices for Euro-OAT Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which the Eurex Exchange is scheduled to be open and to settle prices for Euro-OAT Futures; (iii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday; (iv) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday; and (v) which is not the 1 st of May.	24May 12	1Jun17	In respect of a Designated Contract Expiration, the second Designated Contract Business Day prior to the tenth calendar day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	In respect of a Designated Contract Expiration, the Index Trading Day immediately prior to the day that is three Designated Contract Business Days prior to the First Notice Day.	Bloomberg Ticker: GSCCOA01 Index
		2	The daily close for Euro-OAT Futures on the Eurex Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-OAT Futures on the Eurex Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for Euro-OAT Futures on the Eurex Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-OAT Futures on the Eurex Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for Euro-OAT Futures on the Eurex Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-OAT Futures on the Eurex Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														
		5	The daily close for Euro-OAT Futures on the Eurex Exchange on the fifth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-OAT Futures on the Eurex Exchange on the fifth Index Trading Day occurring after the immediately following Selection Date														
		6	The daily close for Euro-OAT Futures on the Eurex Exchange on the sixth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Euro-OAT Futures on the Eurex Exchange on the sixth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs Short-Term BTP Future Exchange Close Index N1 Class C	Short-Term Euro-BTP Futures (with specifications as set out on the Eurex Exchange website : https://deutsche-boerse.com/exchange-products/int/fix/government-bonds/Short-Term-Euro-BTP-Futures-137336)	1	The daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the Eurex	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on such Index Trading Day.	EUR	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Eurex Exchange is scheduled to be open and to settle prices for Short-Term Euro-BTP Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which the Eurex Exchange is scheduled to be open and to settle prices for Short-Term Euro-BTP Futures; (iii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday; (iv) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday; and (v) which is not the 1 st of May.	22Feb11	8Mar19	In respect of a Designated Contract Expiration, the second Designated Contract Business Day prior to the tenth calendar day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	In respect of a Designated Contract Expiration, the Index Trading Day immediately prior to the day that is three Designated Contract Business Days prior to the First Notice Day.	Bloomberg Ticker: GSCCBT01 Index
		2	The daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														
		5	The daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the fifth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the fifth Index Trading Day occurring after the immediately following Selection Date														
		6	The daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the sixth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Short-Term Euro-BTP Futures on the Eurex Exchange on the sixth Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year BTP Future Exchange Close Index N1 Class C	Long-Term Euro-BTP Futures (with specifications as set out on the Eurex Exchange website : http://www.eurexchange.com/exchange-en/products/intfix/government-bonds/Long-Term-Euro-BTP-Futures/16138)	1	The daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the Eurex	The Eurex Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on such Index Trading Day.	EUR	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Eurex Exchange is scheduled to be open and to settle prices for Long-Term Euro-BTP Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which the Eurex Exchange is scheduled to be open and to settle prices for Long-Term Euro-BTP Futures; (iii) which is not the 24 th of December or the immediately preceding Friday if the 24 th of December falls on a Saturday or Sunday; (iv) which is not the 31 st of December or the immediately preceding Friday if the 31 st of December falls on a Saturday or Sunday; and (v) which is not the 1 st of May.	24Nov09	1Jun17	In respect of a Designated Contract Expiration, the second Designated Contract Business Day prior to the tenth calendar day of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	In respect of a Designated Contract Expiration, the Index Trading Day immediately prior to the day that is three Designated Contract Business Days prior to the First Notice Day.	Bloomberg Ticker: GSCCIK01 Index
		2	The daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the third Index Trading Day occurring after the immediately following Selection Date														
		4	The daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the fourth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the fourth Index Trading Day occurring after the immediately following Selection Date														
		5	The daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the fifth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the fifth Index Trading Day occurring after the immediately following Selection Date														
		6	The daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the sixth Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long-Term Euro-BTP Futures on the Eurex Exchange on the sixth Index Trading Day occurring after the immediately following Selection Date														

In respect of each Index listed in Table 3, the Designated Contract for such Index, the Designated Contract Expiration for such Index and each Potential Notional Position in respect of such Index:

Potential Notional Position	1	2	3
Selection Date(s)	Three Index Trading Days prior to the Latest Tradable Date of each Designated Contract Expiration	See left	See left
Designated Contract	The Designated Contract for such Index	See left	See left
Designated Contract Expiration	The Designated Contract Expiration for such Index	See left	See left
Underlying Weighting	1/3	1/3	1/3
Additive Underlier Scaling Factor	Not Applicable	See left	See left
Potential Entry Date and Time	As specified in Table 3 below.	See left	See left
Potential Exit Date and Time	As specified in Table 3 below.	See left	See left
Entry Price	The Daily Contract Reference Price in respect of the Designated Contract Expiration on the Entry Date and Time	See left	See left
Exit Price	The Daily Contract Reference Price in respect of the Designated Contract Expiration on the Exit Date and Time	See left	See left

Fee	As specified in Table 3 below.	See left	See left
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Table 3

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 2-year Treasury Future Exchange Close Index N1 Class B	US 2-year Treasury Note Future (with specifications as set out on the CME website: http://www.cmegroup.com/trading/interest-rates/us-treasury/2-year-us-treasury-note_contract_specifications.html)	1	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the CME	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for US Treasury futures on the Chicago Mercantile Exchange on such Index Trading Day.	USD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 2-year Treasury Note Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London, (ii) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 2-year Treasury Note Futures, (iii) which is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iv) which is not a day denoted as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (v) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (vi) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday.	27Aug90	31Oct14	In respect of a Designated Contract Expiration, the last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCC0093 Index
		2	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 5-year Treasury Future Exchange Close Index N1 Class B	US 5-year Treasury Note Future (with specifications as set out on the CME website: http://www.cmegroup.com/trading/international/us-treasury/5-year-us-treasury-note_contract_specifications.html)	1	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the CME	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for US Treasury futures on the Chicago Mercantile Exchange on such Index Trading Day.	USD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 5-year Treasury Note Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London, (ii) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 5-year Treasury Note Futures, (iii) which is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iv) which is not a day denoted as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (v) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (vi) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday.	24May 88	13Jan14	In respect of a Designated Contract Expiration, the last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCC094 Index
		2	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year Treasury Future Exchange Close Index N1 Class B	US 10-year Treasury Note Futures (with specifications as set out on the CME website: http://www.cmegroup.com/trading/international/us-treasury-note_contract_specifications.html)	1	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the CME	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for US Treasury futures on the Chicago Mercantile Exchange on such Index Trading Day.	USD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 10-year Treasury Note Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London, (ii) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 10-year Treasury Note Futures, (iii) which is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iv) which is not a day denoted as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (v) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (vi) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday.	26Nov84	31Oct14	In respect of a Designated Contract Expiration, the last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCC0140 Index
		2	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 30-year Treasury Future Exchange Close Index N1 Class B	US 30-year Treasury Note Futures (with specifications as set out on the CME website: http://www.cmegroup.com/trading/international/us-treasury/30-year-us-treasury-bond_contract_specifications.html)	1	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the CME	The Chicago Mercantile Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for US Treasury futures on the Chicago Mercantile Exchange on such Index Trading Day.	USD	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 30-year Treasury Note Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London, (ii) on which the Chicago Mercantile Exchange is scheduled to be open and to settle prices for US 30-year Treasury Note Futures, (iii) which is not a day denoted as "Recommended Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (iv) which is not a day denoted as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ , (v) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (vi) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday.	23Nov77	31Oct14	In respect of a Designated Contract Expiration, the last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCC0139 Index
		2	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for US Treasury futures on the Chicago Mercantile Exchange on the third Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year Gilt Future Exchange Close Index N1 Class B	Long Gilt Futures (with specifications as set out on the NYSE Euronext website: https://globalderivatives.nyx.com/contract/content/29097/contract-specification)	1	The daily close for Long Gilt Futures on the NYSE Euronext Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long Gilt Futures on the NYSE Euronext Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	NYSE Liffe	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by the NYSE Euronext Exchange	NYSE Liffe	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for Long Gilt Futures on the NYSE Euronext Exchange on such Index Trading Day.	GBP	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which the NYSE Liffe Exchange is scheduled to be open and to settle prices for Long Gilt Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which the NYSE Liffe Exchange is scheduled to be open and to settle prices for Long Gilt Futures; (iii) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (iv) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday	21Feb83	31Oct14	In respect of a Designated Contract Expiration, the second last Designated Contract Business Day of the calendar month immediately preceding the calendar month in which the Delivery Date of such Designated Contract Expiration occurs.	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCC0184 Index
		2	The daily close for Long Gilt Futures on the NYSE Euronext Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long Gilt Futures on the NYSE Euronext Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for Long Gilt Futures on the NYSE Euronext Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for Long Gilt Futures on the NYSE Euronext Exchange on the third Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 3-year Korean Bond Future Exchange Close Index N1 Class C	3-year Korean Bond Futures (with specifications as set out on the [Exchange website: https://www.ssfutures.com/exchange/products/products.jsp?vIEW=ENG_020101&gtyp=fmast&gcode=nKB]	1	The daily close for 3-year Korean Bond Futures on the NYSE Euronext Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for 3-year Korean Bond Futures on the NYSE Euronext Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	Korea Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by Korea Exchange	Korea Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for 3-year Korean Bond Futures on Korea Exchange on such Index Trading Day.	KRW	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which Korea Exchange is scheduled to be open and to settle prices for 3-year Korean Bond Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which Korea Exchange is scheduled to be open and to settle prices for 3-year Korean Bond Futures; (iii) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (iv) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday	14Jun00	[31Oct14]	[In respect of a Designated Contract Expiration, the third Tuesday of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs (or the previous Designated Contract Business Day if it is not a Designated Contract Business Day).]	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCKE01 Index
		2	The daily close for 3-year Korean Bond Futures on the NYSE Euronext Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for 3-year Korean Bond Futures on the NYSE Euronext Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for 3-year Korean Bond Futures on the NYSE Euronext Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for 3-year Korean Bond Futures on the NYSE Euronext Exchange on the third Index Trading Day occurring after the immediately following Selection Date														

Index	Designated Contract	Potential Notional Position	Potential Entry Date and Time	Potential Exit Date and Time	Fee	Trading Facility	Daily Contract Reference Price	Daily Contract Reference Price Data Source	Tradable Dates and Times	Index Currency	Designated Contract Expiration	Index Business Day	Index Trading Day	Index Historical Date	Index Inception Date	First Notice Day	Latest Tradable Date	Index Publication Data Source
The Goldman Sachs 10-year Korean Bond Future Exchange Close Index N1 Class C	10-year Korean Bond Futures (with specifications as set out on the [Exchange website: https://www.ssfutures.com/eng/products.jsp?view=ENG_020101&gtyp=fmast&gcode=nKB]	1	The daily close for 10-year Korean Bond Futures on the NYSE Euronext Exchange on the first Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for 10-year Korean Bond Futures on the NYSE Euronext Exchange on the first Index Trading Day occurring after the immediately following Selection Date	In respect of all Index Business Days, 0%	Korea Exchange	In respect of a Designated Contract Expiration and any Index Business Day, the settlement price published by Korea Exchange	Korea Exchange	In respect of a Designated Contract Expiration and any Index Trading Day, the daily close for 10-year Korean Bond Futures on Korea Exchange on such Index Trading Day.	KRW	Second Nearby Contract Expiration	Each day (other than a Saturday or a Sunday) on which Korea Exchange is scheduled to be open and to settle prices for 10-year Korean Bond Futures	Each day (other than a Saturday or a Sunday) (i) on which commercial banks and foreign exchange markets settle payments and are scheduled to be open for general business (including dealings in foreign exchange and foreign currency deposits) in London; (ii) on which Korea Exchange is scheduled to be open and to settle prices for 10-year Korean Bond Futures; (iii) which is not the 24th of December or the immediately preceding Friday if the 24th of December falls on a Saturday or Sunday and (iv) which is not the 31st of December or the immediately preceding Friday if the 31st of December falls on a Saturday or Sunday	15Dec10	8Mar19	[In respect of a Designated Contract Expiration, the third Tuesday of the calendar month in which the Delivery Date of such Designated Contract Expiration occurs (or the previous Designated Contract Business Day if it is not a Designated Contract Business Day).]	The Index Trading Day immediately prior to the First Notice Day.	Bloomberg Ticker: GSCCKA01 Index
		2	The daily close for 10-year Korean Bond Futures on the NYSE Euronext Exchange on the second Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for 10-year Korean Bond Futures on the NYSE Euronext Exchange on the second Index Trading Day occurring after the immediately following Selection Date														
		3	The daily close for 10-year Korean Bond Futures on the NYSE Euronext Exchange on the third Index Trading Day following a Selection Date for such Potential Notional Position	In respect of a Selection Date for such Potential Notional Position and the Potential Entry Date and Time corresponding to such Selection Date, the daily close for 10-year Korean Bond Futures on the NYSE Euronext Exchange on the third Index Trading Day occurring after the immediately following Selection Date														

SCHEDULE A

ASX Treasury Bond Futures Daily Contract Reference Price

Calculation of the Daily Contract Reference Price

For any Designated Contract which is an ASX Treasury Bond Future, the Daily Contract Reference Price (“P”) in respect of a Designated Contract Expiration and any Index Business Day is the price calculated in accordance with the following:

(a) If the variable “i” is different from zero:

$$P = \frac{c}{2} * \frac{1 - \frac{1}{(1+i)^n}}{i} + \frac{100}{(1+i)^n}$$

(b) If the variable “i” is equal to zero:

$$P = \frac{c}{2} * n + 100$$

Where:

“c” means in respect of the Designated Contract (i) 12, if the calendar month in which the Delivery Date of such Designated Contract Expiration occurs falls before and excluding the 1st September 2001; and (ii) 6, if the calendar month in which the Delivery Date of such Designated Contract Expiration occurs falls after and including the 1st September 2001;

“i” means an amount calculated as follows::

$$i = \frac{100 - MQ}{200}$$

“MQ” means the quoted settlement level of such Designated Contract Expiration (expressed as 100 minus the yield to maturity expressed in per cent per annum) as published by the Daily Contract Reference Price Data Source; and

“n” means in respect of the Designated Contract, (i) 20, if such Designated Contract is ASX 10-Year Treasury Bond Futures; and (ii) 6, if such Designated Contract is ASX 3-Year bond Futures.

GOLDMAN SACHS MACRO RISK PREMIA METHODOLOGY DESCRIPTION

Dated: 21 April 2021

Section A: General

1. Introduction

This documentation element, the Goldman Sachs Macro Risk Premia Methodology Description, as may be amended from time to time (this "**Risk Premia Methodology Description**") comprises certain rules, methodology, definitions and other information applicable to certain notional rules-based proprietary strategies (each, a "**GS Strategy**"). In particular, this Risk Premia Methodology Description sets out certain information required to complete the general rules of a GS Strategy (which set out, among other things, the methodology used to calculate the value of such GS Strategy) as well other rules, methodology, definitions and other information applicable to a particular GS Strategy.

The Risk Premia Methodology Description may be amended or modified from time to time at the discretion of the Strategy Sponsor and upon each amendment or modification this document shall be updated to a new version. Following an update, the most recent version shall be deemed to be in force from the date of such update and replace in its entirety the preceding version such that, in the event of any conflict between the preceding version and the most recent version, the most recent version shall prevail.

This Risk Premia Methodology Description should be read in conjunction with the relevant specifications annex (the "**Relevant Specifications Annex**"), together with other documentation elements of the Strategy Description in respect of such GS Strategy. Other defined terms shall have the meaning given to such term in the other documentation elements of the Strategy Description.

2. Immediate Component Weights and the Risk Premia Methodology

In order to calculate the level of the GS Strategy, the Strategy Sponsor will first have to determine the weight (called the "**Immediate Component Weight**") of each Immediate Component included in the GS Strategy. The Immediate Component Weight is calculated periodically on each Decision Date (as determined in accordance with the Decision Date Rule set out in the Relevant Specifications Annex). The Immediate Component Weight of each Immediate Component included in the GS Strategy will be determined in accordance with a Goldman Sachs proprietary methodology called the "**Risk Premia Methodology**".

The Risk Premia Methodology will calculate the Immediate Component Weight of each Immediate Component by reference to the risk premium metric in respect of one or more risk factors, each of which aims to capture the "premium" associated with exposure to such risk factor, for example "carry", "value" or "trend" amongst others (each such risk premium metric in respect of a risk factor, a "**Risk Premium Style**"). Each Risk Premium Style will have one or more corresponding "**Risk Premia Detail Sets**" which set out certain information required to calculate the risk premium metric in respect of an Immediate Component and such Risk Premium Style. The Risk Premia Methodology will determine the Immediate Component Weight in respect of each Immediate Component in accordance with paragraph (i), (ii), (iii) and (iv) below (as applicable):

(i) *Determination of the Weighted Smoothed Risk Premia Metric*

- (a) firstly, the Strategy Sponsor will calculate the risk premium metric in respect of an Immediate Component and each Risk Premia Detail Set applicable to such Immediate Component on each "smoothing day" in respect of an Observation Date. The Strategy Sponsor will then calculate, in respect of each such Risk Premia Detail Set, the average of the risk premium metric across all such "smoothing days" (the "**Smoothed Risk Premia Metric**" in respect of an Immediate Component and a Risk Premia Detail Set);
- (b) secondly, the Strategy Sponsor will calculate the aggregate of the weighted Smoothed Risk Premia Metric (which may be subject to a "cap" or a "floor") in respect of an Immediate Component and each Risk Premia Detail Set corresponding to the same Risk Premium Style; and
- (c) thirdly, the Strategy Sponsor will calculate the average of each value calculated in accordance with paragraph (i)(b) above across all Risk Premium Styles (the "**Weighted Smoothed Risk Premia Metric**" in respect of an Immediate Component).

(ii) *Determination of Excluded Immediate Components*

On each Observation Date the Risk Premia Methodology then determines if there are any Immediate Components that should be excluded from the weight calculation method (referred to in paragraph (iii) below) in respect of such Observation Date based on certain exclusion criteria, such Immediate Components (if any) being the "**Excluded Immediate Components**" in respect of such Observation Date (and all other Immediate Components are the "**Weight Calculation Immediate Components**" for such Observation Date).

(iii) *Determination of the Immediate Component Weights*

- (a) The Risk Premia Methodology determines the weights in respect of each Weight Calculation Immediate Component on an Observation Date in accordance with the applicable weight calculation method set out in Section H: *Weight Calculation Method*. Such weights will be the "Calculated Weights" for such Weight Calculation Immediate Components in respect of an Observation Date. The "Preliminary Weight" in respect of each Weight Calculation Immediate Component and an Observation Date will be equal to its Calculated Weight. Each Excluded Immediate Component is assigned a "Preliminary Weight" of zero in respect of such Observation Date.
- (b) The Risk Premia Methodology will then calculate the "Vol Adjusted Weight" in respect of an Immediate Component and an Observation Date, being, if "Basket Volatility Targeting" is applicable, the *product* of (I) the Preliminary Weight in respect of such Immediate Component and such Observation Date *multiplied* by (II) (A) the specified "Basket Volatility Target" *divided* by (B) the hypothetical realised volatility of a basket comprising all Weight Calculation Immediate Components. Otherwise, the "Vol Adjusted Weight" in respect of an Immediate Component and an Observation Date is equal to its Preliminary Weight.
- (c) If "Weight Capping" is applicable, the Vol Adjusted Weight will be subject to a "cap" and/or a "floor" (being the maximum weight and minimum weight applicable to such Immediate Component respectively), such weight being the "Capped Weight" in respect of an Immediate Component and an Observation Date. Otherwise, the "Capped Weight" is equal to the "Vol Adjusted Weight".
- (d) If there are two or more Observation Dates in respect of a Decision Date, then the Immediate Component Weight will be the arithmetic average of the Capped Weights of such Immediate Component over each of the Observation Dates (subject to rounding, if applicable). If there is only one Observation Date in respect of a Decision Date, the Immediate Component Weight of an Immediate Component will be the Capped Weight of such Immediate Component in respect of such Observation Date (subject to rounding, if applicable).

Table of Contents

- A. General
- B. Determination of the Period Return, Covariance and Volatility
- C. Determination of the Risk Premia Metric
- D. Determination of the Immediate Component Weights
- E. General Definitions
- F. Risk Premium Metric Definitions
- G. Exclusion Restriction Definitions
- H. Weight Calculation Method

Section B: Determination of the Period Return, Covariance and Volatility

1. Determination of the Period Return of a Timeseries Component

In respect of any Strategy Calculation Day t , a Timeseries Component c and a Return Lookback Rule RL , the "Period Return" is calculated by the Strategy Sponsor in accordance with paragraph (i), (ii), (iii), (iv) or (v) below (as applicable):

- (i) if in respect of a Timeseries Component c a Signal Immediate Component s is specified in the Relevant Specifications Annex, the Period Return of the Timeseries Component c shall be the Period Return of the Signal Immediate Component s
- (ii) if the Style of Timeseries Component c is not specified to be "FX-Forward", "IR-Swap" or "IR-Swap-Combination" in the Relevant Specifications Annex, the Period Return shall be determined in accordance with the following formula:

$$Rtn_c^{RL}(t) = \frac{\text{Timely Level}_c(t)}{\text{Timely Level}_c(RLD_{RL}(t))} - 1$$

Where:

"Timely Level $_c(t)$ " means the Timely Level in respect of Timeseries Component c and Strategy Calculation Day t ; and

"Timely Level $_c(RLD_{RL}(t))$ " means the Timely Level in respect of Timeseries Component c and the Return Lookback Date $_{RL}(t)$.

- (iii) if the Style of Timeseries Component c is specified to be "FX-Forward" in the Relevant Specifications Annex, the Period Return shall be determined in accordance with the following formula:

$$Rtn_c^{RL}(t) = \left(\frac{\text{Spot}_c(t)}{\text{Spot}_c(RLD_{RL}(t))} - 1 \right) + \sum_{s=RLD_{RL}(t)}^{t-1} \frac{N_c(s)}{365} \times \ln \left[\left(\frac{\text{Spot}_c(s)}{\text{Forward}_c(s)} \right)^{\frac{365}{\text{num}_c(s)}} \right]$$

Where for the purposes of determining $Rtn_c^{RL}(t)$, the summation over "s" is taken over each Strategy Calculation Day (indexed by "s") falling in the period commencing on, and including, $RLD_{RL}(t)$ and ending on, and including, Strategy Calculation Day $t-1$, and:

"Carry Tenor $_c$ " means, in respect of Timeseries Component c , the period of time specified as the Carry Tenor in respect of such Timeseries Component (or, if applicable, in respect of the relevant Immediate Component Template) in the Relevant Specifications Annex;

"Forward $_c(s)$ " means the Forward Exchange Rate in respect of the Currency Cross of Timeseries Component c , the Carry Tenor in respect of such Timeseries Component and Strategy Calculation Day s ;

"ln(x)" means the natural logarithm function evaluated for the number x ;

"N $_c(s)$ " means the number of calendar days falling in the period commencing on, and including, the Spot Settlement Date in respect of the Currency Cross of Timeseries Component c and Strategy Calculation Day s to but excluding the Spot Settlement Date in respect of the Currency Cross of Timeseries Component c and the immediately following Strategy Calculation Day;

"num $_c(s)$ " means the number of calendar days falling in the period commencing on, but excluding, the Spot Settlement Date in respect of the Currency Cross of Timeseries Component c and Strategy Calculation Day s and ending on, and including, the Forward Settlement Date in respect of the Currency Cross of Timeseries Component c , Strategy Calculation Day s and the Carry Tenor in respect of such Timeseries Component.

"RLD $_{RL}(t)$ " or "Return Lookback Date $_{RL}(t)$ " means the Return Lookback Date in respect of Strategy Calculation Day t and Return Lookback Rule RL ;

" $Rtn_c^{RL}(t)$ " means the Period Return in respect of Timeseries Component c , Return Lookback Rule RL and Strategy Calculation Day t ;

" $Spot_c(RLD_{RL}(t))$ " means the Spot Exchange Rate in respect of the Currency Cross of Timeseries Component c and Return Lookback Date $_{RL}(t)$;

" $Spot_c(s)$ " means the Spot Exchange Rate in respect of the Currency Cross of Timeseries Component c and Strategy Calculation Day s ;

" $Spot_c(t)$ " means the Spot Exchange Rate in respect of the Currency Cross of Timeseries Component c and Strategy Calculation Day t ; and

" $t-1$ " means the Strategy Calculation Day immediately preceding the Strategy Calculation Day t .

- (iv) if the Style of Timeseries Component c is specified to be "IR-Swap" in the Relevant Specifications Annex, the Period Return shall be determined in accordance with the following formula:

$$Rtn_c^{RL}(t) = \frac{A_t(S_c(t))}{USF(c)} \times \left(\text{Change of Spot Swap Rate}_{c}(t) + \sum_{s=RLD_{RL}(t)}^{t-1} \text{Daily Carry}_{c}(s) \right)$$

Where for the purposes of determining $Rtn_c^{RL}(t)$, the summation over " s " is taken over each Strategy Calculation Day (indexed by " s ") falling in the period commencing on, and including, $RLD_{RL}(t)$ and ending on, and including, Strategy Calculation Day $t-1$, and:

" $A_t(S_c(t))$ " means the Annuity in respect of Reference Spot Swap Contract $S_c(t)$ and Strategy Calculation Day t , as determined in accordance with the definition of " $A_t(FS)$ " in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS " and "day t " shall be deemed to be a reference to "Reference Spot Swap Contract $S_c(t)$ " and "Strategy Calculation Day t " respectively;

"Change of Spot Swap Rate $_c(t)$ " means, in respect of Timeseries Component c and Strategy Calculation Day t , an amount determined in accordance with the following formula:

$$\text{Change of Spot Swap Rate}_{c}(t) = FSR_{RLD_{RL}(t)}(S_c(RLD_{RL}(t))) - FSR_t(S_c(t))$$

Where:

" $FS_c(t)$ " means the Forward Swap Contract with the same terms as Timeseries Component c provided that the Swap Start Date shall be the last day of the Carry Swap Start Period in respect of Strategy Calculation Day t and such Timeseries Component c ;

" $FSR_{RLD_{RL}(t)}(S_c(RLD_{RL}(t)))$ " means the Swap Rate in respect of Reference Spot Swap Contract $S_c(RLD_{RL}(t))$ and Return Lookback Date $_{RL}(t)$, as determined in accordance with the definition of " $FSR_t(FS)$ " in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS " and "day t " shall be deemed to be a reference to "Reference Spot Swap Contract $S_c(RLD_{RL}(t))$ " and "Return Lookback Date $_{RL}(t)$ " respectively;

" $FSR_t(S_c(t))$ " means the Swap Rate in respect of Reference Spot Swap Contract $S_c(t)$ and Strategy Calculation Day t , as determined in accordance with the definition of " $FSR_t(FS)$ " in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS " and "day t " shall be deemed to be a reference to "Reference Spot Swap Contract $S_c(t)$ " and "Strategy Calculation Day t " respectively;

" $S_c(RLD_{RL}(t))$ " means the Reference Spot Swap Contract in respect of Forward Swap Contract $FS_c(t)$ and Return Lookback Date $_{RL}(t)$; and

"Swap Rate" shall have the meaning given to such term in the Relevant Basket Base Description;

"**Daily Carry_c(s)**" means, in respect of Timeseries Component *c* and Strategy Calculation Day *s*, an amount determined in accordance with the following formula:

$$\text{Daily Carry}_c(s) = \left(\text{FSR}_s(\text{FS}_c(s)) - \text{FSR}_s(\text{S}_c(s)) \right) \times \frac{\text{N}_c(s)}{\text{num}_c(s)}$$

Where:

"**FS_c(s)**" means the Forward Swap Contract with the same terms as Timeseries Component *c* provided that the Swap Start Date shall be the last day of the Carry Swap Start Period in respect of Strategy Calculation Day *s* and such Timeseries Component *c*;

"**FSR_s(FS_c(s))**" means the Swap Rate in respect of Forward Swap Contract *FS_c(s)* and Strategy Calculation Day *s*, as determined in accordance with the definition of "FSR_t(FS)" in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract *FS*" and "day *t*" shall be deemed to be a reference to "Forward Swap Contract *FS_c(s)*" and "Strategy Calculation Day *s*" respectively;

"**FSR_s(S_c(s))**" means the Swap Rate in respect of Reference Spot Swap Contract *S_c(s)* and Strategy Calculation Day *s*, as determined in accordance with the definition of "FSR_t(FS)" in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract *FS*" and "day *t*" shall be deemed to be a reference to "Reference Spot Swap Contract *S_c(s)*" and "Strategy Calculation Day *s*" respectively;

"**N_c(s)**" means the number of calendar days falling in the period commencing on, and including, the Swap Effective Date of Reference Spot Swap Contract *S_c(s)* and ending on, but excluding, the Swap Effective Date of Reference Spot Swap Contract *S_c(s+1)*;

"**num_c(s)**" means the number of calendar days falling in the period commencing on, but excluding, the Swap Effective Date in respect of Reference Spot Swap Contract *S_c(s)* and ending on, and including, the Swap Effective Date in respect of the Forward Swap Contract *FS_c(s)*;

"**RLD_{RL}(t)**" or "**Return Lookback Date_{RL}(t)**" means the Return Lookback Date in respect of Strategy Calculation Day *t* and Return Lookback Rule *RL*;

"**Rtn_c^{RL}(t)**" means the Period Return in respect of Timeseries Component *c*, Return Lookback Rule *RL* and Strategy Calculation Day *t*;

"**s+1**" means the Strategy Calculation Day immediately following Strategy Calculation Day *s*;

"**S_c(s)**" means the Reference Spot Swap Contract in respect of Forward Swap Contract *FS_c(s)* and Strategy Calculation Day *s*;

"**S_c(s+1)**" means the Reference Spot Swap Contract in respect of Forward Swap Contract *FS_c(s)* and Strategy Calculation Day *s+1*;

"**S_c(t)**" means the Reference Spot Swap Contract in respect of Forward Swap Contract *FS_c(t)* and Strategy Calculation Day *t*; and

"**t-1**" means the Strategy Calculation Day immediately preceding the Strategy Calculation Day *t*; and

"**USF(c)**" means the Units Scaling Factor in respect of Timeseries Component *c* as specified in the Relevant Specifications Annex.

- (v) if the Style of Timeseries Component *c* is specified to be "IR-Swap-Combination" in the Relevant Specifications Annex, the Period Return shall be determined in accordance with the following formula:

$$\text{Rtn}_c^{\text{RL}}(t) = \frac{\text{TA}(\text{FSC}_c)}{\text{USF}(c)} \times \sum_i \left(\text{CW}_t(\text{FS}_{c,i}(t)) \times \left(\text{Change of Spot Swap Rate}_{c,i}(t) + \sum_{s=\text{RLD}_{\text{RL}}(t)}^{t-1} \text{Daily Carry}_{c,i}(s) \right) \right)$$

Where for the purposes of determining $\text{Rtn}_c^{\text{RL}}(t)$, (i) the summation over "s" is taken over each Strategy Calculation Day (indexed by "s") falling in the period commencing on, and including, $\text{RLD}_{\text{RL}}(t)$ and ending on, and including, Strategy Calculation Day $t-1$, and (ii) the summation over "i" is taken over each Forward Swap Contract $\text{FS}_{c,i}(t)$ (indexed by "i") included in Timeseries Component c on Strategy Calculation Day t and:

" $\text{A}_t(\text{S}_{c,i}(t))$ " means the Annuity in respect of Reference Spot Swap Contract $\text{S}_{c,i}(t)$ and Strategy Calculation Day t, as determined in accordance with the definition of "A_i(FS)" in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS" and "day t" shall be deemed to be a reference to "Reference Spot Swap Contract $\text{S}_{c,i}(t)$ " and "Strategy Calculation Day t" respectively;

"**Change of Spot Swap Rate** $_{c,i}(t)$ " means, in respect of Forward Swap Contract $\text{FS}_{c,i}(t)$ and Strategy Calculation Day t, an amount determined in accordance with the following formula:

$$\text{Change of Spot Swap Rate}_{c,i}(t) = \text{FSR}_{\text{RLD}_{\text{RL}}(t)}(\text{S}_{c,i}(\text{RLD}_{\text{RL}}(t))) - \text{FSR}_t(\text{S}_{c,i}(t))$$

Where:

" $\text{FS}_{c,i}(t)$ " means the Forward Swap Contract with the same terms as Forward Swap Contract i included in the Forward Swap Combination Contract in respect of Timeseries Component c and Strategy Calculation Day t, provided that the Swap Start Date shall be the last day of the Carry Swap Start Period in respect of Strategy Calculation Day t and such Forward Swap Contract i;

" $\text{FSR}_{\text{RLD}_{\text{RL}}(t)}(\text{S}_{c,i}(\text{RLD}_{\text{RL}}(t)))$ " means the Swap Rate in respect of Reference Spot Swap Contract $\text{S}_{c,i}(\text{RLD}_{\text{RL}}(t))$ and Return Lookback Date $_{\text{RL}}(t)$, as determined in accordance with the definition of "FSR_i(FS)" in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS" and "day t" shall be deemed to be a reference to "Reference Spot Swap Contract $\text{S}_{c,i}(\text{RLD}_{\text{RL}}(t))$ " and "Return Lookback Date $_{\text{RL}}(t)$ " respectively;

" $\text{FSR}_t(\text{S}_{c,i}(t))$ " means the Swap Rate in respect of Reference Spot Swap Contract $\text{S}_{c,i}(t)$ and Strategy Calculation Day t, as determined in accordance with the definition of "FSR_i(FS)" in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS" and "day t" shall be deemed to be a reference to "Reference Spot Swap Contract $\text{S}_{c,i}(t)$ " and "Strategy Calculation Day t" respectively (it being understood that such Swap Rate shall be the same as the Swap Rate in respect of Reference Spot Swap Contract $\text{S}_{c,i}(t)$ used to calculate the Timely Level in respect of Timeseries Component c and any day t);

" $\text{S}_{c,i}(\text{RLD}_{\text{RL}}(t))$ " means the Reference Spot Swap Contract in respect of Forward Swap Contract $\text{FS}_{c,i}(t)$ and Return Lookback Date $_{\text{RL}}(t)$; and

"**Swap Rate**" shall have the meaning given to such term in the Relevant Basket Base Description;

"**Combination Weight**" shall have the meaning given to such term in the Relevant Basket Base Description;

" $\text{CW}_t(\text{FS}_{c,i}(t))$ " means the Combination Weight in respect of Forward Swap Contract $\text{FS}_{c,i}(t)$ and Strategy Calculation Day t, as specified in the Relevant Specifications Annex;

"**Daily Carry** $_{c,i}(s)$ " means, in respect of Forward Swap Contract $\text{FS}_{c,i}(t)$ and Strategy Calculation Day s, an amount determined in accordance with the following formula:

$$\text{Daily Carry}_{c,i}(s) = \left(\text{FSR}_s \left(\text{FS}_{c,i}(s) \right) - \text{FSR}_s \left(\text{S}_{c,i}(s) \right) \right) \times \frac{\text{N}_{c,i}(s)}{\text{num}_{c,i}(s)}$$

Where:

"**FS_{c,i}(s)**" means the Forward Swap Contract with the same terms as Forward Swap Contract *i* included in the Forward Swap Combination Contract in respect of Timeseries Component *c* and Strategy Calculation Day *s*, provided that the Swap Start Date shall be the last day of the Carry Swap Start Period in respect of Strategy Calculation Day *s* and such Forward Swap Contract *i*;

"**FSR_s(FS_{c,i}(s))**" means the Swap Rate in respect of Forward Swap Contract *FS_{c,i}(s)* and Strategy Calculation Day *s*, as determined in accordance with the definition of "FSR_t(FS)" in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract *FS*" and "day *t*" shall be deemed to be a reference to "Forward Swap Contract *FS_{c,i}(s)*" and "Strategy Calculation Day *s*" respectively (it being understood that such Swap Rate shall be the same as the Swap Rate in respect of Forward Swap Contract *FS_{c,i}(s)* used to calculate the Timely Level in respect of Timeseries Component *c* and any day *t*);

"**FSR_s(S_{c,i}(s))**" means the Swap Rate in respect of Reference Spot Swap Contract *S_{c,i}(s)* and Strategy Calculation Day *s*, as determined in accordance with the definition of "FSR_t(FS)" in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract *FS*" and "day *t*" shall be deemed to be a reference to "Reference Spot Swap Contract *S_{c,i}(s)*" and "Strategy Calculation Day *s*" respectively (it being understood that such Swap Rate shall be the same as the Swap Rate in respect of Reference Spot Swap Contract *S_{c,i}(s)* used to calculate the Timely Level in respect of Timeseries Component *c* and any day *t*);

"**N_{c,i}(s)**" means the number of calendar days falling in the period commencing on, and including, the Swap Effective Date of the Reference Spot Swap Contract *S_{c,i}(s)* and ending on, but excluding, the Swap Effective Date of the Reference Spot Swap Contract *S_{c,i}(s+1)*;

"**num_{c,i}(s)**" means the number of calendar days falling in the period commencing on, but excluding, the Swap Effective Date in respect of Reference Spot Swap Contract *S_{c,i}(s)* and ending on, and including, the Swap Effective Date in respect of the Forward Swap Contract *FS_{c,i}(s)*;

"**RLD_{RL}(t)**" or "**Return Lookback Date_{RL}(t)**" means the Return Lookback Date in respect of Strategy Calculation Day *t* and Return Lookback Rule *RL*;

"**Rtn_c^{RL}(t)**" means the Period Return in respect of Timeseries Component *c*, Return Lookback Rule *RL* and Strategy Calculation Day *t*;

"**s+1**" means the Strategy Calculation Day immediately following Strategy Calculation Day *s*;

"**S_{c,i}(s)**" means the Reference Spot Swap Contract in respect of Forward Swap Contract *FS_{c,i}(s)* and Strategy Calculation Day *s*;

"**S_{c,i}(s+1)**" means the Reference Spot Swap Contract in respect of Forward Swap Contract *FS_{c,i}(s)* and Strategy Calculation Day *s+1*;

"**S_{c,i}(t)**" means the Reference Spot Swap Contract in respect of Forward Swap Contract *FS_{c,i}(t)* and Strategy Calculation Day *t*; and

"**t-1**" means the Strategy Calculation Day immediately preceding the Strategy Calculation Day *t*;

"**Target Annuity**" shall have the meaning given to such term in the Relevant Basket Base Description;

"**TA_t(FSC_c)**" means the Target Annuity in respect of Timeseries Component *c* and Strategy Calculation Day *t*, as specified in the Relevant Specifications Annex, provided that if no Target Annuity is specified in respect of Timeseries Component *c* in the Relevant Specifications Annex, "**TA_t(FSC_c)**" shall be deemed to be equal to the weighted sum of the "**A_t(S_{c,i}(t))**" in respect of each Reference Spot Swap Contract S_{c,i}(t) in respect of each Forward Swap Contract *i* included in Timeseries Component *c*; and

"**USF(c)**" means the Units Scaling Factor in respect of Timeseries Component *c* as specified in the Relevant Specifications Annex.

2. Determination of the Covariance and Shrunk Covariance

2.1 Determination of the Covariance in respect of two Timeseries Components

In respect of any Strategy Calculation Day *t* and any two Timeseries Component *c* and Timeseries Component *d* (which may be the same Timeseries Component), the "**Covariance**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Cov}_{c,d}(t) = \frac{\sum_s \left[w_s \times \left(\text{Rtn}_c^{\text{CRL}}(s) - \text{AvgRtn}_c(t) \right) \times \left(\text{Rtn}_d^{\text{CRL}}(s) - \text{AvgRtn}_d(t) \right) \times \text{Covariance Annualization Factor}(s) \right]}{1 - \sum_s w_s^2}$$

Where for the purposes of determining Cov_{c,d}(t), the summations over "s" are taken over each Strategy Calculation Day (indexed by "s") falling in the period commencing on, and including, PLD_{CPL}(t) and ending on, and including, Strategy Calculation Day *t*, and:

"**AvgRtn_c(t)**" means the average Period Return in respect of Strategy Calculation Day *t* and Timeseries Component *c*, calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{AvgRtn}_c(t) = \sum_s w_s \times \text{Rtn}_c^{\text{CRL}}(s)$$

Where for the purposes of determining AvgRtn_c(t) the summation over "s" is taken over each Strategy Calculation Day (indexed by "s") falling in the period commencing on, and including, PLD_{CPL}(t) and ending on, and including, Strategy Calculation Day *t*;

"**AvgRtn_d(t)**" means the average Period Return in respect of Timeseries Component *d* and Strategy Calculation Day *t*, determined in accordance with the definition of AvgRtn_c(t) provided that each reference to "Timeseries Component *c*" is deemed to be a reference to "Timeseries Component *d*";

"**Covariance Annualization Factor(s)**" means, in respect of Strategy Calculation Day *s*, the number calculated by the Strategy Sponsor as being equal to (a) 252 *divided* by (b) the number of Strategy Calculation Days falling in the period commencing on, but excluding, the Return Lookback Date in respect of Strategy Calculation Day *s* and the Covariance Return Lookback Rule and ending on, and including, Strategy Calculation Day *s*;

"**Covariance Performance Lookback Rule**" means the Performance Lookback Rule specified as such in the Covariance Specifications table in the Relevant Specifications Annex;

"**Covariance Return Lookback Rule**" means the Return Lookback Rule specified as such in the Covariance Specifications table in the Relevant Specifications Annex;

"**PLD_{CPL}(t)**" means the Performance Lookback Date in respect of Strategy Calculation Day *t* and the Covariance Performance Lookback Rule;

"**Rtn_c^{CRL}(s)**" means the Period Return in respect of Timeseries Component *c*, Strategy Calculation Day *s* and the Covariance Return Lookback Rule;

"**Rtn_d^{CRL}(s)**" means the Period Return in respect of Timeseries Component *d*, Strategy Calculation Day *s* and the Covariance Return Lookback Rule; and

"**w_s**" means the weight in respect of Strategy Calculation Day *s* calculated by the Strategy Sponsor in accordance with the following formula:

$$w_s = \frac{(1 - \alpha_{Cov})^{N(s,t)}}{\sum_i (1 - \alpha_{Cov})^{N(i,t)}}$$

Where for the purposes of determining w_s , the summation over "i" is taken over each Strategy Calculation Day (indexed by "i") falling in the period commencing on, and including, $PLD_{CPL}(t)$, and including, Strategy Calculation Day t , and:

" α_{Cov} " or "**Covariance Exponential Smoothing Factor**" means the number specified as such in the Covariance Specifications table in the Relevant Specifications Annex;

"**N(i,t)**" means, in respect of Strategy Calculation Day i and Strategy Calculation Day t , the number of Strategy Calculation Days falling in the period commencing on, but excluding, Strategy Calculation Day i and ending on, and including, Strategy Calculation Day t ; and

"**N(s,t)**" means, in respect of the Strategy Calculation Day s and Strategy Calculation Day t , the number of Strategy Calculation Days falling in the period commencing on, but excluding, Strategy Calculation Day s and ending on, and including, Strategy Calculation Day t ;

2.2 Determination of Shrunk Covariance in respect of two Timeseries Components

In respect of any Strategy Calculation Day t and any two Timeseries Component c and Timeseries Component d (which may be the same Timeseries Component) the "**Shrunk Covariance**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Shrunk Cov}_{c,d}(t) = \text{Cov}_{c,d}(t) \times \alpha_{\text{shrink}}(c, d)$$

Where:

" $\alpha_{\text{shrink}}(c, d)$ " means the shrinkage multiplier in respect of Timeseries Component c and Timeseries Component d determined in accordance with paragraph (i) or (ii) below (as applicable):

- (i) if Timeseries Component c and Timeseries Component d are the same Timeseries Component; then:

$$\alpha_{\text{shrink}}(c, d) = 1$$

- (ii) otherwise:

$$\alpha_{\text{shrink}}(c, d) = 1 - \text{Covariance Shrinkage Factor}$$

Where:

"**Covariance Shrinkage Factor**" means the number specified as such in the Covariance Specifications table in the Relevant Specifications Annex.

3. Determination of Volatility and Correlation in respect of Timeseries Components

In respect of any Strategy Calculation Day t and two Timeseries Component c and Timeseries Component d , the "**Correlation**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Corr}_{c,d}(t) = \frac{\text{Cov}_{c,d}(t)}{\text{Vol}_c(t) \times \text{Vol}_d(t)}$$

Where:

"**Vol_c(t)**" means the "**Volatility**" in respect of Timeseries Component c and Strategy Calculation Day t , calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Vol}_c(t) = \sqrt{\text{Cov}_{c,c}(t)}$$

Where:

"Cov_{c,c}(t)" means the Covariance in respect of Timeseries Component *c* and itself on Strategy Calculation Day *t* determined in accordance with the definition of Cov_{c,d}(t) above, provided that each reference to "Timeseries Component *d*" is deemed to be a reference to "Timeseries Component *c*".

"Vol_d(t)" means the Volatility in respect of Timeseries Component *d* and Strategy Calculation Day *t* determined in accordance with the definition of Vol_c(t) provided that each reference to "Timeseries Component *c*" is deemed to be a reference to "Timeseries Component *d*".

Section C: Determination of the Risk Premia Metric

1. Determination of the Smoothed Risk Premia Metric in respect of each Risk Premia Detail Set

On each Observation Date o , the Strategy Sponsor will calculate the "**Smoothed Risk Premia Metric**" in respect of each Immediate Component ic and each Applicable Risk Premia Detail Set S in respect of such Immediate Component, in accordance with the following formula:

$$SRPM_{ic}^S(o) = \frac{1}{\text{num}(o)} \sum_t RPM_{ic}^S(t)$$

Where:

For the purposes of determining $SRPM_{ic}^S(o)$, the summation over " t " is taken over each Strategy Calculation Day (indexed by " t ") falling in the period commencing on, and including, $SLD_s(o)$ and ending on, and including Observation Date o , and:

"**Applicable Risk Premia Detail Set**" means, in respect of an Immediate Component, each Risk Premia Detail Set which is specified in the column entitled "Applicable Risk Premia Detail Set(s)" in the row corresponding to such Immediate Component in the Immediate Components table (or, if applicable, in the row corresponding to the relevant Immediate Component Template in the Immediate Component Template table) in the Relevant Specifications Annex, provided that if no Risk Premia Detail Set is specified in respect of an Immediate Component each Risk Premia Detail Set shall be deemed to be an Applicable Risk Premia Detail Set in respect of such Immediate Component;

"**num**(o)" means the number of Strategy Calculation Days falling in the period commencing on, and including, $SLD_s(o)$ and ending on, and including Observation Date o ;

"**RPM** $_{ic}^S(t)$ " means the risk premium metric in respect of Immediate Component ic , Strategy Calculation Day t and the Relevant Risk Premium Metric for Risk Premia Detail Set S ;

"**Relevant Risk Premium Metric**" means, in respect of a Risk Premia Detail Set, the definition of Risk Premium Metric corresponding to the Risk Premium Style specified in such Risk Premia Detail Set in the Relevant Specifications Annex (where each definition of Risk Premium Metric is as provided in Section F: *Risk Premium Metric Definitions* of this Risk Premia Methodology Description); and

"**SLD** $_s(o)$ " means the Smoothing Lookback Date in respect of Observation Date o and the Smoothing Lookback Rule in respect of Risk Premia Detail Set S .

2. Determination of the Weighted Smoothed Risk Premia Metric

On each Observation Date o , the Strategy Sponsor will calculate the "**Weighted Smoothed Risk Premia Metric**" in respect of Immediate Component ic in accordance with the following formula:

$$WSRPM_{ic}(o) = \sum_R \left(\frac{1}{\text{num}_{ic}(R)} \times \sum_{S(R)} \left(w_{ic}^{S(R)} \times CSRPSM_{ic}^{S(R)}(o) \right) \right)$$

Where for the purposes of determining $WSRPM_{ic}(o)$ (i) the summation over " $S(R)$ " is taken over each Applicable Risk Premia Detail Set in respect of Immediate Component ic (indexed by " $S(R)$ ") for which the Risk Premium Style specified in the Relevant Specifications Annex is Risk Premium Style R and (ii) the summation over " R " is taken over each different Risk Premium Style (indexed by " R ") specified across all Applicable Risk Premia Detail Sets in respect of Immediate Component ic in the Relevant Specifications Annex, and:

"**CSRPSM** $_{ic}^{S(R)}(o)$ " or "**Capped Smoothed Risk Premia Style Metric**" in respect of Immediate Component ic , Risk Premia Detail Set $S(R)$ and Observation Date o , an amount determined in accordance with the following formula:

$$CSRPSM_{ic}^{S(R)}(o) = \text{Min} \left[\text{Max} \left(SRPM_{ic}^{S(R)}(o); \text{Metric Floor}_{ic}^{S(R)}(o) \right); \text{Metric Cap}_{ic}^{S(R)}(o) \right]$$

Where:

"Metric Floor_{ic}^{S(R)}(o)" means the risk premium metric floor in respect of Immediate Component *ic*, Risk Premia Detail Set *S(R)* and Observation Date *o*, determined in accordance with paragraph (i), (ii) or (iii) below (as applicable):

- (i) if the Metric Limit Method in respect of such Risk Premia Detail Set is specified to be "Not Applicable" in the Relevant Specifications Annex, or is not so specified, then:

$$\text{Metric Floor}_{ic}^{S(R)}(o) = \text{SRPM}_{ic}^{S(R)}(o)$$

- (ii) if the Metric Limit Method in respect of such Risk Premia Detail Set is specified to be "Absolute" in the Relevant Specifications Annex, then:

$$\text{Metric Floor}_{ic}^{S(R)}(o) = \text{Min Absolute Metric}_{S(R)}$$

- (iii) if the Metric Limit Method in respect of such Risk Premia Detail Set is specified to be "Volatility Scaled" in the Relevant Specifications Annex, then:

$$\text{Metric Floor}_{ic}^{S(R)}(o) = \text{Min Volatility Scaled Metric}_{S(R)} \times \text{Vol}_{ic}(o)$$

Where:

"Min Absolute Metrics_{S(R)}" means the number specified as the Min Absolute Metric in respect of Risk Premia Detail Set *S(R)* in the Relevant Specifications Annex;

"Min Volatility Scaled Metrics_{S(R)}" means the number specified as the Min Volatility Scaled Metric in respect of Risk Premia Detail Set *S(R)* in the Relevant Specifications Annex; and

"Vol_{ic}(o)" means the Volatility in respect of Immediate Component *ic* and Observation Date *o*, determined in accordance with paragraph 3 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description.

"Metric Cap_{ic}^{S(R)}(o)" means the risk premium metric cap in respect of Immediate Component *ic*, Risk Premia Detail Set *S(R)* and Observation Date *o*, determined in accordance with paragraph (i), (ii) or (iii) below (as applicable):

- (i) if the Metric Limit Method in respect of such Risk Premia Detail Set is specified to be "Not Applicable" in the Relevant Specifications Annex or is not so specified, then:

$$\text{Metric Cap}_{ic}^{S(R)}(o) = \text{SRPM}_{ic}^{S(R)}(o)$$

- (ii) if the Metric Limit Method in respect of such Risk Premia Detail Set is specified to be "Absolute" in the Relevant Specifications Annex, then:

$$\text{Metric Cap}_{ic}^{S(R)}(o) = \text{Max Absolute Metric}_{S(R)}$$

- (iii) if the Metric Limit Method in respect of such Risk Premia Detail Set is specified to be "Volatility Scaled" in the Relevant Specifications Annex, then:

$$\text{Metric Cap}_{ic}^{S(R)}(o) = \text{Max Volatility Scaled Metric}_{S(R)} \times \text{Vol}_{ic}(o)$$

Where:

"Max Absolute Metrics_{S(R)}" means the number specified as the Max Absolute Metric in respect of Risk Premia Detail Set *S(R)* in the Relevant Specifications Annex; and

"Max Volatility Scaled Metrics_{S(R)}" means the number specified as the Max Volatility Scaled Metric in respect of Risk Premia Detail Set *S(R)* in the Relevant Specifications Annex;

"num_{ic}(R)" means, in respect of Immediate Component *ic*, the number of Applicable Risk Premia Detail Sets in respect of which the Risk Premium Style specified in the Relevant Specifications Annex is Risk Premium Style *R*;

"Risk Premia Detail Set Weight" means, in respect of an Immediate Component and an Applicable Risk Premia Detail Set, the number specified in the column entitled "Risk Premia Detail Set Weight" in respect of such Applicable Risk Premia Detail Set in the row corresponding to such Immediate Component in the Immediate Components table in the Relevant Specifications Annex, provided that if no Risk Premia Detail Set Weight is specified in respect of such Immediate Component and such Applicable Risk Premia Detail

Set, the Risk Premia Detail Set Weight for such Immediate Component and such Applicable Risk Premia Detail Set shall be an amount calculated by the Strategy Sponsor as being equal to (i) one (1) *divided by* (ii) the number of different Applicable Risk Premia Detail Sets in respect of which the Risk Premium Style specified in the Relevant Specifications Annex is the same Risk Premium Style as such Applicable Risk Premia Detail Set; and

" $w_{ic}^{S(R)}$ " means the Risk Premia Detail Set Weight in respect of Immediate Component *ic* and Risk Premia Detail Set *S(R)*.

Section D: Determination of the Immediate Component Weights

1. Determination of the universe of Weight Calculation Immediate Components

On each Observation Date o , the Strategy Sponsor will determine the universe of Immediate Components which will be considered in the Relevant Weight Calculation Method (such universe of Immediate Components, the "**Weight Calculation Immediate Components**" in respect of the relevant Observation Date). In respect of an Observation Date, the Weight Calculation Immediate Components will be each Immediate Component which is not an Excluded Immediate Component for such Observation Date. An "**Excluded Immediate Component**" in respect of an Observation Date is an Immediate Component which satisfies any one of (i), (ii) or (iii) below in respect of such Observation Date:

- (i) such Immediate Component satisfies any Applicable Exclusion Restriction in respect of such Observation Date in accordance with Section G: *Exclusion Restriction Definitions* of this Risk Premia Methodology Description;
- (ii) if an Immediate Component Start Date is specified in respect of such Immediate Component in the Relevant Specifications Annex, such Observation Date falls before such Immediate Component Start Date; or
- (iii) if an Immediate Component End Date is specified in respect of such Immediate Component (or, if applicable, in respect of the relevant Immediate Component Template) in the Relevant Specifications Annex, such Observation Date falls after such Immediate Component End Date.

Each Excluded Immediate Component in respect of an Observation Date shall be assigned a Preliminary Weight of zero in respect of such Observation Date and shall not be considered in the Relevant Weight Calculation Method for such Observation Date.

2. Weight Calculation Method

2.1 Determination of Calculated Weights

On each Observation Date o , the Strategy Sponsor will determine the Calculated Weight in respect of each Weight Calculation Immediate Component in respect of such Observation Date o in accordance with the Relevant Weight Calculation Method.

2.2 Determination of the Preliminary Weight in respect of an Immediate Component

The "**Preliminary Weight**" in respect of Immediate Component ic and Observation Date o shall be:

- (i) if Immediate Component ic is an Excluded Immediate Component in respect of Observation Date o , zero; or
- (ii) otherwise, the Calculated Weight in respect of such Immediate Component and such Observation Date o .

2.3 Determination of the Vol Adjusted Weight

The "**Vol Adjusted Weight**" in respect of each Immediate Component ic and Observation Date o is determined on the corresponding Decision Date d in accordance with paragraph (i) or (ii) below, as applicable:

- (i) if "Basket Volatility Targeting" is specified to be "Not Applicable" in the Relevant Specifications Annex, or is not so specified, an amount equal to the Preliminary Weight in respect of such Immediate Component and such Observation Date o ; or
- (ii) if "Basket Volatility Targeting" is specified to be "Applicable" in the Relevant Specifications Annex, an amount determined in accordance with the following formula:

$$\text{Vol Adjusted Weight}_{ic}(o) = w_{ic}(o) \times \frac{\text{Basket Volatility Target}}{\text{HRV}(o)}$$

Where:

"Basket Volatility Target" means the number specified as such in the Relevant Specifications Annex;

"HRV(o)" means the Hypothetical Realised Volatility in respect of Observation Date *o* determined in accordance with the following formula:

$$\text{HRV}(o) = \sqrt{\sum_{ic1} \sum_{ic2} w_{ic1}(o) \times w_{ic2}(o) \times \text{Shrunk Cov}_{ic1,ic2}(o)}$$

Where for the purposes of determining the Hypothetical Realised Volatility in respect of Observation Date *o*, the summations over "**ic1**" and "**ic2**" respectively are taken over each Weight Calculation Immediate Component (indexed by "**ic1**" and "**ic2**" respectively) in respect of such Observation Date, and:

"w_{ic1}(o)" means the Preliminary Weight in respect of Weight Calculation Immediate Component *ic1* and Observation Date *o*;

"w_{ic2}(o)" means the Preliminary Weight in respect of Weight Calculation Immediate Component *ic2* and Observation Date *o*;

"Shrunk Cov_{ic1,ic2}(o)" means the Shrunk Covariance in respect of each pair of Weight Calculation Immediate Components *ic1* and *ic2* (which may be the same Immediate Component) and Observation Date *o*, determined in accordance with paragraph 2.2 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description, provided that for the purpose of determining the "**Shrunk Cov_{ic1,ic2}(o)**" in order to determine the Hypothetical Realised Volatility, each reference to "Covariance Performance Lookback Rule", "Covariance Return Lookback Rule", "Covariance Exponential Smoothing Factor" and Covariance Shrinkage Factor" in paragraph 2.2 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description shall be deemed to be a reference to "Vol Adjustment Covariance Performance Lookback Rule", "Vol Adjustment Covariance Return Lookback Rule", "Vol Adjustment Covariance Exponential Smoothing Factor" and "Vol Adjustment Covariance Shrinkage Factor" respectively; and

"Vol Adjustment Covariance Exponential Smoothing Factor" means the number specified as such in the Relevant Specifications Annex;

"Vol Adjustment Covariance Performance Lookback Rule" means the Performance Lookback Rule specified as such in the Relevant Specifications Annex;

"Vol Adjustment Covariance Shrinkage Factor" means the number specified as such in the Relevant Specifications Annex;

"Vol Adjustment Covariance Return Lookback Rule" means the Return Lookback Rule specified as such in the Relevant Specifications Annex;

"Vol Adjusted Weight_{ic}(o)" means the Vol Adjusted Weight in respect of Immediate Component *ic* and Observation Date *o*; and

"w_{ic}(o)" means the Preliminary Weight in respect of Immediate Component *ic* and Observation Date *o*, as determined in accordance with paragraph 2.2 of this Section D: *Determination of the Immediate Component Weights* of this Risk Premia Methodology Description.

If in respect of an Observation Date (for the purposes of this paragraph, the "**Relevant Observation Date**") the Hypothetical Realised Volatility in respect of such Observation Date is zero, then the Vol Adjusted Weight in respect of each Weight Calculation Immediate Component and the Relevant Observation Date shall be zero.

2.4 Determination of the Capped Weight

The "**Capped Weight**" in respect of each Immediate Component *ic* and Observation Date *o* is determined on the corresponding Decision Date *d* in accordance with paragraph (i) or (ii) below, as applicable:

- (i) if "Weight Capping" is specified to be "Not Applicable" in the Relevant Specifications Annex, or is not so specified, an amount equal to the Vol Adjusted Weight in respect of such Immediate Component and such

Observation Date o ; or

- (ii) if "Weight Capping" is specified to be "Applicable" in the Relevant Specifications Annex an amount determined in accordance with the following formula:

$$\text{Capped Weight}_{ic}(o) = \min(\text{Weight Capping Max Weight}_{ic}, \max(\text{Weight Capping Min Weight}_{ic}, \text{Vol Adjusted Weight}_{ic}(o)))$$

Where:

"Capped Weight_{ic}(o)" means the Capped Weight in respect of Immediate Component ic and Observation Date o ;

"Weight Capping Max Weight_{ic}" means, in respect of Immediate Component ic , the number specified as the "Weight Capping Max Weight" in respect of such Immediate Component ic (or the Immediate Component Template corresponding to Immediate Component ic) in the Relevant Specifications Annex; and

"Weight Capping Min Weight_{ic}" in respect of Immediate Component ic , the number specified as the "Weight Capping Min Weight" in respect of such Immediate Component ic (or the Immediate Component Template corresponding to Immediate Component ic) in the Relevant Specifications Annex.

3. Determination of the Immediate Component Weight

The **"Immediate Component Weight"** in respect of each Immediate Component ic and a Rebalancing Date r is determined on the corresponding Decision Date d in accordance with paragraph (i) or (ii) below, as applicable:

- (i) If a Weight Rounding Increment is specified (and the Weight Rounding Increment is not specified to be zero) in the Relevant Specifications Annex, an amount determined in accordance with the following formula:

$$\text{Immediate Component Weight}_{ic}(r) = \text{Round} \left(\frac{1}{\text{num}(o)} \sum_o \text{Capped Weight}_{ic}(o); \text{Weight Rounding Increment} \right)$$

- (ii) If no Weight Rounding Increment is specified (or the Weight Rounding Increment is specified to be zero) in the Relevant Specifications Annex, an amount determined in accordance with the following formula:

$$\text{Immediate Component Weight}_{ic}(r) = \frac{1}{\text{num}(o)} \sum_o \text{Capped Weight}_{ic}(o)$$

Where for the purposes of determining the Immediate Component Weight_{ic}(r), the summation over " o " is taken over each Observation Date in respect of Decision Date d (indexed by " o "), and:

"Capped Weight_{ic}(o)" means the Capped Weight in respect of Immediate Component ic and Observation Date o , as determined in accordance with paragraph 2.4 of this Section D: *Determination of the Immediate Component Weights* of this Risk Premia Methodology Description;

"Immediate Component Weight_{ic}(r)" means the Immediate Component Weight in respect of Immediate Component ic and Rebalancing Date r ;

"num(o)" means the Number of Observation Dates;

"Round(x;y)" means an amount equal to x rounded to the nearest multiple of y , provided that if x is equidistant to the two nearest multiples of y , then x shall be rounded to the nearest multiple of y which has the higher absolute value; and

"Weight Rounding Increment" means the number specified as such in the Relevant Specifications Annex.

Section E: General Definitions

Terms not otherwise defined in this Risk Premia Methodology Description in respect of the GS Strategy shall have the meanings given to them below.

"Applicable Exclusion Restriction" means each Exclusion Restriction specified to be "Applicable" in the Relevant Specifications Annex.

"Benchmark Component" means, in respect of each Beta Detail Set, the component or components specified as such in such Beta Detail Set in the Constraint Specifications table in the Relevant Specifications Annex. The Timely Level of a Benchmark Component on any day shall be the most recent value published on the Benchmark Component Price Source in respect of the Strategy Calculation Day falling on or before such day.

"Benchmark Component Price Source" means, in respect of a Beta Detail Set and a Benchmark Component, the data source specified as such in the Constraint Specifications table in the Relevant Specifications Annex.

"Beta Detail Set" means, for the purposes of determining the Benchmark Beta Constraint, each beta detail set specified in the Constraint Specifications table in the Relevant Specifications Annex.

"Calculated Weight" means, in respect of each Immediate Component and an Observation Date, the weight determined in respect of such Immediate Component and such Observation Date in accordance with the Relevant Weight Calculation Method.

"Carry Swap Start Period" means, in respect of an Immediate Component and a Strategy Calculation Day *t*, the number of consecutive days immediately following such Strategy Calculation Day *t*, as specified in the column entitled "Carry Swap Start Period" corresponding to such Immediate Component in the Relevant Specifications Annex.

"Correlation" shall have the meaning given to such term in paragraph 3 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description.

"Covariance" shall have the meaning given to such term in paragraph 2.1 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description.

"Decision Date" means, in respect of a Rebalancing Date (and determined in relation to such Rebalancing Date in accordance with the Decision Date Rule), the Strategy Calculation Day on which the Strategy Sponsor determines the Immediate Component Weight of each of the Immediate Components included in a GS Strategy for such Rebalancing Date.

"Decision Date Rule" means the rule used to determine the Decision Date in respect of each Rebalancing Date, as specified in the Relevant Specifications Annex.

"Excluded Immediate Component" shall have the meaning given to such term in paragraph 1 of Section D: *Determination of the Immediate Component Weights* of this Risk Premia Methodology Description.

"Exclusion Restrictions" means each exclusion restriction specified in Section G: *Exclusion Restriction Definitions* of this Risk Premia Methodology Description.

"Immediate Component" shall have the meaning given to such term in the Relevant Basket Base Description, or if not so specified, the meaning given to such term in the Relevant Specification Annex.

"Immediate Component End Date" means, if specified in the other documentation elements of the Strategy Rules in respect of an Immediate Component, the date after which there will be no new positions entered in respect of such Immediate Component.

"Immediate Component Start Date" means, if specified in the other documentation elements of the Strategy Rules in respect of an Immediate Component, the date from which such Immediate Component will be deemed to be included in a GS Strategy.

"Immediate Component Template" shall have the meaning given to such term in the Relevant Basket Base Description, or if not so specified, not applicable.

"Immediate Component Weight" shall have the meaning given to such term in paragraph 3 of Section D: *Determination of the Immediate Component Weights* of this Risk Premia Methodology Description.

"Metric Limit Method" will be specified as "Not Applicable", "Absolute", or "Volatility Adjusted" in respect of a Risk Premia Detail Set in the Relevant Specifications Annex.

"Number of Observation Dates" means the number specified as such in the Relevant Specifications Annex, or if not so specified, one (1).

"Observation Dates" means, in respect of a Decision Date *d*, the sequence of consecutive Strategy Calculation Days equal to the Number of Observation Dates ending on, and including, Decision Date *d*.

"Performance Lookback Date" means, in respect of a Strategy Calculation Day *t* and a Performance Lookback Rule, the date determined by applying such Performance Lookback Rule to such Strategy Calculation Day.

"Performance Lookback Rule" means the rule used to determine the relevant Performance Lookback Date in respect of a Strategy Calculation Day.

"Period Return" shall have the meaning given to such term in Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description.

"Preliminary Weight" shall have the meaning given to such term in paragraph 2.2 of Section D: *Determination of the Immediate Component Weights* of this Risk Premia Methodology Description.

"Rebalancing Date" means, in respect of a Reference Date, each day specified as such in the other documentation elements of the Strategy Rules.

"Reference Date" means each day specified as such in the other documentation elements of the Strategy Rules.

"Relevant Basket Base Description" shall have the meaning given to such term in the Relevant Specifications Annex, or if not so specified, means the document entitled "*Goldman Sachs General Basket Strategy Base Description*" (as the same may be amended from time to time).

"Relevant General Strategy Provisions" shall have the meaning given to such term in the Relevant Specifications Annex or, if not so specified, means the document entitled the "*Goldman Sachs General Index Provisions*" (as the same may be amended from time to time).

"Relevant Risk Premium Metric" shall have the meaning given to such term in paragraph 1 of Section C: *Determination of the Risk Premia Metric* of this Risk Premia Methodology Description.

"Relevant Specifications Annex" shall have the meaning given to such term in paragraph 1 of Section A: *General* of this Risk Premia Methodology Description.

"Relevant Weight Calculation Method" means, in respect of the GS Strategy, the Weight Calculation Method described in the paragraph of Section H: *Weight Calculation Method* of this Risk Premia Methodology Description and specified as such in the Relevant Specifications Annex, provided that if no Weight Calculation Method is specified in the Relevant Specifications Annex, "Optimization" shall be deemed to be specified in the Relevant Specifications Annex.

"Return Lookback Date" means, in respect of a Strategy Calculation Day *t* and a Return Lookback Rule, the date determined by applying such Return Lookback Rule to such Strategy Calculation Day.

"Return Lookback Rule" means the rule used to determine the relevant Return Lookback Date in respect of a Strategy Calculation Day.

"Risk Premia Detail Set" means each risk premia detail set specified in the Relevant Specifications Annex.

"Risk Premia Methodology" shall have the meaning given to such term in paragraph 2 of Section A: *General* of this Risk Premia Methodology Description.

"Risk Premia Methodology Description" shall have the meaning given to such term in paragraph 1 of Section A: *General* of this Risk Premia Methodology Description.

"Risk Premium Metric" shall be defined in respect of each Risk Premium Style in Section F: *Risk Premium Metric Definitions* of this Risk Premia Methodology Description.

"Risk Premium Style" means each risk premium style specified in Section F: *Risk Premium Metric Definitions* of this Risk Premia Methodology Description.

"Strategy Calculation Day" means each day specified as such in the other documentation elements of the Strategy Rules, or if not so specified, shall mean any day on which the offices of Goldman Sachs & Co. in New York are open for business.

"Shrunk Covariance" shall have the meaning given to such term in paragraph 2.2 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description.

"Smoothed Risk Premia Metric" shall have the meaning given to such term in paragraph 1 of Section C: *Determination of the Risk Premia Metric* of this Risk Premia Methodology Description.

"Smoothing Lookback Date" means, in respect of a Strategy Calculation Day and a Smoothing Lookback Rule, the date determined by applying such Smoothing Lookback Rule to such Strategy Calculation Day.

"Smoothing Lookback Rule" means, in respect of a Risk Premia Detail Set, the rule used to determine the relevant Smoothing Lookback Date in respect of a Strategy Calculation Day, provided that if no Smoothing Lookback Rule is specified in respect of a Risk Premia Detail Set in the Relevant Specifications Annex, the Smoothing Lookback Date in respect of an Observation Date and such Risk Premia Detail Set shall be such Observation Date.

"Strategy Sponsor" means Goldman Sachs International or its successor(s).

"Sub-Basket" shall have the meaning given to such term in paragraph 1.1.4 of Section H: *Weight Calculation Method* of this Risk Premia Methodology Description.

"Sub-Basket Benchmark Component" means, in respect of each Sub-Basket, each component specified as such in respect of such Sub-Basket in the Relevant Specifications Annex. The Timely Level of a Sub-Basket Benchmark Component on any day shall be the most recent value published on the Sub-Basket Benchmark Component Price Source in respect of the Strategy Calculation Day falling on or before such day.

"Sub-Basket Benchmark Component Price Source" means, in respect of a Sub-Basket and a Sub-Basket Benchmark Component, the data source specified as such in respect of such Sub-Basket and such Sub-Basket Benchmark Component in the Relevant Specifications Annex.

"Timely Level" shall have the meaning given to such term in the Relevant Basket Base Description, or if not so specified, the meaning given to such term in the Relevant Specification Annex.

"Timeseries Component" means an Immediate Component, a Benchmark Component or a Sub-Basket Benchmark Component, as the case may be.

"Vol Adjusted Weight" shall have the meaning given to such term in paragraph 2.3 of Section D: *Determination of the Immediate Component Weights* of this Risk Premia Methodology Description.

"Volatility" shall have the meaning given to such term in paragraph 3 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description.

"Weight Calculation Immediate Component" shall have the meaning given to such term in paragraph 2 of Section A: *General* of this Risk Premia Methodology Description.

"Weight Calculation Method" shall mean each weight calculation method described in Section H: *Weight Calculation Method* of this Risk Premia Methodology Description.

"Weighted Smoothed Risk Premia Metric" shall have the meaning given to such term in paragraph 2 of Section C: *Determination of the Risk Premia Metric* of this Risk Premia Methodology Description.

Section F: Risk Premium Metric Definitions

1. Definitions for Style - Rates Carry

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Rates Carry" in the Relevant Specifications Annex, the "**Risk Premium Metric**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$RPM_{ic}^S(t) = \text{Long Yield}_{ic}(t) - \text{Short Rate}_{ic}(\text{Lookback Date}_{ic}(t)) + \text{Rolldown}_{ic}(t)$$

Where:

"**Duration_{ic}(t)**" means, in respect of Immediate Component ic and Strategy Calculation Day t , an amount calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Duration}_{ic}(t) = \frac{1}{\text{Long Yield}_{ic}(t)} \times \left[1 - \frac{1}{(1 + \text{Long Yield}_{ic}(t))^{\text{Tenor Long}_{ic}}} \right]$$

"**Lookback Date_{ic}(t)**" means, in respect of Strategy Calculation Day t and Immediate Component ic , if Short Rate Style(t) is "RFR", the second last day prior to and including Strategy Calculation Day t on which the Short Rate Data Source in respect of the Immediate Component is scheduled to be published, otherwise if Short Rate Style(t) is "Not Specified", the Strategy Calculation Day t ;

"**Long Yield_{ic}(t)**" means, in respect of Strategy Calculation Day t and Immediate Component ic , the percentage value published on the Long Yield Data Source in respect of such Immediate Component and such Strategy Calculation Day t , as determined by the Strategy Sponsor. If such Strategy Calculation Day is not a day on which the Long Yield Data Source is scheduled to publish such value, the relevant exchange is not open or such value is otherwise unavailable for any other reason, then Long Yield_{ic}(t) in respect of such Strategy Calculation Day shall be deemed to be the value on the first day preceding such Strategy Calculation Day on which the relevant Long Yield Data Source published such value;

"**Long Yield Data Source**" means, in respect of an Immediate Component, the data source specified in the column entitled "Long Yield Data Source" corresponding to such Immediate Component in the Relevant Specifications Annex;

"**Rolldown_{ic}(t)**" means, in respect of Immediate Component ic and Strategy Calculation Day t , an amount calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Rolldown}_{ic}(t) = \text{Duration}_{ic}(t) \times \frac{\text{Long Yield}_{ic}(t) - \text{Short Yield}_{ic}(t)}{\text{Tenor Long}_{ic} - \text{Tenor Short}_{ic}}$$

"**RPM_{ic}^S(t)**" means the Risk Premium Metric in respect of Immediate Component ic , each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Rates Carry" in the Relevant Specifications Annex and Strategy Calculation Day t ;

"**Short Rate_{ic}(Lookback Date_{ic}(t))**" means, in respect of Strategy Calculation Day t and Immediate Component ic , the percentage value published on the Short Rate Data Source in respect of such Immediate Component on Lookback Date_{ic}(t), as determined by the Strategy Sponsor. If such day is not a day on which the Short Rate Data Source is scheduled to publish such value, or such value is otherwise unavailable for any other reason, then Short Rate_{ic}(Lookback Date_{ic}(t)) in respect of Strategy Calculation Day t shall be deemed to be the value on the first day preceding Lookback Date_{ic}(t) on which the relevant Short Rate Data Source published such value;

"**Short Rate Data Source**" means, in respect of an Immediate Component, the data source specified in the column entitled "Short Rate Data Source" corresponding to such Immediate Component in the Relevant Specifications Annex;

"**Short Rate Style(t)**" means, in respect of Strategy Calculation Day t , the Short Rate Style specified in the Risk Premia Metric Specifications table of the relevant Specifications Annex corresponding to such Strategy Calculation Day. If no such Short Rate Style corresponding to Strategy Calculation Day t is

specified in such table, the Short Rate Style(t) in respect of such Strategy Calculation Day shall be deemed to be "Not Specified".

"Short Yield_{ic}(t)" means, in respect of Strategy Calculation Day *t* and Immediate Component *ic*, the percentage value published on the Short Yield Data Source in respect of such Immediate Component on such Strategy Calculation Day, as determined by the Strategy Sponsor. If such Strategy Calculation Day is not a day on which the Short Yield Data Source is scheduled to publish such value, the relevant exchange is not open or such value is otherwise unavailable for any other reason, then Short Yield_{ic}(t) in respect of such Strategy Calculation Day shall be deemed to be the value on the first day preceding such Strategy Calculation Day on which the relevant Short Yield Data Source published such value.

"Short Yield Data Source" means, in respect of an Immediate Component, the data source specified in the column entitled "Short Yield Data Source" corresponding to such Immediate Component in the Relevant Specifications Annex;

"Tenor Long_{ic}" means, in respect of Immediate Component *ic*, the number specified in the column entitled "Tenor Long" corresponding to such Immediate Component in the Relevant Specifications Annex; and

"Tenor Short_{ic}" means, in respect of Immediate Component *ic*, the number specified in the column entitled "Tenor Short" corresponding to such Immediate Component in the Relevant Specifications Annex.

2. Definitions for Style – IR Swap Carry

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "IR Swap Carry" in the Relevant Specifications Annex, the "**Risk Premium Metric**" is calculated by the Strategy Sponsor in accordance with the following formulas (as applicable). If on Strategy Calculation Day t , $FSR_t(FS_{ic})$, $FSR_t(S_{ic})$ or $A_t(S_{ic})$ are not scheduled to be published, or are otherwise unavailable for any other reason, then the Risk Premium Metric shall be deemed to be the Risk Premium Metric in respect of the immediately preceding Strategy Calculation Day t , Immediate Component ic and Risk Premia Detail Set S :

- (i) if the Style of Immediate Component ic is IR-Swap

$$RPM_{ic}^S(t) = (FSR_t(FS_{ic}) - FSR_t(S_{ic})) \times A_t(S_{ic}) \times \frac{365}{num_{ic}(t)}$$

where:

" $FSR_t(FS_{ic})$ " means the Swap Rate in respect of Forward Swap Contract FS_{ic} and Strategy Calculation Day t , as determined in accordance with the definition of " $FSR_t(FS)$ " in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS " and "day t " shall be deemed to be a reference to "Forward Swap Contract FS_{ic} " and "Strategy Calculation Day t " respectively;

" $FSR_t(S_{ic})$ " means the Swap Rate in respect of Reference Spot Swap Contract S_{ic} and Strategy Calculation Day t , as determined in accordance with the definition of " $FSR_t(FS)$ " in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS " and "day t " shall be deemed to be a reference to "Reference Spot Swap Contract S_{ic} " and "Strategy Calculation Day t " respectively;

"**Swap Rate**" shall have the meaning given to such term in the Relevant Basket Base Description;

" FS_{ic} " means the Forward Swap Contract with the same terms as Immediate Component ic provided that the Swap Start Date shall be the last day of the Carry Swap Start Period in respect of Strategy Calculation Day t and such Immediate Component ic ;

" S_{ic} " means the Reference Spot Swap Contract in respect of Forward Swap Contract FS_{ic} and Strategy Calculation Day t ;

" $A_t(S_{ic})$ " means the Annuity in respect of Reference Spot Swap Contract S_{ic} and Strategy Calculation Day t , as determined in accordance with the definition of " $A_t(FS)$ " in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS " and "day t " shall be deemed to be a reference to "Reference Spot Swap Contract S_{ic} " and "Strategy Calculation Day t " respectively; and

" $num_{ic}(t)$ " means the number of calendar days falling in the period commencing on, but excluding, the Swap Effective Date in respect of Reference Spot Swap Contract S_{ic} and ending on, and including, the Swap Effective Date in respect of the Forward Swap Contract FS_{ic} .

- (ii) if the Style of Immediate Component ic is IR-Swap-Combination

$$RPM_{ic}^S(t) = \sum_i CW_t(FS_{ic,i}) \times (FSR_t(FS_{ic,i}) - FSR_t(S_{ic,i})) \times TA(FSC_{ic}) \times \frac{365}{num_{ic,i}(t)}$$

Where for the purposes of determining $RPM_{ic}^S(t)$ the summation over " i " is taken over each Forward Swap Contracts $FS_{ic,i}$ (indexed by " i ") included in the Forward Swap Combination Contract ic on Strategy Calculation Day t , and:

" $FSR_t(FS_{ic,i})$ " means the Swap Rate in respect of Forward Swap Contract $FS_{ic,i}$ and Strategy Calculation Day t , as determined in accordance with the definition of " $FSR_t(FS)$ " in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS " and "day t " shall be deemed to be a reference to "Forward Swap Contract $FS_{ic,i}$ " and "Strategy Calculation Day t " respectively (it being understood that such Swap Rate shall be the same as the Swap Rate in respect of Forward Swap Contract $FS_{ic,i}$ used to calculate the Timely Level in

respect of Immediate Component ic and any day t);

" $FSR_t(S_{ic,i})$ " means the Swap Rate in respect of Reference Spot Swap Contract $S_{ic,i}$ and Strategy Calculation Day t , as determined in accordance with the definition of "FSR(FS)" in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS " and "day t " shall be deemed to be a reference to "Reference Spot Swap Contract $S_{ic,i}$ " and "Strategy Calculation Day t " respectively (it being understood that such Swap Rate shall be the same as the Swap Rate in respect of Reference Spot Swap Contract $S_{ic,i}$ used to calculate the Timely Level in respect of Immediate Component ic and any day t);

"**Swap Rate**" shall have the meaning given to such term in the Relevant Basket Base Description;

" $FS_{ic,i}$ " means the Forward Swap Contract with the same terms as Forward Swap Contract i included in the Forward Swap Combination Contract in respect of Immediate Component ic and Strategy Calculation Day t , provided that the Swap Start Date shall be the last day of the Carry Swap Start Period in respect of Strategy Calculation Day t and Forward Swap Contract i ;

" $S_{ic,i}$ " means the Reference Spot Swap Contract in respect of Forward Swap Contract $FS_{ic,i}$ and Strategy Calculation Day t ;

"**Combination Weight**" shall have the meaning given to such term in the Relevant Basket Base Description;

" $CW_t(FS_{ic,i})$ " means the Combination Weight in respect of Forward Swap Contract $FS_{ic,i}$ and Strategy Calculation Day t ;

"**Target Annuity**" shall have the meaning given to such term in the Relevant Basket Base Description;

" $TA_t(FSC_{ic})$ " means the Target Annuity in respect of Immediate Component ic and Strategy Calculation Day t , as specified in the Relevant Specifications Annex, provided that if no Target Annuity is specified in respect of Immediate Component ic in the Relevant Specifications Annex, " $TA_t(FSC_{ic})$ " shall be deemed to be equal to the weighted sum of the " $A_t(S_{ic,i})$ " in respect of each Reference Spot Swap Contract $S_{ic,i}$ in respect of each Forward Swap Contract i included in Immediate Component ic ;

" $A_t(S_{ic,i})$ " means the Annuity in respect of Reference Spot Swap Contract $S_{ic,i}$ and Strategy Calculation Day t , as determined in accordance with the definition of " $A_t(FS)$ " in the Relevant Basket Base Description, provided that each reference in such definition (and any relevant definitions used therein) to "Forward Swap Contract FS " and "day t " shall be deemed to be a reference to "Reference Spot Swap Contract $S_{ic,i}$ " and "Strategy Calculation Day t " respectively; and

" $num_{ic,i}(t)$ " means the number of calendar days falling in the period commencing on, but excluding, the Swap Effective Date in respect of Reference Spot Swap Contract $S_{ic,i}$ and ending on, and including, the Swap Effective Date in respect of the Forward Swap Contract $FS_{ic,i}$.

(iii) If the Style of Immediate Component ic is Index, the Risk Premia Metric shall be calculated using the methodology described in (ii), in respect of the immediately preceding Strategy Calculation Day t , Immediate Component Template inside such immediate component ic and Risk Premia Detail Set S .

In each case:

" $RPM_{ic}^S(t)$ " means the Risk Premium Metric in respect of Immediate Component ic , each Risk Premia Detail Set S for which the Risk Premium Style is specified as "IR Swap Carry" in the Relevant Specifications Annex, and Strategy Calculation Day t . If such value is unavailable on such Index Calculation Day t for any reason, then " $RPM_{ic}^S(t)$ " in respect of such Strategy Calculation Day shall be deemed to be the value as of the first day preceding such Strategy Calculation Day t on which the relevant value is available.

3. Definitions for Style - FX Carry

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "FX Carry" in the Relevant Specifications Annex, the "**Risk Premium Metric**" is calculated by the Strategy Sponsor in accordance with the following formula:

- (i) If the Style of Immediate Component ic is FX-Forward

$$RPM_{ic}^S(t) = \left(\frac{\text{Spot}_{ic}(t)}{\text{Forward}_{ic}(t)} \right)^{\frac{365}{\text{num}_{ic}(t)}} - 1$$

Where:

"**Carry Tenor** $_{ic}$ " means, in respect of an Immediate Component ic , the period of time specified as the "Carry Tenor" corresponding to such Immediate Component (or, if applicable, corresponding to the relevant Immediate Component Template) in the Relevant Specifications Annex;

"**Forward** $_{ic}(t)$ " means the Forward Exchange Rate in respect of the Currency Cross of Immediate Component ic , the Carry Tenor in respect of such Immediate Component and Strategy Calculation Day t ;

"**num** $_{ic}(t)$ " means the number of calendar days falling in the period commencing on, but excluding, the Spot Settlement Date in respect of the Currency Cross of Immediate Component ic and Strategy Calculation Day t and ending on, and including, the Forward Settlement Date in respect of the Currency Cross of Immediate Component ic , Strategy Calculation Day t and the Carry Tenor in respect of such Immediate Component;

"**RPM** $_{ic}^S(t)$ " means the Risk Premium Metric in respect of Immediate Component ic , each Risk Premia Detail Set S for which the Risk Premium Style is specified as "FX Carry" in the Relevant Specifications Annex and Strategy Calculation Day t ; and

"**Spot** $_{ic}(t)$ " means the Spot Exchange Rate in respect of the Currency Cross of Immediate Component ic and Strategy Calculation Day t

- (ii) If the Style of Immediate Component ic is Index, shall be the Risk Premia Metric calculated using the methodology described in (i), in respect of Strategy Calculation day t , Immediate Component Template inside such immediate component ic and Risk Premia Detail Set S .

4. Definitions for Style – Credit Carry

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Credit Carry" in the Relevant Specifications Annex, the "**Risk Premium Metric**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$RPM_{ic}^S(t) = \text{Long Credit Spread}_{ic}(t) + \text{Rolldown}_{ic}(t)$$

Where:

Calculation of relevant rates

"**Long Credit Spread $_{ic}(t)$** " means, in respect of Strategy Calculation Day t and Immediate Component ic , the value published on the Long Credit Spread Data Source in respect of such Immediate Component and such Strategy Calculation Day t , as determined by the Strategy Sponsor. If such Strategy Calculation Day is not a day on which the Long Credit Spread Data Source is scheduled to publish such value, or such value is otherwise unavailable for any other reason, then the Long Credit Spread $_{ic}(t)$ in respect of such Strategy Calculation Day shall be deemed to be the value in respect of such Immediate Component on the first day preceding such Strategy Calculation Day on which the relevant Long Credit Spread Data Source published such value;

"**Long Credit Spread Data Source**" means, in respect of an Immediate Component, the data source specified in the column entitled "Long Credit Spread Data Source" corresponding to such Immediate Component in the Relevant Specifications Annex;

"**Short Credit Spread $_{ic}(t)$** " means, in respect of Strategy Calculation Day t and Immediate Component ic , the value published on the Short Credit Spread Data Source in respect of such Immediate Component and such Strategy Calculation Day t , as determined by the Strategy Sponsor. If such Strategy Calculation Day is not a day on which the Short Credit Spread Data Source is scheduled to publish such value, or such value is otherwise unavailable for any other reason, then the Short Credit Spread $_{ic}(t)$ in respect of such Strategy Calculation Day shall be deemed to be the value in respect of such Immediate Component on the first day preceding such Strategy Calculation Day on which the relevant Short Credit Spread Data Source published such value;

"**Short Credit Spread Data Source**" means, in respect of an Immediate Component, the data source specified in the column entitled "Short Credit Spread Data Source" corresponding to such Immediate Component in the Relevant Specifications Annex;

"**Long Yield $_{ic}(t)$** " means, in respect of Strategy Calculation Day t and Immediate Component ic , the percentage value published on the Long Yield Data Source in respect of such Immediate Component and such Strategy Calculation Day t , as determined by the Strategy Sponsor. If such Strategy Calculation Day is not a day on which the Long Yield Data Source is scheduled to publish such percentage value, the relevant exchange is not open or such value is otherwise unavailable for any other reason, then Long Yield $_{ic}(t)$ in respect of such Strategy Calculation Day shall be deemed to be the value on the first day preceding such Strategy Calculation Day on which the relevant Long Yield Data Source published such value; and

"**Long Yield Data Source**" means, in respect of an Immediate Component, the data source specified in the column entitled "Long Yield Data Source" corresponding to such Immediate Component in the Relevant Specifications Annex.

Calculation of Rolldown

"**Rolldown $_{ic}(t)$** " means, in respect of Immediate Component ic and Strategy Calculation Day t , an amount calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Rolldown}_{ic}(t) = \text{Duration}_{ic}(t) \times \frac{\text{Long Credit Spread}_{ic}(t) - \text{Short Credit Spread}_{ic}(t)}{\text{Tenor Long}_{ic} - \text{Tenor Short}_{ic}}$$

"**Duration $_{ic}(t)$** " means, in respect of Immediate Component ic and Strategy Calculation Day t , an amount calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Duration}_{ic}(t) = \frac{1}{\text{Long Rate}_{ic}(t)} \times \left[1 - \frac{1}{(1 + \text{Long Rate}_{ic}(t))^{\text{Tenor Long}_{ic}}} \right]$$

"**Long Rate_{ic}(t)**" means, in respect of Immediate Component *ic* and Strategy Calculation Day *t*, an amount calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Long Rate}_{ic}(t) = \frac{\text{Long Credit Spread}_{ic}(t)}{(1 - \text{Recovery Rate}_{ic})} + \text{Long Yield}_{ic}(t)$$

"**Tenor Long_{ic}**" means, in respect of Immediate Component *ic*, the number specified in the column entitled "Tenor Long" corresponding to such Immediate Component in the Relevant Specifications Annex;

"**Tenor Short_{ic}**" means, in respect of Immediate Component *ic*, the number specified in the column entitled "Tenor Short" corresponding to such Immediate Component in the Relevant Specifications Annex;

"**Recovery Rate_{ic}**" means, in respect of an Immediate Component, the value specified in the column entitled "Recovery Rate" corresponding to such Immediate Component in the Relevant Specifications Annex.

5. Definitions for Style – Commodities Carry

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Commodities Carry" in the Relevant Specifications Annex, the "**Risk Premium Metric**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$RPM_{ic}^S(t) = Carry_{ic}(t) - Seasonal Adjustment_{ic} \times [Seasonal Average_{ic}(t) - Annual Average_{ic}(t)]$$

Where:

If Strategy Calculation Day t is not a day the offices of Goldman Sachs & Co. LLC in New York are open for business, then for the purpose of calculating $RPM_{ic}^S(t)$, the Strategy Calculation Day t shall be deemed to be the first day immediately preceding such Strategy Calculation Day on which the offices of Goldman Sachs & Co. LLC in New York are open for business.

"**Seasonal Adjustment $_{ic}(t)$** " shall be set to 1 if "Seasonal Adjustment" is specified as "Applicable" in respect of the Immediate Component ic in the Relevant Specifications Annex, or 0 if it is set to "Not Applicable" or if not so specified.

Calculation of Carry

$$Carry_{ic}(t) = \sum_c \text{Dollar Weight}_c(t) \times \text{Backwardation Value}_c(t)$$

"**Dollar Weight $_c(t)$** " means the percentage weight of Contract Expiration c in Immediate Component ic on day t , which is calculated as the ratio of (A) the product of (i) the number of units of Contract Expiration c included in one unit of Immediate Component ic on day t , as determined in accordance with the relevant rules or methodology in respect of Immediate Component ic , multiplied by (ii) the Daily Contract Reference Price of Contract Expiration c on day t , and divided by (B) the Timely Level of Immediate Component ic on day t ;

"**Backwardation Value $_{cp}(t)$** " means the Backwardation Value $_{cp}(t)$ in respect of the Contract Pair consisting of Contract Expiration c and its corresponding Comparison Contract Expiration on day t , calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Backwardation Value}_{cp}(t) = \frac{\text{Price}_{SDC(cp)}(t) - \text{Price}_{LDC(cp)}(t)}{\text{Price}_{LDC(cp)}(t)} \times \frac{12}{\text{Number of Months}_{cp}}$$

"**SDC (cp)** " means the Short Dated Contract Expiration of Contract Pair cp , which is the Contract Expiration that has the earlier Contract Month among the two Contract Expirations included in Contract Pair cp ;

"**LDC (cp)** " means the Long Dated Contract Expiration of Contract Pair cp , which is the Contract Expiration that has the later Contract Month among the two Contract Expirations included in Contract Pair cp ;

"**Number of Months $_{cp}$** " means the number of calendar months in the period commencing on, but excluding, the Contract Month of the Short Dated Contract Expiration in respect of Contract Pair cp , and including, the Contract Month of the Long Dated Contract Expiration in respect of Contract Pair cp ;

"**Price $_x(t)$** " means the Daily Contract Reference Price of Contract Expiration x on day t ;

"**Contract Pair**" means a set of two distinct Contract Expirations with respect to the same Futures Contract;

"**Comparison Contract Expiration**" means, in respect of a Contract Expiration c and a day t , the Designated Contract Expiration, with respect to the same futures contract of Contract Expiration c , which has the latest Contract Month falling prior to the Contract Month of Contract Expiration c and the Last Valid Day of such Designated Contract Expiration falling after day t . If such Designated Contract Expiration does not exist, the Comparison Contract Expiration shall be the Designated Contract Expiration with the earliest Contract Month falling after the Contract Month of Contract Expiration c ;

"Designated Contract Expiration" means, in respect of a Futures Contract, each of the Contract Expirations

corresponding to such Futures Contract set out in the Relevant Specifications Annex;

"Contract Month" means, in respect of a Designated Contract Expiration, the calendar month specified in respect of such Designated Contract Expiration;

"Last Valid Day" means, in respect of a Designated Contract Expiration the Last Trading Date of such Designated Contract Expiration; and

"Last Trading Date" means, in respect of a Designated Contract Expiration, the last day on which such Designated Contract Expiration can be traded on the relevant Trading Facility, as determined and announced by such Trading Facility for such Designated Contract Expiration.

Calculation of Seasonal Average

"Seasonal Average_{ic(t)}" means the seasonal average with respect to Immediate Component *ic* and day *t* and calculated as the arithmetic average of Carry_{ic(t)} with respect to Immediate Component *ic* of each Seasonal Lookback Day(*t*);

"Seasonal Lookback Day(*t*)" means, with respect to day *t*, each day on which the offices of Goldman Sachs & Co. LLC in New York are open for business falling in any Seasonal Window(*t*) in the Lookback Window(*t*);

"Seasonal Window(*t*)" means, for each calendar year the period starting from, and including, the Seasonal Window Start Date with respect to day *t* and such calendar year, to, and including, the Seasonal Window End Date with respect to day *t* and such calendar year;

"Seasonal Window Start Date" shall have the meaning given to such term in the Relevant Specifications Annex;

"Seasonal Window End Date" shall have the meaning given to such term in the Relevant Specifications Annex;

"Lookback Window(*t*)" means, with respect to day *t*, the period starting from, and including, Lookback Window Start(*t*), to, and including Lookback Window End(*t*);

"Lookback Window Start(*t*)" means, with respect to day *t*, the calendar day that falls 182 days before the Equivalent Observation Date falling the Number Of Lookback Years before such day *t*, or, if such calendar day is not a day on which the offices of Goldman Sachs & Co. LLC in New York are open for business, the day immediately following such calendar day on which the offices of Goldman Sachs & Co. LLC in New York are open for business;

"Lookback Window End(*t*)" means, with respect to day *t*, the calendar day that falls 182 days after the Equivalent Observation Date falling 1 year before such day *t*, or, if such calendar day is not a day on which the offices of Goldman Sachs & Co. LLC in New York are open for business, the day immediately preceding such calendar day on which the offices of Goldman Sachs & Co. LLC in New York are open for business;

"Equivalent Observation Date" means, in respect of a day and each calendar year, the day falling on the same day and month as such day in such calendar year, provided that if such Day falls on 29 February of a leap year or 28 February of a non-leap year, the Equivalent Observation Date in such calendar year shall be the last calendar day of February in such calendar year; and

"Number Of Lookback Years" means a number as specified in the Relevant Specifications Annex.

Calculation of Annual Average

"Annual Average_{ic(t)}" means the yearly average with respect to Immediate Component *ic* and day *t*, and calculated as the arithmetic average of Carry_{ic(t)} with respect to Immediate Component *ic* of each day on which the offices of Goldman Sachs & Co. LLC in New York are open for business falling in the Lookback Window(*t*).

6. Definitions for Style - Rates Value

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Rates Value" in the Relevant Specifications Annex, the "**Risk Premium Metric**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$RPM_{ic}^S(t) = Yield_{ic}(t) - Weighted\ Inflation_{ic}(t)$$

Where:

"**RPM_{ic}^S(t)**" means the Risk Premium Metric in respect of Immediate Component ic , each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Rates Value" in the Relevant Specifications Annex and Strategy Calculation Day t ;

"**Weighted Inflation_{ic}(t)**" means, in respect of Immediate Component ic and Strategy Calculation Day t , an amount calculated by the Strategy Sponsor in accordance with the following formula:

$$Weighted\ Inflation_{ic}(t) = \left(\frac{12 - T(t)}{12} \times Current\ Year\ Inflation_{ic}(t) \right) + \left(\frac{T(t)}{12} \times Next\ Year\ Inflation_{ic}(t) \right)$$

Where:

"**Corresponding Country**" means, in respect of an Immediate Component, the country specified in the column entitled "Corresponding Country" in the row corresponding to such Immediate Component in the Relevant Specifications Annex;

"**Current Year Inflation Data Source**" means the data source specified as such in the Relevant Specifications Annex;

"**Current Year Inflation_{ic}(t)**" means, in respect of Strategy Calculation Day t and Immediate Component ic , the percentage value published on the Current Year Inflation Data Source on such Strategy Calculation Day in respect of the calendar year in which Strategy Calculation Day t falls and the Corresponding Country in respect of Immediate Component ic . If such Strategy Calculation Day is not a day on which the Current Year Inflation Data Source is scheduled to publish such value, or such value is otherwise unavailable for any other reason, then Current Year Inflation_{ic}(t) in respect of such Strategy Calculation Day shall be deemed to be the value on the first day preceding such Strategy Calculation Day on which the relevant Current Year Inflation Data Source published such value;

"**Next Year Inflation_{ic}(t)**" means, in respect of Strategy Calculation Day t and Immediate Component ic , the percentage value published on the Next Year Inflation Data Source on such Strategy Calculation Day in respect of the calendar year following the calendar year in which Strategy Calculation Day t falls and the Corresponding Country in respect of Immediate Component ic . If such Strategy Calculation Day is not a day on which the Next Year Inflation Data Source is scheduled to publish such value, or such value is otherwise unavailable for any other reason, then Next Year Inflation_{ic}(t) in respect of such Strategy Calculation Day shall be deemed to be the value on the first day preceding such Strategy Calculation Day on which the relevant Next Year Inflation Data Source published such value;

"**Next Year Inflation Data Source**" means the data source specified in the Relevant Specifications Annex;

"**T(t)**" means, in respect of an Strategy Calculation Day t , the number corresponding to the calendar month in which such Strategy Calculation Day falls as determined in accordance with the following table:

January	1
February	2
March	3
April	4
May	5
June	6
July	7

August	8
September	9
October	10
November	11
December	12

"Yield Data Source" means, in respect of an Immediate Component, the data source specified in the column entitled "Yield Data Source" corresponding to such Immediate Component in the Relevant Specifications Annex; and

"Yield_{ic(t)}" means, in respect of Strategy Calculation Day *t* and Immediate Component *ic*, the percentage value published on the Yield Data Source in respect of such Immediate Component on such Strategy Calculation Day, as determined by the Strategy Sponsor. If such Strategy Calculation Day is not a day on which the Yield Data Source is scheduled to publish such value, the relevant exchange is not open or such value is otherwise unavailable for any other reason, then Yield_{ic(t)} in respect of such Strategy Calculation Day shall be deemed to be the value on the first day preceding such Strategy Calculation Day on which the relevant Yield Data Source published such value.

7. Definitions for Style - FX Value

7.1 Determination of the Risk Premium Metric

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "FX Value" in the Relevant Specifications Annex, the "**Risk Premium Metric**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$RPM_{ic}^S(t) = \frac{\text{Regression Spot}_{ic}(t)}{\text{Spot}_{ic}(t)} - 1$$

Where:

"**Regression Spot_{ic}(t)**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Regression Spot}_{ic}(t) = \exp \left(\alpha_{ic}(t) - \ln \left(\frac{CPI_{ic,U}(t,t)}{CPI_{ic,D}(t,t)} \right) + \beta_1(t) \times \ln \left(\frac{ToT_{ic,U}(t,t)}{ToT_{ic,D}(t,t)} \right) + \beta_2(t) \times \ln \left(\frac{Prod_{ic,U}(t,t)}{Prod_{ic,D}(t,t)} \right) \right)$$

" $\alpha_{ic}(t)$ " means the Regression Parameter " α " in respect of FX Value Immediate Component ic , Strategy Calculation Day t and the Corresponding Calendar Quarter End in respect of Strategy Calculation Day t , as determined in accordance with paragraph 6.2 below;

" $\beta_1(t)$ " means the Regression Parameter " β_1 " in respect of Strategy Calculation Day t and the Corresponding Calendar Quarter End in respect of Strategy Calculation Day t , as determined in accordance with paragraph 6.2 below;

" $\beta_2(t)$ " means the Regression Parameter " β_2 " in respect of Strategy Calculation Day t and the Corresponding Calendar Quarter End in respect of Strategy Calculation Day t , as determined in accordance with paragraph 6.2 below;

"**Calendar Quarter**" means each of the following periods: (i) January to March, (ii) April to June, (iii) July to September and (iv) October to December;

"**Calendar Quarter End**" means the last Strategy Calculation Day of each Calendar Quarter;

"**Corresponding Calendar Quarter End**" means, in respect of a Strategy Calculation Day t , the Calendar Quarter End falling immediately prior to Strategy Calculation Day t ;

"**CPI_{ic,U}(t,w)**" means, in respect of Strategy Calculation Day t , day w and the Underlying Currency of the Currency Cross in respect of FX Value Immediate Component ic , the last value published on the CPI Data Source as of day w in respect of such Underlying Currency for Strategy Calculation Day t , as determined by the Strategy Sponsor. If such Strategy Calculation Day is not a day on which the CPI Data Source is scheduled to publish such value, or such value is otherwise unavailable for any other reason, then $CPI_{ic,U}(t,w)$ in respect of such Strategy Calculation Day shall be deemed to be the relevant value as of the first preceding day for which the relevant CPI Data Source published such value. The day w shall be replaced with day t if (i) no FX Value Switch Date is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements or (ii) the day w falls before the FX Value Switch Date;

"**CPI_{ic,D}(t,w)**" means a value determined in accordance with the definition of $CPI_{ic,U}(t,w)$ provided that each reference therein to "Underlying Currency" shall be deemed to be a reference to "Denominated Currency";

"**CPI Data Source**" means, in respect of a Currency, the data source specified in the column entitled "CPI Data Source" corresponding to such Currency in the Relevant Specifications Annex;

"**Currency**" means each currency that is either the Underlying Currency or the Denominated Currency in respect of an FX Value Immediate Component;

"**FX Value Immediate Component**" means each Immediate Component in respect of which there is an Applicable Risk Premia Detail Set for which the Risk Premium Style is specified as "FX Value";

"**ln(x)**" means the natural logarithm function evaluated for the number x ;

"Prod Data Source" means, in respect of a Currency, the data source specified in the column entitled "Prod Data Source" corresponding to such Currency in the Relevant Specifications Annex;

"Prod_{ic,D}(t,w)" means a value determined in accordance with the definition of "Prod_{ic,U}(t,w)" provided that each reference therein to "Underlying Currency" shall be deemed to be a reference to "Denominated Currency";

"Prod_{ic,U}(t,w)" means, in respect of Strategy Calculation Day *t*, day *w* and the Underlying Currency of the Currency Cross in respect of FX Value Immediate Component *ic*, the last value published on the Prod Data Source as of day *w* in respect of such Underlying Currency for Strategy Calculation Day *t*, as determined by the Strategy Sponsor. If such day is not a day on which the Prod Data Source is scheduled to publish such value, or such value is otherwise unavailable for any other reason, then Prod_{ic,U}(t,w) in respect of such Strategy Calculation Day shall be deemed to be the relevant value as of the first preceding day for which the relevant Prod Data Source published such value. The day *w* shall be replaced with day *t* if (i) no FX Value Switch Date is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements or (ii) the day *w* falls before the FX Value Switch Date;

"RPM_{ic}^S(t)" means the Risk Premium Metric in respect of FX Value Immediate Component *ic*, each Risk Premia Detail Set *S* for which the Risk Premium Style is specified as "FX Value" in the Relevant Specifications Annex and Strategy Calculation Day *t*;

"Spot_{ic}(t)" means, in respect of Strategy Calculation Day *t* and FX Value Immediate Component *ic*, the Spot Exchange Rate in respect of the Currency Cross corresponding to such FX Value Immediate Component;

"ToT_{ic,D}(t,w)" means a value determined in accordance with the definition of "ToT_{ic,U}(t,w)" provided that each reference therein to "Underlying Currency" shall be deemed to be a reference to "Denominated Currency";

"ToT_{ic,U}(t,w)" means, in respect of Strategy Calculation Day *t*, day *w* and the Underlying Currency of the Currency Cross in respect of FX Value Immediate Component *ic*, the last value published on the ToT Data Source as of day *w* in respect of such Underlying Currency for Strategy Calculation Day *t*, as determined by the Strategy Sponsor. If such day is not a day on which the ToT Source is scheduled to publish such value, or such value is otherwise unavailable for any other reason, then ToT_{ic,U}(t,w) in respect of such Strategy Calculation Day shall be deemed to be the relevant value as of the first preceding day for which the relevant ToT Data Source published such value. The day *w* shall be replaced with day *t* if (i) no FX Value Switch Date is specified in the Relevant General Strategy Description and/or Other Relevant Strategy Documentation Elements or (ii) the day *w* falls before the FX Value Switch Date; and

"ToT Data Source" means, in respect of a Currency, the data source specified in the column entitled "ToT Data Source" corresponding to such Currency in the Relevant Specifications Annex.

7.2 Determination of the Regression Parameters

In respect of each Calendar Quarter End *s* and Strategy Calculation Day *t*, the Strategy Sponsor will employ an algorithm that seeks to select out of all of the combinations of Regression Parameters, the combination which has the lowest **"Sum of Squared Residuals"** in respect of such Calendar Quarter End and Strategy Calculation Day *t*, as determined in accordance with the formula below:

$$\text{Sum of Squared Residuals}(s, t) = \sum_{ic} \sum_u \text{Residual Spot}_{ic}(s, u, t)^2$$

Where for the purposes of determining Sum of Squared Residuals(s) (a) the summation over "ic" is taken over each FX Value Immediate Component (indexed by "ic") and (b) the summation of "u" is taken over each Calendar Quarter End (indexed by "u") in the period commencing on, and including, IVD(ic) and ending on, and including, Calendar Quarter End *s*, and:

"Avg Spot_{ic}(u)" means, in respect of FX Value Immediate Component *ic* and Strategy Calculation Day *u*, an amount calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Avg Spot}_{ic}(u) = \frac{1}{\text{num}_{ic}(u)} \times \sum_v \text{Spot}_{ic}(v)$$

Where for the purposes of determining $\text{Avg Spot}_{ic}(u)$ the summation over "v" runs over each Strategy Calculation Day (indexed by "v") falling in the Corresponding Calendar Quarter in respect of the Calendar Quarter End u , and:

"Corresponding Calendar Quarter" means, in respect of a Calendar Quarter End, the Calendar Quarter ending on such Calendar Quarter End;

"num(u)" means the number of Strategy Calculation Days falling in the Corresponding Calendar Quarter in respect of Calendar Quarter End u ;

"IVD(ic)" means, in respect of an FX Value Immediate Component, the date specified in the column entitled "Initial Value Date" in the row corresponding to such FX Value Immediate Component (or, if applicable, the relevant Immediate Component Template) in the Relevant Specifications Annex;

"Regression Parameters" means, in respect of Calendar Quarter End s , $\alpha_{ic}(s)$, $\beta_1(s)$ and $\beta_2(s)$; and

"Residual Spot $_{ic}(s,u,t)$ " means, in respect of FX Value Immediate Component ic , Calendar Quarter End s , Strategy Calculation Day u and Strategy Calculation Day t , an amount calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Residual Spot}_{ic}(s, u, t) = \ln(\text{Avg Spot}_{ic}(u)) - \left(\alpha_{ic}(t) - \ln\left(\frac{\text{CPI}_{ic,U}(u,t)}{\text{CPI}_{ic,D}(u,t)}\right) + \beta_1(t) \times \ln\left(\frac{\text{ToT}_{ic,U}(u,t)}{\text{ToT}_{ic,D}(u,t)}\right) + \beta_2(t) \times \ln\left(\frac{\text{Prod}_{ic,U}(u,t)}{\text{Prod}_{ic,D}(u,t)}\right) \right)$$

8. Definitions for Style - Exponential Trend

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Exponential Trend" in the Relevant Specifications Annex, the "**Risk Premium Metric**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$RPM_{ic}^S(t) = \left[\frac{\sum_i Rtn_{ic}^S(i) \times (1 - \alpha_S)^{N(i,t)} \times \text{Trend Annualization Factor}_S(i)}{\sum_i (1 - \alpha_S)^{N(i,t)}} \right]$$

Where for the purposes of determining $RPM_{ic}^S(t)$, the summation over "i" is taken over each Strategy Calculation Day (indexed by "i") falling in the period commencing on, and including, $PLD_S(t)$ and ending on, and including, Strategy Calculation Day t , and:

" α_S " means the Trend Exponential Smoothing Factor in respect of Risk Premia Detail Set S , as specified in such Risk Premia Detail Set in the Relevant Specifications Annex;

" $N(i,t)$ " means, in respect of the Strategy Calculation Day i and Strategy Calculation Day t , the number of Strategy Calculation Days falling in the period commencing on, but excluding, Strategy Calculation Day i and ending on, and including, Strategy Calculation Day t ;

" $PLD_S(t)$ " means the Performance Lookback Date in respect Strategy Calculation Day t and the Trend Performance Lookback Rule in respect of Risk Premia Detail Set S ;

" $RPM_{ic}^S(t)$ " means the Risk Premium Metric in respect of Immediate Component ic , each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Exponential Trend" in the Relevant Specifications Annex and Strategy Calculation Day t ;

" $Rtn_{ic}^S(i)$ " means the Period Return in respect of Immediate Component ic , the Trend Return Lookback Rule in respect of Risk Premia Detail Set S and Strategy Calculation Day i ;

"**Trend Annualization Factors(i)**" means the Trend Annualization Factor in respect of Risk Premia Detail Set S and Strategy Calculation Day i , being the number calculated by the Strategy Sponsor as being equal to (i) 252 *divided* by (ii) the number of Strategy Calculation Days falling in the period commencing on, but excluding, the Return Lookback Date in respect of Strategy Calculation Day i and the Trend Return Lookback Rule and ending on, and including, Strategy Calculation Day i ;

"**Trend Performance Lookback Rule**" means, in respect of a Risk Premia Detail Set, the Performance Lookback Rule specified as such in such Risk Premia Detail Set in the Relevant Specifications Annex; and

"**Trend Return Lookback Rule**" means, in respect of a Risk Premia Detail Set, the Return Lookback Rule specified as such in such Risk Premia Detail Set in the Relevant Specifications Annex.

9. Definitions for Style - Point-to-point Trend

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Point-to-point Trend" in the Relevant Specifications Annex, the "**Risk Premium Metric**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$RPM_{ic}^S(t) = Rtn_{ic}^S(t) \times \text{Trend Annualization Factor}_S(t)$$

Where:

" **$RPM_{ic}^S(t)$** " means the Risk Premium Metric in respect of Immediate Component ic , each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Point-to-point Trend" in the Relevant Specifications Annex and Strategy Calculation Day t ;

" **$Rtn_{ic}^S(t)$** " means the Period Return in respect of Immediate Component ic , the Trend Return Lookback Rule in respect of Risk Premia Detail Set S and Strategy Calculation Day t ;

"**Trend Annualization Factors(t)**" means the Trend Annualization Factor in respect of Risk Premia Detail Set S and Strategy Calculation Day t , being the number calculated by the Strategy Sponsor as being equal to (i) 252 *divided* by (ii) the number of Strategy Calculation Days falling in the period commencing on, but excluding, the Return Lookback Date in respect of Strategy Calculation Day t and the Trend Return Lookback Rule and ending on, and including, Strategy Calculation Day t ;

"**Trend Return Lookback Rule**" means, in respect of a Risk Premia Detail Set, the Return Lookback Rule specified as such in such Risk Premia Detail Set in the Relevant Specifications Annex.

10. Definitions for Style – Risk Parity

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Risk Parity" in the Relevant Specifications Annex, the "**Risk Premium Metric**" is calculated by the Strategy Sponsor in accordance with the following formula:

$$RPM_{ic}^S(t) = Vol_{ic}(t)$$

Where:

" $RPM_{ic}^S(t)$ " means the Risk Premium Metric in respect of Immediate Component ic , each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Risk Parity" in the Relevant Specifications Annex and Strategy Calculation Day t ; and

" $Vol_{ic}(t)$ " means the Volatility in respect of Immediate Component ic and Strategy Calculation Day t .

11. Definitions for Style – Custom Input

In respect of Strategy Calculation Day t , Immediate Component ic and each Risk Premia Detail Set S for which the Risk Premium Style is specified as "Custom Input" in the Relevant Specifications Annex, the "**Risk Premium Metric**" in respect of such Risk Premia Detail Set shall be specified to be an Adjustable Parameter and the Risk Premium Metric in respect of Strategy Calculation Day t , Immediate Component ic and Risk Premia Detail Set S shall be determined in accordance with the relevant Parameter Adjustment Provisions (if any) specified in the Relevant Specifications Annex.

Where:

"Adjustable Parameter" means each parameter that is required to be able to calculate the Strategy Tradable Level of the GS Strategy that is specified to be an "Adjustable Parameter" in the Relevant Specifications Annex and which shall be determined in accordance with any Parameter Adjustment Provisions specified to be applicable to such parameter in the Relevant Specifications Annex; and

"Parameter Adjustment Provisions" means, in respect of an Adjustable Parameter, the conditions, constraints and/or notification procedure specified in the Relevant Specifications Annex to be applicable to such Adjustable Parameter. The Parameter Adjustment Provisions may specify that such Adjustable Parameter shall be periodically determined by a third party (the "**Parameter Adjustment Agent**" in respect of such Adjustable Parameter) subject to the conditions, constraints and/or notification procedure contained in such Parameter Adjustment Provisions, if any).

Section G: Exclusion Restriction Definitions

1. Definitions for Exclusion Restriction - Volatility

In respect of Observation Date o and Immediate Component ic , if the Volatility Exclusion Restriction is specified to be "Applicable" in the Exclusion Restrictions table in the Relevant Specifications Annex, Immediate Component ic will be an Excluded Immediate Component in respect of such Observation Date if either of the following conditions is satisfied for any Volatility Immediate Component vic in respect of such Immediate Component (provided that if only Min Vol_{vic} or Max Vol_{vic} is specified in the Relevant Specifications Annex only that condition will apply):

$$\min_{\text{ELD}(o)} (\text{Vol}_{vic(ic)}) \leq \text{Min Vol}_{vic(ic)}$$

$$\max_{\text{ELD}(o)} (\text{Vol}_{vic(ic)}) \geq \text{Max Vol}_{vic(ic)}$$

Where:

"**ELD(o)**" means the Exclusion Lookback Date in respect of Observation Date o and the Exclusion Lookback Rule;

"**Exclusion Lookback Date**" means, in respect of an Observation Date and the Exclusion Lookback Rule, the date determined by applying the Exclusion Lookback Rule to such Observation Date;

"**Exclusion Lookback Rule**" means the rule specified as such in respect of the Volatility Exclusion Restriction in the Exclusion Restrictions table in the Relevant Specifications Annex;

"**Max Vol_{vic(ic)}**" means, in respect of any Volatility Immediate Component in respect of Immediate Component ic , the number specified as such in the Exclusion Restrictions table in the Relevant Specifications Annex in respect of such Volatility Immediate Component, or if not so specified, not applicable;

"**max_{ELD(o)} (Vol_{vic(ic)})**" means, in respect of $vic(ic)$ and Observation Date o , the highest Volatility in respect of $vic(ic)$ on any Strategy Calculation Day falling in the period commencing on, and including, $\text{ELD}(o)$ and ending on, and including, Observation Date o ;

"**Min Vol**" means, in respect of any Volatility Immediate Component in respect of Immediate Component ic , the number specified as such in the Exclusion Restrictions table in the Relevant Specifications Annex in respect of such Volatility Immediate Component, or if not so specified, not applicable;

"**min_{ELD(o)} (Vol_{vic(ic)})**" means, in respect of $vic(ic)$ and Observation Date o , the lowest Volatility in respect of $vic(ic)$ on any Strategy Calculation Day falling in the period commencing on, and including, $\text{ELD}(o)$ and ending on, and including, Observation Date o ;

"**vic(ic)**" means any Volatility Immediate Component in respect of Immediate Component ic ; and

"**Volatility Immediate Component**" means, in respect of an Immediate Component or an Immediate Component Template, each component specified as such in the Relevant Specifications Annex. Each Volatility Immediate Component shall be deemed to be a Timeseries Component for the purpose of this Volatility Exclusion Restriction.

2. Definitions for Exclusion Restriction - Risk Premium Metric

In respect of Observation Date o and Immediate Component ic , if the Risk Premium Metric Exclusion Restriction is specified to be "Applicable" in the Exclusion Restrictions table in the Relevant Specifications Annex, Immediate Component ic will be an Excluded Immediate Component in respect of such Observation Date if either of the following conditions is satisfied (provided that if only Min WSRPM or Max WSRPM is specified in the Relevant Specifications Annex only that condition will apply):

$$\min_{\text{ELD}(o)} (\text{WSRPM}_{ic}) \leq \text{Min WSRPM}_{ic}(o)$$

$$\max_{\text{ELD}(o)} (\text{WSRPM}_{ic}) \geq \text{Max WSRPM}_{ic}(o)$$

Where:

"ELD(o)" means the Exclusion Lookback Date in respect of Observation Date o and the Exclusion Lookback Rule;

"Exclusion Lookback Date" means, in respect of an Observation Date and the Exclusion Lookback Rule, the date determined by applying the Exclusion Lookback Rule to such Observation Date;

"Exclusion Lookback Rule" means the rule specified as such in respect of the Risk Premium Metric Exclusion Restriction in the Exclusion Restrictions table in the Relevant Specifications Annex;

"Max WSRPM $_{ic}(o)$ " means, in respect of Observation Date o and Immediate Component ic , an amount determined by the Strategy Sponsor in accordance with paragraph (i) or (ii) below (as applicable):

- (i) if the Exclusion Limit Method specified in the Exclusion Restrictions table in the Relevant Specifications Annex is "Absolute" or is not so specified, then:

$$\text{Max WSRPM}_{ic}(o) = \text{Max WSRPM}$$

- (ii) if the Exclusion Limit Method specified in the Exclusion Restrictions table in the Relevant Specifications Annex is "Volatility Scaled" then:

$$\text{Max WSRPM}_{ic}(o) = \text{Max Volatility Scaled WSRPM} \times \text{Vol}_{ic}(o)$$

Where:

"Max WSRPM" means the number specified as such in the Exclusion Restrictions table in the Relevant Specifications Annex, or if not so specified, not applicable;

"Max Volatility Scaled WSRPM" means the number specified as such in the Exclusion Restrictions table in the Relevant Specifications Annex, or if not so specified, not applicable; and

"Vol $_{ic}(o)$ " means the Volatility in respect of Immediate Component ic and Observation Date o , determined in accordance with paragraph 3 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description.

"max_{ELD(o)} (WSRPM $_{ic}$)" means, in respect of Immediate Component ic and Observation Date o , the highest Weighted Smoothed Risk Premia Metric in respect of Immediate Component ic on any Observation Date falling in the period commencing on, and including, ELD(o) and ending on, and including, Observation Date o ;

"Min WSRPM $_{ic}(o)$ " means, in respect of Observation Date o and Immediate Component ic , an amount determined by the Strategy Sponsor in accordance with (i) or (ii) below:

- (i) if the Exclusion Limit Method is specified in the Exclusion Restrictions table in the Relevant Specifications Annex is "Absolute" or is not so specified, then:

$$\text{Min WSRPM}_{ic}(o) = \text{Min WSRPM}$$

- (ii) if the Exclusion Limit Method specified in the Exclusion Restrictions table in the Relevant Specifications Annex is "Volatility Scaled" then:

$$\text{Min WSRPM}_{ic}(o) = \text{Min Volatility Scaled WSRPM} \times \text{Vol}_{ic}(o)$$

Where:

"Min WSRPM" means the number specified as such in the Exclusion Restrictions table in the Relevant Specifications Annex, or if not so specified, not applicable;

"Min Volatility Scaled WSRPM" means the number specified as such in the Exclusion Restrictions table in the Relevant Specifications Annex, or if not so specified, not applicable; and

" $\min_{ELD(o)} (WSRPM_{ic})$ " means, in respect of Immediate Component ic and Observation Date o , the lowest Weighted Smoothed Risk Premia Metric in respect of Immediate Component ic on any Observation Date falling in the period commencing on, and including, $ELD(o)$ and ending on, and including, Observation Date o .

Section H: Weight Calculation Method

1. Weight Calculation Method - Optimization

If the Weight Calculation Method is specified to be "Optimization" in the Relevant Specifications Annex, the **"Calculated Weight"** in respect of each Immediate Component and each Observation Date shall be calculated by the Strategy Sponsor in accordance with the methodology set out in this paragraph 1 (*Weight Calculation Method - Optimization*) of this Section H: *Weight Calculation Method*.

On each Observation Date o , the Strategy Sponsor will employ an algorithm that seeks to select, in accordance with a pre-determined set of constraints (the **"Optimization Constraints"**), out of all of the combinations of Calculated Weights, the combination which has the highest **"Basket Metric Exposure"** in respect of such Observation Date, as determined in accordance with the formula below:

$$\text{Basket Metric Exposure}(o) = \sum_{ic} \text{Calculated Weight}_{ic}(o) \times \text{WSRPM}_{ic}(o)$$

Where for the purposes of determining the Basket Metric Exposure in respect of Observation Date o , the summation over "**ic**" is taken over each Weight Calculation Immediate Component in respect of such Observation Date (indexed by "**ic**"), and:

"Calculated Weight_{ic}(o)" means the Calculated Weight in respect of Weight Calculation Immediate Component ic and Observation Date o .

1.1 Optimization Constraints

On each Observation Date o , in order to qualify as Preliminary Weights, the combination of Calculated Weights selected must comply with each of the following Optimization Constraints which is specified to be "Applicable" in the Relevant Specifications Annex.

1.1.1 Basket Volatility Constraint

If the "Basket Volatility Constraint" is specified to be "Applicable" in the Constraint Specifications table in the Relevant Specifications Annex, the "Basket Volatility" in respect of Observation Date o must satisfy the following constraint:

$$\text{Basket Volatility}(o) \leq \text{Basket Volatility Cap}(o)$$

Where:

"Basket Volatility(o)" or **"Basket Volatility"** means, in respect of Observation Date o , an amount determined in accordance with the following formula:

$$\text{Basket Volatility}(o) = \sqrt{\sum_{ic1} \sum_{ic2} w_{ic1}(o) \times w_{ic2}(o) \times \text{Shrunk Cov}_{ic1,ic2}(o)}$$

Where for the purposes of determining the Basket Volatility in respect of Observation Date o , the summations over "**ic1**" and "**ic2**" respectively are taken over each Weight Calculation Immediate Component (indexed by "**ic1**" and "**ic2**" respectively) in respect of such Observation Date, and:

"w_{ic1}(o)" means the Calculated Weight in respect of Weight Calculation Immediate Component $ic1$ and Observation Date o ;

"w_{ic2}(o)" means the Calculated Weight in respect of Weight Calculation Immediate Component $ic2$ and Observation Date o ; and

"Shrunk Cov_{ic1,ic2}(o)" means the Shrunk Covariance in respect of each pair of Weight Calculation Immediate Components $ic1$ and $ic2$ (which may be the same Immediate Component) and Observation Date o , determined in accordance with paragraph 2.2 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description.

"Basket Volatility Cap(o)" shall be calculated by the Strategy Sponsor in accordance with the

following formula:

$$\text{Basket Volatility Cap}(o) = \text{BVC} \times \text{Vol Adjustment}(o)$$

Where:

“**BVC**” shall be the number specified as Basket Volatility Cap in the Relevant Specifications Annex;

“**Vol Adjustment(o)**” in respect of Observation Date o shall be:

- (i) If Volatility Adjustment is specified to be "Not Applicable" in the Relevant Specifications Annex, or if not so specified, 1;
- (ii) If Volatility Adjustment is specified to be "Applicable" in the Relevant Specifications Annex shall be calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Vol Adjustment}(o) = \min \left(\frac{\sqrt{\sum_{ic1} \sum_{ic2} \hat{w}_{ic1}(o) \times \hat{w}_{ic2}(o) \times \text{Shrunk Cov}_{ic1,ic2}(o)}}{\sqrt{\sum_{ic1} \sum_{ic2} \hat{w}_{ic1}(o) \times \hat{w}_{ic2}(o) \times \text{Cov}_{ic1,ic2}(o)}}, \text{Vol Adjustment Cap} \right)$$

Vol Adjustment(o) shall be rounded to the closest multiple of 0.01, with 0.005 rounded upwards.

Where for the purposes of determining the Vol Adjustment in respect of Observation Date o , the summations over "ic1" and "ic2" respectively are taken over each Weight Calculation Immediate Component (indexed by "ic1" and "ic2" respectively) in respect of such Observation Date, and:

" $\hat{w}_{ic}(o)$ " shall be the Calculated Weight in respect of Immediate Component ic and Observation Date o , such that the combination of Calculated Weights has the highest Basket Metric Exposure in respect of such Observation Date, as described in the paragraph *Weight Calculation Method – Optimization* and using a Volatility Adjustment(o) of 1 for the purpose of this calculation.

“**Vol Adjustment Cap**” means the number specified as the "Volatility Adjustment Cap" in the Relevant Specifications Annex, or if not so specified, 1.

“**Shrunk Cov_{ic1,ic2}(o)**” means the Shrunk Covariance in respect of each pair of Weight Calculation Immediate Components $ic1$ and $ic2$ (which may be the same Immediate Component) and Observation Date o , determined in accordance with paragraph 2.2 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description.

“**Cov_{ic1,ic2}(o)**” means the Covariance in respect of each pair of Weight Calculation Immediate Components $ic1$ and $ic2$ (which may be the same Immediate Component) and Observation Date o , determined in accordance with paragraph 2.2 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description.

For the case, where $\sum_{ic} \sum_{ic} \hat{w}_{ic1}(o) \times \hat{w}_{ic2}(o) \times \text{Cov}_{ic1,ic2}(o)$ is 0 in respect of an Observation Date o , then the Vol Adjustment(o) shall be the Vol Adjustment Cap in respect of such Observation Date.

1.1.2 Minimum and Maximum Weight Constraint

If the "Minimum and Maximum Weight Constraint" is specified to be "Applicable" in the Constraint Specifications table in the Relevant Specifications Annex, the Calculated Weight in respect of each Weight Calculation Immediate Component ic on Observation Date o must satisfy the following constraint (provided that if only one of Min Weight or Max Weight is specified in respect of a Weight Calculation Immediate Component, the constraint shall apply in respect of that weight constraint only):

$$\text{Min Weight}_{ic} \leq w_{ic}(o) \leq \text{Max Weight}_{ic}$$

Where:

“**Min Weight_{ic}**” means the number specified as the "Min Weight" in respect of Weight Calculation Immediate Component ic in the Immediate Components table in the Relevant Specifications Annex, or if not so specified, not applicable in respect of such Weight Calculation Immediate Component; and

"Max Weight_{ic}" means the number specified as the "Max Weight" in respect of Weight Calculation Immediate Component *ic* in the Immediate Components table in the Relevant Specifications Annex, or if not so specified, not applicable in respect of such Weight Calculation Immediate Component.

1.1.3 Sign Equality Constraint

If the "Sign Equality Constraint" is specified to be "Applicable" in the Constraint Specifications table in the Relevant Specifications Annex, the Calculated Weight in respect of each Weight Calculation Immediate Component *ic* on Observation Date *o* must satisfy the following constraint:

- (i) If $WSRPM_{ic}(o) > 0$, then

$$w_{ic}(o) \geq 0$$
- (ii) If $WSRPM_{ic}(o) < 0$, then

$$w_{ic}(o) \leq 0$$
- (iii) If $WSRPM_{ic}(o) = 0$, then

$$w_{ic}(o) = 0$$

Where:

"WSRPM_{ic}(o)" means the Weighted Smoothed Risk Premia Metric in respect of Weight Calculation Immediate Component *ic* and Observation Date *o*.

1.1.4 Net Basket Weight Constraint

If the "Net Basket Weight Constraint" is specified to be "Applicable" in the Constraint Specifications table in the Relevant Specifications Annex, the *sum* of the Calculated Weights in respect of each Weight Calculation Immediate Component *ic* on Observation Date *o* must satisfy the following constraint (provided that if only one of Min Net Basket Weight or Max Net Basket Weight is specified, the constraint shall apply in respect of that weight constraint only):

$$\text{Min Net Basket Weight} \leq \sum_{ic} w_{ic}(o) \leq \text{Max Net Basket Weight}$$

Where for the purposes of the Net Basket Weight Constraint in respect of Observation Date *o*, the summation over "**ic**" is taken over each Weight Calculation Immediate Component in respect of such Observation Date (indexed by "**ic**"), and:

"Min Net Basket Weight" means the number specified as such in the Constraint Specifications table in the Relevant Specifications Annex, or if not so specified, not applicable; and

"Max Net Basket Weight" means the number specified as such in the Constraint Specifications table in the Relevant Specifications Annex, or if not so specified, not applicable.

1.1.5 Net Sub-Basket Weight Constraint

If the "Net Sub-Basket Weight Constraint" is specified to be "Applicable" in the Constraint Specifications table in the Relevant Specifications Annex, in respect of each Sub-Basket *s* and Observation Date *o*, the *sum* of the Calculated Weights in respect of each Weight Calculation Immediate Component on such Observation Date included in such Sub-Basket must satisfy the following constraint (provided that if only one of Min Net Sub-Basket Weight or Max Net Sub-Basket Weight is specified in respect of a Sub-Basket, the constraint shall apply in respect of that weight constraint only):

$$\text{Min Net Sub-Basket Weight}_s \leq \sum_{ic} w_{ic}(o) \leq \text{Max Net Sub-Basket Weight}_s$$

Where for the purposes of determining the Net Sub-Basket Weight Constraint in respect of each Sub-Basket *s* and Observation Date *o*, the summation over "**ic**" is taken over each Weight Calculation Immediate Component

in respect of such Observation Date included in such Sub-Basket (indexed by "ic"), and:

"Min Net Sub-Basket Weight_s" means the number specified as the "Min Net Sub-Basket Weight" in respect of Sub-Basket *s* in the Constraint Specifications table in the Relevant Specifications Annex, or if not so specified, not applicable in respect of such Sub-Basket;

"Max Net Sub-Basket Weight_s" means the number specified as the "Max Net Sub-Basket Weight" in respect of Sub-Basket *s* in the Constraint Specifications table in the Relevant Specifications Annex, or if not so specified, not applicable in respect of such Sub-Basket; and

"Sub-Basket" means, in respect of an Observation Date, a basket containing each Weight Calculation Immediate Component in respect of such Observation Date for which the same sub-basket is specified in the column entitled "Sub-Basket" in the Immediate Components table in the Relevant Specifications Annex.

1.1.6 Gross Basket Weight Constraint

If the "Gross Basket Weight Constraint" is specified to be "Applicable" in the Constraint Specifications table in the Relevant Specifications Annex, the *sum* of the absolute value of the Calculated Weights in respect of each Weight Calculation Immediate Component on Observation Date *o* must satisfy the following constraint:

$$\sum_{ic} \text{Abs}(w_{ic}(o)) \leq \text{Max Gross Basket Weight}$$

Where for the purposes of the Gross Basket Weight Constraint on Observation Date *o*, the summation over "ic" is taken over each Weight Calculation Immediate Component in respect of such Observation Date (indexed by "ic"), and:

"Abs(w_{ic}(o))" means the absolute value of the Calculated Weight in respect of Weight Calculation Immediate Component *ic* and Observation Date *o*; and

"Max Gross Basket Weight" means the number specified as such in the Constraint Specifications table in the Relevant Specifications Annex.

1.1.7 Gross Sub-Basket Weight Constraint

If the "Gross Sub-Basket Weight Constraint" is specified to be "Applicable" in the Constraint Specifications table in the Relevant Specifications Annex, in respect of each Sub-Basket *s* and Observation Date *o*, the *sum* of the absolute value of the Calculated Weights in respect of each Weight Calculation Immediate Component on such Observation Date included in such Sub-Basket must satisfy the following constraint:

$$\sum_{ic} \text{Abs}(w_{ic}(o)) \leq \text{Max Gross Sub-Basket Weight}_s$$

Where for the purposes of determining the Gross Sub-Basket Weight Constraint in respect of each Sub-Basket *s* and Observation Date *o*, the summation over "ic" is taken over each Weight Calculation Immediate Component in respect of such Observation Date included in such Sub-Basket (indexed by "ic"), and:

"Max Gross Sub-Basket Weight_s" means the number specified as the "Max Gross Sub-Basket Weight" in respect of a Sub-Basket *s* in the Constraint Specifications table in the Relevant Specifications Annex, or if not so specified, not applicable in respect of such Sub-Basket.

1.1.8 Benchmark Beta Constraint

If the "Benchmark Beta Constraint" is specified to be "Applicable" in the Constraint Specifications table in the Relevant Specifications Annex, in respect of each Beta Detail Set *s* and Observation Date *o*, the Normalized Basket Beta in respect of such Beta Detail Set and such Observation Date must satisfy the following constraint (provided that if only one of Min Basket Beta or Max Basket Beta is specified in respect of a Beta Detail Set, the constraint shall apply in respect of that beta constraint only):

$$\text{Min Basket Beta}_s \leq \text{Normalized Basket Beta}_s(o) \leq \text{Max Basket Beta}_s$$

Where:

"Max Basket Beta_s" means the number specified as the "Max Basket Beta" in respect of a Beta Detail Set *s* in the Constraint Specifications table in the Relevant Specifications Annex, or if not so specified, not applicable in respect of such Beta Detail Set;

"Min Basket Beta_s" means the number specified as the "Min Basket Beta" in respect of Beta Detail Set *s* in the Constraint Specifications table in the Relevant Specifications Annex, or if not so specified, not applicable in respect of such Beta Detail Set;

"Normalized Basket Beta_s(*o*)" means the Normalized Basket Beta in respect of Beta Detail Set *s* and Observation Date *o*, as determined in accordance with the following formula:

$$\text{Normalized Basket Beta}_{s}(o) = \text{Beta Scaling Factor}(o) \times \sum_{ic} (w_{ic}(o) \times \text{Benchmark Beta}_{s,ic}(o))$$

Where for the purposes of determining the Normalized Basket Beta in respect of Beta Detail Set *s* and Observation Date *o*, the summation over "**ic**" is taken over each Weight Calculation Immediate Component in respect of such Observation Date (indexed by "**ic**"),

and:

"Beta Scaling Factor (*o*)" in respect of Observation Date *o* shall be

- (i) If Beta Scaling Factor is specified to be "Not Applicable" in the Relevant Specifications Annex, 1;
- (ii) If Beta Scaling Factor is specified to be "Applicable" in the Relevant Specifications Annex, or if not so specified, shall be calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Beta Scaling Factor}(o) = \frac{\text{Vol}_{\text{Benchmark}_s}(o)}{\text{Basket Volatility Cap}}$$

"Benchmark_s" means the Benchmark Component in respect of the Beta Detail Set *s*;

"Benchmark Beta_{s,ic}(*o*)" in respect of Weight Calculation Immediate Component *ic*, Observation Date *o* and Beta Detail Set *s*, the Benchmark Beta of Weight Calculation Immediate Component *ic* to the Benchmark Component in respect of such Beta Detail Set, shall be

- (i) If Beta Calculation Methodology is specified to be "Univariate" in the Relevant Specifications Annex in respect of a Beta Detail Set or if not so specified, determined in accordance with the following formula

$$\text{Benchmark Beta}_{s,ic}(o) = \frac{\text{Cov}_{ic,\text{Benchmark}_s}(o)}{(\text{Vol}_{\text{Benchmark}_s}(o))^2}$$

Where:

"Cov_{ic,Benchmark_s}(*o*)" means the Covariance of Weight Calculation Immediate Component *ic* and Benchmark_s in respect of Observation Date *o*, as determined in accordance with paragraph 2.1 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description, and each reference therein to "Timeseries Component *c*" and "Timeseries Component *d*" shall be deemed to be a reference to "Weight Calculation Immediate Component *ic*" and "Benchmark_s" respectively; and

"Vol_{Benchmark_s}(*o*)" means the Volatility in respect of Benchmark_s and Observation Date *o*, as determined in accordance with the definition of "Volatility" set out in paragraph 3 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description, and each reference therein to "Timeseries Component *c*" shall be deemed to be a reference to "Benchmark_s".

- (ii) If Beta Calculation Methodology is specified to be "Multivariate" in the Relevant Specifications Annex in respect of a Beta Detail Set, shall be calculated by the Strategy Sponsor using an

algorithm that seeks to select out of all of the combinations of Regression Parameters, the combination which has the lowest "Sum of Squared Residuals" in respect of Weight Calculation Immediate Component *ic*, Beta Detail Set *s*, and Observation Date *o*, as determined in accordance with the formula below:

$$\text{Sum of Squared Residuals}(ic, s, o) = \sum_t \left(\text{Rtn}_{ic}^{\text{CRL}}(t) - \sum_s \text{Benchmark Beta}_{s,ic}(o) * \text{Rtn}_{\text{Benchmark}_s}^{\text{CRL}}(t) - \alpha_{ic}(t) \right)^2$$

where for the purpose of determining Sum of Squared Residuals(*ic*, *s*, *o*), the summation over "t" are taken over each Strategy Calculation Day *t* falling in the period commencing on, and including, $\text{PLD}_{\text{CPL}}(t)$ and ending on, and including, Strategy Calculation Day *t*,

" $\text{PLD}_{\text{CPL}}(t)$ " means the Performance Lookback Date in respect of Strategy Calculation Day *t* and the Covariance Performance Lookback Rule;

"**Covariance Return Lookback Rule**" means the Return Lookback Rule specified as such in the Covariance Specifications table in the Relevant Specifications Annex;

" $\text{Rtn}_{ic}^{\text{CRL}}(t)$ " means the Period Return in respect of Timeseries Component *ic*, Strategy Calculation Day *t* and the Covariance Return Lookback Rule;

" $\text{Rtn}_{\text{Benchmark}_s}^{\text{CRL}}(t)$ " means the Period Return in respect of Benchmarks_{*s*}, Strategy Calculation Day *t* and Covariance Return Lookback Rule;

" $\alpha_{ic}(t)$ " means the Regression Parameter "α" in respect of Weight Calculation Immediate Component *ic*, and Strategy Calculation Day *t*;

The summation over "s" is taken over each Benchmark Component in respect of the Beta Detail Set *s*, Benchmarks_{*s*}.

1.1.9 Sub-Basket Benchmark Beta Constraint

If the "Sub-Basket Benchmark Beta Constraint" is specified to be "Applicable" in respect of Sub-Basket *s* in the Constraint Specifications table in the Relevant Specifications Annex, the Normalized Sub-Basket Beta in respect of such Sub-Basket and Observation Date *o* must satisfy the following constraint (provided that if only one of Min Sub-Basket Beta or Max Sub-Basket Beta is specified in respect of such Sub-Basket, the constraint shall apply in respect of that beta constraint only):

$$\text{Min Sub-Basket Beta}_s \leq \text{Normalized Sub-Basket Beta}_s(o) \leq \text{Max Sub-Basket Beta}_s$$

Where:

"**Max Sub-Basket Beta_s**" means the number specified as the "Max Sub-Basket Beta" in respect of Sub-Basket *s* in the Constraint Specifications table in the Relevant Specifications Annex, or if not so specified, not applicable in respect of such Sub-Basket;

"**Min Sub-Basket Beta_s**" means the number specified as the "Min Sub-Basket Beta" in respect of Sub-Basket *s* in the Constraint Specifications table in the Relevant Specifications Annex, or if not so specified, not applicable in respect of such Sub-Basket;

"**Normalized Sub-Basket Beta_s(o)**" means the Normalized Sub-Basket Beta in respect of Sub-Basket *s* and Observation Date *o*, as determined in accordance with the following formula:

$$\text{Normalized Sub-Basket Beta}_s(o) = \text{Sub-Basket Beta Scaling Factor}(o) \times \sum_{ic} (w_{ic}(o) \times \text{SBB Beta}_{s,ic}(o))$$

Where for the purposes of determining the Normalized Sub-Basket Beta in respect of Sub-Basket *s* and Observation Date *o*, the summation over "ic" is taken over each Weight Calculation Immediate Component in respect of such Observation Date included in such Sub-Basket (indexed by "ic"),

and:

"Sub-Basket Beta Scaling Factor (o)" in respect of Observation Date o shall be

- (i) If Sub-Basket Beta Scaling Factor is specified to be "Not Applicable" in the Relevant Specifications Annex, or if not so specified, 1;
- (ii) If Sub-Basket Beta Scaling Factor is specified to be "Applicable" in the Relevant Specifications Annex shall be calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Sub-Basket Beta Scaling Factor (o)} = \frac{\text{Vol}_{\text{Benchmark}_s(\text{o})}}{\text{Basket Volatility Cap}}$$

"SBB Beta_{s,ic}(o)" means, in respect of Weight Calculation Immediate Component ic, Observation Date o and Sub-Basket s, the Sub-Basket Benchmark Beta of Weight Calculation Immediate Component ic to SBB_s, shall be:

- (i) If Beta Calculation Methodology is specified to be "Univariate" in the Relevant Specifications Annex in respect of a Beta Detail Set or if not so specified, determined in accordance with the following formula

$$\text{SBB Beta}_{s,ic}(\text{o}) = \frac{\text{Cov}_{ic,SBB_s}(\text{o})}{\left(\text{Vol}_{SBB_s}(\text{o})\right)^2}$$

Where:

"Cov_{ic,SBB_s}(o)" means the Covariance of Weight Calculation Immediate Component ic and SBB_s in respect of Observation Date o, as determined in accordance with paragraph 2.1 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description, and each reference therein to "Timeseries Component c" and "Timeseries Component d" shall be deemed to be a reference to "Weight Calculation Immediate Component ic" and "SBB_s" respectively;

"SBB_s" means the Sub-Basket Benchmark Component in respect of Sub-Basket s; and

"Vol_{SBB_s}(o)" means the Volatility in respect of SBB_s and Observation Date o, as determined in accordance with the definition of "Volatility" set out in paragraph 3 of Section B: *Determination of the Period Return, Covariance and Volatility* of this Risk Premia Methodology Description, and each reference therein to "Timeseries Component c" shall be deemed to be a reference to "SBB_s".

- (ii) If Beta Calculation Methodology is specified to be "Multivariate" in the Relevant Specifications Annex in respect of a Beta Detail Set, shall be calculated by the Strategy Sponsor using an algorithm that seeks to select out of all of the combinations of Regression Parameters, the combination which has the lowest "Sub-Basket Sum of Squared Residuals" in respect of Immediate Component ic and observation date o, as determined in accordance with the formula below:

Sub-Basket Sum of Squared Residuals(ic, s, o)

$$= \sum_t \left(\text{Rtn}_{ic}^{\text{CRL}}(t) - \sum_s \text{SBB Beta}_{s,ic}(\text{o}) * \text{Rtn}_{SBB_s}^{\text{CRL}}(t) - \alpha_{ic}(t) \right)^2$$

where for the purpose of determining Sub – basketSum of Squared Residuals(ic, s, o), the summation over "t" are taken over each Strategy Calculation Day t falling in the period commencing on, and including, PLD_{CPL}(t) and ending on, and including, Strategy Calculation Day t,

"PLD_{CPL}(t)" means the Performance Lookback Date in respect of Strategy Calculation Day t and the Covariance Performance Lookback Rule;

"Covariance Return Lookback Rule" means the Return Lookback Rule specified as such in the Covariance Specifications table in the Relevant Specifications Annex;

" $Rtn_{ic}^{CRL}(t)$ " means the Period Return in respect of Timeseries Component ic , Strategy Calculation Day t and the Covariance Return Lookback Rule;

" $Rtn_{Benchmark_s}^{CRL}(t)$ " means the Period Return in respect of Benchmarks_s, Strategy Calculation Day t and Covariance Return Lookback Rule;

" $\alpha_{ic}(t)$ " means the Regression Parameter " α " in respect of Benchmark Weight Calculation Immediate Component ic , and Strategy Calculation Day t ;

The summation over " s " is taken over each Benchmark Component in respect of the Beta Detail Set s , Benchmarks_s.

If in respect of an Observation Date (for the purposes of this paragraph, the **"Relevant Observation Date"**), there is no combination of Calculated Weights that will satisfy each applicable Optimization Constraint, then the Calculated Weight in respect of each Weight Calculation Immediate Component and the Relevant Observation Date shall be the Preliminary Weight in respect of such Weight Calculation Immediate Component and the Observation Date falling immediately prior to the Relevant Observation Date (for the purposes of this paragraph, the **"Prior Observation Date"**), notwithstanding that the Prior Observation Date may be an Observation Date in respect of a different Decision Date to the Relevant Observation Date. For the avoidance of doubt, if the Weight Calculation Immediate Component is an Associated Immediate Component corresponding to an Immediate Component Template, then the relevant Calculated Weight shall be the Calculated Weight of the Associated Immediate Component in respect of such Immediate Component Template and the Prior Observation Date.

If there is no combination of Calculated Weights that satisfies each applicable Optimization Constraint on five (5) consecutive Observation Dates (an **"Optimization Adjustment Event"**), then on such fifth (5th) Observation Date the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, make such adjustments to the terms of the GS Strategy, including to the methodology, that it determines appropriate to account for such Optimization Adjustment Event whilst preserving the intended commercial purpose of the GS Strategy.

If in respect of an Observation Date (for the purposes of this paragraph, the **"Relevant Observation Date"**) the Weighted Smoothed Risk Premia Metric in respect of each Weight Calculation Immediate Component and such Observation Date is zero, then the Calculated Weight in respect of each Weight Calculation Immediate Component and the Relevant Observation Date shall be zero.

2. Weight Calculation Method – Cross-Sectional

If the Weight Calculation Method is specified to be "Cross-Sectional" in the Relevant Specifications Annex, the **"Calculated Weight"** in respect of each Immediate Component and each Observation Date shall be calculated by the Strategy Sponsor in accordance with the methodology set out in this paragraph 2 (*Weight Calculation Method - Cross-Sectional*) of this Section H: *Weight Calculation Method*.

Firstly, the Strategy Sponsor will assign an ordered numerical rank to each Weight Calculation Immediate Component according to the Weighted Smoothed Risk Premia Metric of each Weight Calculation Immediate Component on Observation Date o such that, for example, the Weight Calculation Immediate Component with the highest Weighted Smoothed Risk Premia Metric shall be assigned a Risk Premia Rank in respect of Observation Date o of 1, and the Weight Calculation Immediate Component with the lowest Weighted Smoothed Risk Premia Metric shall be assigned a Risk Premia Rank in respect of Observation Date o equal to the total number of Weight Calculation Immediate Components included in the GS Strategy on such Observation Date (such number, "**N**"). In the event that the Weighted Smoothed Risk Premia Metric in respect of two or more Weight Calculation Immediate Components are identical, then, among such Weight Calculation Immediate Components (each, an **"Equal-metric Immediate Component"**), for the purposes of determining each related Risk Premia Rank, the Equal-metric Immediate Component with the highest Risk Premia Rank on the immediately preceding Strategy Calculation Day, shall be deemed to have the lowest Risk Premia Rank, the Equal-metric Immediate Component with the second highest Risk Premia Rank on the immediately preceding Strategy Calculation Day shall be deemed to have the second lowest Risk Premia Rank, and so on in respect of each other such Equal-metric Immediate Component. If one or more Equal-metric Immediate Components is an Excluded Immediate Component on the immediately preceding Strategy Calculation Day, for the purposes of determining each related Risk Premia Rank, any such Equal-metric Immediate Component shall be deemed to have a higher Risk Premia Rank than any other Equal-metric Immediate Component that is not an Excluded Immediate Component on such day, and among such Equal-metric Immediate Components, the Risk Premia Rank shall have the same order as the Table 1 - Immediate Components (and Terminal Components) in the Relevant Specifications Annex. The Risk Premia Rank on a Strategy Calculation Day will be determined in the same manner as it is determined with respect to an Observation Date, as described above.

Secondly, the Strategy Sponsor will determine the Calculated Weight of each Weight Calculation Immediate Component by reference to its Risk Premia Rank as follows:

- (i) each Weight Calculation Immediate Component with a Risk Premia Rank from, and including, 1 to, and including, the Risk Premia Rank equal to the Number of Long Immediate Components, will be assigned a Calculated Weight equal to the quotient of (I) the Sum of Long Weights, *divided* by (II) the Number of Long Immediate Components (provided that if the Sum of Long Weights is zero, the Calculated Weight of each such Weight Calculation Immediate Component shall be zero);
- (ii) each Weight Calculation Immediate Component with a Risk Premia Rank from, but excluding, the Risk Premia Rank equal to (I) N, *minus* (II) the Number of Short Immediate Components to, and including, the Risk Premia Rank equal to N, will be assigned a Calculated Weight equal to the *quotient* of (A) the *product* of (x) minus 1 (-1), and (y) the Sum of Short Weights, *divided* by (B) the Number of Short Immediate Components (provided that if the Sum of Short Weights is zero, the Calculated Weight of each such Weight Calculation Immediate Component shall be zero); and
- (iii) all other Weight Calculation Immediate Components not referred to in paragraphs (i) and (ii) above (if any) will be assigned a Calculated Weight of zero.

Where:

"Number of Long Immediate Components" means the number specified as such in the Relevant Specifications Annex;

"Number of Short Immediate Components" means the number specified as such in the Relevant Specifications Annex;

"Sum of Long Weights" means the amount specified as such in the Relevant Specifications Annex;

"Sum of Short Weights" means the amount specified as such in the Relevant Specifications Annex; and

"Risk Premia Rank" means, in respect of a Weight Calculation Immediate Component ic and an Observation Date o , the rank of such Weight Calculation Immediate Component ic relative to all the other Weight Calculation Immediate Components included in the GS Strategy ranked according to the Weighted Smoothed Risk Premia Metric of such Weight Calculation Immediate Component ic in respect of

Observation Date o.

3. Weight Calculation Method – Time Series

If the Weight Calculation Method is specified to be "Time Series" in the Relevant Specifications Annex, the "**Calculated Weight**" in respect of each Immediate Component and each Observation Date shall be calculated by the Strategy Sponsor in accordance with the methodology set out in this paragraph 3 (*Weight Calculation Method - Time Series*) of this Section H: *Weight Calculation Method*.

If the "Volatility Adjustment" is specified to be "Not Applicable" in the Relevant Specifications Annex, the Calculated Weight of each Weight Calculation Immediate Component is determined in accordance with the following formula:

$$\text{Calculated Weight}_{ic(o)} = \begin{cases} +1 \times \text{Fixed Weight}, & \text{if } \text{WSRPM}_{ic(o)} \geq 0 \\ -1 \times \text{Fixed Weight}, & \text{if } \text{WSRPM}_{ic(o)} < 0 \end{cases}$$

Where:

"Calculated Weight_{ic(o)}" means the Calculated Weight in respect of Weight Calculation Immediate Component ic and Observation Date o;

"Fixed Weight" means the number specified as the "Fixed Weight" in the Relevant Specifications Annex;
and

"WSRPM_{ic(o)}" means the Weighted Smoothed Risk Premia Metric in respect of Weight Calculation Immediate Component ic and Observation Date o.

4. Weight Calculation Method – Signal

If the Weight Calculation Method is specified to be "Signal" in the Relevant Specifications Annex, the "**Calculated Weight**" in respect of each Immediate Component and each Observation Date shall be calculated by the Strategy Sponsor in accordance with the following formula:

$$\text{Calculated Weight}_{ic}(o) = \text{WSRPM}_{ic}(o)$$

Where:

"**Calculated Weight**_{ic}(o)" means the Calculated Weight in respect of Weight Calculation Immediate Component *ic* and Observation Date *o*; and

"**WSRPM**_{ic}(o)" means the Weighted Smoothed Risk Premia Metric in respect of Weight Calculation Immediate Component *ic* and Observation Date *o* determined in accordance with paragraph 2 of Section C: *Determination of the Risk Premia Metric* of this Risk Premia Methodology Description.

Goldman Sachs Inflation-Linked Bond Hedged Basket GSISILH3

Overview, Structure of the Strategy and Documentation

23 October 2023

OVERVIEW

This overview of this Strategy is a summary and, as such, is necessarily incomplete. This overview should be read in conjunction with, and is qualified in its entirety by, the more detailed descriptions in the documents described below.

The Goldman Sachs Inflation-Linked Bond Hedged Basket GSISILH3 (the "**Strategy**") is a synthetic rules-based proprietary strategy created by Goldman Sachs International as Strategy Sponsor.

The Strategy intends to provide a synthetic exposure to the performance of a basket (the "Basket") of underlying components (the "Components"). The quantities assigned to such Components are rebalanced periodically with a frequency as specified in this Specifications Annex.

The Strategy converts the return type of the Components into the Strategy Return Type.

The Strategy Value is reduced by the deduction of the basket rebalancing costs. The basket rebalancing costs reflect the synthetic costs of entering into and/or unwinding any transactions relating to the Components following changes to their quantities.

The Strategy Value is reduced by the deduction of the component servicing costs. The component servicing costs reflect the synthetic costs of maintaining positions in, and replicating the performance of, the Components.

The Strategy is calculated on an "excess return" basis and does not include a synthetic interest rate return on a notional cash amount.

The Strategy Value is floored at zero.

Investors should note that the actual costs of entering into, unwinding and/or maintaining transactions may be lower or higher than the synthetic costs set out in the Strategy and, if they were lower, the effect of these deductions would be to benefit the Strategy Sponsor and/or any affiliate (a "**Hedging Party**") in its capacity as issuer of, or counterparty to, products linked to the Strategy (such products, "**Linked Products**"). In general, it is expected that such actual costs will be lower in each case than the synthetic costs in the Strategy.

A Hedging Party may hedge its exposure or potential or expected exposure to the Strategy (and other similar strategies), Linked Products, and the components and their constituents with an affiliate or a third party. A Hedging Party may make significant returns on this hedging activity independently of the performance of the Strategy or any component, including in scenarios where the levels at which it executes its hedges are different from the levels specified in the methodology for determining the Strategy Value (or otherwise where such Hedging Party does not hedge all of its exposure to the Strategy). Any returns on a Hedging Party's hedging activity or on any unhedged exposure will not be passed on to investors in any Linked Products, and investors in any Linked Products will not have any rights in respect of a Hedging Party's hedge positions, including any fund shares/units, equity shares, futures, options, commodities or currencies. Where a Hedging Party, in accordance with its internal policies, executes hedging activity by trading in components of the Strategy (or other, similar, strategies) on or before the related rebalancing day, such trading may have an adverse impact on the level at which the basket of components is rebalanced (which may result in an adverse impact on the performance of the Strategy). Such hedging activity, and the size of such impact, will be linked to the amount of new and outstanding Linked Products at the relevant time and then prevailing market conditions.

The Strategy is initially calculated and published by Goldman Sachs International as the "**Strategy Calculation Agent**" and may thereafter be such person as the Strategy Sponsor may appoint from time to time. The Strategy Sponsor does not have any obligation to ensure that the Strategy Calculation Agent continues to publish the Strategy Value and the Strategy Calculation Agent may discontinue publication at any time.

Where Goldman Sachs International is required or entitled to make a determination in relation to the Strategy pursuant to the Strategy methodology and that determination involves the exercise of expert judgement or discretion (other than those that are purely mechanical and, where relevant, implemented in accordance with the relevant methodology), then that expert judgement or discretion will be exercised in good faith and in a commercially reasonable manner (unless otherwise stated in the Strategy Description) and will be subject to the Goldman Sachs International's policies and procedures.

DOCUMENTATION

The rules and methodology applicable to the Strategy and other information relating to it (the "**Strategy Description**") are set out in the following documents:

- (i) The Specifications Annex (and as amended, updated and/or supplemented from time to time) which describes the parameters which apply to this specific Strategy and which are used to effect the calculations described in the General Description and which may also contain all or part of the methodology of the relevant transaction modules (the "**Specifications Annex**");
- (ii) The Goldman Sachs Transaction-Based Basket Strategies (as amended, updated and/or supplemented from time to time) which sets out the general rules of the Strategy, including the methodology used to calculate the value of the Strategy (the "**General Description**");
- (iii) The Goldman Sachs General Strategy Terms (as amended, updated and/or supplemented from time to time) which contain general matters related to several strategies of this type, such as general adjustments, publication and changes in methodology, the adjustments that may be made if disruption events and other events occur and important risk factors and disclaimers which are incorporated herein (the "**General Strategy Terms**"); and
- (iv) Each of the documents describing the Components.

In the event of any inconsistency between these documentation elements, the provisions shall prevail according to the order given above (e.g., the provisions of the Specifications Annex shall prevail over all other documentation elements).

INVESTORS IN ANY LINKED PRODUCT SHOULD READ AND UNDERSTAND THIS SPECIFICATIONS ANNEX AND OTHER DOCUMENTATION ELEMENTS OF THE STRATEGY DESCRIPTION AND EACH OF THE DOCUMENTS DESCRIBING THE COMPONENTS IN THE STRATEGY. IN PARTICULAR INVESTORS MUST READ THE SECTIONS OF THE STRATEGY DESCRIPTION HEADED "RISK FACTORS", "CONFLICTS OF INTEREST" AND "DISCLAIMERS" AND THE RISK FACTORS IN THE DOCUMENTS DESCRIBING EACH OF THE COMPONENTS IN THE STRATEGY PRIOR TO MAKING ANY INVESTMENT DECISION.

SPECIFICATIONS ANNEX

Date: 23 October 2023

General Strategy Parameters

Strategy Name	Goldman Sachs Inflation-Linked Bond Hedged Basket GSISILH3
Strategy Inception Date	28 July 2023
Strategy Currency	US Dollar ("USD")
Strategy Calculation Agent	Goldman Sachs International
Strategy Initial Value	100.00
Strategy Bloomberg Ticker	GSISILH3 Index
Strategy Value Publication Precision	2 decimal places with 0.005 rounded upwards
Strategy Publication Data Source	https://marquee.gs.com/studio or any successor page
Strategy Return Type	Excess Return
Strategy Calculation Day	Each Weekday. A Weekday is Monday to Friday of each calendar week.
Strategy Trading Day	Each calendar day which satisfies each of the following criteria: (i) It is a Strategy Calculation Day; and (ii) It is a Component Trading Day in respect of each Immediate Component
Strategy Value Floor	Applicable
Component Business Day	In respect of a Component, each day which is a business day according to the holiday calendar of such Component, as determined by the Strategy Calculation Agent in accordance with the strategy description of such Component.

Pricing Parameters

Currency Exchange Rate Source	In respect of all Immediate Components: The 4 p.m. LDN WMR Closing Spot Rates as published by WM Company/Refinitiv or any successor company.
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APPLICABLE TRANSACTION MODULES

Applicable Transaction Module	Transaction Module Execution Order Number
Fixed Weight Basket - A	1
Return Type Conversion - A	2
Transaction Costs - A	3
Servicing Costs - A	4

The parameters for each Applicable Transaction Module are specified:

- (i) in the "Immediate Components" table below; and/or
- (ii) in the parameters section of the relevant Transaction Module below.

Immediate Components Table

The Immediate Components of the Strategy are as set out in the table below. For more information on each such Immediate Component please refer to the relevant description in respect of such Immediate Component.

Immediate Component	Component Bloomberg Ticker	Component Currency	Component Return Type	Component Servicing Cost Rate	Style	Component Weight	Component Transaction Cost Rate	Terminal Component
The Goldman Sachs 10-year Treasury Future Exchange Close Index N1 Class C	GSCCTY01 Index	USD	Excess Return	10 bps	Index	-100%	3 bps	Yes
Bloomberg Barclays US Treasury Inflation-Linked Bond Index	LBUTTRUU Index	USD	Total Return	60 bps	ETF	100%	5 bps	Yes

A value of "Yes" in the "Terminal Component" column above indicates that a Component is a Terminal Component and a value of "No" indicates that a Component is a Non-Terminal Component.

Any cost rates specified in the table above are as of the date of this document (as specified above) and may be amended from time to time in accordance with the terms of the General Strategy Terms.

PARAMETERS FOR THE APPLICABLE TRANSACTION MODULES

The following sections specify parameters specific to each Applicable Transaction Module, and not the Strategy as a whole. Any parameters defined should be considered specific to the Applicable Transaction Module in which they are defined unless specified otherwise.

Parameters for Transaction Module: Fixed Weight Basket - A

Transaction Module Execution Day	The Strategy Inception Date and thereafter the 28th calendar day of each calendar month, or if such calendar day is not a Strategy Calculation Day and a Component Trading Day in respect of all Immediate Components, the immediately following Strategy Calculation Day which is a Component Trading Day in respect of all Immediate Components.
Observation Lag	2
Disjoint Execution	Not Applicable

Immediate Components Trading Days Table

For the purposes of this table, each reference to "Asset" shall be deemed to refer to "Immediate Component".

Immediate Component	Component Trading Day
The Goldman Sachs 10-year Treasury Future Exchange Close Index N1 Class C	Each "Index Trading Day" in respect of the Asset (such "Index Trading Day" as defined in the strategy description applicable to the Asset).
Bloomberg Barclays US Treasury Inflation-Linked Bond Index	Each day that is not denoted as "Recommended Close" or as "Recommended Early Close" for the U.S. by the Securities Industry and Financial Markets Association on http://www.sifma.org/Services/Holiday-Schedule/ (or any successor page)

Parameters for Transaction Module: Return Type Conversion - A

Relevant Component	<ul style="list-style-type: none"> (i) If the Strategy Return Type is specified to be "Total Return" then: <ul style="list-style-type: none"> a. each Cash Component and b. each Non-Cash Component for which the Component Return Type is "Excess Return". (ii) If the Strategy Return Type is specified to be "Excess Return" then each Non-Cash Component for which the Component Return Type is "Total Return".
Floating Interest Rate	With respect to each Relevant Component, the relevant Floating Interest Rate that is specified for the Component Currency of such Relevant Component via the table below.
Return Type Conversion Day Count Fraction Convention	With respect to each Relevant Component, the relevant Return Type Conversion Day Count Fraction Convention that is specified for the Component Currency of such Relevant Component via the table below.

Floating Interest Rate Observation Offset	2
--------------------------------------------------	---

Floating Interest Rate Table

Component Currency	Floating Interest Rate *	Return Type Conversion Day Count Fraction Convention *
USD	USD-Federal Funds-H.15 (O/N)	Act/360 day count fraction convention (as defined in, and determined in accordance with, the 2006 ISDA Definitions, as published by the International Swaps and Derivatives Association, Inc. (the "ISDA Definitions")).

* in each case, as such term is defined in the 2006 ISDA Definitions

Parameters for Transaction Module: Transaction Costs - A

The Component Transaction Cost Rates are specified in the Immediate Components table above.

Parameters for Transaction Module: Servicing Costs - A

Servicing Cost Day Count Fraction Convention	Act/360 ISDA
-----------------------------------------------------	--------------

METHODOLOGY OF THE APPLICABLE TRANSACTION MODULES

Methodology for Fixed Weight Basket - A

Transaction Module Description: The purpose of this Transaction Module is to periodically rebalance the Component Quantities of the Components in the Basket based on the Component Weight assigned to each Component as set out in the Specifications Annex. In respect of each Transaction Module Execution Day and each Transaction Module Execution Time Stamp, this Transaction Module shall create a Transaction in respect of each Transaction Component, as defined below.

Transaction Component: In respect of the relevant Transaction Module Execution Day and Transaction Module Execution Time Stamp, each Non-Cash Component contained in the Strategy on such Transaction Module Execution Day and such Transaction Module Execution Time Stamp.

Preliminary Component Transaction Quantity: In respect of the Transaction Component, the relevant Transaction Module Execution Day and the relevant Transaction Module Execution Time Stamp, the Preliminary Component Transaction Quantity of such Transaction Component is:

$$TQ_{i,t,u} = \frac{CW_{i,t,u} \times S_{tObs,uObs}}{A_{i,tObs,uObs} \times FX_{i,tObs,uFXObs}}$$

Where:

Subscript *i* refers to the relevant Transaction Component;

Subscript *t* refers to the relevant Transaction Module Execution Day;

Subscript *u* refers to the relevant Transaction Module Execution Time Stamp;

Subscript *tObs* refers to the relevant Observation Day;

Subscript *uObs* refers to the relevant Basket Observation Time Stamp;

Subscript *uFXObs* refers to the relevant FX Rate Observation Time Stamp;

CW_{i,t,u} refers to the Component Weight in respect of Transaction Component *i*, Transaction Module Execution Day *t* and Transaction Module Execution Time Stamp *u*;

S_{tObs,uObs} refers to the Strategy Value in respect of the relevant Observation Day *tObs* and Basket Observation Time Stamp *uObs*;

A_{i,tObs,uObs} refers to the Component Timely Value in respect of Transaction Component *i*, Observation Day *tObs* and Basket Observation Time Stamp *uObs*; and

FX_{i,tObs,uFXObs} refers to the applicable Currency Exchange Rate to convert one unit of the Component Currency in which Transaction Component *i* is denominated into the Strategy Currency as of Observation Day *tObs* and FX Rate Observation Time Stamp *uFXObs*.

Methodology Table: Fixed Weight Basket - A

Transaction Module Quantity Type	Target
Transaction Module Cash Type	Value Neutral
Transaction Module Execution Time Stamp	The end of the relevant Strategy Calculation Day
Observation Day	(i) In respect of a Transaction Module Execution Day and a Non-Cash Component, the Strategy Calculation Day which falls <i>x</i> Strategy Calculation Days before such Transaction Module Execution Day, whereby <i>x</i> shall be the Observation Lag, or the immediately preceding Component Business Day for such Non-Cash

	<p>Component if such resulting day is not a Component Business Day for such Non-Cash Component.</p> <p>(ii) If the Observation Day resulting from the paragraph above would fall before the Strategy Inception Date then the Observation Day shall be the Strategy Inception Date instead.</p> <p>(iii) If the Observation Lag is zero then the Observation Day in respect of a Transaction Module Execution Day and a Non-Cash Component shall be such Transaction Module Execution Day, or the immediately preceding Component Business Day for such Non-Cash Component if such resulting day is not a Component Business Day for such Non-Cash Component.</p>
Basket Observation Time Stamp	The end of the relevant Strategy Calculation Day
FX Rate Observation Time Stamp	4 p.m. LDN

Methodology for Return Type Conversion - A

Transaction Module Description: This Transaction Module amends the return type of one or more Components (each a “**Relevant Component**” as defined in the Specifications Annex) by adding or deducting the return of a floating interest rate. For this purpose, this Transaction Module generates a Transaction in each Cash Component which is denominated in the Component Currency of each Relevant Component (each a “**Relevant Cash Component**”).

Transaction Component: In respect of the relevant Transaction Module Execution Day: The Relevant Cash Component.

Preliminary Component Transaction Quantity:

- (i) In respect of the relevant Transaction Module Execution Day (other than the Strategy Inception Date) and the Relevant Cash Component:

$$TQ_{j,t} = \sum_{i|j} q_{i,t-1} \times A_{i,t-1} \times Direction_{i,t-1} \times Floating_{i,tObs} \times DCF_{i,t-1,t}$$

- (ii) In respect of the Strategy Inception Date:

$$TQ_{j,t} = 0$$

Where:

Subscript *j* refers to each Relevant Cash Component;

Subscript *i* refers to each Relevant Component;

Subscript *t* refers to the relevant Transaction Module Execution Day;

Subscript *t – 1* refers to the Transaction Module Execution Day immediately preceding Transaction Module Execution Day *t*;

i|j refers to each Relevant Component *i* which is denominated in the currency the of the Relevant Cash Component *j*;

Subscript *tObs* refers to the relevant Floating Interest Rate Observation Day;

TQ_{j,t} is the Preliminary Component Transaction Quantity in respect of the Relevant Cash Component on Transaction Module Execution Day *t*;

q_{i,t-1} is the Component Quantity in respect of the Relevant Component on date *t – 1*;

A_{i,t-1} is the Component Timely Value of the Relevant Component on date *t – 1*;

Direction_{i,t-1} is the Floating Rate Direction in respect of the Relevant Component and date *t – 1*;

Floating_{i,tObs} is the level of the Floating Interest Rate in respect of the Relevant Component on the relevant Floating Interest Rate Observation Day *tObs*; and

DCF_{i,t-1,t} is, in respect of the Relevant Component, the day count fraction for the period from (and including) date (*t – 1*) to (but excluding) date (*t*), computed by using the “**Return Type Conversion Day Count Fraction Convention**”.

Methodology Table: Return Type Conversion - A

Transaction Module Quantity Type	Additive
Transaction Module Cash Type	Value Effective
Transaction Module Execution Day	Each Strategy Calculation Day

Transaction Module Execution Time Stamp	The end of the relevant Strategy Calculation Day
Floating Interest Rate Observation Day	The Floating Interest Rate Observation Day in respect of a Transaction Module Execution Day shall be the calendar day which falls x Strategy Calculation Days prior to such Transaction Module Execution Day, whereby x shall be the Floating Interest Rate Observation Offset. If such resulting calendar day is not a Floating Interest Rate Fixing Day then the Floating Interest Rate Observation Day shall be the Floating Interest Rate Fixing Day immediately preceding such resulting calendar day.
Floating Interest Rate Fixing Day	The days for which the Floating Interest Rate is scheduled to be published, as determined by the Strategy Calculation Agent.
Floating Rate Direction	<p>If the Strategy Return Type is specified to be "Total Return" in the relevant Specifications Annex, then the Floating Rate Direction shall have a value of one (1).</p> <p>If the Strategy Return Type is specified to be "Excess Return" in the relevant Specifications Annex, then the Floating Rate Direction shall have a value of minus one (-1).</p>

Methodology for Transaction Costs - A

Transaction Module Description: The purpose of this Transaction Module is to charge synthetic transaction costs for changes in the Component Quantities of Non-Cash Components comprised in the Strategy.

Transaction Component: The Strategy Currency Cash Component.

Preliminary Component Transaction Quantity:

- (i) In respect of the relevant Transaction Module Execution Day and the relevant Transaction Module Execution Time Stamp (other than the first Transaction Module Execution Time Stamp on the Strategy Inception Date):

$$TQ_{t,u} = \sum_i -1 \times |A_{i,t,u}| \times |(q_{i,t,u} - q_{i,t,u-1})| \times CTC_{i,t,u} \times FX_{i,t}$$

- (ii) In respect of the first Transaction Module Execution Time Stamp on the Strategy Inception Date:

$$TQ_{t,u} = 0$$

Where:

Subscript *i* refers to each Non-Cash Component contained in the Strategy on (i) the relevant Transaction Module Execution Time Stamp of the relevant Transaction Module Execution Day and/or (ii) the Transaction Module Execution Time Stamp immediately preceding such relevant Transaction Module Execution Time Stamp;

Subscript *t* refers to the relevant Transaction Module Execution Day;

Subscript *u* refers to the relevant Transaction Module Execution Time Stamp;

Subscript *u – 1* refers to the Transaction Module Execution Time Stamp immediately preceding the relevant Transaction Module Execution Time Stamp;

TQ_{t,u} is the Preliminary Component Transaction Quantity on Transaction Module Execution Day *t* and Transaction Module Execution Time Stamp *u*;

A_{i,t,u} is the Component Timely Value of Component *i* on Transaction Module Execution Time Stamp *u* and date *t*;

q_{i,t,u} is the Component Quantity of Component *i* on Transaction Module Execution Time Stamp *u* and date *t*;

CTC_{i,t,u} is the Component Transaction Cost Rate in respect of Component *i* on Transaction Module Execution Time Stamp *u* and date *t*;

FX_{i,t} is the applicable Currency Exchange Rate to convert one unit of the Component Currency of Component *i* into the Strategy Currency in respect of date *t*.

Methodology Table: Transaction Costs - A

Transaction Module Quantity Type	Additive
Transaction Module Cash Type	Value Effective
Transaction Module Execution Day	Each Strategy Calculation Day
Transaction Module Execution Time Stamp	The end of the relevant Strategy Calculation Day

Methodology for Servicing Costs - A

Transaction Module Description: The purpose of this Transaction Module is, for each Non-Cash Component where a non-zero Component Servicing Cost Rate is specified, to decrease (or increase) the Strategy Value by decreasing (or increasing) the Component Quantity of the Strategy Currency Cash Component. In particular, this Transaction Module will have the effect of reducing the Strategy Value in respect of Non-Cash Components which have a positive Component Servicing Cost Rate and increasing the Strategy Value in respect of Non-Cash Components which have a negative Component Servicing Cost Rate.

Transaction Component: The Strategy Currency Cash Component.

Preliminary Component Transaction Quantity:

- (i) In respect of a Transaction Module Execution Day falling after the Strategy Inception Date and the relevant Transaction Module Execution Time Stamp:

$$TQ_t = \sum_i -1 \times A_{i,t-1} \times |q_{i,t-1}| \times CSC_{i,t-1} \times DCF_{t-1,t} \times FX_{i,t}$$

- (ii) In respect of the Strategy Inception Date:

$$TQ_t = 0$$

Where:

Subscript *i* refers to each Non-Cash Component contained in the Strategy on the Transaction Module Execution Day immediately preceding the relevant Transaction Module Execution Day;

Subscript *t* refers to the relevant Transaction Module Execution Day

Subscript *t – 1* refers to the Transaction Module Execution Day immediately preceding the relevant Transaction Module Execution Day;

TQ_t is the Preliminary Component Transaction Quantity on Transaction Module Execution Day *t*;

A_{i,t-1} is the Component Timely Value of Non-Cash Component *i* on date *t – 1*;

q_{i,t-1} is the Component Quantity of Non-Cash Component *i* on date *t – 1*;

CSC_{i,t-1} is the Component Servicing Cost Rate of Component *i* on date *t – 1*;

DCF_{t-1,t} is the day count fraction for the period from (and including) date *t – 1* to (but excluding) date *t*, computed by using the “**Servicing Cost Day Count Fraction Convention**”;

FX_{i,t} is the applicable Currency Exchange Rate to convert one unit of the Component Currency of Non-Cash Component *i* into the Strategy Currency in respect of date *t*.

Methodology Table: Servicing Costs – A

Transaction Module Quantity Type	Additive
Transaction Module Cash Type	Value Effective
Transaction Module Execution Day	Each Strategy Calculation Day
Transaction Module Execution Time Stamp	The end of the relevant Strategy Calculation Day

Appendix

Appendix 1: Asset Class Specific Definitions - ETFs

Terms defined in this sub-section of Section B shall only apply to (a) each instrument and component defined as an Instrument or Component in this sub-section and (b) each Component calculated by reference to such an Instrument or Component and for which the Style specified is contained in the Component Timely and Tradable Value Table set out in this sub-section.

Pricing Styles (Style: ETF)

Component Timely and Tradable Value Table means:

Style	Elements	Provisions
ETF	Component Timely Value	The Component Timely Value of a Component on any Component Business Day will be determined by the Strategy Calculation Agent by adjusting the official closing price of such Component to account for the occurrence of (i) any Potential Adjustment Event, or (ii) an Ex Day of an Ordinary Dividend, each as further described in the General Strategy Terms (as such term is defined in the relevant Specifications Annex). Such official closing price in respect of such Component is the official closing price reported on the relevant Reference Exchange (or any successor thereof) specified in the Strategy Description in respect of such Component Business Day.

Appendix 2: Asset Class Specific Definitions - General

Terms defined in this section shall apply to (a) each instrument and component defined as an Instrument or Component in this section and (b) each Component calculated by reference to such an Instrument or Component and for which the Style specified is contained in the Component Timely and Tradable Value Table set out in this section.

Pricing Styles (Styles: Index, B and C)

"Component Timely and Tradable Value Table" means:

Style	Elements	Provisions
Index	Component Timely Value	The Component Timely Value of a Component on any day will be determined as the official closing level of such Component as published by the relevant sponsor or calculation agent of such Component on such day, and "Component Timely Value" may be (among others) referred to in the Strategy Description as "Strategy Value", "Strategy Timely Value", "Strategy Closing Level" or "Index Value".
Index	Component Tradable Value	The Component Tradable Value of a Component on a Strategy Calculation Day will be calculated in accordance with the definition of "Strategy Tradable Level" or "Strategy Tradable Value" specified in the relevant rules in respect of such Component provided that if such Component Tradable Value would be determined on a day which would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Component Tradable Value of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.

Style	Elements	Provisions
		<p>If no such term is defined, then the Component Tradable Value of a Component on a Strategy Calculation Day shall be determined as follows:</p> <ul style="list-style-type: none"> (i) if no Non-Tradable Event occurs in respect of such Component on such Strategy Calculation Day, the Component Timely Value; or (ii) If a Non-Tradable Events occurs in respect of such Component and no MDE Linked component is specified in respect of such Component, the Component Timely Value in respect of the First Tradable Date falling on or immediately after such Strategy Calculation Day. (iii) If a Non-Tradable Events occurs in respect of such Component and one or more MDE Linked Components are specified in respect of such Component, the Component Timely Value in respect of the first Strategy Calculation Day following such Strategy Calculation Day on which no Non-Tradable Event occurs in respect of such Component.
B	Component Timely Value	The Component Timely Value of a Component on any day will be calculated in accordance with the definition of "Strategy Timely Level" or "Strategy Timely Value" specified in the relevant rules in respect of such Component.
B	Component Tradable Value	The Component Tradable Value of a Component on a Strategy Calculation Day will be calculated in accordance with the definition of "Strategy Tradable Level" or "Strategy Tradable Value" specified in the relevant rules in respect of such Component, provided that if such Component Tradable Value would be determined on a day which would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Component Tradable Value of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.
C	Component Timely Value	The Component Timely Value of a Component on any day will be calculated in accordance with the definition of "Strategy Closing Level" or "Strategy Closing Value" specified in the relevant rules in respect of such Component.
C	Component Tradable Value	The Component Tradable Value of a Component on a Strategy Calculation Day will be calculated in accordance with the definition of "Strategy Tradable Level" or "Strategy Tradable Value" specified in the relevant rules in respect of such Component, provided that if such Component Tradable Value would be determined on a day which would fall after the First Tradable Date in respect of such Strategy Calculation Day and such Component, the Component Tradable Value of such Component shall be determined by the Strategy Sponsor on such First Tradable Date acting in a commercially reasonable manner.

Definitions related to Execution

"**Disjoint Execution**" will be specified as either "Applicable" or "Not Applicable" in the Strategy Description, or if not so specified, shall be deemed to be specified as "Not Applicable".

"**Execution Day**" means, in respect of a Component, as determined by the Strategy Calculation Agent in accordance with paragraph (i) or (ii) below:

- (i) if Disjoint Execution is specified as "Applicable" in the Strategy Description, each day that (a) is a Strategy Calculation Day and (b) is a Component Trading Day in respect of such Component; or
- (ii) if Disjoint Execution is specified as "Not Applicable" in the Strategy Description, each day that (a) is a Strategy Calculation Day and is a Component Trading Day in respect of all Components included in the Strategy.

"**Execution Lag**" means, in respect of a Component, the non-negative integer specified as such in the Strategy Description, or if not so specified, zero (0).

"**Execution Start Date**" means, in respect of a Rebalancing Date and a Component:

- (i) if the Execution Lag in respect of such Component is specified as zero (0), the first Execution Day in respect of such Component falling on or after such Rebalancing Date;
- (ii) otherwise, the first Execution Day in respect of such Component falling on or immediately after the number of Component Trading Days in respect of such Component equal to the Execution Lag from, but excluding, such Rebalancing Date.

"**First Tradable Date**" means, in respect of a Strategy Calculation Day t and:

- (i) an Instrument, the first Strategy Calculation Day (measured from, and including, Strategy Calculation Day t) on which no Non-Tradable Event exists in respect of such Instrument:
 - (a) provided that if one or more Non-Tradable Event(s) in respect of such Instrument exists on Strategy Calculation Day t and each of the five (5) Strategy Calculation Days immediately following Strategy Calculation Day t , then the sixth (6th) Strategy Calculation Day immediately following Strategy Calculation Day t shall be deemed to be the First Tradable Date; and
 - (b) provided that notwithstanding the fact that a Non-Tradable Event may continue to exist on such sixth (6th) Strategy Calculation Day, if the Strategy Sponsor expects that no Non-Tradable Event will exist in respect of such Instrument shortly after such sixth (6th) Strategy Calculation Day (as determined by the Strategy Sponsor in its discretion and acting in a commercially reasonable manner), the Strategy Sponsor may postpone the First Tradable Date to the first Strategy Calculation Day on which no Non-Tradable Event exists in respect of such Instrument,
 - (c) provided further that the Strategy Sponsor may, in its discretion and acting in a commercially reasonable manner, determine that such event also results in an Adjustment Event; and
- (ii) a Component, the last First Tradable Date in respect of all Instruments used to calculate the level of such Component.

"**Rebalancing Date**" means, in respect of a Reference Date, each day specified as such in the Strategy Description.

"**Reference Date**" means each day specified as such in the Strategy Description.

Definitions related to Components

"**Component**" or "**Immediate Component**" means a Terminal Component, a Non-Terminal Component or an Associated Component (in each case as specified in the Strategy Description) in respect of any Strategy Calculation Day, provided that:

- (i) if a Component Start Date is specified in the Strategy Description in respect of such Component, such Strategy Calculation Day falls on or after such Component Start Date and;
- (ii) if a Component End Date is specified in the Strategy Description in respect of such Component, such Strategy Calculation Day falls on or before the First Tradable Date in respect of such Component and the Last Fade-Out Day in respect of the Rebalancing Date falling on or immediately prior to such Component End Date.
- (iii) If an Associated Component Start Date or Associated Component End Date is specified in the Strategy Description in respect of such Component, such Strategy Calculation Day falls in the period commencing on, and including, the Associated Component Start Date in respect of such Associated Component and ending on, and including the Last Fade-Out Day in respect of the Rebalancing Date by reference to which such Associated Component Start Date is determined.

"Instrument" means each tradable instrument defined as such in the Asset Class Specific Definitions.

"Instrument Valuation Data" means, in respect of an Instrument, any level, price, rate or data specified as such in the Asset Class Specific Definitions corresponding to such Instrument.

"Market Disruption Event" means any event defined as such or as "Disruption Event" in the Strategy Description.

"Non-Terminal Component" means each component specified as such in the Strategy.

"Non-Tradable Event" means, in respect of a Strategy Calculation Day and:

- (i) a Component, the occurrence of any one of the following events, as determined by the Strategy Sponsor:
 - (a) such Strategy Calculation Day is not a Component Trading Day for such Component; or
 - (b) a Market Disruption Event is occurring or existing in respect of such Component on such Strategy Calculation Day; or
 - (c) if such Component is a Terminal Component, a Market Disruption Event is occurring or existing in respect of one or more MDE Linked Components (if so defined) in respect of such Component on such Strategy Calculation Day; or
 - (d) if such Component is an Instrument, each event specified as such in the Asset Class Specific Definitions corresponding to such Instrument;
- (ii) an Instrument that is not a Component, each event specified as such in the Asset Class Specific Definitions corresponding to such Instrument;
- (iii) a Strategy, the occurrence of a Non-Tradable Event in respect of any Terminal Component included in such Strategy.

"Component Timely Value", "Timely Value" or "Timely Level" means, in respect of a Component and any day, the "timely" level, price or rate of such Component on such day, as determined in accordance with the Style of such Component and as described in the Component Timely and Tradable Value Table corresponding to such Component, provided that if such day is not a day on which the level of such Component is scheduled to be published, then the Timely Value of such Component for such day shall be deemed to be the Component Timely Value of such Component on the immediately preceding day on which such Component is scheduled to be published.

"Component Tradable Value", "Tradable Level" or "Tradable Value" means, in respect of a Component and a Strategy Calculation Day, the "tradable" level or price of such Component on such Strategy Calculation Day, as determined in accordance with the Style of such Component and as described in the Component Timely and Tradable Value Table in respect of such Component.

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The Goldman Sachs General Strategy Terms

Date: 10 November 2023

Introduction, Application, Copyright and Incorporation	1
Determinations of Goldman Sachs as Strategy Sponsor and/or Strategy Calculation Agent.....	4
Disruption Events and Consequences.....	5
Restatements of Input Data	19
Adjustment Events	20
Availability and Publication of Strategy Values and Termination of a Strategy	25
Change in Strategy Methodology	27
Hedging Activities and Notional Costs of a Strategy	31
Conflicts of Interest	33
Risk Factors	37
Disclaimers	73
ESG Disclosures.....	76

INTRODUCTION, APPLICATION, COPYRIGHT AND INCORPORATION

1. Introduction and Incorporation

This document, the Goldman Sachs General Strategy Terms (as may be amended from time to time as provided herein, the "**General Strategy Terms**"), comprises certain rules, disclaimers, risk factors and other information applicable to certain notional rules-based proprietary strategies which Goldman Sachs International or its successor(s) (the "**Strategy Sponsor**") may create from time to time (each, a "**Strategy**" and together, the "**Strategies**").

In respect of a Strategy, these General Strategy Terms should be read in conjunction with the following documents (to the extent that they are specified to be applicable and/or incorporated by reference in respect of a Strategy):

- (i) the relevant base or general description comprising certain rules, methodology, definitions, disclaimers, conflicts of interest and/or other information applicable to such Strategy (in respect of such Strategy, the "**General Description**");
- (ii) the relevant supplement or specifications annex to such General Description specifying, amongst other things, the name of such Strategy and specific terms, dates and/or parameters applicable to such Strategy (the "**Specifications Annex**"); and
- (iii) any other documentation element(s) referred to in such General Description or Specifications Annex (the "**Other Documentation Elements**").

For the purposes of applying the General Description, Specifications Annex and/or Other Documentation Elements to these General Strategy Terms, each expression in the General Description, Specifications Annex and/or Other Documentation Element to:

- (a) "Immediate Component" shall be deemed to be references to "Component";
- (b) "Index" (whether as a separate term or as part of a larger term – e.g. "Index Sponsor") shall be deemed to be references to "Strategy" (save for any larger terms which already include "Strategy" – e.g. "Successor Index Strategy Component" – in which case the term shall be read without reference to "Index");
- (c) "Strategy Supplement" shall be deemed to be references to "Specifications Annex"; and
- (d) "Parameter Adjustment Agent", "Strategy Rebalancing Entity" or "Strategy Rebalancing Agent" shall be deemed references to "Strategy Allocator".

These General Strategy Terms may be amended or modified from time to time at the discretion of the Strategy Sponsor in accordance with the terms set out herein and upon each amendment or modification this document shall be updated to a new version. Following an update, the most recent version shall be deemed to be in force from the date of such update and replace in its entirety the preceding version such that, in the event of any conflict between the preceding version and the most recent version, the most recent version shall prevail.

Any or all of the provisions and sections of these General Strategy Terms may be incorporated into and made applicable to the relevant General Description, Specifications Annex and/or Other Documentation Element in respect of a Strategy. When the relevant General Description, Specifications Annex and/or Other Documentation Element in respect of a Strategy incorporates these General Strategy Terms, unless such document states otherwise, the most recent version of the General Strategy Terms shall be deemed to be applicable, as updated, amended and/or supplemented from time to time.

2. Application

These General Strategy Terms, when read together with the relevant General Description, Specifications Annex and/or Other Documentation Element in respect of a Strategy (as applicable), will constitute the "**Strategy Description**" in respect of such Strategy.

Capitalised terms used in these General Strategy Terms but not defined herein have the meaning given to them in the relevant General Description, Specifications Annex or Other Documentation Element, as the case may be. In the event of any inconsistency between the provisions of the relevant General Description, Specifications Annex and/or Other Documentation Element and the provisions of these General Strategy Terms, the provisions of the relevant General Description, Specifications Annex and/or Other Documentation Element will prevail. In respect of each Strategy, unless otherwise specified in the relevant Specifications Annex, in the event of any inconsistency between the provisions of the relevant General Description, Specifications Annex and/or Other Documentation Element, the provisions of the relevant Specifications Annex will prevail.

A Strategy may be linked to one or more other Strategies, each of which may in turn be linked to one or more Strategies, and so on (each such strategy, an "**Underlying Strategy**"). In such case, potential investors should also refer to the relevant strategy description or rules relating to each such Underlying Strategy (which may or may not comprise these General Strategy Terms, a General Description, Specifications Annex or Other Documentation Element, in each case, applicable to the Underlying Strategy) for the specific description, methodology, rules, disclaimers, risk factors and/or conflicts of interest applicable to such Underlying Strategy.

In respect of each Strategy, the Strategy Sponsor will appoint a strategy calculation agent (the "**Strategy Calculation Agent**"), as specified in the relevant General Description, Specifications Annex and/or Other Documentation Element to make certain determinations and calculations and to publish the value of such Strategy as more particularly described in the relevant General Description, Specifications Annex and/or Other Documentation Element. The Strategy Sponsor does not have any obligation to ensure that the Strategy Calculation Agent continues to publish, and the Strategy Calculation Agent may discontinue publication of, the value of any Strategy at any time. The Strategy Sponsor may at any time in respect of a Strategy appoint one or more replacement Strategy Calculation Agents including itself or an affiliate.

The Strategy Sponsor may also appoint other agents and/or third-party data providers in relation to a Strategy to obtain certain inputs necessary to compute the value of such Strategy (including, without limitation, Input Data Providers (as defined below)). The Strategy Sponsor does not have any obligation to ensure that these agents and/or third-party providers continue to provide inputs necessary to compute the value of a Strategy. The Strategy Sponsor may change any agents and/or third-party data providers appointed in respect of a Strategy at any time.

Each Strategy may be comprised of a number of:

- (i) components and/or sub-components (including but not limited to Underlying Strategies, financial instruments and assets) which may be (direct or indirect) underlying assets of such Strategy (each, a "**Component**");
- (ii) input data (including but not limited to any price or level) which is used to determine, or which constitutes, any weight(s), signal(s) or other values or parameters in relation to a Component; and
- (iii) any other input data (other than a Component) or software package used in the calculation of a Strategy ((ii) and (iii) together, "**Input Data**").

None of the Strategies are sponsored, endorsed, sold, or promoted by the sponsor of any Component comprising, directly or indirectly, a Strategy, other than where the Strategy Sponsor is also the sponsor of such Component. Each such sponsor does not make any representation whatsoever, whether express or implied, either as to the results to be obtained from the use of any such Component and/or the prices, levels or values at which any Component stands at any particular time on any particular date or otherwise.

Each Strategy is a synthetic product and the exposure of each Strategy to any position in a Component (which may itself represent a notional investment in one or more other Components) is purely notional. There is no actual portfolio of underlying indices, financial instruments, inputs, assets or other underlyings or components to which any person is entitled or in which any person has any ownership interest (whether legal, beneficial or otherwise), and there is no obligation on the Strategy Sponsor or the Strategy Calculation Agent to promote or purchase, enter into and/or hold positions in any Component, or transactions or investments that are linked to any Component at any time. References in any Strategy Description to any investment, disposal or acquisition of any Component should not be construed as imposing any obligation on the Strategy Sponsor, the Strategy Calculation Agent or any person to actually acquire or dispose of any such Component, investment or other property but are references to, and relate solely to, the calculation of the value of each Strategy.

Unless otherwise specified in the Strategy Description, the methodology for each Strategy does not pursue any environmental, social and governance (“**ESG**”) objectives or take into account any ESG factors.

Investors in any product or transaction linked to a Strategy (together, “**Linked Products**”) should read and understand these General Strategy Terms in full. In particular, investors must read the sections of these General Strategy Terms entitled “*Conflicts of Interest*”, “*Risk Factors*” and “*Disclaimers*” in addition to the additional disclaimers, conflicts of interest and risk factors (if any) set out in the relevant General Description, Specifications Annex, Other Documentation Element and/or the other relevant strategy documentation elements in respect of each Strategy and each of its Components prior to making any investment decision.

3. Copyright

The Strategy Sponsor owns the copyright and all other rights to the applicable Strategies. No use or publication may be made of a Strategy or any value thereof without the prior written approval of the Strategy Sponsor.

DETERMINATIONS OF GOLDMAN SACHS AS STRATEGY SPONSOR AND/OR STRATEGY CALCULATION AGENT

Unless otherwise specified in the Strategy Description, all determinations and calculations that involve the exercise of expert judgement or discretion (other than those that are purely mechanical and, where relevant, implemented in accordance with the relevant methodology) made by the Strategy Sponsor or, only when Goldman Sachs is appointed as Strategy Calculation Agent, the Strategy Calculation Agent, as the case may be, in respect of a Strategy shall be made in good faith and in a commercially reasonable manner. All such determinations and calculations will be subject to the Strategy Sponsor's or the Strategy Calculation Agent's (as applicable) policies and procedures and will (in the absence of manifest error) be final, conclusive and binding. The Strategy Sponsor and/or the Strategy Calculation Agent, as applicable, shall have no responsibility to any person for any errors or omissions in any determination or calculation. In making any determinations with respect to a Strategy, the Strategy Sponsor and the Strategy Calculation Agent do not owe any person any fiduciary duties in respect of a Strategy and are not required to take the interests of any person into account in making any determination with respect thereto.

DISRUPTION EVENTS AND CONSEQUENCES

In the event of any inconsistency between the provisions of this “Disruption Events and Consequences” section and the provisions of any relevant General Description, Specifications Annex and/or Other Documentation Element in respect of a Strategy, the provisions of the relevant General Description, Specifications Annex and/or Other Documentation Element shall prevail for the purposes of such Strategy.

Disruption Events and Consequences

For the purposes of these General Strategy Terms, a “**Disruption Event**” shall mean any of the events listed in sub-paragraphs (i) to (ix) of this section entitled “*Disruption Events and Consequences*”.

(i) **Disruption Events applicable in respect of all Components and/or Input Data**

For the purposes of this sub-paragraph (i) only, a “**Relevant Underlying**” shall mean a Component or any Input Data in respect of the relevant Strategy. For the avoidance of doubt, the Other Disruption Events outlined in this sub-paragraph (i) shall not supersede or replace any Disruption Events in respect of a Relevant Underlying listed in sub-paragraphs (ii) to (ix) below (as applicable) and shall apply in addition to such Disruption Events in respect of a Relevant Underlying.

If, in respect of a Strategy or a Relevant Underlying, any one or more of the following events (each, an “**Other Disruption Event**”) occur:

- (a) the Strategy Sponsor becomes aware of (I) the adoption of, or change in, any applicable law or (II) the promulgation of, or any change in, the interpretation of any applicable law by a court, tribunal or regulatory authority with competent jurisdiction, which has the effect that (A) the performance by the Strategy Sponsor or Strategy Calculation Agent of their respective roles in respect of a Strategy has become unlawful, impracticable or would result in materially increased costs to them in whole or in part for any reason, or (B) the Strategy Sponsor and/or any of its affiliates would be prevented from entering into transactions in respect of such Strategy or Relevant Underlying (including any Relevant Underlying where the Strategy Sponsor and/or any of its affiliates is sponsor and/or calculation agent) by any applicable law or regulation;
- (b) the Strategy Sponsor determines that a Hedging Party would (A) be unable, after using commercially reasonable efforts, to acquire, establish, re-establish, substitute, maintain, unwind, or dispose of all or a portion of any hedge position relating to such Strategy and/or Relevant Underlying or (B) incur an increased cost in doing so, including, but not limited to, due to any capital requirements or other law or regulation (a “**Hedging Disruption**”);
- (c) a trading disruption occurs in respect of the relevant trading venue or any other similar event or circumstance occurs which, in the reasonable judgement of the Strategy Sponsor, (A) affects the ability of market participants in general to enter into transactions in respect of such Relevant Underlying in a notional size required in relation to any product or transaction linked to the relevant Strategy, (B) impairs the liquidity of any transactions in relation to such Relevant Underlying and/or (C) affects the value of such Relevant Underlying;
- (d) any other event described in the Strategy Description as an Additional Market Disruption Event occurs;
- (e) the occurrence of a systems failure, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labour disruption or any similar intervening circumstance that is beyond the

reasonable control of the Strategy Sponsor, Strategy Calculation Agent or any of their respective affiliates that the Strategy Sponsor determines is likely to have a material effect on a Relevant Underlying, or on its ability to perform its role in respect of the Strategy (a "**Force Majeure Event**");

- (f) the official price, level, rate or other measure of any Relevant Underlying is unavailable or incomplete on any relevant day on which such measure is scheduled to be published or provided to the Strategy Sponsor (including cases where a member of the Goldman Sachs Group is the sponsor, calculation agent or provider of such Relevant Underlying);
- (g)
 - (I) an Unscheduled Holiday occurs in respect of a trading venue or Relevant Underlying;
 - (II) a trading venue or the sponsor or provider of a Relevant Underlying publicly announces that a day that was previously not a Scheduled Business Day in respect of such trading venue or Relevant Underlying (as applicable) shall be considered a Scheduled Business Day in respect of such trading venue or Relevant Underlying (as applicable) and the Strategy Sponsor determined (acting in good faith and a commercially reasonable manner) that such announcement did not occur within a reasonable amount of time prior to such day; or
 - (III) any relevant trading venue (including, without limitation, any physical trading floor and/or electronic trading platform) is not open for trading during its full regular trading session, or closes prior to its scheduled closing time, in each case, on any relevant day.

For the purposes of this sub-paragraph (g), "**Unscheduled Holiday**" means in respect of any relevant day and a trading venue or Relevant Underlying, such day is not a business day in respect of such trading venue or Relevant Underlying (as applicable) (a "**Scheduled Business Day**") and the Strategy Sponsor was not aware of such fact by means of a public announcement within a reasonable amount of time prior to such relevant day (as determined by the Strategy Sponsor in good faith and a commercially reasonable manner);

- (h) the level, price or other value of such Strategy and/or Relevant Underlying is, in the reasonable judgement of the Strategy Sponsor or Strategy Calculation Agent, manifestly incorrect,
- (i) where required, the Strategy Sponsor (after using commercially reasonable efforts) ceases to have the relevant data license in respect of such Relevant Underlying;
- (j) any authorisation, registration, recognition, endorsement, equivalence decision, approval or inclusion in any official register in respect of such Strategy, Relevant Underlying or the Strategy Sponsor has not been, or will not be, obtained or has been, or will be, rejected, refused, suspended or withdrawn by the relevant competent authority or other relevant official body, in each case, with the effect that the issuer of, or one of the contracting parties in respect of, a Linked Product is not, or will not be permitted under any applicable law or regulation to use the Strategy or Relevant Underlying, as determined by the Strategy Sponsor (an "**Authorisation Event**");
- (k) a material change in national or international financial, political, legal or economic conditions that would likely prejudice the calculation and publications of the value of a Strategy, as determined by the Strategy Sponsor;
- (l) the European Union membership or any member of the European Union is discontinued, suspended or terminated, or any member of the European Union disaffirms, disclaims, repudiates

or rejects in whole or in part any obligation arising from its European Union membership under the relevant treaties or:

- (I) the euro ceases to be the lawful currency of any member of the European Union; or
- (II) any member of the European Union takes, or indicates its intention to take, any action in furtherance of, or indicates its consent to, approval of, or acquiescence in, any of the foregoing event;

then the Strategy Sponsor (or the Strategy Sponsor may instruct the Strategy Calculation Agent to), acting in good faith may determine in its sole discretion to take actions (each a “**Consequential Action**”) or take no action, with reference to preserving the intended commercial purpose of the Strategy (the “**Strategy Purpose**”), including, but not limited to, any or more of the following:

- (I) make such determinations or adjustments to the terms of a Strategy, including to the methodology and relevant data sources, as it deems appropriate to account for such Other Disruption Event and, as applicable, to the extent necessary to calculate the value of a Strategy in respect of such day (for which purpose it may use its own internal models and other market data sources as it reasonably determines is necessary and/or Input Data last published or made available by such Input Data Provider);
- (II) postpone any applicable rebalancing in whole or in part in respect of a Strategy or a Relevant Underlying (a “**Relevant Rebalancing**”) until such time or day on which no Other Disruption Event is continuing (the “**Relevant Deadline**”), and make any relevant adjustments to the methodology for calculating the Strategy that it deems appropriate to account for such postponement of the Relevant Rebalancing;
- (III) determine that the value assigned to the weight or unit (howsoever defined in the Strategy Description) in respect of the Relevant Underlying in respect of the period from (and including) the date on which such Other Disruption Event occurred to (but excluding) the Relevant Deadline shall remain at the value assigned to the Relevant Underlying immediately prior to the occurrence of such Other Disruption Event;
- (IV) suspend the publication of the value of a Strategy until such time as no Other Disruption Event is continuing;
- (V) publish an indicative value of the Strategy in respect of each business day on which an Other Disruption Event is continuing (and no official value of a Strategy in respect of such Strategy will be published);
- (VI) temporarily or permanently remove the affected Relevant Underlying at a price, value or amount determined by the Strategy Sponsor in a commercially reasonable manner and/or replace any affected Relevant Underlying where it considers in its sole discretion that a similar alternative is available; or
- (VII) terminate the calculation and publication of such Strategy.

(ii) **Disruption Events applicable to Input Data only**

Notwithstanding sub-paragraph (i) above, if the Strategy Sponsor discovers, or is notified by a party

responsible for collecting, calculating, distributing or publishing an Input Data (the “**Input Data Provider**”, which may include a third party, the Strategy Sponsor itself or certain departments within the Goldman Sachs Group), that:

- (a) an Input Data Provider has ceased to publish such Input Data (or the Input Data Provider announces that it will cease to publish such Input Data) unless the Strategy Sponsor determines, in its sole and absolute discretion, that such Input Data has been replaced by any equivalent information or data;
- (b) there is a material change in the formula for or method of calculating, or the content or frequency of publication of, such Input Data (as determined by the Strategy Sponsor); or
- (c) the Input Data Provider (A) fails to calculate or publish such Input Data, (B) does not deliver such Input Data to the Strategy Sponsor or Strategy Calculation Agent (as the case maybe) or (C) delivers incomplete Input Data to the Strategy Sponsor or Strategy Calculation Agent (as the case maybe), in each case, on or prior to the time at which the Strategy Sponsor needs to use such Input Data for calculating the value of the relevant Strategy,

(each an “**Input Data Disruption Event**”), then the Strategy Sponsor may, in its sole discretion determine to take actions or take no actions, including, but not limited to:

- (I) use the Input Data last published or made available by such Input Data Provider to calculate the value of the relevant Strategy; and/or
- (II) in all circumstances, (A) elect to temporarily or permanently replace or remove (or assign a zero weight to) the Component(s) affected by the unavailability or material change(s) to such Input Data from the relevant Strategy at the earliest possible opportunity as it determines to be commercially reasonable in order for the value of such Strategy to continue to be calculated notwithstanding the relevant circumstances, (B) use information or data from an alternative data source (which may be Internal Data (as defined in the section of these General Strategy Terms entitled “*Risk Factors*”)) which it determines to be comparable to such Input Data and to be appropriate in order to preserve the Strategy Purpose (and such information or data will be deemed to be the relevant Input Data for the purposes of such Strategy), (C) make such adjustment(s) to the Strategy Description or to the composition of such Strategy as it determines to be necessary, in its discretion and acting in a commercially reasonable manner, to reflect such unavailability or change(s) while aiming to preserve the Strategy Purpose or (D) if the Strategy Sponsor determines that none of the above adjustment(s) would achieve a commercially reasonable result and/or that it is no longer possible or practicable to calculate the relevant Strategy, terminate the calculation and publication of such Strategy.

(iii) **Disruption Events applicable to a Component which is an index, as determined by the Strategy Sponsor (such Component, an “Index Strategy Component”)**

- (a) If an Index Strategy Component (an “**Affected Index Strategy Component**”) is either:
 - (I) not calculated and announced by the relevant component’s sponsor or calculation agent but is calculated and announced by a successor sponsor or successor calculation agent acceptable to the Strategy Sponsor; or
 - (II) replaced by a successor component using, in the determination of the Strategy Sponsor,

the same or a substantially similar formula for and method of calculating that Index Affected Index Strategy Component,

then, in the case of paragraph (I) above, the Affected Index Strategy Component shall continue to be a Component, and, in the case of paragraph (II) above, such successor component (a "**Successor Index Strategy Component**") will be deemed to become a Component and shall replace the Affected Index Strategy Component (such event, a "**Successor Index Strategy Component Event**"), and, in each case, the Strategy Sponsor may, acting in good faith, make such temporary or permanent adjustments to the terms and methodology of a Strategy as it deems appropriate in its sole discretion to account for such change (and such replacement and/or adjustment will be deemed to be effective as of the date determined by the Strategy Sponsor).

- (b) If in respect of an Index Strategy Component (including any such Component of which the Strategy Sponsor and/or any of its affiliates is the Component's sponsor) (a "**Sponsor Disrupted Index Strategy Component**"):
- (I) the Component's sponsor for such Sponsor Disrupted Index Strategy Component or the sponsor of any component of such Sponsor Disrupted Index Strategy Component announces that it will make a material change in the formula for or the method of calculating such Sponsor Disrupted Index Strategy Component (or any component thereof) or in any other way materially modifies such Sponsor Disrupted Index Strategy Component (or any component thereof) (other than such a modification prescribed, as of the inception date of a Component, in such formula or method (as may be specified in the Strategy Description) for the purpose of maintaining such Sponsor Disrupted Index Strategy Component (or such component thereof) in the event of changes to its composition);
 - (II) such Sponsor Disrupted Index Strategy Component (or any component thereof) is permanently cancelled by its sponsor (or sponsor of such component thereof) without there being a Successor Index Strategy Component (or successor component thereof), or ceases to exist or is no longer tradable (each as determined by the Strategy Sponsor), including as a result of any member of the Goldman Sachs Group discontinuing an underlying strategy or index of which it is a sponsor;
 - (III) such Sponsor Disrupted Index Strategy Component's sponsor (or sponsor of any component thereof) fails to calculate and announce the level of such Sponsor Disrupted Index Strategy Component (or such component thereof);
 - (IV) in the reasonable judgment of the Strategy Sponsor, the level of such Sponsor Disrupted Index Strategy Component contains a manifest error; or
 - (V) any authorisation, registration, recognition, endorsement, equivalence decision, approval or inclusion in any official register in respect of such Sponsor Disrupted Index Strategy Component or the administrator or sponsor of such Sponsor Disrupted Index Strategy Component has not been, or will not be, obtained or has been, or will be, rejected, refused, suspended or withdrawn by the relevant competent authority or other relevant official body, in each case, with the effect that the Strategy Sponsor is not, or will not be permitted under any applicable law or regulation to use such Sponsor Disrupted Index Strategy

Component, as determined by the Strategy Sponsor,

then the Strategy Sponsor may determine, in its sole and absolute discretion, to take actions or take no action, including, but not limited to, the following:

- (A) temporarily or permanently remove the Sponsor Disrupted Index Strategy Component and/or select an alternative index to replace the Sponsor Disrupted Index Strategy Component (provided that the Strategy Sponsor shall use commercially reasonable efforts to select a replacement Component that it considers, in its sole and absolute discretion, to be a similar alternative), and may make such adjustments to the terms of a Strategy as may be necessary, in its commercially reasonable judgment to effect such change; or
- (B) calculate the level of such Sponsor Disrupted Index Strategy Component, in lieu of the published level for such Sponsor Disrupted Index Strategy Component, using the same formula for, and method of, calculating the level of such Sponsor Disrupted Index Strategy Component last in effect prior to the occurrence of any of the circumstances described above (utilising any adjustment to such formula or method that the Strategy Sponsor determines to be commercially reasonable).

(iv) **Disruption Events applicable to a Component which is a futures contract, as determined by the Strategy Sponsor (such Component, a "Futures Contract Strategy Component")**

- (a) If, in respect of a Futures Contract Strategy Component (an "**Affected Futures Contract Strategy Component**"), any one or more of the following occurs:
 - (I) it is not calculated or quoted by or traded on the relevant reference exchange (as determined by the Strategy Sponsor) but is calculated or quoted by and traded on a successor exchange acceptable to the Strategy Sponsor;
 - (II) it is replaced by a successor futures contract having, in the determination of the Strategy Sponsor, the same or substantially similar terms as that Affected Futures Contract Strategy Component,

then in the case of paragraph (I) above, the Affected Futures Contract Strategy Component shall continue to be a Futures Contract Strategy Component and, in the case of paragraph (II) above, such successor futures contract (a "**Successor Futures Contract Strategy Component**") will be deemed to become a Futures Contract Strategy Component and shall replace the Affected Futures Contract Strategy Component (such event, a "**Successor Futures Contract Strategy Component Event**") and, in each case, the Strategy Sponsor may, acting in reasonable manner and in good faith, make such temporary or permanent adjustments to the terms and methodology of a Strategy as it deems appropriate to account for such change (and such replacement and/or adjustment will be deemed to be effective as of the date determined by the Strategy Sponsor).

- (b) If, in respect of a Futures Contract Strategy Component (a "**Disrupted Futures Contract Strategy Component**"), any one or more of the following occurs:
 - (I) any term of such Disrupted Futures Contract Strategy Component is: (A) changed or modified by the relevant reference exchange (including, without limitation, any change or

modification in the contract specifications, the delivery or settlement date, the month of expiration, methodology for calculating the settlement price of such Disrupted Futures Contract Strategy Component, the rules and procedures governing the trading, the clearing, settlement and any other related matters of such Disrupted Futures Contract Strategy Component) or (B) otherwise subject to any order, ruling directive or law of any government agency or body;

- (II) other than where the underlying asset in respect of such Disrupted Futures Contract Strategy Component is a commodity, the relevant contract reference price in respect of such Disrupted Futures Contract Strategy Component becomes a “limit price” in respect of any relevant day (meaning that the price of such Disrupted Futures Contract Strategy Component on the relevant day has increased or decreased from the previous day’s settlement price for such Disrupted Futures Contract Strategy Component by the maximum amount permitted under the applicable rules of the relevant reference exchange such that no trades with respect to such Disrupted Futures Contract Strategy Component may be made at a different price);
- (III) the relevant contract reference price in respect of such Disrupted Futures Contract Strategy Component remains at a “limit price” for five consecutive Strategy Calculation Days;
- (IV) trading in such Disrupted Futures Contract Strategy Component (A) is suspended or interrupted subsequent to the open of trading on any relevant day, (B) never commences on any relevant day, (C) is permanently discontinued at any time or (D) ceases to exist or is no longer tradable (as determined by the Strategy Sponsor), in each case, without there being a Successor Futures Contract Strategy Component,

then the Strategy Sponsor may, in its sole and absolute discretion, acting in reasonable manner and in good faith, take no action or:

- (A) in respect of sub-paragraphs (II) and (IV) only, postpone any applicable rebalancing in whole or in part in respect of a Strategy or the Disrupted Futures Contract Strategy Component until such time or day on which no such Disruption Event is continuing and make any relevant adjustments to the methodology for calculating the Strategy that it deems appropriate to account for the postponement of such rebalancing;
- (B) in respect of sub-paragraphs (I), (III) and (IV), take actions, including, but not limited to, the following:
 - (x) remove the Disrupted Futures Contract Strategy Component and/or select any futures contract (other than the Disrupted Futures Contract Strategy Component) to replace the Disrupted Futures Contract Strategy Component (provided that the Strategy Sponsor shall use commercially reasonable efforts to select a replacement Futures Contract Strategy Component that it considers, in its sole and absolute discretion, to be a similar alternative), and may make such adjustments to the terms of a Strategy as it deems appropriate to account for such removal and/or replacement; and
 - (y) amend, in the Strategy Sponsor's sole and absolute discretion, on either a permanent or temporary basis, the methodology used to determine which futures

contract will constitute the relevant Futures Contract Strategy Component for the purposes of a Strategy while aiming to preserve the Strategy Purpose (and such replacement and/or adjustment will be deemed to be effective as of the date determined by the Strategy Sponsor); and

- (C) in respect of sub-paragraphs (I) and (III) only, amend, in the Strategy Sponsor's sole and absolute discretion, on either a temporary or permanent basis, the methodology used to calculate the price or value of the relevant Disrupted Futures Contract Strategy Component for the purposes of the Strategy while aiming to preserve the Strategy Purpose.

(v) **Disruption Events applicable to a Component which is a share, as determined by the Strategy Sponsor (such Component, a "Share Strategy Component")**

If, in respect of a Share Strategy Component, the Strategy Sponsor becomes aware of the occurrence of any one or more of the following events (each, a "**Trigger Event**"):

- (a) the adoption of, or change in, any applicable law or the promulgation of, or any change in, the interpretation of any applicable law, by a court, tribunal, regulatory authority with competent jurisdiction, and/or any relevant exchange, which, in each case, has resulted in a prohibition, restriction or any other adverse impact on short-selling with respect to a Share Strategy Component (whether having an impact for obtaining or offering synthetic exposure to short-selling, implementing a rebalancing in relation to such Share Strategy Component, or for acquiring, establishing, re-establishing, substituting, maintaining, unwinding, or disposing of any hedge position in relation to such Share Strategy Component);
- (b) any temporary or permanent suspension of, or limitation imposed on, trading by the reference exchange or any related exchange (as determined by the Strategy Sponsor) in respect of a Share Strategy Component, including but not limited to, by reason of movement in price exceeding limits permitted by the relevant reference exchange or related exchange relating to such Share Strategy Component; or
- (c) (I) the adoption of, or announcement of, any change in, any applicable law, rule regulation, order, sanction, or directive of any governmental, administrative, legislative or judicial authority or power, in each case, relating to financial sanctions and embargo programmes, including but not limited to, any restrictions applicable to designated or blocked persons, as enacted, administered and/or enforced, from time to time, by the U.S. Department of the Treasury's Office of Foreign Assets Control, the U.S. Department of State, Her Majesty's Treasury Department of the United Kingdom, the United Nations, the European Union or other relevant authority (for the purposes of this paragraph (c), an "**Applicable Sanctions Law**"); or
(II) the promulgation of, or any change in, the formal or informal interpretation of any Applicable Sanctions Law by a court, tribunal or regulatory authority with competent jurisdiction,

which, in either case, has resulted in any adverse impact on obtaining or offering synthetic exposure to a Share Strategy Component, implementing a rebalancing in relation to such Share Strategy Component, or for acquiring, establishing, re-establishing, substituting, maintaining, unwinding, or disposing of any hedge position in relation to such Share Strategy Component,

then the Strategy Sponsor may determine, in its sole and absolute discretion, to take actions or take no action, with reference to preserving the Strategy Purpose, including, but not limited to, any or more of the following:

- (A) to temporarily or permanently, exclude such Share Strategy Component affected by such Trigger Event from the Strategy and may make such adjustments to the terms and methodology of a Strategy as may be necessary, in its commercially reasonable judgment to effect such change. For avoidance of doubt, the Strategy Sponsor may determine (x) to apply such exclusion at or prior to the next scheduled rebalancing of the Strategy and (y) to re-designate such stock as a Component of the Strategy once such Trigger Event is no longer applicable to such Share Strategy Component; or
 - (B) make such determinations or adjustments to the terms of the Strategy, including to the methodology and relevant data sources, as it deems appropriate to account for such Trigger Event and, as applicable, to the extent necessary to calculate the value of the Strategy in respect of such day (for which purpose it may use its own internal models and other market data sources as it reasonably determines is necessary).
- (vi) **Disruption Events applicable to a Component which is an exchange traded fund (ETF), as determined by the Strategy Sponsor (such Component, an "ETF Strategy Component")**

In respect of an ETF Strategy Component (an "**Affected ETF Strategy Component**"):

- (a) paragraph (v) above shall apply to such Affected ETF Strategy Component, provided that:
 - (I) all references to "Affected Share Strategy Component" and "Share Strategy Component" shall be replaced with "Affected ETF Strategy Component" and "ETF Strategy Component" respectively; and
 - (II) it shall constitute a Trigger Event in respect of an Affected ETF Strategy Component if, in the determination of the Strategy Sponsor, the management company of the exchange traded fund of an Affected ETF Strategy Component, or any other entity who has been delegated the responsibility to publish the net asset value of such Affected ETF Strategy Component, has failed to or will fail to, or has not published or will not publish, the net asset value of such Affected ETF Strategy Component, and such failure to publish or non-publication will, in the determination of the Strategy Sponsor, in its sole and absolute discretion, have a material effect on such Strategy and will be for more than a short period and/or will not be of a temporary nature; and
- (b) if at any time the index underlying the exchange traded fund of such Affected ETF Strategy Component and/or the terms and conditions governing the assets, contracts and instruments invested in or held by such exchange traded fund are changed in a material respect (as determined by the Strategy Sponsor), or if such exchange traded fund in any other way is modified so that it does not, in the opinion of the Strategy Sponsor, fairly represent the net asset value of such Affected ETF Strategy Component had those changes or modifications not been made, then, from and after that time, the Strategy Sponsor will make those calculations and adjustments as, in the good faith judgment of the Strategy Sponsor, may be necessary in order to arrive at a price of an exchange traded fund comparable to such exchange traded fund as if those changes or modifications had not been made, and calculate the closing prices with reference to such exchange traded fund, as adjusted. Accordingly, if such exchange traded fund is modified in a

way that the price of its shares is a fraction of what it would have been if it had not been modified (for example, due to a split or a reverse split), then the Strategy Sponsor will adjust the price in order to arrive at a price of such Affected ETF Strategy Component as if it had not been modified (for example, as if the split or the reverse split had not occurred). The Strategy Sponsor also may determine that no adjustment is required by the modification of the method of calculation.

(vii) **Disruption Events applicable to a Component which is a currency exchange rate, as determined by the Strategy Sponsor (such Component, a "FX Strategy Component")**

If, in respect of a FX Strategy Component, any one or more of the following occurs (each a "FX Disruption Event"):

- (a) the occurrence or existence at any time, of a suspension of, or limitation imposed on, trading on the London interbank market or the interbank market of the city or cities determined by the Strategy Sponsor to be the principal financial centre(s) for the underlying or denominated currency in respect of such FX Strategy Component; or
- (b) a Currency Exchange Rate Disruption Event has occurred,

then the Strategy Sponsor may determine, in its sole and absolute discretion, to take one or more of the Consequential Actions listed in paragraph (i) above (or take no such action), with reference to preserving the Strategy Purpose (provided that each reference to a "Other Disruption Event" and "Relevant Underlying" shall be deemed to be a reference to "FX Disruption Event" and "FX Strategy Component" respectively).

Where "**Currency Exchange Rate Disruption Event**" means (and a Currency Exchange Rate Disruption Event shall be deemed to have occurred if), in respect of a FX Strategy Component and a relevant day:

- (i) such FX Strategy Component splits into dual or multiple currency exchange rates;
- (ii) an event has occurred in or affecting any relevant jurisdiction that generally makes it impossible to deliver (a) the Strategy Currency from accounts inside such jurisdiction to accounts outside such jurisdiction or (b) the Strategy Currency between accounts inside such jurisdiction for such FX Strategy Component or to a party that is a non-resident of such jurisdiction;
- (iii) a default, event of default, or other similar condition or event (however described) with respect to any security or indebtedness for borrowed money of, or guaranteed by, any applicable governmental authority (as defined below), including, but not limited to:
 - (a) the failure of timely payment in full of any principal, interest, or other amounts due (without giving effect to any applicable grace periods) in respect of any such security, indebtedness, or guarantee;
 - (b) a declared moratorium, standstill, waiver, deferral, repudiation, challenge of the validity, or rescheduling of any principal, interest, or other amounts due in respect of any such security, indebtedness, or guarantee; or
 - (c) the amendment or modification of the terms and conditions of payment of any principal amount, interest, or other amounts due in respect of any such security, indebtedness, or

guarantee without the consent of all holders of such obligation;

- (iv) it is or becomes impossible or not reasonably practicable for the Strategy Sponsor or any of its affiliates to obtain such FX Strategy Component from the source typically used for such FX Strategy Component, or to obtain a firm quote for such currency exchange rate;
- (v) any expropriation, confiscation, requisition, nationalization or other action by a relevant governmental authority occurs which deprives the Strategy Sponsor or any of its affiliates of all or substantially all of its assets in any relevant jurisdiction; or
- (vi) the FX Strategy Component and/or Strategy Currency, as the case may be, ceases to exist and is replaced by a new currency.

For these purposes:

- (A) the determination of the existence or occurrence of any default, event of default, or other similar condition or event shall be made without regard to any lack or alleged lack of authority or capacity of such governmental authority to issue or enter into such security, indebtedness, or guarantee; and
 - (B) "**governmental authority**" means any *de facto* or *de jure* government (or any agency or instrumentality thereof), court, tribunal, administrative, executive, legislative or other governmental authority, or any other entity (private or public) charged with the regulation of the financial markets (including the central bank) of a reference country (which with respect to the euro shall include the European Union as well as any member state thereof from time to time whose currency is the euro).
- (viii) **Disruption Events applicable to a Component which is an over-the-counter interest rate derivative transaction, as determined by the Strategy Sponsor (such Component, a "Swap Strategy Component")**

If, in respect of a Swap Strategy Component, any one or more of the following occurs (each a "**Swap Disruption Event**"):

- (a) any Input Data used to calculate (I) any relevant the swap rate in respect of such Swap Strategy Component, (II) the annuity in respect of such Swap Strategy Component or (III) any other data input which is used to determine the level of such Swap Strategy Component, is not published, calculated by or otherwise made available by both the relevant price source; or
- (b) it is or becomes impossible or not reasonably practicable for the Strategy Sponsor to obtain any relevant swap rate or annuity in respect of such Swap Strategy Component,

then the Strategy Sponsor may determine, in its sole and absolute discretion, to take one or more of the Consequential Actions listed in paragraph (i) above (or take no such action), with reference to preserving the Strategy Purpose (provided that each reference to a "Other Disruption Event" and "Relevant Underlying" shall be deemed to be a reference to "Swap Disruption Event" and "Swap Strategy Component" respectively).

- (ix) **Disruption Events applicable to a Component which is an options contract (which, for the avoidance of doubt, could reference any type or class of underlying instrument or asset), as**

determined by the Strategy Sponsor (such Component, an "Options Contract Strategy Component")

(a) If, in respect of an Options Contract Strategy Component (an "**Affected Options Contract Strategy Component**"), any one or more of the following occurs:

- (I) it is not calculated or quoted by or traded on the relevant reference exchange (as determined by the Strategy Sponsor) but is calculated or quoted by and traded on a successor exchange acceptable to the Strategy Sponsor;
- (II) it is replaced by a successor options contract having, in the determination of the Strategy Sponsor, the same or substantially similar terms as that Affected Options Contract Strategy Component,

then in the case of paragraph (I) above, the Affected Options Contract Strategy Component shall continue to be an Options Contract Strategy Component and, in the case of paragraph (II) above, such successor options contract (a "**Successor Options Contract Strategy Component**") will be deemed to become an Options Contract Strategy Component and shall replace the Affected Options Contract Strategy Component (such event, a "**Successor Options Contract Strategy Component Event**") and, in each case, the Strategy Sponsor may, acting in reasonable manner and in good faith, make such adjustments to the terms of a Strategy as it deems appropriate to account for such change (and such replacement and/or adjustment will be deemed to be effective as of the date determined by the Strategy Sponsor).

(b) If, in respect of an Options Contract Strategy Component (a "**Disrupted Options Contract Strategy Component**"), any one or more of the following occurs:

- (I) any term of such Disrupted Options Contract Strategy Component is: (A) changed or modified by the relevant reference exchange (including, without limitation, any change or modification in the contract specifications, the delivery or settlement date, the month of expiration, methodology for calculating the settlement price of such Disrupted Options Contract Strategy Component, the rules and procedures governing the trading, the clearing, settlement and any other related matters of such Disrupted Options Contract Strategy Component) or (B) otherwise subject to any order, ruling directive or law of any government agency or body;
- (II) the relevant price in respect of the underlying instrument or asset in respect of such Disrupted Options Contract Strategy Component becomes a "limit price" in respect of any relevant day (meaning that the price of such underlying instrument or asset on the relevant day has increased or decreased from the previous day's price for such underlying instrument or asset by the maximum amount permitted under the applicable rules of the relevant reference exchange such that no trades with respect to such Disrupted Options Contract Strategy Component may be made at a different price);
- (III) the relevant price in respect of the underlying instrument or asset in respect of such Disrupted Options Contract Strategy Component remains at a "limit price" for five consecutive Strategy Calculation Days;
- (IV) trading in such Disrupted Options Contract Strategy Component (A) is suspended or interrupted subsequent to the open of trading on any relevant day, (B) never commences

on any relevant day, (C) is permanently discontinued at any time, (D) ceases to exist or is no longer tradable (as determined by the Strategy Sponsor), in each case, without there being a Successor Options Contract Strategy Component;

- (V) the Strategy Sponsor, in its reasonable judgment, (I) determines that such Disrupted Options Contract Strategy Component has ceased to be a liquid, actively traded option contract that is generally available for trading or (II) anticipates that such Disrupted Options Contract Strategy Component, notwithstanding that it is available for trading, will cease to be a liquid and actively traded option contract or will be terminated or delisted by the relevant price source,

then the Strategy Sponsor may, in its sole and absolute discretion, to take actions or take no action, including, but not limited to, the following:

- (A) remove the Disrupted Options Contract Strategy Component and/or select any options contract (other than the Disrupted Options Contract Strategy Component) to replace the Disrupted Options Contract Strategy Component (provided that the Strategy Sponsor shall use commercially reasonable efforts to select a replacement Options Contract Strategy Component that it considers, in its sole and absolute discretion, to be a similar alternative), and may make such adjustments to the terms of a Strategy as it deems appropriate to account for such removal and/or replacement;
- (B) amend, in the Strategy Sponsor's sole and absolute discretion, on either a permanent or temporary basis, the methodology used to calculate the value of Disrupted Options Contract Strategy Component for the purposes of the Strategy while aiming to preserve the Strategy Purpose;
- (C) other than in respect of sub-paragraph (II), amend, in the Strategy Sponsor's sole and absolute discretion, on either a permanent or temporary basis, the methodology used to determine which options contract will constitute the relevant Options Contract Strategy Component for the purposes of a Strategy while aiming to preserve the Strategy Purpose (and such replacement and/or adjustment will be deemed to be effective as of the date determined by the Strategy Sponsor); or
- (D) in respect of sub-paragraph (II) only, postpone any applicable rebalancing in whole or in part in respect of a Strategy or the Disrupted Options Contract Strategy Component until such time or day on which no such Disruption Event is continuing and make any relevant adjustments to the methodology for calculating the Strategy that it deems appropriate to account for the postponement of such rebalancing.

- (x) **Disruption Events applicable to an "Intraday Strategy" (being a Strategy for which the parameter "Intraday Strategy" is stated to be "Applicable" in the applicable Strategy Description), as determined by the Strategy Sponsor**

Intraday Strategies typically use or reference intraday fixings, quotes or prices of various types (including, but not limited to, TWAPs, VWAPs and fixings, quotes or prices observed (and/or time stamped) at specified intraday times) as part of its Input Data. Typically, those intraday fixings, quotes or prices will be observed or computed by the Strategy Calculation Agent using real time data or values ("**Intraday Data**") available to it as of the time of calculation, sourced from exchanges, data vendors or other data sources as specified in the Strategy Description.

The Strategy Calculation Agent will use commercially reasonable efforts to ensure the availability and accuracy of Intraday Data. Due to the additional complexity and operational risks associated with the timely computation, technical implementation and risk management of Linked Products referencing Intraday Strategies, the following provisions shall apply to Intraday Strategies.

If, in respect of an Intraday Strategy, the Strategy Sponsor determines that the Strategy Sponsor or an Affiliate is unable:

- (a) prior to a relevant period of time (which may be an observation window or an execution window) to determine the hedges required to be executed by the Strategy Sponsor or an Affiliate in relation to its exposure to such Intraday Strategy; or
- (b) to access any relevant financial market, trading venue or exchange to execute such hedges, including internal trading and order entry systems;

in each case due directly or indirectly to the quality or unavailability of Intraday Data or failures in internal systems and/or data/risk processes, then the Strategy Sponsor may determine, in its sole and absolute discretion, to take actions or take no action, including but not limited to the following:

- (I) suspend the publication of the value of an Intraday Strategy until such time as the issue is resolved;
- (II) choose not to update, restate or correct any of these intraday calculations or end of day levels to account for such issue;
- (III) compute the value of an Intraday Strategy by reference to the affected Intraday Data;
- (IV) compute the value of an Intraday Strategy by reference to the relevant prices, levels, notionals and quantities at which the Strategy Sponsor or its affiliates have executed the relevant hedge transactions in lieu of the prices, levels, notionals and quantities specified in the Strategy Methodology;
- (V) deem an "Asset Level Sample" (as such term may be specified in the relevant Strategy Methodology) to be "not defined" for the purpose of the applicable Strategy Methodology and to compute the applicable Execution Fraction (as such term may be specified in the relevant Strategy Methodology) accordingly; and/or
- (VI) suspend the synthetic execution of new transactions within the Intraday Strategy until such time as the issue is resolved.

Investors should note that an Intraday Strategy may be a component of a wider basket or combination of other Strategies or Components, some of which may specify "Intraday Strategy" to be "Not Applicable". For the avoidance of doubt, any such statement that Intraday Strategy is "Not-Applicable" in a Strategy Description applies only to that Strategy and Investors should read and understand the disclosure applicable to each individual Strategy that forms part of such basket or combination.

The Disruption Events in this paragraph (x) shall not apply where "Intraday Disruption Provisions" are stated to be "Not Applicable" in the relevant Strategy Description.

RESTATEMENTS OF INPUT DATA

Further information on the policies and procedures of the Strategy Sponsor in relation to the handling of errors, incidents and restatements in respect of any Strategy can be found at the following location: <https://www.goldmansachs.com/disclosures/euro-benchmark-reg-iosco-principles-for-financial-benchmarks-f/summary-of-gs-policy-on-global-benchmark-incident.pdf> (or any successor page).

ADJUSTMENT EVENTS

In the event of any inconsistency between the provisions of this "Adjustment Events" section and the provisions of any relevant General Description, Specifications Annex and/or Other Documentation Element in respect of a Strategy, the provisions of the relevant General Description, Specifications Annex and/or Other Documentation Element shall prevail for the purposes of such Strategy.

For the purposes of these General Strategy Terms, a "**Strategy Calculation Agent Methodology Strategy**" means a Strategy that is calculated in accordance with the policies and practices of a third party strategy calculation agent or a third party's corporate action methodology (as further described in the Strategy Description) (such methodology being the "**Strategy Calculation Methodology**" in respect of the relevant Strategy), including, for the avoidance of doubt, where the Strategy Calculation Agent is a third party not affiliated with the Strategy Sponsor.

Strategy Calculation Agent Methodology Strategies

In respect of a Strategy Calculation Agent Methodology Strategy, following the determination by the Strategy Calculation Agent that (and each of below constitutes an "**Adjustment Event**" for the purpose of General Strategy Terms):

- (a) a Share Strategy Component or ETF Strategy Component (each an "**Affected Strategy Component**") has commenced trading ex-dividend in respect of an ordinary cash dividend (such dividend an "**Ordinary Dividend**" and such date, an "**Ex Day**");
- (b) an Extraordinary Event (as defined below) has occurred in respect of an Affected Strategy Component;
or
- (c) a Potential Adjustment Event (as defined below) has occurred in respect of an Affected Strategy Component or following any adjustment to the settlement terms of listed options or futures contracts on such Affected Strategy Component traded on an options or futures exchange,

then, unless otherwise specified in the Strategy Description, the Strategy Calculation Agent will adjust the value of the Strategy in accordance with such Strategy Calculation Agent Methodology in respect of such Strategy Calculation Agent Methodology Strategy to account the occurrence of such event or circumstance.

Ordinary Dividends and Ex Days

In respect of a Strategy that is not a Strategy Calculation Agent Methodology Strategy, following the determination by the Strategy Sponsor that an Affected Strategy Component has commenced trading ex-dividend in respect of an Ordinary Dividend, the Strategy Sponsor will determine the applicable dividend amount per share of such Affected Strategy Component net of an Assumed Tax Rate, as set out below (the "**Net Dividend Amount**"). Following such determination, the Strategy Sponsor will adjust the Strategy on or around the Ex Day with the aim of reflecting the economic effect of such Net Dividend Amount (as determined by the Strategy Sponsor acting in good faith and a commercially reasonable manner).

In the event that the dividend amount, dividend type or the Ex Day of a dividend is adjusted in respect of an Affected Strategy Component on any day after an Ex Day, the Strategy Sponsor may make further adjustments to the Strategy.

The Strategy Sponsor will determine in respect of each relevant Affected Strategy Component and Ex Day, based on its view of applicable law and/or regulations, observable sources and/or market practice, an assumed

tax rate ("**Assumed Tax Rate**") which is intended to reflect the withholding tax rate levied, or the potential tax rate that may be levied by the country of incorporation or residence of the issuer of such Affected Strategy Component.

Extraordinary Events and Corporate Actions

In respect of a Strategy that is not a Strategy Calculation Agent Methodology Strategy:

- (a) following the determination by the Strategy Sponsor that an Extraordinary Event has occurred in respect of an Affected Strategy Component the Strategy Sponsor may in respect of such Affected Strategy Component in its sole and absolute discretion:
 - (I) determine the appropriate adjustment, if any, to be made to one or more determinations under such Strategy as the Strategy Sponsor determines appropriate to account for the Extraordinary Event and determine the effective date of that adjustment. The relevant adjustments may include, without limitation, adjustments to account for changes in volatility, expected dividends, stock loan rate or liquidity relevant to such Affected Share Strategy Component; or
 - (II) remove the Affected Strategy Component and/or select an alternative Component to replace the Affected Strategy Component and make such adjustments to the terms of a Strategy as it deems appropriate to account for such removal; and
- (b) following the determination by the Strategy Sponsor that a corporate action has occurred in respect of an Options Contract Strategy Component, the Strategy Sponsor may, in respect of such Options Contract Strategy Component, in its sole and absolute discretion, determine the appropriate adjustment, if any, to be made to one or more determinations, calculations or values in respect of such Options Contract Strategy Component and determine the effective date of the adjustment(s). The Strategy Sponsor may, but need not, determine the appropriate adjustment(s) by reference to (amongst other things) the adjustment(s) in respect of such corporate action made by exchanges (including, but not limited to, the reference exchange for such Options Contract Strategy Component) or announcements made by The Options Clearing Corporation (OCC).

The following terms shall have the following meanings:

"Extraordinary Event" means, in respect of:

- (I) a Share Strategy Component, each of a Delisting, an Insolvency, a Merger Event, a Nationalisation and a Tender Offer, or any analogous circumstances, as determined by the Strategy Sponsor or Strategy Calculation Agent (as applicable) in its sole and absolute discretion; and
- (II) an ETF Strategy Component, each of a Delisting, an Insolvency, a Merger Event, a Nationalisation and a Tender Offer;

"Delisting" means, in respect of an Affected Strategy Component, the reference exchange (as determined by the Strategy Sponsor or Strategy Calculation Agent (as applicable)) announces that pursuant to the rules of such reference exchange, such Affected Strategy Component ceases (or will cease) to be listed, traded, or publicly quoted on such reference exchange for any reason (other than a Merger Event or Tender Offer) and are not immediately re-listed, re-traded, or re-quoted on an exchange or quotation system located in the same country as such reference exchange (or, where such reference exchange is within the European Union, in a member state of the European Union);

"Insolvency" means that by reason of the voluntary or involuntary liquidation, bankruptcy, insolvency, dissolution, or winding-up of or any analogous proceeding affecting the issuer of an Affected Strategy Component, (I) all such Affected Strategy Component is required to be transferred to a trustee, liquidator, or other similar official or (II) holders of such Affected Strategy Component become legally prohibited from transferring them;

"Merger Event" means, in respect of an Affected Strategy Component, any of the following:

- (I) a reclassification or change of such Affected Strategy Component that results in a transfer of, or an irrevocable commitment to transfer all such Affected Strategy Component outstanding to another entity or person;
- (II) a consolidation, amalgamation, merger, or binding share exchange of the issuer of such Affected Strategy Component with or into another entity or person (other than a consolidation, amalgamation, merger, or binding share exchange in which such issuer is the continuing entity and which does not result in a reclassification or change of all of such Affected Strategy Component outstanding);
- (III) a takeover offer, tender offer, exchange offer, solicitation, proposal, or other event by any entity or person to purchase or otherwise obtain 100 per cent. (100%) of the outstanding Affected Strategy Component that results in a transfer of, or an irrevocable commitment to transfer, all such Affected Strategy Component (other than such Affected Strategy Component owned or controlled by such other entity or person); or
- (IV) a consolidation, amalgamation, merger, or binding share exchange of the issuer of such Affected Strategy Component or its subsidiaries with or into another entity in which such issuer is the continuing entity and which does not result in a reclassification or change of all such Affected Strategy Component outstanding but results in the outstanding Share Strategy Component (other than such Affected Strategy Component owned or controlled by such other entity) immediately prior to such event collectively representing less than 50 per cent. (50%) of the outstanding Affected Strategy Component immediately following such event;

"Nationalisation" means that all the Affected Strategy Component or all or substantially all the assets of the issuer of such Affected Strategy Component are nationalised, expropriated, or are otherwise required to be transferred to any governmental agency, authority, entity, or instrumentality thereof;

"Tender Offer" means a takeover offer, tender offer, exchange offer, solicitation, proposal, or other event by any entity or person that results in such entity or person purchasing, or otherwise obtaining, or having the right to obtain, by conversion or other means, greater than 10 per cent. (10%) and less than 100 per cent. (100%) of the outstanding voting shares of the issuer of an Affected Strategy Component, as determined by the Strategy Sponsor or Strategy Calculation Agent (as applicable), based upon the making of filings with governmental or self-regulatory agencies or such other information as the Strategy Sponsor or Strategy Calculation Agent (as applicable) determines to be relevant.

Potential Adjustment Event

In respect of a Strategy that is not a Strategy Calculation Agent Methodology Strategy, following the determination by the Strategy Sponsor that a Potential Adjustment Event has occurred in respect of an Affected Strategy Component or following any adjustment to the settlement terms of listed options or futures contracts on such Affected Strategy Component traded on an options or futures exchange, the Strategy Sponsor will determine whether such Potential Adjustment Event or adjustment to the settlement terms of listed options or

futures contracts on such Affected Strategy Component traded on an options or futures exchange has a diluting or concentrative effect on the theoretical value of such Affected Strategy Component and, if so, will:

- (i) make the corresponding adjustment, if any, to one or more determinations under a Strategy, as the Strategy Sponsor determines appropriate to account for that diluting or concentrative effect (provided that adjustments may be made to account solely for changes in volatility, expected dividends, stock loan rate, or liquidity relative to such asset), including (but not limited to) an adjustment to level in respect of such Affected Strategy Component or an adjustment to the level of the Strategy and/or its composition; and
- (ii) determine the effective date of such adjustment.

The Strategy Sponsor may, but need not, determine the appropriate adjustment by reference (amongst other things) to the adjustment in respect of such Potential Adjustment Event made by other equity market dealers and/or exchanges (including but not limited to the reference exchange for such Affected Strategy Component, and options and futures exchanges related to such Affected Strategy Component) or quoting services.

"Potential Adjustment Event" means, in respect of an Affected Strategy Component, any of the following:

- (i) a subdivision, consolidation or reclassification of the relevant Affected Strategy Component (unless resulting in a Merger Event) or a free distribution or dividend of any such Affected Strategy Component to existing holders of such Affected Strategy Component by way of bonus, capitalisation, or similar issue;
- (ii) a distribution, issue or dividend to existing holders of the relevant Affected Strategy Component of (a) such Affected Strategy Component, (b) other share capital or securities granting the right to payment of dividends and/or the proceeds of liquidation of the issuer of such Affected Strategy Component equally or proportionately with such payments to holders of such Affected Strategy Component, (c) share capital or other securities of another issuer acquired or owned (directly or indirectly) by the issuer of such Affected Strategy Component as a result of a spin-off or other similar transaction or (d) any other type of securities, rights, or warrants, or other assets, in any case for payment (in cash or in other consideration) at less than the prevailing market price, all as determined by the Strategy Sponsor;
- (iii) an extraordinary dividend;
- (iv) a declaration or public announcement that any dividend that was previously declared as payable in respect of such Affected Strategy Component has been cancelled or will otherwise not be payable;
- (v) a call by the issuer of such Affected Strategy Component in respect of such Affected Strategy Component that are not fully paid;
- (vi) a repurchase by the issuer of such Affected Strategy Component or any of its subsidiaries of such Affected Strategy Component whether out of profits or capital and whether the consideration for such repurchase is cash, securities, or otherwise;
- (vii) in respect of the issuer of such Affected Strategy Component, an event that results in any shareholder rights being distributed or becoming separated from shares of common stock or other shares of the capital stock of such issuer pursuant to a shareholder rights plan or arrangement directed against hostile takeovers that provides upon the occurrence of certain events for a distribution of preferred stock, warrants, debt instruments, or stock rights at a price below their market value, as determined by the Strategy Sponsor, provided that any adjustment effected as a result of such an event shall be readjusted

upon any redemption of such rights; or

- (viii) any other event having a diluting or concentrative effect on the theoretical value of the relevant Affected Strategy Component, as determined by the Strategy Sponsor.

AVAILABILITY AND PUBLICATION OF STRATEGY VALUES AND TERMINATION OF A STRATEGY

Unless otherwise specified in the relevant Strategy Description, the Strategy Calculation Agent will generally calculate and make available the value of a Strategy in respect of each Strategy Calculation Day.

On any Strategy Calculation Day in respect of which a Disruption Event (as defined in the section of these General Strategy Terms entitled "*Disruption Events and Consequences*", or otherwise specified in the relevant General Description, Specifications Annex and/or Other Documentation Element) has occurred in respect of a Strategy, the Strategy Calculation Agent may still make available a value of a Strategy in respect of such Strategy Calculation Day. However, in such event, such value of a Strategy may be indicative and only for information purposes and may not reflect a value at which the Strategy Sponsor or its affiliates would be willing to issue or trade any products linked to such Strategy.

Strategy Values: The value of a Strategy in respect of a Strategy Calculation Day will be published on the following data sources:

- (i) on <https://marquee.gs.com> (or any successor page) (the "**Strategy Publication Data Source**"); and/or
- (ii) on such other information sources as the Strategy Sponsor may select from time to time at its sole and absolute discretion.

To the extent that rounding is applicable to a Strategy in accordance with the terms of the relevant Strategy Description, each value of a Strategy will be published to the number of significant figures set out in the relevant Strategy Description.

Information about the past performance of a Strategy can be obtained at the Strategy Publication Data Source.

Miscellaneous: As soon as reasonably practicable upon changing or amending the methodology relating to such Strategy in accordance with the section of these General Strategy Terms entitled "*Change in Strategy Methodology*", the Strategy Sponsor will post details of such determination, change or amendment to the Strategy Publication Data Source. Any notices in respect of a Strategy (including, without limitation, any notice in respect of a restatement of a Strategy) will be published on the Strategy Publication Data Source.

Any investor in a Linked Product who does not have access to the Strategy Publication Data Source may obtain information published there from the Systematic Trading Strategies (STS) Department of Goldman Sachs International.

Any publication described in this section of these General Strategy Terms entitled "*Availability and Publication of Strategy Values and Termination of a Strategy*" may be restricted by means determined appropriate for such purpose by the Strategy Sponsor or Strategy Calculation Agent, in each case in its sole and absolute discretion, including, but not limited to, password protection restricting access to a limited set of persons in accordance with arrangements agreed between the Strategy Sponsor or Strategy Calculation Agent and such persons.

The Strategy Sponsor may, at any time, for any reason, and without notice, change the Strategy Publication Data Source or the data source on which any value of a Strategy is published and/or change the frequency of publication of the value of a Strategy, in its sole and absolute discretion.

The Strategy Sponsor may, in its sole and absolute discretion, at any time, for any reason (including without limitation, because it is no longer possible or practicable to calculate the value of a Strategy), and without notice, terminate the calculation and publication of a Strategy.

The Strategy Sponsor and the Strategy Calculation Agent accept no liability to any person for publishing or not continuing to publish for any period of time any value of a Strategy on any particular data source or any particular time.

CHANGE IN STRATEGY METHODOLOGY

1. Change in Methodology

Except as provided in this section of these General Strategy Terms entitled "*Change in Strategy Methodology*", the Strategy Calculation Agent will, subject as provided below, employ the methodology described in the Strategy Description with respect to calculating and determining the value of a Strategy and the determining weights of any Components respectively, and its application of such methodologies shall (in the absence of manifest error) be conclusive and binding.

While the Strategy Calculation Agent expects to employ the methodology described in the Strategy Description (the "**Strategy Methodology**") at all times to calculate and determine the value of a Strategy and determining the weights of any Components respectively, it is possible that market, legal, regulatory, judicial, financial, fiscal or other circumstances (including, but not limited to (i) any event that impairs or is expected to impair the market liquidity of transactions relating to a Component, (ii) any changes to or any suspension or termination of or any other events affecting a Strategy and/or any Component, as the case may be or (iii) any other events affecting the ability of an Input Data Provider to supply the necessary Input Data for purposes of calculating the value of a Strategy or events affecting the availability of Input Data relating to Components) will arise that would, in the view of the Strategy Sponsor, necessitate or make desirable a modification or change of such Strategy Methodology in order to preserve the Strategy Purpose (including, without limitation, in order to increase the transparency of the Strategy Description (as determined by the Strategy Sponsor)).

The Strategy Sponsor reserves the right to make any other changes to the composition of a Strategy or to the Strategy Methodology or to any third party data source used to calculate the value of a Strategy as the Strategy Sponsor may, in its sole discretion, determine to be necessary as a result of market, legal, regulatory, judicial, financial, fiscal or other circumstances.

Accordingly, the Strategy Sponsor shall be entitled to make modifications and/or changes to the Strategy Methodology, the composition of the Strategy (including the Components) or to any Input Data obtained from an Input Data Provider which is used to calculate the value of a Strategy without notice as it in its sole and absolute discretion deems appropriate, necessary or desirable, including (without limitation):

- (i) to correct any manifest error or proven error contained in the Strategy Description;
- (ii) to cure, correct or supplement any ambiguity or contradictory or defective provision contained in the Strategy Description;
- (iii) to change the frequency of calculation of the value of a Strategy and to make such adjustment to the Strategy Methodology as it determines, in good faith and in a commercially reasonable manner, to be necessary to take account of the amended frequency of calculation;
- (iv) to permit the Strategy Calculation Agent to continue calculating and determining the value of a Strategy and determining the weights of any Component respectively if market, legal, regulatory, judicial, financial, fiscal or other circumstances arise which were not reasonably foreseeable by the Strategy Sponsor as of the date of the relevant Strategy Description and which have not been deliberately caused by the Strategy Sponsor and such circumstances would prevent the Strategy Calculation Agent from calculating and determining the value of a Strategy and determining the weights of any Components or any signal respectively, and would necessitate a modification or change of the methodology described in the Strategy Description in order for the value of a Strategy to continue to be calculated and determined notwithstanding the relevant circumstances;

- (v) to permit the Strategy Sponsor and/or the Strategy Calculation Agent to continue calculating and determining the value of a Strategy and determining the weight(s), signal(s) or other values or parameters in respect of any Component in anticipation of, or as a result of (A) the cessation of any benchmark, including but not limited to any inter-bank offered interest rates (each an “**Affected Rates Benchmark**”), (B) any change or adjustment announced or implemented by clearing houses or exchanges with respect to an Affected Rates Benchmark (including, but not limited to, any discounting convention or premium of a financial instrument) or (C) when such Affected Rates Benchmark, as determined by the Strategy Sponsor, becomes no longer reliable and representative of market or economic reality that such Affected Rates Benchmark is intended to measure;
- (vi) to preserve the Strategy Purpose where such modification and/or change is of a formal, minor or technical nature;
- (vii) to increase the transparency of the Strategy Description (as determined by the Strategy Sponsor in its sole discretion); and/or
- (viii) to preserve the Strategy Sponsor’s or its affiliates’ ability to hedge the relevant Strategy, Components and/or Input Data and maintain such Strategy as tradable and replicable.

The Strategy Sponsor may also specify in the relevant Strategy Description if it foresees any additional circumstances that it may deem necessary or appropriate to make any changes to the Strategy or to the Strategy Methodology.

In the event that an ambiguity or contradictory or defective provision comes to the attention of the Strategy Sponsor and/or the Strategy Calculation Agent in the calculation of the value of a Strategy, the Strategy Sponsor and/or the Strategy Calculation Agent may, in accordance with its own policies and procedures applicable at the time, resolve such ambiguity or contradictory or defective provision and, if necessary for resolution, make such changes to the composition of such Strategy or the methodology of calculating such Strategy. In the event that the Strategy Sponsor or the Strategy Calculation Agent (as applicable) determines that any calculation or determination in respect of any Strategy is incorrect, the Strategy Sponsor or the Strategy Calculation Agent (as applicable) shall review such calculation or determination in accordance with its policies and procedures applicable at the relevant time (which may result in such calculation or determination being corrected). In the event of any conflict between any such determination of the Strategy Sponsor and the Strategy Calculation Agent, the determination by the Strategy Sponsor shall prevail.

2. Strategy Oversight

The Strategy Sponsor has a committee (the “**Strategy Committee**”) which provides overall oversight of activities related to the development, issuance and operation of each Strategy. The Strategy Committee consists of representatives from Goldman Sachs’ front office who may be involved in the design and/or hedging of Strategies and control functions but does not include representation from external stakeholders. The Strategy Committee, amongst other things (i) serves as the oversight function for the purposes of Article 5 of the Benchmarks Regulation¹ of members of the Goldman Sachs Group acting as “administrators” (as such term is defined in the Benchmarks Regulation) under the Benchmarks Regulation and (ii) maintaining oversight of and approving the exercise of discretion or expert judgment by the Strategy Sponsor to a Strategy, including

¹ Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending directives 2008/48/EC and 2014/17/EU and Regulation (EU) 596/2014 (as may be amended or replaced from time to time).

determinations required following disruption events or adjustment events, changes to embedded costs and amendments to the calculation methodology.

Notwithstanding the foregoing, in making any such modifications described above, the Strategy Sponsor will ensure that such modifications or changes will result in a methodology that is consistent with the Strategy Purpose. However, each of the Strategy Sponsor and the Strategy Calculation Agent do not owe any person any fiduciary duties in respect of a Strategy and are not required to take the interests of any person into account in making any such modifications with respect thereto.

In respect of a Strategy, the Strategy Sponsor may, but is not required to, establish any additional consultation group (the "**External Consultation Group**"). The External Consultation Group, if established, will comprise employees of the Strategy Sponsor and at least an equal number of external members with a relevant academic or professional background, as selected by the Strategy Sponsor in its sole and absolute discretion. The Strategy Calculation Agent may from time to time consult with the External Consultation Group on matters of interpretation with respect to the methodology of a Strategy. For the avoidance of doubt, the External Consultation Group, if established, will not have greater powers than the Strategy Sponsor at any time.

This section of the General Strategy Terms entitled "*Strategy Oversight*" is subject to, and qualified by, Goldman Sachs International's benchmark statements (the "**GSI Benchmark Statements**") and a summary of its Securities Division Global Benchmark Policy and Control Framework (the "**Framework**") which can be accessed via the following link: <https://www.goldmansachs.com/disclosures/euro-benchmark-reg-iosco-principles-for-financial.html> (or any successor page thereto).

3. Capacity Limit of a Strategy

If the aggregate notional amount of Linked Products (or products or transactions linked to any other Strategy which is sponsored by the same Strategy Sponsor and which use a similar methodology as such Strategy) exceeds a certain threshold (as determined by the Strategy Sponsor by reference to the ability and capacity of the Strategy Sponsor and its affiliates to be able to effectively hedge its exposure to such Strategy and the liquidity impact of such hedging on the relevant markets, then the Strategy Sponsor may (a) change the methodology in respect of a Strategy so that the rebalancing of the Strategy is executed over one or more additional days and/or adjust the frequency in which the rebalancing of the Strategy occurs, (b) replace the Strategy with a replacement Strategy which will be identical in all material respects other than the day or days on which the Strategy is rebalanced, (c) make such other adjustments to the Strategy, in each case, in order to enable the Strategy Sponsor and its affiliates to effectively hedge its exposure to the Strategy and/or reduce the expected liquidity impact of such hedging transactions in relevant markets and/or (d) if such Strategy is an actively managed strategy, the Strategy Sponsor may, notwithstanding all rebalancing conditions in respect of a proposed rebalancing request being satisfied and if so specified in the Strategy Description, reject such proposed rebalancing request that would, if implemented, change the quantity or weight of certain components in the Strategy. No modifications, replacement or changes proposed as a result of this paragraph shall result in a Strategy that is inconsistent with the Strategy Purpose. Any such changes or actions will be announced as promptly as is reasonably on the Strategy Publication Data Source. Any holder or counterparty of any Linked Product who requires further information regarding any element of the foregoing should contact the Systematic Trading Strategies (STS) Department of Goldman Sachs International.

4. Amendments to notional costs in respect of a Strategy

The Strategy Sponsor, acting in a reasonable manner and in good faith, and subject to any applicable conditions and restrictions if being so specified in the relevant Strategy Description, shall have the right, but

not the obligation, to increase or decrease any of the notional costs in respect of a Strategy, in each case if the Strategy Sponsor determines, in its sole and absolute discretion, that the costs that a hypothetical investor would incur in investing in, rebalancing, maintaining positions in, or synthetically replicating the performance of, transactions or positions linked to the Strategy or Components have increased or decreased (as the case may be). The Strategy Sponsor is not required to take the interests of any person into account in determining whether or not to exercise such right and does not owe any person any fiduciary duties in respect thereof.

5. Amendments to the “Adjustment Events” section above

Investors in Linked Products should note that the Strategy Sponsor may replace or amend from time to time the methodology contained in the “Adjustment Events” section of these General Strategy Terms (including, without limitation, by the creation of a new methodology to determine corporate actions and the relevant adjustments).

HEDGING ACTIVITIES AND NOTIONAL COSTS OF A STRATEGY

1. Hedging activities in relation to a Strategy

The Strategy Sponsor and/or any affiliate in its capacity as issuer of, or counterparty to, Linked Products (a "**Hedging Party**") may hedge its exposure or potential or expected exposure to the Strategy, Linked Products and the Components (and their components) with an affiliate or a third party. A Hedging Party may make significant returns on this hedging activity independently of the performance of the Strategy or any Component, including in scenarios where the levels at which it executes its hedges are different from the levels specified in the methodology for determining the value of the Strategy (or otherwise where such Hedging Party does not hedge all of its exposure to the Strategy).

Any returns on a Hedging Party's hedging activity will not be passed on to investors in Linked Products, and such investors will not have any rights in respect of a Hedging Party's hedge positions including but not limited to any shares, ETFs, futures, options, commodities, currencies or other financial instruments. Where a Hedging Party, in accordance with its internal policies, executes hedging activity by trading in components of the Strategy (or other similar strategies) on or before the related rebalancing day, such trading may have an adverse impact on the level at which the Components are rebalanced (which may result in an adverse impact on the performance of the Strategy). Such hedging activity, and the size of such impact, will be linked to the amount of new and outstanding Linked Products at the relevant time.

Additionally, members of the Goldman Sachs Group may generate revenues if they execute their hedging activity at different levels from those used to determine the value of the Strategy or used for the rebalancing of the Strategy. Such hedging activity could generate significant returns to members of the Goldman Sachs Group that will not be passed on to investors in any Linked Product.

2. Notional costs of a Strategy

Notional embedded costs may be included within a Strategy that will generally reduce the level of such Strategy. Any such amounts will be deducted from the performance of a Strategy with the intention of reflecting synthetically one or more of (i) the cost of maintaining exposure to, and replicating performance of, each Component (such costs are applicable on an ongoing basis for such time as the Strategy maintains exposure to the relevant Component and are often referred to as servicing costs), (ii) the cost of entering into and/or unwinding transactions relating to a Component following each rebalancing of the Components in the Strategy (such costs are made only as a result of a rebalancing of a Strategy and are often referred to as transaction costs) and/or (iii) strategy deduction amounts (which are applicable to a Strategy rather than the Components and are applicable on an ongoing basis at either a continuous fixed rate or for such time as the value of the Strategy is greater than zero). The costs referred to in (i) and (ii) above may vary for each Component. These embedded costs will generally reduce the value of such Strategy. In addition, the value of a Strategy may be reduced by further deductions if so specified in the relevant Strategy Description.

Each Component and the underlying components thereof may also embed notional cost deductions, the effect of which is to reduce the value of the Component or component thereof, as applicable. Such notional costs deductions are intended to reflect, synthetically, certain costs incurred in respect of such Component (or component thereof, as applicable) as described in the documentation of the relevant Component or underlying component thereof (as applicable). Any such deductions from the value of a Component or underlying component thereof generally have the effect of reducing the value of the relevant Strategy.

Investors in Linked Products should note that the actual costs of entering into, unwinding and/or maintaining such transactions or positions may be lower or higher than the synthetic costs set out in the Strategy Description

and, if they were lower, the effect of these deductions would be to the benefit of a Hedging Party in its capacity as issuer of, or counterparty to the Linked Products. In general, it is expected that such actual costs will be lower in each case than the synthetic costs in the Strategy.

CONFLICTS OF INTEREST

The following list of conflicts does not purport to be a complete list or explanation of all the conflicts of interests associated with the Strategies.

POTENTIAL INVESTORS SHOULD REFER TO THE RELEVANT GENERAL DESCRIPTION, SPECIFICATIONS ANNEX AND/OR OTHER DOCUMENTATION ELEMENT IN RESPECT OF EACH STRATEGY FOR SPECIFIC CONFLICTS OF INTEREST RELATING TO SUCH STRATEGY.

Overview of the Roles of the Goldman Sachs Group

The Goldman Sachs Group may have multiple roles in connection with the Strategies:

- (i) If Goldman Sachs International is the Strategy Calculation Agent, Goldman Sachs International is responsible for calculating and publishing the value of a Strategy in its capacity as Strategy Calculation Agent and for making certain determinations in respect of such Strategy from time to time in its capacity as Strategy Sponsor.
- (ii) The Strategies are designed by, and are operated in accordance with, a methodology developed by Goldman Sachs International. Among other things, Goldman Sachs International created the parameters within which each Strategy operates. The Strategy Sponsor does not have any obligation to ensure that the Strategy Calculation Agent continues to calculate and publish the value of a Strategy. Except in the limited circumstances set out in the relevant Strategy Description, Goldman Sachs International does not generally exercise any discretion in relation to the operation of each Strategy. Goldman Sachs International owes no fiduciary duties in respect of such Strategy.
- (iii) The Goldman Sachs Group is a full-service financial services group and, consequently, is engaged in a range of activities that could affect the value of a Strategy, as the case may be, and any Component positively or negatively as further described below.
- (iv) The Goldman Sachs Group members may be sponsors and/or calculation agents of one or more Components and in that capacity have the power to make determinations that could materially affect the value of such Strategy.
- (v) The Goldman Sachs Group may from time to time have a direct or indirect ownership interest in any Strategy Calculation Agent (or any other calculation agent with respect to a Strategy or Component) and any third party data providers with respect to a Strategy or any Component (including, without limitation, any Input Data Provider).

Potential Conflicts of Interest

Potential conflicts of interest may arise in relation to Goldman Sachs' multiple roles in connection with the Strategy. Although the Goldman Sachs Group will perform its obligations in a manner that it considers commercially reasonable, it may face conflicts between the roles it performs in respect of a Strategy and its own interests. In particular, the Goldman Sachs Group may have, or enter into transactions to create, a physical, economic or other interest (including an adverse and/or short interest, as the case may be) in a Strategy, Linked Products, any Component, any Input Data and/or investments referenced by or linked to any Component or Input Data and may exercise remedies or take other action with respect to its interests as it deems appropriate. These actions could adversely affect the value of a Strategy and may include the following:

- (i) The Goldman Sachs Group actively trades Linked Products, any Component, Input Data, investments

referenced by or linked to a Component or Input Data and numerous related investments. These activities could adversely affect the value of a Strategy, which could in turn affect the return on, and the value of, Linked Products.

- (ii) The Goldman Sachs Group may have access to information relating to a Strategy, Linked Products, a Component, Input Data or investments referenced by or linked to a Component or Input Data. The Goldman Sachs Group is not obliged to use that information for the benefit of any person acquiring or entering into any Linked Products.
- (iii) Certain activities conducted by the Goldman Sachs Group may conflict with the interests of those acquiring any Linked Products. It is possible that the Goldman Sachs Group could receive substantial returns in respect of these activities while the value of any investment referenced to such Strategy may decline. For example:
 - (a) The Goldman Sachs Group and other parties may issue or underwrite additional securities or trade other financial or derivative instruments or investments referenced to a Strategy or other similar strategies or any Component. An increased level of investment and trading in these securities, instruments or investments may negatively affect the performance of a Strategy and could affect the value of such Strategy and, therefore, the amount payable at maturity (or on any other payment date) on any Linked Products and the value of such Linked Products before such date. Such securities, instruments or investments may also compete with any Linked Products. By introducing competing products into the marketplace in this manner, the Goldman Sachs Group could adversely affect the market value of any Linked Products and the amount paid by it on such products at maturity (or on any other payment date). To the extent that the Goldman Sachs Group serves as issuer, agent, underwriter or counterparty in respect of those securities or other similar instruments or investments, its interests in respect of those securities, instruments or investments may be adverse to the interests of a holder or counterparty in respect of any Linked Products.
 - (b) Although the Goldman Sachs Group is not obliged to do so, it may elect to hedge its exposure to a Strategy, any Linked Products, a Component, Input Data or any investment referenced by or linked to a Component or Input Data with an affiliate or a third party. That affiliate or third party, in turn, is likely to directly or indirectly hedge some or all of its exposure, including through transactions taking place on the futures and options markets. Where the Goldman Sachs Group chooses to hedge its exposure, it may adjust or unwind such hedges by purchasing or selling any Linked Products, a Component, Input Data, any investments referenced by or linked to a Component or Input Data or any other product on or before the date such Strategy is valued for purposes of any investments referenced to such Strategy. The Goldman Sachs Group may also enter into, adjust or unwind hedging transactions relating to other instruments linked to a Strategy or a Component including at times and/or levels which are different from those used to determine the value of a Strategy. Any of this hedging activity may adversely affect the value of a Strategy and the value of any products linked to such Strategy. In addition, and without limitation:
 - (I) The Goldman Sachs Group could receive substantial returns with respect to these hedging activities while the value of a Strategy and/or the value of any Linked Product may decline.
 - (II) If the Goldman Sachs Group has hedged its exposure to a Component and/or Input Data and incurs an effective rate of withholding tax that is less than the synthetic tax withholding applied in respect of a Strategy, the Goldman Sachs Group could receive substantial

returns.

- (III) The Goldman Sachs Group could receive substantial returns if it trades in a Component on or before the rebalancing of a Strategy and/or at levels which are different from the levels specified in the methodology for determining the value of a Strategy. Such trading may have an adverse impact on the level at which a rebalancing occurs, which may result in an adverse impact on the performance of a Strategy. In addition, such trading could generate significant returns to the Goldman Sachs Group that will not be passed on to the investors in any Linked Products.
- (c) Certain activities conducted by the Goldman Sachs Group may conflict with the interests of those acquiring any Linked Products. For example, as described above, the Goldman Sachs Group may elect to hedge its obligations, if any, with an affiliate or a third party. It is possible that the Goldman Sachs Group could receive substantial returns with respect to these activities irrespective of the performance of such Strategy and including while the value of any investment referenced to a Strategy may decline.
- (d) The Goldman Sachs Group may also engage in trading for its proprietary accounts, for other accounts under its management or to facilitate transactions, including block transactions, on behalf of customers relating to one or more Linked Products, a Component (or any constituent thereof), Input Data and/or any investment referenced by or linked to a Component (or any constituent thereof) or Input Data. In the course of these transactions, the Goldman Sachs Group's customers may receive information about a Strategy before it is made available to other investors. Any of these activities could also adversely affect the value of a Strategy directly or indirectly by affecting the level of a Component (or any constituent thereof), Input Data or the investments referenced by or linked to a Component (or any constituent thereof) or Input Data and, therefore, the market value of any Linked Products and the amount paid on any such product at maturity.
- (iv) As operator or sponsor of a Strategy, under certain circumstances Goldman Sachs International will have discretion in making various determinations that affect a Strategy and any Linked Products including, but not limited to, those situations described in the relevant Strategy Description. Goldman Sachs International may use these determinations to calculate how much cash it must pay at maturity, or, as the case may be, upon any early redemption or on any other payment date, of any Linked Product, including products issued by the Goldman Sachs Group members. The exercise by Goldman Sachs International of this discretion could adversely affect the value of such Strategy and the value of any Linked Product. It is possible that the exercise by the Strategy Sponsor of its discretion to change the relevant Strategy Methodology may result in substantial returns in respect of the Goldman Sachs Group's trading activities for its proprietary accounts, for other accounts under its management or to facilitate transactions on behalf of customers relating to one or more Linked Products, the Components and/or Input Data thereof or any investment referenced by or linked to such Components and/or Input Data.
- (v) As operator or sponsor of one or more Components (or as an Input Data Provider), the Goldman Sachs Group members may be entitled to exercise discretion over decisions that would have an adverse impact on the value of a Strategy, including, without limitation, discontinuing publication of the level of one or more Components and/or Input Data. The Goldman Sachs Group members will exercise any such discretion without regard to any Strategy or investors in any Linked Products.

- (vi) The Goldman Sachs Group may in the future create and publish other indices or strategies, the concepts of which are similar, or identical, to that of a Strategy or one or more of the Components. The Components as specified in the Strategy Description for such Strategy, however, are the only components that will be used for the calculation of the Strategy. Accordingly, no other published indices should be treated by any investor as the level of any Component (except as the Strategy Sponsor or the Strategy Calculation Agent may so determine, as described above).
- (vii) The Goldman Sachs Group may publish research, express opinions or provide recommendations (for example, with respect to a Component) that are inconsistent with investing in products linked to such Strategy, and which may be revised at any time. Any such research, opinions or recommendations may or may not recommend that investors buy or hold the relevant Component and could affect the value and or performance of such Strategy or of products linked to such Strategy.
- (viii) The Goldman Sachs Group may have ownership interests in sponsors of Components and as such may be able to influence the methodology and other features of such Components. In addition, members of the Goldman Sachs Group may provide pricing or other data that is directly used in the calculation of the level, value, coupon and/or components of Components (or the components thereof) or may be an Input Data Provider. The activities of the Goldman Sachs Group members as contributor to any Components or Input Data Providers may be adverse to the interests of investors and/or counterparties to products linked to any such Components or Input Data and may have an impact on the performance of such Components and/or Input Data.
- (ix) The Goldman Sachs Group may have ownership interests in the Strategy Calculation Agent (or any other calculation agent with respect to a Strategy or Component) and any third party data providers (including, without limitation, any Input Data Provider) with respect to a Strategy or any Component or Input Data and as such may be able to influence the determinations of such the Strategy Calculation Agent or other calculation agent. In addition, members of the Goldman Sachs Group may provide pricing or other data that is directly used in the calculation of the level, coupon and/or components of the Strategy or may be Input Data Providers. The activities of the Goldman Sachs Group members as contributor to any Strategy may be adverse to the interests of investors and/or counterparties to products linked to any such Strategy and may have an impact on the performance of such Strategy.

RISK FACTORS

Risk factors relating a synthetic investment in the Strategies are set out below. This section does not purport to describe all of the risks associated with a synthetic investment in the Strategies. Risk factors in relation to a transaction or product which is linked to the performance of the Strategies may also be set out in the relevant documents in respect of such transaction or product. In addition, potential investors should refer to the relevant General Description, Specifications Annex and/or Other Documentation Elements in respect of each Strategy and each of its Components for specific risk factors relating to such Strategy, such Components and any relevant Input Data.

(A) GENERAL RISK FACTORS

Investors in a Strategy could lose their entire investment

The value of a Strategy depends on the performance of the Components, each of which may increase or decrease in value. Neither a Strategy nor any of the Components includes any element of capital protection or guaranteed return. The value of any Component, or a Strategy itself, may fall below its initial value.

If a floor is not specified to be applicable in respect of a Strategy or Component, then the value of that Strategy or Component may fall below zero and have a negative value. In this case an investment linked to a “long” Strategy may incur losses which exceed the notional value of such investment.

If a floor is specified to be applicable in respect of a Strategy or Component, then the value of that Strategy or Component may not fall below zero. If the value of that Strategy or Component falls to zero, unless otherwise specified in the Strategy Description, such value will remain at zero and any investment linked solely to such Strategy may have lost all of its value, in which case there will be no chance of such investment thereafter recovering.

Changes in market structure and/or increased investment in similar products may negatively affect the value of a Strategy

As a result of changes in market structure and/or due to increased investment in products using the same or similar investment rationale to that of a Strategy or any Component, the underlying market or economic characteristics that such Strategy or Component attempts to capture, measure or replicate may change, cease to exist, and/or lead to negative expected returns over any time period. This may have a negative impact on the value of a Strategy and such Strategy will not be adjusted to take account of any such changes.

Unless otherwise specified in the relevant Strategy Description, a Strategy is not actively managed

Unless otherwise specified in the relevant Strategy Description, each Strategy will be operated in accordance with the methodology set forth in the Strategy Description and, in particular, any weight or quantity assigned to a Component on any relevant rebalancing day shall be determined by applying an algorithm operating within pre-determined rules. There will be no active management of a Strategy so as to enhance returns beyond those embedded in a Strategy.

Market participants are often able to adjust their investments promptly in view of market, political, financial or other factors. An actively managed investment may potentially respond more directly and appropriately to immediate market, political, financial or other factors than a non-actively managed strategy such as a Strategy. In contrast, the algorithm for a Strategy will rebalance the weights or quantities to their specified values on each relevant rebalancing day. No assurance can be given that a Strategy will replicate or outperform a comparable strategy which is actively managed and the return on a Strategy may be lower than the return on an actively

managed strategy.

An investment in a Strategy may be subject to leverage, which may increase the risk in such investment

A Strategy's absolute overall exposure to the Components may be greater or less than 100%.

If the sum of the absolute weights of the Components is greater than 100 per cent., the Strategy will employ leverage. In the current instance, leverage means that a Strategy will have increased exposure to changes, which may be positive or negative, in the value of the Components, magnifying the volatility and risk. The performance of the Strategy will be adversely affected should the value of "long" Components decrease and/or the value of "short" Components increase (as the case may be).

If the sum of the absolute weights of the Components is less than 100 per cent. the Strategy will have a reduced participation to the Components and may underperform as compared to a Strategy where the exposure was greater.

The actual weights of Components may vary following each rebalancing

The actual weight of each of the Components following each rebalancing may be different than the initially assigned weights of each of the Components, and therefore the relative contribution of each Component to the overall value of a Strategy may vary from time to time, depending on the performance of each of the Components relative to the other Components since such immediately preceding rebalancing. The longer the period between each rebalancing, the greater the likelihood that there will be a significant variance between the absolute values of the weights of the Components, and the Strategy may therefore have an exposure to a Component further below or in greater excess of its previously assigned weight than it would if the period were shorter, which may result in a greater skewing of the absolute nature of the investment positions with respect to the Components and increase the overall risk profile of the Strategy.

Certain costs in respect of the Strategy may be a function of third-party data at any time and, as such, are variable (and are floored, but not capped)

The costs that are deducted from a Strategy in respect of any relevant day may be determined by reference to (among other things) data from one or several Input Data Providers for such day. Accordingly, such cost will vary as a result of changes in the relevant data over time. While such costs for any relevant rebalancing day are subject to a minimum amount (or "floor"), the Strategy methodology may not apply any maximum amount (or "cap") to such for any relevant rebalancing day. Therefore, in such circumstances, the Strategy may not perform as well as a strategy for which such costs are fixed or calculated by reference to fixed values, or otherwise are subject to a fixed cap.

The Strategy Sponsor could significantly increase the costs that are deducted from a Strategy in prescribed circumstances

Under certain market conditions or otherwise in accordance with the circumstances or terms specified in the relevant Strategy Description, the Strategy Sponsor may determine to increase the costs that are deducted from the Strategy, and there may be no fixed limits on the levels of these costs. If specified in the relevant Strategy Description, such increases may be made unilaterally by the Strategy Sponsor, may be significant and may be made without taking into account the interests of any investors in Linked Products. Although this determination is constrained by the procedure described in the relevant Strategy Description, it is possible that the increased cost may be significantly greater than the levels originally assigned to them and may apply for an extended period of time (even if, where relevant and applicable, the period of such market conditions that originally

necessitated such increase in costs only lasts for a short period of time). This could materially adversely affect the performance and value of a Strategy.

Excess return strategies will often underperform total return strategies

A Strategy which is calculated on an “excess return” basis is the excess return version of one or more total return strategies. To determine the value of an excess return strategy, the performance of the total return strategy is reduced by the return that could be earned on a synthetic cash deposit at a notional interest rate. Thus, the performance of an excess return strategies will often be less than the performance of the equivalent total return strategy.

Total return strategies may exhibit excess return characteristics

A Strategy which is calculated on a “total return” basis may include Components which are calculated on an excess return basis. In such case even though the Strategy is calculated on a total return basis it will exhibit characteristics of an excess return version.

No assurance can be given that the methodology underlying each Strategy will be successful in producing positive returns or that such Strategy will outperform any other alternative investment strategy.

Alternative investments such as Linked Products may often be purchased on the basis of their potential to produce “absolute returns” or returns independent of the overall direction of the relevant markets. However, there can be no assurance that a Strategy will actually be successful at producing consistently positive returns or returns independent of the overall direction of the relevant markets, nor does the Strategy Sponsor or any issuer of such Linked Product make any representation or warranty, express or implied, that a Strategy will do so in the future.

Furthermore, it should be noted that the results that may be obtained from investing in any Linked Product or otherwise participating in any Linked Product might well be significantly different from the results that could theoretically be obtained from a direct investment in the Component(s) or any related derivatives.

Historical levels of a Strategy may not be indicative of future performance

Past performance of a Strategy is no guide to future performance. It is impossible to predict whether the value of a Strategy will rise or fall. The actual performance of a Strategy over the life of any Linked Product as well as the amount payable at maturity or settlement may bear little relation to the historical levels of the Strategy.

An investor in a Strategy will have no rights in respect of any Component(s)

The investment exposure provided by a Strategy is purely synthetic. An investment referenced to a Strategy will therefore not make an investor a holder of or give an investor a direct or indirect purchase or other acquisition or assignment of any interest or a direct investment position in, any Component (or any components thereof). As such, the risks and returns of a notional investment in a Strategy may differ significantly from a cash investment in any Component (or component thereof).

A Strategy may provide short exposure to one or more of the Components

A Strategy may specify that the weight of a Component may be less than zero, i.e. a short position in such Component. A short position in a Component means that a Strategy will have negative exposure to such Component and the value of such Strategy will be negatively affected if the value of such Component should

increase and positively affected if the value of such Component should decrease. Therefore, investors should be aware that an investment in a Linked Product may decline in value in a period, even if the value of such Component increases during that timeframe. Further, given that short positions may create exposure to uncapped losses, increases in the value of such Component could result in a decrease in the value of such Strategy that is greater than the weight in respect of such Component and may result in the value of such Strategy falling to zero or even to a negative value.

An investment in a Strategy may be subject to dilution, which may limit the gains in such investment

A Strategy may be subject to dilution, such that investors in any Linked Products may not benefit fully from increases or decreases (depending on whether the exposure is long or short) in the value of a Component. Dilution means that the return or loss on an investment is subject to a multiplier decreasing exposure to such investment and reducing the volatility and risk of loss should the value of such investment decline but reducing the potential gain should the value of such investment increase. Investors should be aware that if the value of a Component increases or decreases, an investment in a Linked Product may not have the same magnitude of increased or decreased value as the Component.

Correlation of performances among the Components may reduce the performance of a Strategy

Performances of the Components of a Strategy may become highly correlated from time to time, including, but not limited to, periods in which there is a substantial decline in a particular sector or asset type represented by the Components. High correlation during periods of negative returns among the Components may have an adverse effect on the level of a Strategy.

The negative performance of one or more Components in a Strategy may outweigh the positive performance of other Components in such Strategy

The value of a Strategy will go up or down depending on the overall performance of each of Component in a Strategy. The negative performance of one or more positively weighted Components in a Strategy (and/or the positive performance of one or more negatively weighted Components in a Strategy) may outweigh the positive performance of other positively weighted Components in a Strategy (and/or the negative performance of one or more negatively weighted Components in a Strategy). Even in the case of a positive performance of one or more Components in a Strategy, the value of the Strategy as a whole may go down if the performance of the other Components is negative to a greater extent.

Components assigned a weight or quantity of zero will not contribute to the value of a Strategy

Some Components may be assigned a weight or quantity of zero in respect of a rebalancing day and, in such case, the relevant Strategy shall not have any exposure to such Component until the next rebalancing day (if any) on which such Components are assigned a non-zero weight or quantity. As a result, any changes in the performance of such Components will not affect the value of the Strategy for the relevant period following such rebalancing day.

A Strategy may not be a fully diversified portfolio

Diversification is generally considered to reduce the amount of risk associated with an investment. A Strategy may be concentrated in a particular asset class or sector and there can be no assurance that a Strategy will be sufficiently diversified at any time to reduce or minimise risks of volatility. The more concentrated the Strategy is in certain asset classes or sectors, the greater degree of volatility the Strategy may exhibit, and this could in turn result in an adverse effect on the returns of the Strategy.

In addition, certain asset classes or sectors may suffer the same adverse performance following a general downturn or other economic or political event, and this could in turn have an adverse effect on the returns of the Strategy.

Prices in relevant underlying indices, financial instruments or assets constituted in a Component may be volatile

The value of a Component may be derived in whole or in part from the value of certain underlying indices, financial instruments or assets. The prices or levels of such underlying indices, financial instruments or assets may be volatile, with price movements being influenced by a multitude of factors, including, but not limited to, supply and demand, applicable market conditions, government policies and programmes, political and economic events and rates of inflation, currency devaluations and revaluations, and sentiment in the relevant market. This may make the value of a Component volatile, which may in turn make the value of a Strategy volatile.

At any given time, the component stock universe of the Strategy may include underliers that are on the “restricted trading list” of Goldman Sachs, and that may adversely affect the Strategy’s performance.

As part of its activities as a full-service global financial institution, Goldman Sachs may from time to time place companies on its internal “restricted trading list” (the “RTL”). If so specified in the relevant Strategy Description, where a company is placed on the RTL as a result of a potential restriction on Goldman Sachs’ ability to principally transact in the stock or options of such company, its shares may be disqualified as a member of the component stock universe of the Strategy upon such company being placed on the RTL (which, for the avoidance of doubt, could occur at any time notwithstanding any prior acceptance of, or the initiation of a determination or process in respect of, the shares of any such company in accordance with the terms of the Strategy Description). This disqualification may adversely affect the performance of the Strategy.

Notionally embedded costs in respect of a Component may not be fixed, but are a function of one or more reference assets (which will vary, perhaps materially, with market conditions and over time)

If the Strategy includes certain notionally embedded costs in respect of Components in the Strategy methodology, such costs will reduce the value of the Strategy. If so specified in the relevant Strategy Description, such costs or rates may not be fixed rates but, in respect of any Component, are dependent on the value or performance of one or more reference assets (which may include third party volatility indices or credit indices) on prescribed dates. While such costs are subject to a minimum amount (or “floor”), the Strategy Description may not apply any maximum amount (or “cap”) to such costs for any relevant day.

Such performance and, therefore, the corresponding cost rate in respect of a Component, will vary from time to time with market conditions, perhaps materially so. In particular, the relevant costs rates are expected to be higher during periods of high market volatility than during periods of low market volatility – and, as a result, may be higher during periods in which the Strategy performs poorly. Accordingly, the amount by which the value of the Strategy is reduced at any time by the application of the relevant cost rates will vary from time to time and, during periods where such rate is increased, will have a greater negative impact on the value of the Strategy as compared to a fixed synthetic transaction cost rate or costs calculated by reference to fixed values (or otherwise being subject to a cap). Such variation may result in the aggregate synthetic transactions costs deducted from the value of the Strategy being higher (perhaps materially so) on any future date, or over any future period, as compared to historical periods.

As some Components may not be denominated in the currency of the Strategy, a Strategy may be subject to currency exchange rate risks

Each Strategy is calculated in a particular currency (the “**Strategy Currency**”). While some of the Components may be denominated in the Strategy Currency, a Strategy may also comprise Components denominated in other currencies. A Strategy may therefore be exposed to currency exchange rate risks. The impact on the value of a Strategy will depend on the extent to which these other currencies, if any, strengthen or weaken against the Strategy Currency and the relative weight of each such other currency represented in the Strategy. Currency exchange rates vary over time. Changes in a particular currency exchange rate result from the interaction of many factors directly or indirectly affecting economic or political conditions, including rates of inflation, interest rate levels, balances of payment among countries, the extent of governmental surpluses or deficits and other financial, economic, military and political factors, among others.

A Strategy may have an internal simulated currency hedge feature in respect of one or more of its Components denominated in another currency, if so specified in the relevant Strategy Description. Through a series of synthetic transactions, the internal simulated currency hedge feature, if applicable, seeks to offset a portion of the positive or negative effects of currency exchange rate fluctuations in such other currency on the values of such Component. However, a Strategy's internal simulated currency hedge feature will prove ineffective if, and to the extent that, the performance of the relevant money markets and of such Component move in opposite directions or move in the same direction but to a different extent. As a result of such movements, investors in such Strategy will still be subject to the risk of currency fluctuations affecting the value of such Strategy. In addition, as the currency hedged levels of such Component are based on the performance of synthetic cash deposits, the internal simulated currency hedge feature, if applicable, is unlikely to replicate a return exactly equal or similar to the return such Component that would be available to an investor whose investment currency is the same as that of such Component.

Strategy Inception Date and Back-testing

The Strategy Sponsor will designate a “**Strategy Inception Date**”, on which the value of the Strategy is equal to the “**Strategy Initial Value**” (each as specified in the relevant Strategy Description). The levels of a Strategy in the period from such Strategy Inception Date, to a date on which Linked Products are first implemented (being the “**Strategy Launch Date**”) (which may be materially later than the Strategy Inception Date of such Strategy) will be calculated on the basis of back-tested data (“**Back-testing**”).

Levels in respect of a Strategy for such period are hypothetical and are calculated at or around the Strategy Launch Date in accordance with the relevant Strategy Description but using historical data available to the Strategy Sponsor at the time of calculation. If such historical data is not available or is incomplete for any particular day, the Strategy Sponsor may use alternate sources of data in place of such historical data, and/ or may substitute alternative values (which may be determined by the Strategy Sponsor), as it deems necessary to calculate such hypothetical level of such Strategy.

If such historical data was available or complete, or if different sources or values were used in such Back-testing, the levels of a Strategy for such period would be different, potentially materially so. Accordingly, such Strategy levels may not reflect the performance of, and are no guarantee or assurance in respect of the performance or returns of, such Strategy over any time period from the Strategy Launch Date. Furthermore, any Back-testing is based on information and data provided to the Strategy Sponsor by third parties. The Strategy Sponsor will not have independently verified or guaranteed the accuracy and/or the completeness of such information or data provided and is not responsible for any inaccuracy, omission, mistake or error in such information, data and/or Back-testing.

A Strategy may have a limited operating history and may perform in unanticipated ways

A Strategy has only been calculated since the relevant Strategy Inception Date and, therefore, there is no historical performance data available prior to such date. Additionally, there may only be limited historical performance data with respect to the Components referenced by such Strategy and the Strategy itself, any investment in respect of which returns are linked to the performance of a Strategy or its Components may involve greater risk than an investment linked to returns generated by an investment strategy with a proven track record. While a longer history of actual performance could provide more reliable information on which to assess the validity of a Strategy and on which to base an investment decision, the fact that a Strategy and the Components are relatively new would not allow this. There can be no guarantee or assurance that a Strategy or its Components will operate in a manner consistent with the data available.

Some Strategy parameters are partially based on simulated data

Some parameters of a Strategy may have been determined by reference to simulated time series data which start before the Strategy Inception Date for such Strategy. Such simulated data are based on various assumptions, do not reflect actual trading and are subject to various market data limitations. As a result, the performance of the simulated time series data may differ from the actual historical performance of a Strategy and this difference may be material. The future performance of a Strategy will depend, among other things, on the choice of the parameters as described in the relevant Strategy Description. As such, the performance of such Strategy could be materially different if the relevant parameters were determined based on the actual performance of such Strategy rather than based on simulated time series data.

A Strategy may be subject to a Disruption Event

If a Disruption Event occurs or is continuing in respect of a Strategy, the Strategy Sponsor may make (or the Strategy Sponsor may instruct the Strategy Calculation Agent to make) certain adjustments in respect of such Strategy and which may include, amongst other things, any adjustments to the methodology and relevant data sources in order to calculate the value of such Strategy, a postponement of any relevant rebalancing or the suspension of the publication of the value of such Strategy. If the Strategy Sponsor or Strategy Calculation Agent (as applicable) makes any adjustments to the methodology and relevant data sources or postpones any relevant rebalancing, it is likely that the value of the Strategy will be different from what it would have been if such Disruption Event had not occurred, and it may vary unpredictably and could be lower.

Changes in the Components or Input Data may affect the value of a Strategy

Where a Component or Input Data ceases to exist or is no longer tradable, including as a result of a Goldman Sachs Group member discontinuing a Component of which it is a sponsor or discontinuing to act as an Input Data Provider, or where the Strategy Sponsor would be prevented from entering into transactions in respect of a Component (including one for which a Goldman Sachs Group member is the sponsor) or Input Data by any applicable law or regulation, the Strategy Sponsor may (but is not obliged to) substitute another Component and/or Input Data for the original one where it considers in its sole discretion that a similar alternative is available. Any such substitution or assignment could alter the exposure provided by a Strategy and materially affect the performance and value of such Strategy.

As Strategy Sponsor and Strategy Calculation Agent of a Strategy, Goldman Sachs International has the authority to make determinations that could materially affect a Strategy and create conflicts of interest

As the Strategy Sponsor and Strategy Calculation Agent, Goldman Sachs International does not generally exercise any discretion in relation to the operation of a Strategy. Goldman Sachs International owes no fiduciary duties in respect of a Strategy or any Linked Products.

Goldman Sachs International may, however, exercise discretion in certain limited situations including, but not limited to, the occurrence of a Disruption Event in respect of each Strategy (as more particularly described in the relevant Strategy Description). Determinations made by Goldman Sachs International as the Strategy Sponsor and Strategy Calculation Agent could adversely affect the value of such Strategy or any Linked Product and the exercise by the Strategy Sponsor of its discretion could present it with a conflict of interest of the kind described in the section of these General Strategy Terms entitled "*Conflicts of Interest*". In making those determinations, the Strategy Sponsor and/or the Strategy Calculation Agent will not be required to, and will not, take the interests of any investor of any such Linked Product into account or consider the effect its determinations will have on the value of such a Linked Product. All determinations made by the Strategy Sponsor and/or the Strategy Calculation Agent shall be at its sole discretion and shall be conclusive for all purposes and will bind all holders of any Linked Product. The Strategy Sponsor and/or the Strategy Calculation Agent shall not have any liability for such determinations.

A Strategy may be changed or become unavailable which may result in the adjustment or termination of Linked Products

Subject as provided in the sections of these General Strategy Terms entitled "*Disruption Events and Consequences*" and "*Change in Strategy Methodology*" above, the Strategy Sponsor shall have the right to alter the methodology used to calculate a Strategy or to discontinue the publication of the value of a Strategy in certain circumstances (including, without limitation, following the occurrence of an Authorisation Event or any other Disruption Event). A permanent cancellation of a Strategy or a failure by the Strategy Sponsor to calculate or announce the value of a Strategy may constitute a disruption event in respect of, and, therefore, may result in a decrease in the value of or return on any Linked Product (or result in the termination or early redemption of a Linked Product). Any changes may be made without regard to the interests of a holder of any Linked Product.

Furthermore, the decisions and policies of the Strategy Sponsor concerning the calculation of the value of a Strategy could affect its value and, therefore, the amount payable over the term of any Linked Product and the market value of such Linked Product. The amount payable on Linked Product and its market value could also be affected if the Strategy Sponsor changes these policies.

As sponsors of Components, or as Input Data Providers, Goldman Sachs Group members have the authority to make determinations that could materially affect a Strategy and create conflicts of interest

Goldman Sachs Group members may also act as sponsor of one or more Components or as Input Data Providers in respect of a Strategy. In that capacity, each of them has the power to make certain determinations that could materially affect the value of such Components and/or Input Data Providers and, in turn, the value of such Strategy, and the exercise by each such member of its discretion in its capacity as sponsor of such Components or as Input Data Providers could present it with a conflict of interest of the kind described in described in the section of these General Strategy Terms entitled "*Conflicts of Interest*".

Potential amendment to the methodology of a Strategy or replacement of a Strategy to enable the Strategy Sponsor and/or any affiliate to be able to effectively hedge its exposure to the Strategy and to reduce the impact of such hedging transactions on the relevant markets

If the Strategy Sponsor determines that the aggregate notional or principal amount of Linked Products is above a certain threshold it may (a) change the methodology in respect of a Strategy so that the rebalancing of the Strategy is executed over one or more additional business days or that the frequency of rebalancing of the Strategy is changed, (b) replace the Strategy with a replacement Strategy which will be identical in all material respects other than the day or days on which the Strategy is rebalanced and/or (c) make such other adjustments

to the Strategy, in each case, in order to enable the Strategy Sponsor and/or any affiliate to be able to effectively hedge its exposure to such Strategy and/or to reduce the expected impact of such hedging transactions on the relevant markets. Although such amendments or such replacement would be designed to minimise potential market impact, the performance of the Strategy may be affected by such amendments or replacement, potentially materially so.

Trading and other transactions by the Goldman Sachs Group could materially affect the value of any Linked Product

The Goldman Sachs Group is a full-service financial services firm engaged in a range of market activities. Goldman Sachs Group may issue, arrange for the issue of, or enter into financial instruments referenced to, a Strategy or any of the Components of such Strategy and arrange for the distribution of these financial instruments, including the payment of distribution fees and commissions to any intermediaries. These activities could adversely affect the value of a Strategy and/or any of its Components and may present the Goldman Sachs Group with a conflict of interest of the kind described in the section of these General Strategy Terms entitled "*Conflicts of Interest*".

Information provided by the Goldman Sachs Group about the value of any Component may not be indicative of future performance

Any information about the performance of any Component provided by the Goldman Sachs Group will be or has been furnished as a matter of information only, and an investor in a Linked Product should not regard the information as indicative of the range of, or trends in, fluctuations in the levels or values that may occur in the future. Such information will likely differ from the actual values and levels used under the relevant methodology used to calculate such Strategy.

Information about a Strategy may only be available through the Goldman Sachs Group

The Goldman Sachs Group may not provide holders of any Linked Product with further information in relation to the relevant Strategy beyond what is provided in the relevant Strategy Description, and further information may not be generally available. The Goldman Sachs Group has entered into non-exclusive licensing agreements with certain Input Data Providers in order to source the necessary Input Data to calculate each Strategy. The formalities necessary to obtain access to such figures may deter potential investors from buying a Linked Product on the secondary market.

The Strategy Sponsor and the Strategy Calculation Agent may rely upon third party and other external and internal data sources which may be inaccessible and/or inaccurate, and the inputs used by the Strategy Sponsor and the Strategy Calculation Agent may affect the value of a Strategy

The Strategy Sponsor and the Strategy Calculation Agent may rely upon third party brokers or external dealers and other external and internal sources (including, without limitation, Input Data Providers) to obtain certain inputs necessary to compute the value of a Strategy and/or to determine the weights or quantity of the Components which may be inaccessible and/or inaccurate and the inputs used by them to compute the value of a Strategy may affect the value of such Strategy. Investors considering acquiring or making an investment in a Linked Product should carefully read and understand the information about such Components and Input Data.

The inability of the Strategy Calculation Agent to source necessary data to calculate the relevant formulae of a Strategy may affect the value of such Strategy. In addition, the Strategy Sponsor and the Strategy Calculation Agent (i) make no warranty as to the correctness or completeness of that information and take no responsibility for the accuracy of such data or the impact of any inaccuracy of such data on the value of a Strategy and (ii)

are not under any obligation or currently intend to independently verify such third party information or data from any third party data source or to advise any investor in any Linked Product of any inaccuracy, omission, mistake or error of which it becomes aware. Consequently, neither the Strategy Sponsor nor any of its affiliates shall be liable (whether in contract, tort or otherwise) to any person for any inaccuracy, omission, mistake or error in the calculation or dissemination of the value of the Strategy. There can be no assurance that any error or discrepancy on the part of any data source or sponsor will be corrected or revised. Even if any error or discrepancy on the part of any third party data source or sponsor is corrected or revised, neither the Strategy Sponsor nor any of its affiliates is under any obligation to incorporate any such correction or revision into the calculation of the value of the Strategy or the level of any Component.

Linked Products may be exposed to more or less risk, or perform better or worse, based upon the inputs received from the above suppliers or sources, than an actual investment in or linked to one or more of the Components. In addition, no assurance can be given that any model or methodology used by such suppliers or sources will have a positive effect on the performance of the Strategy. Therefore, the Strategy may not perform as well as a strategy using alternative data sources or data sources with a different model or methodology.

Sponsors of Components have authority to make determinations that could materially affect a Strategy

Determinations that the sponsors of the Components of a Strategy, including Goldman Sachs Group members, may make in connection with the composition, calculation and maintenance of the Components may materially affect the value of the Components and could, in turn, adversely affect the value of such Strategy. Those sponsors have no obligation to take the interests of the Strategy Sponsor or any holders of any Linked Product into consideration for any reason in carrying out their functions and have generally disclaimed all liability to the extent permitted by law.

In addition, the sponsors of the Components have licensed, and may continue to license, such Components for use by other market participants, for publication in newspapers and periodicals, for distribution by information and data dissemination services and for various other purposes, any of which may contribute to an increased or decreased level of investment in such Components, which could adversely affect the value of a Strategy.

The policies of the Strategy Sponsor and changes that affect a Strategy could affect the value of such Strategy

The decisions and policies of the Strategy Sponsor concerning the calculation of a Strategy could affect the value of such Strategy and, therefore, the amount payable on any Linked Product on the stated maturity date of such Linked Product (or on any other payment date) and the market value of such Linked Product before that date. The amount payable on any Linked Product and their market value could also be affected if the Strategy Sponsor changes these policies, for example, by changing the manner in which it calculates such Strategy, or if the Strategy Sponsor discontinues or suspends calculation or publication of such Strategy, in which case it may become difficult to determine the market value of such Linked Product. If such policy changes relating to a Strategy or the calculation or publication of a Strategy is discontinued or suspended, the calculation agent of any Linked Product (which may be Goldman Sachs International) may have discretion in determining the level of such Strategy on the relevant determination date and the amount payable on such Linked Product.

The policies of a sponsor and changes affecting a Component could affect the Strategy and its value

The policies of a sponsor concerning the calculation of the value of a Component, or additions, deletions or substitutions of Components and the manner in which changes affecting the Components could affect the value of a Component and, therefore, the value of such Strategy and any Linked Product. The value of a Strategy could also be affected if the relevant sponsor changes these policies, for example, by changing the manner in

which it calculates the value of the Component, or if the sponsor discontinues or suspends calculation or publication of the value of the Component, in which case it may become difficult to determine the value of a Strategy.

A Strategy relies on the use of third-party information

With respect to any Components and/or Input Data not sponsored by any member of the Goldman Sachs Group, a Strategy methodology relies on information from third-party sponsors of such data and other external and internal sources to obtain certain inputs necessary to compute the value of a Strategy. The inability of the Strategy Sponsor and/or the Strategy Calculation Agent to source such necessary data to calculate the relevant formulae of the Strategy may affect the value of such Strategy. Investors considering acquiring or making an investment in a Linked Product should carefully read and understand the information about such Components. However, the Goldman Sachs Group makes no warranty as to the correctness of that information and takes no responsibility for the accuracy of such data or the impact of any inaccuracy of such data on such Strategy.

Linked Products may be exposed to more or less risk, or perform better or worse, based upon the inputs received from the above suppliers or sources, than an actual investment in or linked to one or more of the Components.

A Strategy may use values determined using the Strategy Sponsor's own proprietary models

The Strategy may use the Strategy Sponsor's own internal mark of the value of or certain calculations in respect of certain Components which may be derived from proprietary models (the "Internal Data"). Investors in Linked Products may not have access to the Internal Data and any associated models.

There is no guarantee that such Internal Data will correspond with market data if any exist, or that would be determined by other market participants. They do not necessarily represent tradable prices.

The Internal Data will depend on the specification of, and inputs used in, the relevant model used by the Strategy Sponsor. A model with a different specification and/or using different inputs would produce different results. The Internal Data may change if required by the Strategy Sponsor's internal policies or applicable law or regulation, or if the models used to calculate it change. The Strategy Sponsor will not be obliged to consider a Strategy when making any changes to the Internal Data or such models and will not have any liability for the effect of such changes on a Strategy.

As such, changes in the value of a Strategy on any day may be opaque and not solely be related to the change in the market value of any relevant Components.

A Strategy may be calculated without reference to corrected data

In the event that the value of any component which is used for the calculation of the weight or quantity (as applicable) of any Component or any Input Data in relation to the Strategy is corrected after such time as it is used in the Strategy, the Strategy Sponsor shall be under no obligation to use such corrected value (and shall only take such steps as it considers appropriate for the purposes of the Strategy in response to such correction in accordance with its policies and procedures applicable at the relevant time) and may use the weight or quantity (as applicable) as calculated before such correction. As a result, the performance of a Strategy may differ from the performance had such corrected values been used, and possibly materially so.

Changes to administration of and reform of Affected Rates Benchmarks

The Strategy may use one or more Affected Rates Benchmarks as input data for determining the weights, signals or other values of its Components. The Strategy may also include components linked to such Affected Rates Benchmark (such as interest rate derivatives instruments) as its Components or use an Affected Rates Benchmark to convert the return type of the Strategy, amongst other things. Such Affected Rates Benchmarks are the subject of recent national, international and other regulatory guidance and proposals for reform. Some of these reforms are already effective whilst others are still to be implemented. These reforms may cause such Affected Rates Benchmarks to perform differently than in the past, to disappear entirely, or have other consequences which cannot be predicted. For example, USD LIBOR is no longer published or no longer published as a representative rate from 30 June 2023.

In the period prior to an Affected Rates Benchmark ceasing to be published or at the time it ceases to be published, the Strategy Sponsor may determine in a commercially reasonable manner to change the methodology of an affected Strategy, including but not limiting to determining replacement rates for an Affected Rates Benchmark and making other adjustments to account for the differences between the replacement rate and the original Affected Rates Benchmark, in order to permit the continued calculation of the value of the Strategy, to preserve the Strategy Purpose and/or to maintain its ability to hedge the Strategy. However, any such amendments are not yet certain and will only be determined at a future point in time. Those amendments could have unpredictable and adverse effect on the performance of the Strategy and/or any Linked Products to such Strategy, potentially materially so. In particular, changes to the way in which an existing Affected Rates Benchmark is calculated, or difference between the way the original Affected Rates Benchmark and a replacement rate is calculated could materially impact the value and/or performance of the Strategy in the future, or result in material economic mismatches for investors using Linked Products for hedging or similar purposes.

The Strategy Sponsor will only restate the Strategy Value upon the discovery of certain errors, and the Strategy Sponsor is not required to correct the Strategy Value as of any day more than a certain number of days prior to the discovery of such error by the Strategy Sponsor

Pursuant to the Strategy Description and the current policies and procedures of the Strategy Sponsor (which may be amended from time to time by the Strategy Sponsor), the Strategy Sponsor is not required to restate the Strategy Value for any discrepancy between the Strategy Description and the calculation of the Strategy Value, errors in calculation, publication errors, errors by third party data sources or providers, or the restatement of any underlying Assets, for any day more than a certain number of days prior to the first business day in London on or after which the Strategy Sponsor becomes aware of or identifies such error (such number of days being specified from time to time under such policies and procedures of the Strategy Sponsor, a public summary of which are available at <https://www.goldmansachs.com/disclosures/euro-benchmark-reg-iosco-principles-for-financial-benchmarks-f/summary-of-gs-policy-on-global-benchmark-incidents.pdf> (or any successor page)). A failure to restate the Strategy Value to account for such errors may decrease, potentially materially so, the return on any Linked Products relative to a corrected and restated Strategy Value.

(B) RISKS RELATED TO ACTIVELY MANAGED STRATEGIES

The Strategy is actively managed

The adjustable parameter values assigned to each adjustable parameter (which may include, without limitation, weights assigned to Components) are subject to a rebalancing by the Strategy Allocator, subject to any conditions set out in the Strategy Description (“**Rebalancing Conditions**”). There is no guarantee or assurance that any such rebalancing will enhance the performance of the Strategy. For so long as the Strategy Allocator

elects not to make any changes to the adjustable parameter value of the adjustable parameters, or no proposed changes to such adjustable parameter value are made that meet the Rebalancing Conditions, then such adjustable parameter values will remain unchanged.

There is no guarantee that a rebalancing will increase the value of the Strategy. None of the Strategy Sponsor, Strategy Calculation Agent or any of their affiliates shall be responsible for the adjustable parameter value selected by the Strategy Allocator or the performance of the Strategy. None of the Strategy Sponsor or the Strategy Calculation Agent have the right to, and nor will they, assess whether or not any proposed rebalancing is in the best interests of investors in Linked Products.

In addition, the Rebalancing Conditions may prevent the Strategy Allocator from rebalancing the adjustable parameter values of the adjustable parameters as rapidly, frequently or to the degree it considers appropriate in view of market, political, financial or other factors. As a result, investors in Linked Products may be exposed to more or less risk than investors engaging in the Components themselves or investing in managed products with fewer restrictions. The Rebalancing Conditions have been agreed to by the Strategy Sponsor and the Strategy Allocator as at the inception of the Strategy.

None of the Strategy Sponsor, the Strategy Calculation Agent or the Strategy Allocator or any of their respective affiliates make any representation express or implied that the Strategy will achieve a positive performance, or a higher performance than any other index or strategy, whether managed or not managed.

The Strategy Allocator

The Strategy Allocator is a third party not affiliated with the Strategy Sponsor or any of its affiliates and is not an agent of the Strategy Sponsor. The Strategy Allocator acts as an independent contractor and has not been appointed by the Strategy Sponsor or the Strategy Calculation Agent as a sub-advisor in respect of the Strategy or any Linked Product nor as an agent of the Strategy Sponsor or the Strategy Calculation Agent.

The Strategy Allocator has the right, but not the obligation, to propose changes to the adjustable parameter value of any adjustable parameter. If the Strategy Allocator elects not to submit a proposed parameter adjustment, the value of the Strategy may be adversely affected. In addition, if any proposed parameter adjustment is rejected by the Strategy Sponsor, no such rebalancing of the Strategy shall take place which may also have an adverse effect on the value of the Strategy.

Therefore, the value of the Strategy will depend not only on the methodology contained in the Strategy Description but also on the determinations made by the Strategy Allocator in respect of each proposed rebalancing. There is no guarantee that the Strategy Allocator will act rationally and in accordance with current market trends in determining the adjustable parameter values. Therefore, the ability of the Strategy to achieve its objective may be substantially affected by the abilities of, and determinations made by, the Strategy Allocator.

The Strategy Allocator's ability to determine the adjustable parameter values may depend, to a great extent, upon the expertise of key individuals associated with the day-to-day operations of the Strategy Allocator. Any withdrawal of any of these individuals could have an adverse effect on the Strategy and, consequently, any Linked Product.

The day on which any proposed rebalancing is implemented may be postponed or may not be the one proposed by the Strategy Allocator

The Strategy Sponsor or any other relevant person shall not be liable (whether in contract, tort or otherwise) to any person for the failure of the Strategy Sponsor to acknowledge receipt of a notification from the Strategy

Allocator outlining a proposed rebalancing. As a result of such failure or any other events as specified in the relevant Strategy Description (including but not limited to any potential disruptions with respect to implementing the rebalancing), the proposed adjustable parameter values may not take effect on the day proposed by the Strategy Allocator.

The Strategy Sponsor may reject a proposed rebalancing

If any proposed rebalancing does not satisfy the Rebalancing Conditions as of the relevant determination date, then the Strategy Sponsor may reject the proposal in its entirety and no rebalancing will occur.

Furthermore, if so specified in the relevant Strategy Description, the Strategy Sponsor may be under no obligation to effect all or any part of any proposed rebalancing and may reject the proposal in its entirety in its sole discretion and for any reason (which, for the avoidance of doubt and without limitation, could include where a proposed rebalancing would otherwise satisfy the relevant Rebalancing Conditions) and no rebalancing will occur.

In either case, any such rejection may have an adverse impact on the performance of the Strategy, perhaps materially so, and the determination of the Strategy Sponsor shall be conclusive and binding in all circumstances. In particular, the Strategy Sponsor will not take into account the interests of any investors in Linked Products when making such determination, and none of the Strategy Sponsor, Strategy Calculation Agent or any of their affiliates shall have any liability for or in connection with the performance of the Strategy (or any Linked Product) as a result thereof. Notwithstanding that the Strategy Sponsor may be entitled to reject any such proposed rebalancing, the Strategy Sponsor shall be entitled to rely upon and assume, and shall not in any circumstances be obliged to verify, that the Rebalancing Conditions in respect of a proposed rebalancing have been satisfied.

No rebalancing once implemented can be set aside on the basis that, as a factual matter, the Rebalancing Conditions were not satisfied. The determination of the Strategy Sponsor will be conclusive and binding in all circumstances without liability to the Strategy Sponsor or any of its affiliates.

The Strategy Sponsor may reject a proposed rebalancing if the Strategy Sponsor and/or any of its affiliates would be prevented from entering into transactions by any applicable internal policy, law or regulation

If, in respect of a proposed rebalancing, the Strategy Sponsor determines that the Strategy Sponsor and/or any of its affiliates would be prevented from entering into transactions in respect of any relevant Component by any applicable internal policy, law or regulation then such proposed rebalancing may be rejected in its entirety and no rebalancing will occur.

Each proposed rebalancing is irrevocable

Unless otherwise agreed by the Strategy Sponsor, each proposed rebalancing is irrevocable and may not be subsequently changed or cancelled by the Strategy Allocator following notification thereof. The inability of the Strategy Allocator to revoke or amend any proposed rebalancing may have an adverse impact upon the performance of the Strategy (which may be material).

The Strategy Sponsor will have knowledge of information regarding changes to the adjustable parameters used to calculate the Strategy prior to the implementation of such changes

In respect of any rebalancing, the Strategy Sponsor will possess information regarding the changes to the

adjustable parameters (if any) prior to the implementation of such changes on the relevant rebalancing day. Subject to its regulatory obligations and its internal policies, the Strategy Sponsor is under no obligation to disclose to any person any such information prior to the relevant rebalancing day. Policies and procedures have been established by the Strategy Sponsor to address any conflicts of interest that may arise as a result of possessing such information immediately prior to any rebalancing date and to control access to such information.

The value of the Strategy prior to the date of on which the Strategy Allocator is appointed will be calculated using adjustable parameter values retrospectively provided by the Strategy Allocator

The value of the Strategy in respect of each Strategy Calculation Day falling in the period commencing on, and including, the Strategy Inception Date and ending on, but excluding, the date on which the Strategy Allocator is appointed will be calculated using adjustable parameter values retrospectively provided by the Strategy Allocator. Such adjustable parameter values are provided by the Strategy Allocator retrospectively with the benefit of historical information and analysis relating to the performance of the Components and of relevant markets generally. There is no guarantee that the Strategy Allocator would have determined the same adjustable parameter values for each adjustable parameter if it had been appointed with effect from the Strategy Inception Date. Neither the Strategy Sponsor nor the issuer of any Linked Product provides any assurance or guarantee that the Strategy will operate or would have operated in the past in a manner consistent with the performance of Strategy prior to the date of on which the Strategy Allocator was appointed. As such, any historical returns of may not reflect the performance of and are no guarantee or assurance in respect of the performance or returns of, the Strategy over any time period.

A parameter adjustment may not result in any rebalancing of Components if the optimization constraints are not satisfied on the related parameter adjustment day

There can be no assurance or guarantee that, following the satisfaction of the parameter adjustment constraints and the implementation of any parameter adjustment in accordance with the related adjustable parameter values, there will be any combination of calculated weights in respect of the respective Components which utilise such adjustable parameter values and that satisfy the applicable optimization constraints in respect of the related parameter adjustment day. If the applicable optimization constraints are not satisfied in respect of such parameter adjustment day following the implementation of the related adjustable parameter values, the calculated weights of such Components may not change (notwithstanding that such optimization constraints may have been satisfied had a parameter adjustment been implemented on the reference date immediately preceding the related notification date).

The reference data used to evaluate any relevant allocation or parameter adjustment constraints may be unavailable

The reference data used by the Strategy Calculation Agent to evaluate whether or not any allocation constraints or parameter adjustment constraints have been satisfied may be unavailable and in such circumstances, by default, previously available data may be used to evaluate such constraints. In the event that such data is out of date or no longer valid, the discrepancies when compared to more current data (once available) could be significant and, as a result, the evaluation of whether or not any allocation constraints or parameter adjustment constraints have been satisfied could be materially different than it would have been if up to date data was available at the relevant time. This could have an adverse effect on the performance of the Strategy and/or any Linked Products.

Certain calculations used for the purposes of evaluating any relevant allocation or parameter

adjustment constraints may be determined by reference to the Strategy Calculation Agent's own proprietary models

If so specified in the Strategy Description, the product notional, unit divisor and/or any other relevant calculations that, in each case, may be used for the purposes of evaluating whether or not any allocation constraints or parameter adjustment constraints have been satisfied in respect of a proposed rebalancing, may be calculated by the Strategy Calculation Agent by reference to values or other information that is derived from its own proprietary models. There is no guarantee that the Strategy Allocator will have access to full details of such internal models or the values generated by such models. In addition, there is no guarantee that such internal values will correspond with any relevant market data or that would be determined by other market participants (and any such participants may use alternative models that would produce different results).

On a given proposed rebalancing day, one or more component stocks that are the subject of the relevant rebalancing may be on the RTL and, therefore, that may adversely affect the Strategy's performance

If so specified in the Strategy Description, where a company is placed on the RTL as a result of a potential restriction on Goldman Sachs' ability to principally transact in the stock or options of such company, its shares may be disqualified as a member of the component stock universe of the Strategy. Therefore, as a result, the Strategy Sponsor will not be able to effect any proposed rebalancing that references such component stocks even if the Strategy Sponsor had previously accepted any rebalancing request from the Strategy Allocator that referenced such component stock. Therefore, such disqualification (and the timing of such disqualification) may adversely affect the performance of the Strategy.

Any proposed rebalancing of the Strategy may be subject to disruption

Notwithstanding the time or day on which any notification relating to a proposed parameter adjustment is given by the Strategy Allocator, the relevant Strategy to which such notification relates will only be rebalanced with effect from the relevant rebalancing day, or rebalancing days, as applicable by reference to the change in number of units or target weights (howsoever defined or described in the relevant Strategy Description) of the relevant Component(s) in respect of such rebalancing day(s).

In certain circumstances, including but not limited to where any proposed parameter adjustment is provided in advance or where multiple proposed parameter adjustments are requested by the Strategy Allocator in respect of a single rebalancing day, the Strategy Sponsor may be unable to rebalance the Strategy on the specified rebalancing day or rebalancing days due to the occurrence of certain events (including but not limited to, Disruption Events) in the intervening time period between provision of the relevant notification and the specified rebalancing day(s). Where the Strategy Sponsor is unable to implement a rebalancing (in whole or in part), the Components will remain unchanged (except to the extent that such may be adjusted as a result of corporate actions affecting such Components). The inability to give effect to a proposed parameter adjustment for such reasons is likely to have an adverse impact the performance of the Strategy and any Linked Product.

The timing of a rebalancing day may be determined by the Strategy Calculation Agent in its sole and absolute discretion and may not be the one targeted by the Strategy Allocator

Where specified in the Strategy Description for the Strategy, the determination of whether a Strategy Calculation Day will constitute a rebalancing day in respect of a proposed rebalancing will be made by the Strategy Calculation Agent in its sole and absolute discretion and the actual rebalancing day in respect of such proposed rebalancing may therefore not be the one targeted by the Strategy Allocator. In addition, the timing of execution of a given instruction may be determined by the Strategy Calculation Agent and may be different to a given time specified by the Strategy Allocator. This discretion of the Strategy Calculation Agent to determine a rebalancing

day and a time of execution in respect of a proposed rebalancing may have an adverse impact on the performance of the Strategy, perhaps materially so, and the determination of the Strategy Calculation Agent shall be conclusive and binding in all circumstances.

The proposed calculated target quantities or preliminary component transaction quantities (as the case may be) may be calculated without reference to corrected data

If so specified in the Strategy Description for the Strategy, in the event that the value of any component which is used for the calculation of a proposed calculated target quantity or preliminary component transaction quantity (in each case, howsoever defined in the relevant Strategy Description) is corrected or restated after such time as it is used in any such calculation, the Strategy Calculation Agent will not use such corrected or restated value for the purpose of the relevant calculation and will instead use the relevant proposed calculated target quantity or preliminary component transaction quantity as calculated before such correction or restatement. As a result, the performance of the Strategy may differ from the performance had such corrected or restated values been used, and possibly materially so.

Trading in any relevant Component may be suspended or subject to any short sell circuit breaker

In certain circumstances, the Strategy Sponsor may not be able to execute a rebalancing in whole or in part due to external factors such as, but not limited to, trading suspensions or short sell circuit breakers, in each case, in accordance with regulatory measures or the rules of any relevant exchange.

The Strategy Sponsor may, in certain circumstances, instruct the Strategy Calculation Agent to take an alternative action to that prescribed in the Strategy Calculation Agent Methodology in relation to the adjustment of a Strategy following the occurrence of a corporate action in respect of a Component

Further to the risk factor entitled "The Strategy Sponsor and the Strategy Calculation Agent have the discretion to make determinations that could materially affect the Strategy and create conflicts of interest", the Strategy Sponsor may, in circumstances where it determines that it and/or its affiliates would (after using commercially reasonable efforts) be unable to, or would incur additional costs to, replicate any adjustment or lack thereof proposed in accordance with an applicable Strategy Calculation Agent Methodology following the occurrence of a corporate action in respect of a Component, instruct the Strategy Calculation Agent to take an alternative action (including but not limited to making a different adjustment) to allow the Strategy Sponsor and/or its affiliates to replicate the relevant adjustment or lack thereof and with the goal of preserving the original Strategy Purpose. Determinations made by the Strategy Sponsor in this regard could adversely affect the value of the Strategy or any Linked Product and the exercise by the Strategy Sponsor of such discretion could present them with a conflict of interest of the kind described in the section entitled "Conflicts of Interest" above.

In making any such determinations, the Strategy Sponsor will not be required to, and will not, take the interests of any investor of any Linked Product into account or consider the effect their determinations will have on the value of such a Linked Product. All determinations made by the Strategy Sponsor and shall be conclusive for all purposes and will bind all holders or investors in any Linked Product. The Strategy Sponsor shall not have any liability for such determinations.

Certain calculations may be subsequently adjusted to account for the occurrence of corporate actions in respect of a Component

If so specified in the relevant Strategy Description, certain calculations used for the purposes of determining the number of units, quantity or weight (howsoever defined) in respect of a Component may be subsequently adjusted by the Strategy Calculation Agent to account for the occurrence of any corporate actions that have

taken effect in respect of such Component in a defined period before any relevant rebalancing is implemented. Any such adjustment shall be applied by the Strategy Calculation Agent in accordance with the methodology outlined in the relevant Strategy Description and will not take into account the interests of any investors in Linked Products when making such adjustment.

Any relevant foreign exchange conversions specified in the Strategy Description may occur with a lag

The foreign exchange conversions specified in the Strategy Description occur with a specified lag (which may be equal to or greater than zero). In cases where such a lag is greater than zero, the Strategy will remain exposed to the risks associated with currency exchange rate fluctuations during the relevant lag period. Such currency exchange rate fluctuations may impact the returns in a negative way (potentially materially so) on any Linked Product relative to the returns in the event the lag was not in place.

The performance of the Strategy may be reduced by the deduction of certain notional costs that relate to actions or performance of third-parties

If so specified in the Strategy Description, the performance of the Strategy may be reduced by the deduction of a certain fees or a specified percentage rate representing the realised performance of the Strategy in excess of a given threshold (or “high water mark”) which will accrue for the benefit of the Strategy Allocator or other third-parties as specified in the Strategy Description. Such reduced performance will decrease the returns (potentially materially so) on any Linked Product relative to the returns in the event the deduction had not been applied and may be less than those that might have been possible from an investment which did not contain such a deduction as a feature.

Any rebalancing of a Strategy due to a cash resetting or automatic re-weighting mechanism may adversely affect the performance of the Strategy

If so specified in the Strategy Description, on any Strategy Calculation Day where any relevant cash resetting or automatic re-weighting mechanism take effect, the Components shall be rebalanced. The resulting quantity determined for each Component on such Strategy Calculation Day may be materially different from the quantity prevailing in relation to that Component prior to such rebalancing. Changes in the price of the Component subsequent to that rebalancing could have adverse consequences for the performance of the Strategy which may have been avoided if such a rebalancing had not occurred at all. Furthermore, such a rebalancing may impose transaction costs on the Strategy, which have the effect of reducing the value of the Strategy.

Dividends are subject to assumed tax rates which will have a negative impact on the Strategy

If so specified in the Strategy Description, the Strategy will deduct a notional dividend withholding tax from any relevant dividend amounts in respect of a Component, which is intended to reflect the withholding tax rate levied, or the potential tax rate that may be levied, by the country of incorporation or residence of the issuer of such Component. The assumed tax rate (which may be zero) will be determined by the Strategy Calculation Agent based on its view of applicable law and/or regulations, observable sources and/or market practice. The assumed tax rates may be amended from time to time by the Strategy Calculation Agent. If the assumed tax rate in respect of one or more Component is increased, then the Strategy Value may be affected.

The Strategy Sponsor or any of its affiliates (a “Hedging Party”) that has hedged its exposure to the Components will benefit if the effective rate of withholding tax that it incurs in carrying out its hedging activity is less than the synthetic tax withholding applied in respect of the Strategy. Any such benefit will not be passed on to investors in Linked Products.

Cost of maintaining a short cash balance

Subject to the parameters of the applicable Strategy Description, the Strategy may be permitted to hold an aggregated short cash balance position. Where a short cash balance position is in place, which would be a result of maintaining a leveraged position in non-cash components (subject to the allocation constraints set out in the Strategy Description) the Strategy may incur a cost of maintaining such position, as specified in the Strategy Description (expressed as a negative percentage). The deduction of such a cost will have a negative impact (perhaps materially so) on the performance of the Strategy.

Hedging activity and terms of dealing

A Hedging Party may hedge its exposure or potential or expected exposure to the Strategy (and other similar strategies), Linked Products and the Components with an affiliate or a third party. A Hedging Party may make significant returns on this hedging activity independently of the performance of the Strategy or the Components, including in scenarios where the levels at which it executes its hedging transactions are different from the levels specified in the methodology for determining the value of the Strategy (or otherwise where such Hedging Party does not hedge all of its exposure to such Strategy or any relevant Component).

Any returns on a Hedging Party's hedging activity or on any unhedged exposure will not be passed on to investors in Linked Products, and such investors will not have any rights in respect of a Hedging Party's hedge positions. Where a Hedging Party, in accordance with its internal policies and its Terms of Dealing (accessible via <http://www.goldmansachs.com/disclosures/gs-terms-of-dealing.pdf> (or any successor page thereto)), executes hedging activity as principal by trading in the Strategy (or other similar strategies) or the Components on, before or after the related rebalancing day(s), such trading may have an adverse impact on the level at which the Components are rebalanced (which may result in an adverse impact on the performance of the Strategy). Such hedging activity, and the size of such impact, will be linked to the amount of new and outstanding Linked Products at the relevant time and then-prevailing market conditions and may affect the market price of or liquidity in the relevant market of the Strategy or its Components and may result in profit, or loss, to the Hedging Party.

(1) Risks related to Strategies where the price and quantity of Components in respect of a rebalancing is determined by reference to hedging transactions executed by the Strategy Sponsor or any of its affiliates

Additional execution parameters will be determined at the discretion of the Hedging Party

Unless otherwise bilaterally agreed with the Strategy Allocator, the rebalancing price of a Component in respect of a rebalancing will be the weighted average price at which the Hedging Party has executed its hedging transactions. In executing such hedging transactions, the Hedging Party will take into account any specific execution instructions provided from time to time by the Strategy Allocator. However, (i) in the absence of any such execution instructions or (ii) in case such execution instructions do not contain all the required details such as the exact parameterisation of the execution algorithm to be employed by the Hedging Party (in each such case, "**Unspecified Execution Parameters**"), then the Hedging Party will, where applicable, exercise its discretion in determining such Unspecified Execution Parameters. It is possible that the Hedging Party's choice of the Unspecified Execution Parameters may result in a worse performance of the Strategy compared to the performance that could have been achieved with a different set of execution parameters. The Hedging Party is not required to take the interests of any person into account in determining the Unspecified Execution Parameters. None of the Hedging Party, Strategy Sponsor, Strategy Calculation Agent or any other Relevant Person shall be liable to any person for the choice of the Unspecified Execution Parameters and the impact of such choice on the performance of the Strategy or any relevant rebalancing.

Risks relating to the execution workflow in respect of a rebalancing

Any proposed rebalancing submitted by the Strategy Allocator will be received by the relevant Strategy Sponsor personnel and, therefore, involves aspects of manual intervention and interaction rather than being handled by a fully automated workflow. Although established standards and procedures will be followed in processing any such request, instructions may be subject to interpretation and, therefore, result in a different outcome to that which was targeted by the Strategy Allocator. Unless otherwise specified in the relevant Strategy Description, the Strategy Sponsor is under no obligation to validate and/or verify any relevant proposed rebalancing instructions (or any values contained in such instructions) received from the Strategy Allocator.

The implementation of any rebalancing may differ from the values specified by the Strategy Allocator in any proposed parameter adjustment

Notwithstanding that the Strategy Allocator has specified a proposed change in number of units, quantity or weights (howsoever defined) of any relevant Component in relation to a proposed rebalancing, the actual change in number of units, quantity or weights following such rebalancing shall be determined by reference to the actual number of units executed by the Hedging Party in its hedging transactions relating to such proposed rebalancing (if any) which may be impacted by, amongst other things, market conditions, order size, liquidity, volatility and other disruption events. Therefore, such actual change in number of units, quantity or weights may be less than the proposed change in number of units, quantity or weight specified by the Strategy Allocator and the Hedging Party shall not be under any obligation to execute hedging transactions of any given size or volume.

(C) RISKS RELATED TO STRATEGIES THAT CONTAIN SPECIFIC FEATURES

(I) Risks related to Strategies that are determined by reference to certain volatility calculations

The methodology used to calculate the price or level of a Component is specific to the Strategy

The price or level of a Component or any input relating to such Component (including, without limitation, a specific volatility value) shall be determined in accordance with the methodology and formula set out in the Strategy Description. Such methodology is specific to the Strategy and may differ to indices similar to the Strategy that use alternative methodologies or formulae (such as, for example, Black-Scholes option price formula). There is no guarantee that the use of such methodology or formula will result in the Strategy outperforming such other indices that use an alternative methodology or formula for such calculations.

(II) Risks related to single stock Strategies

Section 871(m) of the U.S. Internal Revenue Code

The United States Treasury Department has issued regulations under which amounts paid or deemed paid on certain financial instruments (“**871(m) financial instruments**”) that are treated as attributable to U.S. source dividends could be treated, in whole or in part depending on the circumstances, as a “dividend equivalent” payment that, as of the date of these General Strategy Terms, is subject to tax at a rate of 30 per cent. (or a lower rate under an applicable treaty), which in the case of any amounts or returns which an investor in Linked Products may receive under the terms of their investment, could be collected via withholding.

If these regulations were to apply, the counterparty to, or issuer of, such products may be required to withhold such taxes if any dividends are paid on any Component during the term of such investment. Any such investor may also be required to make certifications prior to the maturity of their investment in order to avoid or minimize withholding obligations, and the counterparty or issuer (as applicable) could withhold accordingly (subject to

such investor's potential right to claim a refund from the United States Internal Revenue Service) if such certifications are not received or are not satisfactory.

These regulations apply to certain 871(m) financial instruments (or a combination of financial instruments treated as having been entered into in connection with each other) that have a delta (as defined in the applicable Treasury regulations) of one and are issued (or significantly modified and treated as retired and reissued) on or after January 1, 2017, but will also apply to non-delta-one 871(m) financial instruments (or a combination of financial instruments treated as having been entered into in connection with each other) issued (or significantly modified and treated as retired and reissued) on or after January 1, 2023. Investors in Linked Products should consult their tax advisors concerning these regulations or subsequent official guidance and regarding any other possible alternative characterisations of such products for United States federal income tax purposes.

Potential reliance on a weight calculation agent

If so specified in the Strategy Description, the Strategy may rely on a weight calculation agent (as defined and further described in the relevant Strategy Description) to fulfil certain obligations in respect of each rebalancing, including determining the Components to be included in the Strategy and their respective weights. If such entity does not, and/or is unable to, perform its obligations in respect of the Strategy, the performance of the Strategy is likely to be materially affected. In such cases the Strategy Sponsor may postpone one or more rebalancings until the required data are available from such entity. If the appointment of such entity terminates for any reason it is likely that the performance of the Strategy will be impaired, possibly permanently. If for any reason, including as a result of such termination, the relevant data utilised by such entity to determine the Components to be included in the Strategy and their respective weights ceases to be available, it is likely that the Strategy Sponsor will be required to change the Strategy methodology in order to continue determining the Strategy.

Reliance on the Strategy Calculation Agent

The Strategy relies on the Strategy Calculation Agent, which may be a third party if so specified in the Strategy Description, to determine the value of the Strategy, amongst other obligations. If the Strategy Calculation Agent does not, and/or is unable to, perform its obligations in respect of the Strategy, the determination and publication of the value of the Strategy is likely to be materially delayed. In such cases the Strategy Sponsor will aim to replace the Strategy Calculation Agent but there is no guarantee that this will be achieved in a reasonable timeframe and the determination and publication of the value of the Strategy may be delayed for a material period of time. This is likely to have an adverse effect on Linked Products, including the possible termination of such Linked Products.

Potential reliance on a separate strategy calculation agent or corporate action methodology

If so specified in the Strategy Description, the Strategy may rely on a separate methodology to determine, amongst other things, how corporate actions are applied to the Components. Using a different methodology could lead to different outcomes and as such, any changes to such methodology could have a material impact on the Strategy. Unless the Strategy Sponsor also acts as the Strategy Calculation Agent and uses its own calculation methodology, the Strategy Sponsor will not be able to influence changes to such methodology.

However, the Strategy Sponsor may replace a methodology from time to time (including, without limitation, creating a new methodology to determine corporate actions and the relevant adjustments), in the accordance with the section of these General Strategy Terms entitled "*Change in Strategy Methodology*", and such replacement could have a material impact on the performance of the Strategy.

Exchanges closed on observation days and rebalancing days

The universe of potential stocks in respect of a Strategy may be broad and cover one or multiple jurisdictions and stock exchanges. Therefore, in relation to Strategies referencing a large pool of potential stocks, it is likely that on any observation day and/or rebalancing day the primary exchange(s) for a significant proportion of the Components included in the Strategy will be closed. Where the relevant primary exchange for a Component is closed, the Strategy may use one or more previous prices (or such other prices as determined by the Strategy Sponsor acting in good faith and a commercially reasonable manner) for such Component. As a result, such alternative prices may be used for a significant proportion of the universe of potential stocks when determining the Components and their weights. This may impact the performance of the Strategy as compared to a methodology that required all exchanges to be open on an observation day and/or a rebalancing day.

Exact rebalancing days unavailable

Given the universe of potential stocks may be broad and cover multiple jurisdictions and stock exchanges, the business day calendar used to determine the frequency of rebalancing days is a sub-set of the entire holiday calendar for all possible jurisdictions and stock exchanges. The exact calendar used by the Strategy may not be made public.

The weights assigned to the Components will be published on a delayed basis

The weights assigned to the Components will be published on a delayed basis following each rebalancing day. Investors in Linked Products may not be entitled to further information from the Strategy Sponsor regarding the weights of the Components. The Strategy Sponsor may also have entered into non-exclusive licensing agreements with certain of its third-party data suppliers in order to source the necessary data to calculate the Strategy. The formalities necessary to obtain access to such figures may deter potential investors in Linked Products on the secondary market.

Strategy Sponsor determination of the price of Component

To the extent that a Disruption Event has occurred in respect of a Component for any Strategy Calculation Day, the Strategy Sponsor may determine the price of the relevant Component in its commercially reasonable judgment, and in making such determination, the Strategy Sponsor may, but shall not be obliged to, have reference to the most recently available price of the relevant Component. If the Strategy Sponsor makes such a determination in respect of the price of an affected Component, it is likely that such price would be different from what it would have been if a Disruption Event had not occurred and this may have an adverse effect on the value of the Strategy.

Strategy Calculation Agent determination of adjustments to Component

To the extent that an Extraordinary Event has occurred in respect of a Component for any Strategy Calculation Day, the Strategy Calculation Agent may determine adjustments to the value of the Strategy and/or the price of a Component in accordance with the Strategy Calculation Agent Methodology. The determinations will be made by the Strategy Calculation Agent acting in good faith and a commercially reasonable manner. Such determinations may however differ from determinations made in respect of other indices or products by other third parties, potentially materially so.

(III) Risks related to Strategies that reference time weighted average prices

The Strategy uses time weighted average prices in the calculation of the value of the Strategy

The Strategy may, in certain circumstances, use a time weighted average price (a “TWAP”) in order to calculate the price or rate (as applicable) in respect of any relevant day. The TWAPs used in the calculation of the Strategy are calculated by the in accordance with a methodology set out in the Strategy Description which are specific to the Strategy. No assurances can be given that any such TWAP specification used in the calculation of the Strategy is optimal and will have a positive effect on the performance of the Strategy. Any such TWAP may be higher or lower than the reference price or rate (as applicable) in respect of the relevant reference asset and such time. There is no guarantee that the Strategy will outperform an index which is otherwise identical to the Strategy but uses the reference price or rate (as applicable) instead of the relevant TWAP in respect of such reference asset and there is a risk that the Strategy might underperform such an index.

The methodology for the calculation of any relevant TWAP could affect the value of the Strategy

The methodology for the calculation of any relevant TWAP could affect the value of the Strategy and, therefore, the amount payable on any Linked Product on the stated maturity date (or other specified payment dates) of such Linked Product and the market value of such Linked Product before that date. The amount payable on any Linked Products and their market value could also be affected if the entity that calculates such TWAP changes these policies, for example, by changing the manner in which it calculates any relevant TWAP, or if the relevant entity terminates the calculation or publication of such TWAP, in which case the Strategy Sponsor may have to use the reference price or rate (as applicable) for the relevant reference asset. If such policy changes relating to any relevant TWAP or the calculation or publication such TWAP is discontinued or suspended, the Strategy Sponsor will have discretion in determining the adjustments to be made to the Strategy in order to calculate the value of the Strategy.

The policies of the TWAP Sponsor and changes that affect the calculation of any relevant TWAP could affect the value of the GS Strategy

The policies of the relevant entity that calculates a TWAP concerning the calculation of any relevant TWAP could affect the value of the Strategy and, therefore, the amount payable on any Linked Products on the stated maturity date (or other specified payment dates) of such Linked Products and the market value of such Linked Products before that date. The amount payable on any Linked Product and its market value could also be affected if the relevant entity changes these policies, for example, by changing the manner in which it calculates any relevant TWAP, or if such relevant entity terminates the calculation or publication of such TWAP, in which case the Strategy Sponsor may have to use the reference price or rate (as applicable) for the relevant Component. If such policy changes relating to any relevant TWAP or the calculation or publication such TWAP is discontinued or suspended, the Strategy Sponsor will have discretion in determining the adjustments to be made to the Strategy in order to calculate the value of the Strategy.

The entity which calculates a TWAP has the discretion to make determinations that could materially affect the Strategy and create conflicts of interest

The relevant entity that calculates a TWAP in respect of a Strategy does not generally exercise any discretion and owes no fiduciary duties in respect of the Strategy or any Linked Product. However, the relevant TWAP Sponsor has a certain amount of discretion in the event of the occurrence of certain adjustment events or disruption events as outlined above.

Determinations made by the relevant entity could adversely affect the TWAP in respect of a reference asset and a TWAP window and consequently the value of the Strategy or any financial instrument that utilises such TWAP, such as Linked Products. The exercise by the relevant entity of its discretion could present it with a

conflict of interest of the kind described in the section of these General Strategy Terms entitled "*Conflicts of Interest*". In making those determinations, the relevant entity will not be required to, and will not, take the interests of holder of any Linked Product into account or consider the effect its determinations will have on the value of such Linked Product. All determinations made by the relevant entity shall be at its sole discretion and shall be conclusive for all purposes and will bind all holders of any Linked Product. The relevant entity shall not have any liability for such determinations.

The Strategy Sponsor and its affiliates may develop or trade in products linked to competing indices and/or strategies

The Strategy Sponsor may sponsor and calculate indices and/or strategies which have the same or similar objectives to (and have the same or similar Components as) the Strategy, but which have windows of time in which a TWAP is determined which overlap with, or are otherwise different to, those specified in respect of the Strategy and may sponsor and/or calculate more such indices and/or strategies in the future. Further, the Strategy Sponsor may issue or underwrite securities or trade other financial or derivative instruments or investments referenced to such other indices and/or strategies.

(IV) Risks related to Strategies that reference underlying synthetic asset transactions automatically created by transaction or operation modules

Synthetic asset transactions are created automatically by the transaction or operation modules

The quantities of the components in the Strategy may increase or decrease automatically, as a result of the synthetic asset transactions created by the transaction or operation modules on each relevant rebalancing day. Over time this may result in an automatic increase (or decrease) in the Strategy's exposure to the relevant components. Such exposure (which may be a "long" exposure or a "short" exposure) to the relevant components may become material over time and the value of the Strategy may be impacted to a greater degree by any movement in the price or value of such underlying components. Accordingly, such increased exposure to the relevant components may have a material impact upon the performance of the Strategy.

The creation of synthetic asset transactions may result in certain notional costs being incurred with respect to any basket rebalancing

Certain notional basket rebalancing costs which are embedded in the Strategy synthetically reflect the cost of establishing and unwinding synthetic asset transactions upon each basket rebalancing. Each such transaction created automatically by the transaction or operation modules on each rebalancing day will give rise to basket rebalancing costs which are deducted from the value of the Strategy.

Any increase in the number and notional amount of synthetic asset transactions generated by the transaction or operation modules will increase the level of the costs deducted from the value of the Strategy. A strategy which generates fewer or less frequent underlying synthetic transactions than the Strategy may have lower synthetic rebalancing costs than the Strategy.

Past performance of the Strategy affects the synthetic asset transactions determined by the Strategy and the components and prices selected by the Strategy

Synthetic asset transactions generated by the Strategy are calculated with reference to the basket value of the Strategy. In addition, the selection of components (and their corresponding prices) are dependent upon the market environment. Therefore, past values of the basket and the relevant components (and market performance) affect the current composition of the Strategy, and its exposure to individual components.

No synthetic asset transaction will occur with respect to any component or operation module following if the basket value on any day is equal to or less than zero (a “Negative Value Event”)

Unless otherwise stated in the Strategy Description, if a Negative Value Event occurs on any relevant day then no further basket rebalancing days will occur after such day. Following such Negative Value Event, no new synthetic asset transaction will occur with respect to any transaction or operation module or component. This means that, following the occurrence of a Negative Value Event, the Strategy will remain exposed to the value of the outstanding allocated universe of components and the value of the Strategy may potentially be reduced if the values of such components change. Given that the Strategy will no longer synthetically enter into new transactions, it will not gain new exposure to components and will not participate in any changes in value of components other than the ones comprised within the allocated universe of components as of the date of the Negative Value Event.

(V) Risks related to Strategies which contain certain other features

The Strategy may be subject to Non-Tradable Events

If a Non-Tradable Event is specified in the relevant Strategy Description and has occurred (which may include the occurrence of a Disruption Event) or is continuing in respect of a Component on any Strategy Calculation Day on which the value of the Strategy is scheduled to be calculated by the Strategy Sponsor in accordance with the Strategy Description, the units or weight of such Component held by the Strategy in respect of each relevant calculation session may not change until such Non-Tradable Event ceases to exist. The Strategy Sponsor may calculate a tradable level of the Strategy using the same methodology for calculating the value of the Strategy, but using tradable levels of such Component in place of its level (or ask level, bid level or mid-level, as the case may be). In such case, it is likely that the value of the Strategy will be different from what it would have been if such Non-Tradable Event had not occurred, and it may vary unpredictably and could be lower.

Following a Stop Loss Event, the Strategy may suffer significant losses

The Strategy may include a stop loss mechanism which aims to limit the maximum loss in the Strategy. However, the Strategy will not be able to unwind its positions in any affected trades immediately, only on the following Strategy Calculation Day. As a result, the Strategy could suffer significant losses before its positions in any affected trades are fully unwound.

Volatility and Strategy risk

A Strategy may have a daily volatility adjustment feature (if so specified in the relevant Strategy Description), which aims to provide a notional volatility-controlled exposure to the Components of such Strategy. This is achieved by periodically increasing or decreasing the exposure of such Strategy to the Components, based on the realized volatility of the Components over a certain period of time relative to a pre-determined volatility target. An increase in the realized volatility of a Component may decrease the exposure of such Strategy to such Component.

If the daily volatility adjustment feature is applicable, an underperformance of the Strategy compared to a similar Strategy without such feature could be observed in periods where the value of a Component in which a Strategy holds a synthetic long position is increasing and, at the same time, the realized volatility exceeds the volatility target. The daily volatility adjustment feature, if applicable, is not designed for short term investments both in terms of improved participation for option-based payoffs linked to the Strategy and in terms of the performance of the Strategy.

Potential investors should make their own investigations and form their own views as to the appropriateness or otherwise of such Strategy, taking into account their own circumstances. In particular, potential investors in Linked Products should note that such Strategy may not reflect the return that could be realized from a direct investment in the Components.

If a Strategy uses an optimisation computer software package, then such package may not determine the mathematically optimal result

As part of its pre-determined set of rules a Strategy may use a commercially available optimisation computer software package (an “**Optimiser**”) to solve a mathematical optimisation problem, which may be subject to certain optimisation constraints. For example, if specified in the Strategy Description, such Strategy may use an Optimiser to calculate the weights of certain Components with the aim of maximising or minimising one or more variables.

As the possible results may be a continuous function, there may be no simple function to test the various combinations of results. Consequently, it is necessary to use approximations contained in computation routines. There is no guarantee that in respect of any optimisation problem an Optimiser will determine the optimal set of results and it is possible that there exist alternative results that satisfy the relevant constraints. Furthermore, the Strategy Calculation Agent may from time to time change the Optimiser used in respect of a Strategy. Different Optimisers may be more or less likely to determine the optimal result for a Strategy and using them could lead to a different performance of a Strategy. If such Strategy employed a different Optimiser, the results of rebalancing could be different and possibly materially so. As such, the performance of the Strategy may be dependent on the choice of Optimiser and could be materially different if the Strategy Sponsor replaces the Optimiser at any time.

If specified in the relevant Strategy Description, the level at which Components are rebalanced will depend on the execution by the Strategy Sponsor

If so specified in the relevant Strategy Description in respect of one or more Components, then the level at which such rebalancing takes place will depend on the Strategy Sponsor's execution level of its own hedge positions. The Strategy Sponsor will not owe any fiduciary duties in respect of such execution (and in particular will not be under any obligations of "best execution" or similar) to any investor in a Linked Product or to any other person.

In times of a whipsawing market in respect of an underlying asset of any Component, the Strategy may be unsuccessful in generating positive returns based upon any momentum risk premium

If the Strategy aims to capture positive returns arising from notional exposure to the momentum risk premium in respect of the underlying assets of a Component it shall rely on a degree of momentum in any trend identified in respect of such underlying assets (i.e. that a trend that is identified will be sustained for a period). In a whipsawing market for any underlying asset, being a market characterised by high volatility and large and/or frequent swings, there may be the rapid and frequent appearance of trends that do not subsequently develop and/or are swiftly reversed. In such circumstances, and where the methodology of the relevant Component is unable to adjust the notional exposure to the relevant underlying asset in sufficient time to limit any adverse effects of such a swing, the methodology of the Strategy may be unsuccessful in generating any positive returns and may perform less well than a strategy intended to capture alternative risk premia.

(VI) Risk related to Strategies that are Intraday Strategies

The Strategy Sponsor may elect to suspend the synthetic execution of new transactions within the Strategy and is not required to correct or restate the Strategy Value to account for specific disruptions

Intraday Strategies will (where applicable) be subject to different treatment from other strategies regarding certain disruptions. In particular, where the Strategy Sponsor determines that (in each case due directly or indirectly to the quality or unavailability of Intraday Data or failures in internal systems and/or data/risk processes) it or an Affiliate is unable (a) prior to a relevant window to determine the hedges required to be executed by the Strategy Sponsor or an Affiliate in relation to its exposure to such Intraday Strategy; or (b) to access any relevant financial market, trading venue or exchange to execute such hedges, including internal trading and order entry systems, then the Strategy Sponsor is likely to suspend the synthetic execution of new transactions within the Strategy. The timing of the re-commencement of trading within the Strategy following such suspension shall be determined by the Strategy Sponsor in its sole and absolute discretion. The Strategy Sponsor may elect to take various other steps in the event of any such issues or circumstances (as further described in the section “Disruption Events and Consequences” of these General Strategy Terms). Suspension of synthetic execution of new transactions and any other steps taken by the Strategy Sponsor will be likely to materially affect the value of the Strategy had such disruption event not occurred and/or such actions not been taken. Additionally, the Strategy Sponsor will not restate the Strategy Value in such circumstances to take account for any suspension and/or disruption. This may decrease, potentially materially so, the return on any Linked Products relative to a corrected and restated Strategy Value.

The Strategy Sponsor is not required to restate the strategy to account for incorrectly computed quantities of assets or components and the Strategy will be calculated without reference to corrected data

As referenced in the section entitled “Restatements of Input Data”, the Strategy Sponsor is not required to restate or correct a Strategy Value for an Intraday Strategy to account for incorrectly computed Asset or Component Quantities that may arise as a result of any discrepancy between the Strategy Description and the calculation of the Strategy Value, errors in calculation or computation of the Strategy, publication errors (where such calculation, computation or publication errors may include Goldman Sachs internal errors, including errors in the processing of third-party data) (together “Errors”). It is likely that the Strategy Sponsor will not restate the Strategy Value to account for any such Errors in any of these circumstances. If any Component or Input Data is restated, rebased, otherwise adjusted or modified or a level published or provided to the Strategy Calculation Agent in relation to such Component is corrected after its initial publication or provision, the Strategy Sponsor will not use such corrected value for the purpose of calculating the relevant Asset or Component Quantities and will instead use the applicable quantities as calculated before such correction. A failure to restate the Strategy Value to account for such Errors and/or to use corrected values to calculate an Asset or Component Quantity may adversely impact the performance of the Strategy and decrease (potentially materially so) the return on any Linked Product relative to a corrected and restated Strategy Value.

(D) RISKS RELATED TO SPECIFIC COMPONENTS

(I) Risks related to Strategies referencing Components that are shares, ETFs or funds

The reference level of Components which are shares, ETFs or funds may be adjusted to take account of net dividend payments and other potential adjustment events

On the date on which a Component which is a share, ETF or fund commences trading without the rights to receive a dividend, the reference level of such component will be adjusted by the Strategy Sponsor with the aim of increasing the level to a value as if the relevant dividend amount, net of tax, had not been declared. When

making such adjustment, the Strategy Sponsor will assume a notional tax rate in respect of the dividend, which will reduce the increase in the reference level for such Component. Such tax rates may vary according to changes in tax laws and procedures.

Any announced dividend in respect of a Component will be reduced by an assumed tax rate (which may be zero), which is intended to reflect the withholding tax rate levied, or the potential tax rate that may be levied, by the country of incorporation or residence of the issuer of such Component. The assumed tax rate (which may be zero) will be determined by the Strategy Sponsor using the relevant Strategy methodology based on its view of applicable law and/or regulations, observable sources and/or market practice. The assumed tax rates may be amended from time to time by the Strategy Sponsor. If the assumed tax rate in respect of one or more Components is increased, then the value of a Strategy may be affected.

The Strategy Sponsor and/or any affiliate that has hedged its exposure to any Component will benefit if the effective rate of withholding tax that it incurs through its hedging activity is less than the synthetic tax withholding applied in respect of the relevant Strategy and such benefit will not be passed on to the investors in Linked Products.

Following the determination by the Strategy Sponsor that an event has occurred that would have a diluting or concentrative effect in respect of a Component or following any adjustment to the settlement terms of listed options or futures contracts on such Component traded on an options or futures exchange, the Strategy Sponsor may make an adjustment to account for such effect. The Strategy Sponsor may, but need not, determine the appropriate adjustment by reference (amongst other things) to the adjustment in respect of such event made by the other equity market dealers and/or exchanges (including but not limited to the reference exchange for such Component, and options and futures exchanges related to such Component) or quoting services. Such adjustment may have an adverse effect on the performance of the Strategy.

(II) Risks related to Strategies referencing Components that are foreign currency exchange rates

Changes in foreign currency exchange rates can be volatile and unpredictable

Generally, rates of exchange between foreign currencies are volatile, and this volatility may continue in the future, in particular with regard to emerging market currencies. Fluctuations in currency exchange rates could adversely affect the performance of the Strategy. Some markets, especially emerging markets, carry significant risks for investors.

Government policy can adversely affect foreign currency exchange rates

Foreign currency exchange rates can either float or be fixed by sovereign governments. From time to time, governments use a variety of techniques, such as intervention by a country's central bank or imposition of regulatory controls or taxes, to affect the exchange rate of their currencies. Governments may also issue a new currency to replace an existing currency or alter the exchange rate or exchange characteristics by devaluation or revaluation of a currency. Therefore, the level of a Component (and therefore any Strategy referencing such Component) which references foreign currency exchange rates could be significantly and unpredictably affected by governmental actions. Even in the absence of governmental action directly affecting foreign currency exchange rates, political, military or economic developments in a country issuing either currency of a relevant currency pair or elsewhere could lead to significant and sudden changes in the foreign currency exchange rate between currency pairs as well as the level of any Component referencing such foreign currency exchange rate taken into account for the purposes of the calculation of the value of the Strategy.

The government or central bank that issues either currency of a relevant currency pair will have no involvement

in the offer and sale of the Strategy and no obligations to the Strategy Sponsor. Each such government or central bank may take actions that could adversely affect the value of the Strategy.

Foreign exchange rates are influenced by unpredictable factors

Generally, foreign exchange rates are a result of the supply of, and demand for, a given currency both domestically and internationally. Changes in exchange rates may result from the interactions of many factors including economic, financial, social and political conditions in Europe, the United States, any other jurisdiction whose currency is either currency of a relevant currency pair. These conditions include, for example, the overall growth and performance of the economies of the United States, the European Monetary Union (and the constituent nations thereof), any other jurisdiction whose currency is either currency of the relevant currency pair, the trade and current account balance between such countries, inflation, interest rate levels, the performance of global stock markets, the stability of the United States, European or other relevant jurisdictions' governments and banking systems, wars in which such nations or regions are directly or indirectly involved or that occur anywhere in the world, major natural disasters, and other foreseeable and unforeseeable events.

Certain relevant information relating to relevant jurisdictions (in respect of any currency pair) may not be as well-known or as rapidly or thoroughly reported in the United States as compared to US developments. It is possible that there would be a lack of availability of important information that can affect the value of the one currency against another in respect of the Strategy, and special efforts may be required to obtain such information on a timely basis. See also the risk factor entitled "Government policy can adversely affect foreign currency exchange rates" above.

Foreign exchange rate information may not be readily available

There is no systematic reporting of last-sale information for foreign currencies. Reasonable current bid and offer information is available in certain brokers' offices, in bank foreign currency trading offices, and to others who wish to subscribe for this information, but this information will not necessarily reflect the currency exchange rates relevant for determining the value of the Strategy. The absence of last-sale information and the limited availability of quotations to individual investors may make it difficult for many investors to obtain timely, accurate data about the state of the underlying foreign exchange markets.

(III) Risks related to Strategies referencing Components that are options contracts

The rationale for the Strategy is subject to certain trends and assumptions which may result in losses for the Strategy in the long term if underlying markets or prices move contrary to such trends or assumptions.

The rationale for the Strategy will be subject to certain trends and assumptions regarding the underlying market dynamics, including without limitation and by way of example, regarding the price at which implied volatility shall trade compared to the fair expectation of realised volatility and how such price reflects the natural demand for options compared to the supply of options contracts. It is possible that in the future that such underlying markets or supply and demand for the relevant reference asset(s) could change contrary to such trends and assumptions, which could in turn reduce or eliminate the source of gains for the Strategy.

The Components included in the Strategy may be removed or replaced if the existing Component has ceased to be published and has not been replaced by a successor options contract, or has ceased to be liquid, actively traded and generally available for trading, or will be terminated or delisted.

If a Component included in the Strategy has ceased to be published and has not been replaced by a successor

options contract, or has ceased to be liquid, actively traded and generally available for trading, or will be terminated or delisted, the Strategy Sponsor may elect to remove or replace such Component in order for the value of the Strategy to continue to be calculated. This may have an adverse impact on the value of the Strategy.

The Components included in the Strategy may be removed or replaced if the relevant price source makes a material change to the existing vanilla option or contract expiration

If the relevant price source makes, in the reasonable judgment of the Strategy Sponsor, a material change in the weighting or composition of, formula for, or method of calculating a Component or in any other way materially modifies such Component (other than a modification prescribed in that formula or method relating to the weighting or composition of such Component or other routine events or modifications), the Strategy Sponsor may elect to remove or replace such Component in order for the value of the Strategy to continue to be calculated. This may have an adverse impact on the value of the Strategy.

The Strategy may have variable sensitivity to the reference asset underlying the relevant options contract, levels of implied volatility of the relevant options contract and the realised volatility of the relevant options contract.

The Strategy notionally trades options contracts. Sensitivity of options to the moves in value of the reference asset underlying the relevant options contract, the implied volatility of the relevant options contract and the realised volatility of the relevant options contract can be volatile and hard to predict, including changing the sign within a short period of time. Therefore, the Strategy may exhibit performance that is not consistent through time and the Strategy may be path dependent.

(IV) Risks related to Strategies referencing Components that are over-the-counter interest rate derivative transactions

The adjustments made to the relevant swap rate or the annuity of any relevant forward swap contract may not achieve their objective

The methodology of a Strategy may provide for certain adjustments to be made to each of the swap rate and the annuity of a forward swap contract so that it reflects as closely as possible the level of a forward swap rate at which hypothetical transactions could be executed or the level of the annuity of such forward swap contract at which hypothetical transactions could be executed, as the case may be. There is no assurance that such adjustments will achieve the objective and that any swap rate or annuity so adjusted will correspond with, or be similar to, third party market values (if any such values exist) or any values that may be determined by other market participants.

The swap conventions applicable to any relevant forward swap contract are determined by the Strategy Sponsor in its discretion

If so specified in the methodology of a Strategy, the swap conventions applicable to any relevant forward swap contract are determined by the Strategy Sponsor in its discretion and may not reflect market-standard swap conventions for forward interest rate swap transactions or floating rate options that are adopted by the relevant market or accepted by all or most market participants. Such swap conventions determined by the Strategy Sponsor in respect of any relevant forward swap contract may not correspond with, or be similar to, the swap conventions used by other market participants or used to identify the swap components of other indices.

The spot swap rate may be unavailable from the relevant swap source

The forward swap rate is calculated utilizing several inputs including the spot swap rate from a prescribed swap source. In a scenario where this spot swap rate is unavailable, the forward swap rate shall be calculated using an alternative source. This could have an adverse effect on the performance of the Strategy and/or any Linked Products.

Liquidity in transactions relating to the Components may move to other clearing houses or trading venues or may move to transactions relating to other instruments

If (i) liquidity in transactions relating to a Component moves from a clearing house or trading venue on which such Component would generally be cleared or traded to a different clearing house or trading venue, in accordance with market convention or (ii) liquidity in transactions relating to a Component (as identified by the relevant swap conventions) moves to transactions relating to other Components identified by one or more different swap conventions, in accordance with market convention, the Strategy Sponsor has the discretion to replace or remove such Component or assign a zero weight to such Component or any instrument to which such Component is linked from the Strategy and to make such adjustments as may be necessary to reflect such changes(s). This could have an adverse effect on the performance of the Strategy and/or Linked Products.

Liquidity in transactions relating to a spot swap rate published by the relevant swap source may move to transactions relating to a spot swap rate published by a different data source

If liquidity in transactions relating to a spot swap rate published by the relevant swap source has moved to transactions relating to a spot swap rate published by a different data source (which may be a spot swap rate published by a different data source provider or a spot swap rate published by the same data source provider on a different screen page and/or at a different time), in accordance with market convention, the spot swap rate used to calculate the Strategy may be the spot swap rate published by such other data source, as determined by the Strategy Sponsor. This could have an adverse effect on the performance of the Strategy and/or any Linked Products.

(V) Risks related to Strategies referencing Components that are or reference commodities or commodity indices

An investment in the Strategy is subject to risks associated with foreign commodities markets

The Components (either directly or indirectly) may track the performance of a single commodity selected from a universe of different commodities in the commodity markets. Such commodities may be represented by commodity futures which (i) trade outside the United States on international exchanges, and/or (ii) are denominated in currencies other than United States dollars. An investor in a Linked Product should be aware that investments linked to the value of foreign commodity futures contracts involve particular risks.

Certain Components may be linked to commodity futures contracts on physical commodities on trading facilities located outside the United States. The regulations of the CFTC do not apply to trading on foreign trading facilities, and trading on foreign trading facilities may involve different and greater risks than trading on United States trading facilities. Certain foreign markets may be more susceptible to disruption than United States trading facilities due to the lack of a government-regulated clearinghouse system. Trading on foreign trading facilities also involves certain other risks that are not applicable to trading on United States trading facilities. Those risks may include exchange rate risk relative to the United States dollars, exchange controls, expropriation, burdensome or confiscatory taxation, and moratoriums, and political or diplomatic events. It will also likely be more costly and difficult for the Strategy Sponsor to enforce the laws or regulations of a foreign country or trading facility, and it is possible that the foreign country or trading facility may not have laws or regulations which adequately protect the rights and interests of investors in the commodity futures contracts

included in the Strategy. In addition, because foreign trading facilities may be open on days when the value of the Strategy is not published, the value of the commodity futures contracts included in the Strategy may change on days when the value of the Strategy is unavailable.

Suspension or disruptions of market trading in the commodity and related options futures markets may adversely affect the value of the Strategy

The commodity markets are subject to temporary distortions or other market disruptions due to various factors, including the lack of liquidity in the markets, the participation of speculators and government regulation and intervention. In addition, U.S. futures exchanges and some foreign exchanges have regulations that limit the amount of fluctuation in futures contract prices that may occur during a single business day. These limits are generally referred to as "daily price fluctuation limits" and the maximum or minimum price of a contract on any given day as a result of these limits is referred to as a "limit price." Once the limit price has been reached in a particular contract, no trades may be made at a different price. Limit prices have the effect of precluding trading in a particular contract. These circumstances could adversely affect the level of the components in the Strategy and, therefore, the value of the Strategy and, therefore, any Linked Products.

Commodity prices are characterised by high and unpredictable volatility, which could lead to high and unpredictable volatility of the Strategy

Commodity prices, and, consequently, the prices of corresponding commodity futures contracts, are affected by various factors, including, but not limited to, supply and demand, liquidity, weather conditions and natural disasters, government programs and policies, political, military, terrorist and economic events as set out in more detail below.

- ***Supply and demand*** - The planning and management of commodities supplies is very time-consuming. This means that the scope for action on the supply side is limited and it is not always possible to adjust production swiftly to take account of demand. Demand can also vary on a regional basis. Transport costs for commodities in regions where these are needed also affect their prices. The fact that some commodities take a cyclical pattern, such as agricultural products which are only produced at certain times of the year, can also result in major price fluctuations.
- ***Liquidity*** - Not all commodities markets are liquid and able to quickly and adequately react to changes in supply and demand. The fact that there are only a few market participants in the commodities markets means that speculative investments can have negative consequences and may distort prices.
- ***Weather conditions and natural disasters*** - Unfavourable weather conditions can influence the supply of certain commodities for the entire year. This kind of supply crisis can lead to severe and unpredictable price fluctuations. Diseases and epidemics can also influence the prices of agricultural commodities.
- ***Governmental programs and policies, national and international political, military and economic events and trading activities in commodities and related contracts*** - Commodities are often produced in emerging market countries, with demand coming principally from industrialised nations. The political and economic situation is however far less stable in many emerging market countries than in the developed world. They are generally much more susceptible to the risks of rapid political change and economic setbacks. Political crises can affect purchaser confidence, which can as a consequence affect commodity prices. Armed conflicts can also impact on the supply and demand for certain commodities. It is also possible for industrialised nations to impose embargos on imports and exports of goods and services. This can directly and indirectly impact commodity prices. Furthermore, numerous

commodity producers have joined forces to establish organisations or cartels in order to regulate supply and influence prices.

These factors may adversely affect the value of the Strategy and, therefore, any Linked Product in varying ways, and different factors may cause the value and volatility of different commodities to move in inconsistent directions and at inconsistent rates.

Commodities are subject to legal and regulatory regimes that may change in ways that could affect the value of the Strategy and/or affect the ability of the Strategy Sponsor, an issuer or other relevant entities to enter into or maintain hedging transactions

Commodities are subject to legal and regulatory regimes in the United States and, in some cases, in other countries that may change in ways that could negatively affect the value of the Strategy and are expected to increase the cost of transacting derivatives. This could have an adverse impact on the value of the Strategy.

Exposure to commodity futures contracts through an investment in the Strategy that references commodity indices compared to "spot" prices

- ***Rolling*** - It is typical in commodity markets to take the price of the first-nearby commodity futures contract with respect to a commodity (that is, as of a given date, the commodity futures contract first to expire following such date) as a reference for the "spot" price of such commodity. Over time such "spot" price will vary for two reasons. Firstly, the price of the first-nearby commodity futures contract will vary over time due to market fluctuations. Secondly, when the commodity futures contract which is considered to be the first-nearby contract changes from contract expiration "X" to contract expiration "Y" (as contract expiration "X" is approaching expiry), there is a discrete change in the price of the "prevailing" first-nearby commodity futures contract. If contract expiration "Y" is trading at a premium to contract expiration "X" (referred to as a "contango" market, as described in further detail below), the discrete change will represent a "jump" in the "spot" price. If contract expiration "Y" is trading at a discount to contract expiration "X" (referred to as a "backwardated" market, as described in further detail below) the discrete change will represent a "drop" in price.
- ***Effect of "jump" or "drop"*** - Since a "jump" or "drop" does not correspond to a change in price of any given commodity futures contract, these economics cannot be captured by a futures-linked investment such as the Strategy. Therefore, all other things being equal (in particular, assuming no change in the relative price of the various contract expirations with respect to the relevant commodity futures contract), in a "contango" market a long-only futures-linked investment may be expected to underperform the "spot" price (due to not capturing the "jump" in spot price) and in a "backwardated" market a long-only futures-linked investment may be expected to outperform the "spot" price (due to not capturing the "drop" in spot price).
- "Backwardation" occurs when the price of a near-dated commodity futures contract is greater than the price of a longer-dated commodity futures contract, the market for such contracts is referred to as in "backwardation". "Contango" occurs when the price of the near-dated commodity futures contract is lower than the price of the longer-dated commodity futures contract, the market for such contracts is referred to as in "contango".
- Accordingly, investors in Linked Products that references commodity indices as components may receive a lower payment upon redemption of such financial instrument than such investor would have received if he or she had invested directly in commodities underlying such commodity indices or a financial instrument whose redemption or settlement amount was based upon the spot price of physical

commodities or commodity futures contracts that were scheduled to expire on the maturity date of the financial instrument.

The Strategy does not track the performance of any relevant underlying commodity index and is likely to deliver returns that differ from the performance of such commodity indices

Whilst the Strategy may reference certain commodity indices (whether directly or indirectly), an investment in Linked Products is not comparable to and should not be benchmarked against an investment in a financial instrument linked to the value of such commodity indices. This is because the differences between the Strategy and such commodity indices are likely to produce different values for the Strategy and such commodity indices at any given time and, therefore, may produce differing returns.

Change in the composition or discontinuance of an underlying commodity index included in the Strategy could affect the value of the Strategy

The Strategy may reference certain underlying commodity indices (whether directly or indirectly). These commodity indices are calculated and maintained by the relevant index sponsor, who is also responsible for the composition of such commodity index. Such index sponsor will have no involvement in the offer and sale of any Linked Products and will have no obligation to any purchaser of such Linked Products. The index sponsor of such commodity index may take any actions in respect of such commodity index without regard to the interests of the Strategy Sponsor of the Strategy or any investors in Linked Products, and any of these actions could adversely affect the value of the Strategy together with the market value of any Linked Products.

The relevant index sponsor can substitute the commodity futures contracts underlying such commodity index (for example, if a commodity futures contract referenced by such commodity index were to be delisted, terminated or replaced by the relevant exchange on which such underlying commodity futures contract is traded) or make other changes to the methodology for calculating such commodity index. The composition of commodity index may also change over time as additional commodity contracts satisfy the eligibility criteria or commodity contracts currently included in such commodity index fail to satisfy such criteria. Such changes to the composition of any commodity index included in the Strategy may affect the level of such commodity index as any newly added commodity futures contract may perform significantly worse or better than the commodity futures contract it replaces, which in turn, may affect the value of the Strategy. The sponsor of commodity index included in the Strategy may also alter, discontinue or suspend calculation or dissemination of such commodity index. In such circumstances, the Strategy Sponsor would have the discretion to make determinations with respect to the value of the Strategy including for the purposes of calculating the amount payable on any Linked Product.

Any commodity index referenced by the Strategy may in the future include commodity futures contracts that are not traded on regulated futures exchanges

Any commodity indices referenced by the Strategy shall be based solely on commodity futures contracts traded on regulated futures exchanges (referred to in the United States as "designated contract markets"). At present, such proprietary strategies continue to be comprised exclusively of regulated commodity futures contracts. However, any such proprietary strategies referenced by the Strategy may in the future include over-the-counter contracts (such as swaps and forward contracts) traded on trading facilities that are subject to lesser degrees of regulation or, in some cases, no substantive regulation. As a result, trading in such commodity futures contracts, and the manner in which prices and volumes are reported by the relevant trading facilities, may not be subject to the same provisions of, and the protections afforded by, the U.S. Commodity Exchange Act 1936, as amended, or other applicable statutes and related regulations, that govern trading on regulated futures

exchanges. In addition, many electronic trading facilities have only recently initiated trading and do not have significant trading histories. As a result, the trading of commodity futures contracts on such facilities and the inclusion of such commodity futures contracts in any proprietary strategy referenced by the Strategy may be subject to certain risks not presented by most exchange-traded futures contracts, including risks related to the liquidity and price histories of the relevant commodity futures contracts.

Some of the commodity indices included in the Strategy may be subject to pronounced risks of pricing volatility

As a general matter, the risk of low liquidity or volatile pricing around the maturity date of a commodity futures contract is greater than in the case of other futures contracts because (among other factors) a number of market participants take physical delivery of the underlying commodities. Many commodities, like those in the energy and industrial metals sectors, have liquid futures contracts that expire every month. Therefore, these futures contracts are rolled forward every month. Futures contracts based on certain other commodities, most notably agricultural and livestock products, tend to have only a few contract months each year that trade with substantial liquidity. Thus, these commodities, with related futures contracts that expire infrequently, roll forward less frequently than every month, and can have further pronounced pricing volatility during extended periods of low liquidity. The risk of aberrational liquidity or pricing around the maturity date of a commodity futures contract is greater than in the case of other futures contracts because (among other factors) a number of market participants take delivery of the underlying commodities. In respect of commodity indices that represent energy, it should be noted that due to the significant level of continuous consumption, limited reserves, and oil cartel controls, energy commodities are subject to rapid price increases in the event of perceived or actual shortages. These factors (when combined or in isolation) may affect the price of commodity futures contracts and, as a consequence, the performance of the Strategy.

(VI) Risks related to Strategies referencing Components that are credit indices

The Strategy Sponsor and its affiliates are members in Credit Derivatives Determinations Committees and such membership may be adverse to interests of investors in Linked Products

Goldman, Sachs & Co., Goldman Sachs International and other affiliates may be members of one or more Credit Derivatives Determinations Committees in relation to a relevant credit index, and none of them will have any obligation to take into account the interests of investors in Linked Products. Any resolution or determination by a member of the Credit Derivatives Determinations Committees could be adverse to the interests of such investors.

DISCLAIMERS

The following list of disclaimers does not purport to be a complete list or explanation of all the disclaimers associated with the Strategies.

POTENTIAL INVESTORS SHOULD REFER TO THE RELEVANT GENERAL DESCRIPTION, SPECIFICATIONS ANNEX AND/OR OTHER DOCUMENTATION ELEMENT IN RESPECT OF EACH STRATEGY FOR SPECIFIC DISCLAIMERS RELATING TO SUCH STRATEGY.

THE STRATEGIES ARE TRADEMARKS OF THE GOLDMAN SACHS GROUP.

THE GOLDMAN SACHS GROUP DOES NOT GUARANTEE THE QUALITY, ACCURACY AND/OR COMPLETENESS OF A STRATEGY, ITS METHODOLOGY, ITS CALCULATION, ANY DATA OR INFORMATION INCLUDED THEREIN, OR ANY DATA OR INFORMATION ON WHICH IT IS BASED, OR THE STRATEGY DESCRIPTION AND/OR ANY SPECIFICATIONS ANNEX, AND THE STRATEGY SPONSOR SHALL HAVE NO LIABILITY FOR ANY ERRORS, OMISSIONS, DELAYS OR INTERRUPTIONS HEREIN OR THEREIN OR RELATING TO ANY OF SUCH MATTERS ON THE PART OF ANY THIRD PARTY OR OTHERWISE.

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IN CALCULATING A STRATEGY, THE STRATEGY CALCULATION AGENT WILL OBTAIN AND USE DATA AND INFORMATION FROM THIRD PARTY SOURCES. NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) WILL INDEPENDENTLY VERIFY SUCH INFORMATION, GUARANTEES THE QUALITY, ACCURACY AND/OR THE COMPLETENESS OF SUCH DATA OR INFORMATION AND CONSEQUENTLY NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) GUARANTEES THE QUALITY, ACCURACY AND/OR COMPLETENESS OF A STRATEGY. NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR (NOR ANY OF THEIR RESPECTIVE AFFILIATES OR SUBSIDIARIES OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, DELEGATES OR AGENTS) SHALL BE LIABLE (WHETHER IN CONTRACT, TORT OR OTHERWISE) TO ANY PERSON FOR ANY INACCURACY, OMISSION, MISTAKE OR ERROR IN THE COMPUTATION, OR DISSEMINATION OF THE VALUE OF A STRATEGY AND NEITHER THE STRATEGY CALCULATION AGENT NOR THE STRATEGY SPONSOR IS UNDER ANY OBLIGATION TO ADVISE ANY PERSON OF ANY INACCURACY, OMISSION, MISTAKE OR ERROR IT BECOMES AWARE OF.

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ESG DISCLOSURES

ESG Disclosures pursuant to REGULATION (EU) 2019/2089 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 November 2019 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks.

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY	
Item 1. Name of the benchmark administrator.	Goldman Sachs International
Item 2. Type of benchmark	For the purpose of ESG disclosure any of the following types of benchmarks may incorporate this General Strategy Terms as part of its benchmark methodology: Equity, Other
Item 3. Name of the benchmark or family of benchmarks.	For the purpose of ESG Disclosure, this methodology document may apply to the below families of benchmark: <ul style="list-style-type: none"> - Equity Benchmark Family (external only) - Equity Benchmark Family (external and internal) - Equity ESG Benchmark Family (external only) - Credit Benchmark Family (external only) - Credit Benchmark Family (external and internal) - Cross Asset Benchmark Family (external only) - Cross Asset Benchmark Family (external and internal) - Cross Asset ESG Benchmark Family (external and internal)
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No

THE GOLDMAN SACHS TRANSACTION-BASED BASKET STRATEGIES

GENERAL DESCRIPTION

Dated: 30 January 2024

Table of Contents

1.	Introduction, Strategy Purpose and Important Information	2
	A. Introduction	2
	B. Strategy Purpose of the Strategies.....	2
	C. Important Information.....	3
2.	Description of the Strategies	5
	A. Composition of the Components	5
	B. Determination of Component Timely Values.....	5
	C. Composition of the Basket.....	6
	D. Time Stamps.....	6
	E. Calculation of the Strategy Value	7
	F. The Effect on a Strategy Value of Deductions Representing Costs and Expenses	8
	G. Non-Tradable Events.....	8
3.	Transaction Modules and the Determination of the Component Quantities	10
	A. Transaction Modules	10
	B. Transactions	10
	C. Transaction Module Cash Type.....	11
	D. Transaction Module Quantity Type and Transaction Quantities	12
	E. Basket States.....	12
	F. Amendment and Cancellation of Transactions.....	13
4.	Computation of Strategy Values.....	14
5.	Composition Look-Through	17
	A. Composition of the Basket if Composition Look-Through is Applicable.....	17
	B. Transactions if Composition Look-Through is Applicable	18
6.	Publication of Strategy Values	19
7.	Reproduction and Re-Distribution, Notice to Recipients	20

1. Introduction, Strategy Purpose and Important Information

A. Introduction

The Goldman Sachs Transaction-Based Basket Strategies (each, a "**Strategy**" and together, the "**Strategies**") are a group of notional rules-based proprietary Strategies which Goldman Sachs International (or its successor) as strategy sponsor (the "**Strategy Sponsor**") may create from time to time.

Each Strategy is initially calculated and published by the entity designated in the Specifications Annex (as defined below) and may thereafter by such person as the Strategy Sponsor may appoint from time to time to make certain determinations and calculations and to publish the value of the Strategies as described in the Strategy Description (as defined below) (the "**Strategy Calculation Agent**"). The Strategy Sponsor does not have any obligation to ensure that the Strategy Calculation Agent continues to publish the value of a Strategy and the Strategy Calculation Agent may discontinue publication at any time.

The description of each Strategy comprises this document (the "**General Description**"), the "**Specifications Annex**" and may also comprise other documentation elements (each an "**Other Documentation Element**"). The list of documentation elements comprising the "**Strategy Description**" of a Strategy are set out in the Specifications Annex.

References in this General Description to the "**Strategy**" shall be construed as references to the relevant Strategy named in the Specifications Annex in respect of such Strategy and all provisions in the General Strategy Terms, this General Description and any Other Documentation Element shall be construed, unless otherwise stated, in relation to such Strategy. Capitalised terms used but not defined in this General Description shall have the meanings given to them in the Strategy Description.

INVESTORS IN ANY PRODUCT LINKED TO A STRATEGY ARE ADVISED TO READ AND UNDERSTAND THE GENERAL STRATEGY TERMS, THIS GENERAL DESCRIPTION, THE RELEVANT SPECIFICATIONS ANNEX AND ANY OTHER DOCUMENTATION ELEMENT. IN PARTICULAR, BUT WITHOUT LIMITATION, INVESTORS MUST READ ANY SECTIONS HEADED "RISK FACTORS", "CONFLICTS OF INTEREST" AND "DISCLAIMERS" (HOWSOEVER DEFINED OR HEADED) IN EACH SUCH DOCUMENT PRIOR TO MAKING ANY INVESTMENT DECISION.

B. Strategy Purpose of the Strategies

Each Strategy is designed to provide investors with a synthetic exposure to the performance of a basket (the "**Basket**") of Components, which may include assets from one or more asset classes and/or geographical areas and which may be denominated in various currencies.

In respect of the "**Strategy Inception Date**", each Component underlying a Strategy is assigned a quantity (in respect of each Component, the "**Component Quantity**") which will be the "**Initial Component Quantity**" in respect of such Component. The Initial Component Quantity in respect of a Component shall either be (i) a fixed amount, (ii) determined on the Strategy Inception Date based on Transactions generated by one or more Transaction Modules or (iii) zero, in each case, as specified or determined in accordance with the Specifications Annex. If no Initial Component Quantity is specified in the Specifications Annex in respect of a Component then the Initial Component Quantity of such Component shall be:

- (i) Equal to the Strategy Initial Value if such Component is the Strategy Currency Cash Component.
- (ii) Otherwise: Zero.

Thereafter, the Component Quantities of the Components are determined on each Strategy Calculation Day based on Transactions that are generated by the Transaction Modules. Each Transaction Module consists of parameters or specifications, the values of which determine

the Transactions, if any, generated by such Transaction Module, and accordingly, the Component Quantity in respect of each Component.

Each Strategy is denominated in a currency specified in the Specifications Annex (the “**Strategy Currency**”). The Specifications Annex and/or Other Documentation Elements of a Strategy may specify that such Strategy has an internal simulated currency hedge mechanism, in respect of Components which are denominated in a currency (the “**Component Currency**”) other than the Strategy Currency (each a “**Foreign Currency**”) that seeks to offset a portion of the positive or negative effects of currency exchange rate fluctuations in such Component Currency against the Strategy Currency on the value of the Strategy.

The general principles described in this Section 1.B “*Strategy Purpose of the Strategies*” of this General Description along with any other overview or description contained in the relevant Specifications Annex and the General Strategy Terms are referred to as the “**Strategy Purpose**” of a Strategy.

C. Important Information

The information set out in this General Description reflects the policies of the Strategy Sponsor and is subject to change in accordance with the General Strategy Terms and/or any Other Documentation Elements in respect of a Strategy.

The purposes, aims and intentions of the algorithms and methodologies summarised in the Strategy Description may not be achieved. Investors should read each of this General Description, the relevant Specifications Annex, the General Strategy Terms and any Other Documentation Element in their entirety. Investors should pay particular attention to the risk factors and conflicts of interest set out therein.

Each of Section 2 “*Description of the Strategies*”, Section 3 “*Transaction Modules and the Determination of the Component Quantities*” and Section 6 “*Publication of Strategy Values*” of this General Description are subject to, and qualified by, Section 4 “*Computation of Strategy Values*” of this General Description. In particular, in the event of any inconsistency between the aforementioned sections, Section 4 “*Computation of Strategy Values*” of this General Description shall prevail.

The value of a Strategy could become negative, unless otherwise specified in the relevant Specifications Annex.

A Strategy may be:

- (i) a systematic Strategy (i.e. operated according to a set of pre-determined rules as set out in the Strategy Description in respect of such Strategy);
- (ii) an actively managed Strategy (where the Component Quantity or the Transaction Quantity in respect of each Component may be changed periodically by a third party (a “**Strategy Allocator**”, as may be specified in the relevant Specifications Annex) in its discretion, subject to certain controls and constraints set out in the Strategy Description); or
- (iii) a combination of (i) and (ii), as set out in the Strategy Description.

Investors should read any relevant risk factors in the Strategy Description to fully understand the risks of a fully systemic or actively managed Strategy, as applicable.

Each Strategy as referenced in (i), (ii) and (iii) above operates according to a set of pre-determined rules as summarised in the Strategy Description, and the Strategy Sponsor and Strategy Calculation Agent do not exercise discretion except in the limited circumstances summarised in the Strategy Description. Neither of the Strategy Sponsor or Strategy Calculation Agent owes any person any fiduciary duties in respect of a Strategy and neither

are required to take the interest of any person into account in making any determinations with respect thereto.

The Strategy Sponsor owns the copyright and all other rights in each Strategy and each Strategy Description. No use or publication may be made of a Strategy or any value thereof without the prior written approval of the Strategy Sponsor. The "*Goldman Sachs Transaction-Based Basket Strategy*" and the "*Goldman Sachs Transaction-Based Basket Strategies*" are service marks of Goldman Sachs International.

Each version of this document is dated. Upon each update to a new version of this document, the most recent version shall be deemed to be in force from the date of such update and replace in its entirety the preceding version such that, in the event of any conflict between the preceding version and the most recent version, the most recent version shall prevail.

2. Description of the Strategies

A. Composition of the Components

The Components of a Strategy and any information (including any additional risk factors) related to them are specified in the Specifications Annex for such Strategy. Each Strategy shall be comprised of a number of:

- (i) underlying assets (including, without limitation, indices, shares, futures contracts, funds, exchange traded funds, options, foreign exchange forward contracts, over-the-counter derivative instruments and other types of financial instruments) (each a “**Non-Cash Component**”) and
- (ii) notional amounts representing cash positions in the Component Currency of each Component (each a “**Cash Component**”), including the cash position denominated in the Strategy Currency (the “**Strategy Currency Cash Component**”) and cash positions denominated in currencies other than the Strategy Currency (each a “**Foreign Currency Cash Component**”, if any),

in each case, as specified in the relevant Specifications Annex.

The Specifications Annex of a Strategy will specify the Non-Cash Components which are immediate underlyers of the Strategy (the “**Immediate Components**”). The relevant Specifications Annex may further specify if each Immediate Component is a “**Terminal Component**” or “**Non-Terminal Component**”. If not so specified, an Immediate Component shall be considered to be a Terminal Component. The Cash Components of a Strategy shall be considered Terminal Components and shall also be part of the Immediate Components of a Strategy.

The Component Quantity in respect of a Cash Component decreases when the Basket synthetically invests in units of a Non-Cash Component with a positive Component Timely Value and a Component Currency corresponding to such Cash Component. The Component Quantity of a Cash Component increases when the Basket synthetically disposes of units in a Non-Cash Component with a positive Component Timely Value and a Component Currency corresponding to such Cash Component.

A Non-Cash Component and Cash Component shall be considered a “**Component**” in respect of a Strategy from (and including) the first Strategy Transaction Time Stamp and Strategy Calculation Day on which a Transaction is effected that assigns a non-zero Component Quantity to such Non-Cash Component or Cash Component (as the case may be), in each case, as further set out in the Strategy Description. Therefore, the Components in respect of a Strategy may change over time.

The “**Allocated Components**” in respect of a given Strategy Calculation Day and Time Stamp are all Components with a non-zero Component Quantity (which may be a positive or negative amount).

B. Determination of Component Timely Values

The Component Timely Value of a Component is defined in respect of each Input Data Observation Time Stamp (as defined below) on each “**Component Business Day**” (as specified in the Specifications Annex) in respect of such Component.

The “**Component Timely Value**” of a Component in respect of a Component Business Day and a Time Stamp is:

- (i) in respect of a Non-Cash Component, as determined in accordance with the formula or methodology in respect of such Non-Cash Component specified in the Specifications Annex and any relevant Other Documentation Elements; and

- (ii) in respect of a Cash Component, a constant value of one (1).

If the Component Timely Value Floor (as specified in the Specifications Annex) is applicable in respect of a Component and the Component Timely Value of such Component on a Strategy Calculation Day and Time Stamp would be zero or less than zero, then the Component Timely Value in respect of such Strategy Calculation Day and Time Stamp and each subsequent Strategy Calculation Day and Time Stamp shall be zero. If the Component Timely Value Floor in respect of a Component is not specified as applicable (or does not contain any specification regarding the Component Timely Value Floor in respect of a Component) then the Component Timely Value of such Component may be a negative value.

The Strategy Calculation Agent may, in its sole discretion, make adjustments to the determination of the Component Timely Value of a Component under certain circumstances as further described in the Strategy Description.

The Component Timely Value of a Component in respect of (i) a Strategy Calculation Day which is not a Component Business Day in respect of such Component; and/or (ii) any time or time period that is not an Input Data Observation Time Stamp in respect of such Component (either (i) or (ii) constitutes a “**Non Component Timely Value Observation Time**”), shall, in each case, be determined in accordance with the Component Timely Value Convention (as specified in the Specifications Annex). Such Component Timely Value Convention may, without limitation, calculate the Component Timely Value of such Component by reference to previous Component Timely Values. If no Component Timely Value Convention is specified in the Specifications Annex then the Component Timely Value of a Component at such Non Component Timely Value Observation Time shall be the Component Timely Value of such Component in respect of the immediately preceding Input Data Observation Time Stamp.

C. Composition of the Basket

The Basket intends to track the value of the Components, as converted into the Strategy Currency and weighted by their respective Component Quantities. The Component Quantities in respect of the Components are assigned and rebalanced periodically via Transactions which are generated by Transaction Modules. Such rebalancing of the Component Quantities of a Component may take place on any Strategy Calculation Day and on any Strategy Transaction Time Stamp. Please see Section 3 “*Transaction Modules and the Determination of Component Quantities*” of this General Description for an overview of the determination of the Component Quantities and their periodic rebalancing via Transactions.

Under certain circumstances, as described in the Strategy Description, the Strategy Calculation Agent may delay the rebalancing of one or more Components.

The Component Quantity of a Component in respect of a Strategy Calculation Day and Time Stamp can be positive, negative or zero. A Strategy may have a long or short exposure (or no exposure), from time to time, to each of the Components. The sum of the actual weights of all Non-Cash Components may be greater than, equal to, or less than 100 per cent. A Strategy will provide a leveraged exposure to the Non-Cash Components if such sum exceeds 100 per cent and will provide a diluted exposure to the Components if such sum falls below 100 per cent.

D. Time Stamps

Subject as further described in the Strategy Description, each of the calculation of the Strategy Value, the notional execution of Transactions generated by Transaction Modules and the valuation of the Components or other input data shall be effected at specific Time Stamps.

The “**Time Stamps**” in respect of a Strategy Calculation Day and a Strategy shall consist of each of the following:

- (i) the Strategy Valuation Time Stamps (as defined in Section 2.E “*Calculation of the Strategy Value*”);
- (ii) the Strategy Transaction Time Stamps (as defined in Section 3.B “*Transactions*”); or
- (iii) the “**Input Data Observation Time Stamps**”, which specify at which time(s) a Strategy may observe the values of a Component or other input data,

in each case, as further specified in the Strategy Description.

Each Time Stamp may refer to:

- (i) the end of a Strategy Calculation Day; or
- (ii) a specific time or window of time on a Strategy Calculation Day as specified in the relevant Strategy Description.

Therefore, the Component Quantity in respect of a Component may fluctuate between Strategy Calculation Days and during the course of a Strategy Calculation Day.

E. Calculation of the Strategy Value

The value of a Strategy (the “**Strategy Value**”) is calculated on each “**Strategy Calculation Day**” (as specified in the Specifications Annex) and published in respect of each Strategy Valuation Time Stamp on such Strategy Calculation Day.

The “**Strategy Valuation Time Stamps**” in respect of a Strategy consist of:

- (i) the end of day time stamp (“**EOD Strategy Valuation Time Stamp**”); and
- (ii) if specified in the relevant Specifications Annex, one or more “**Intraday Strategy Valuation Time Stamps**”.

On each Strategy Calculation Day, the Strategy Value in respect of each Strategy will be calculated on the EOD Strategy Valuation Time Stamp and, if applicable, on each Intraday Strategy Valuation Time Stamp.

Unless the documentation of any Linked Products explicitly references any Intraday Strategy Valuation Time Stamps, any references to the “Strategy Value” of a Strategy in the documentation of Linked Products shall be construed as references to the EOD Strategy Valuation Time Stamp on the relevant Strategy Calculation Day.

The Strategy Value as of the Strategy Inception Date (the “**Strategy Initial Value**”) may be specified in the Specifications Annex. If no Strategy Initial Value is specified in the relevant Specifications Annex then the Strategy Initial Value of a Strategy shall be 100. On the Strategy Inception Date, a Strategy will only have one Strategy Value (being the Strategy Value in respect of the EOD Strategy Valuation Time Stamp), irrespective of the number of Strategy Valuation Time Stamps specified in the Specifications Annex.

On each Strategy Calculation Day and on each Strategy Valuation Time Stamp following the Strategy Inception Date, the Strategy Value is calculated based on:

- (i) the Component Timely Value of each Component, weighted by its respective Component Quantity, and
- (ii) the value of any applicable currency exchange rate used to convert the Component Timely Value of a Component from the relevant Component Currency to the Strategy Currency (the “**Currency Exchange Rate**” in respect of a Component Currency).

The calculation of a Strategy Value is described in more detail in Section 4 “*Computation of Strategy Values*” of this General Description.

If the Strategy Value Floor (as specified in the Specifications Annex) is applicable in respect of a Strategy and the Strategy Value on a Strategy Calculation Day and Strategy Valuation Time Stamp would be zero or less than zero, then the Strategy Value in respect of such Strategy Calculation Day and such Strategy Valuation Time Stamp and each subsequent Strategy Calculation Day and Strategy Valuation Time Stamp shall be zero. If the Specification Annex does not state that the Strategy Value Floor is applicable (or does not contain any specification regarding the Strategy Value Floor), then the Strategy Value in respect of a Strategy Calculation Day and on a Strategy Valuation Time Stamp may be a negative value.

Under certain circumstances described in the Strategy Description, the Strategy Calculation Agent may delay or amend the calculation of the Strategy Value.

The Specifications Annex may define the “**Strategy Trading Days**” in respect of a Strategy.

F. The Effect on a Strategy Value of Deductions Representing Costs and Expenses

A Strategy may be calculated so as to include deductions that synthetically reflect the replication costs that a hypothetical investor may incur if such hypothetical investor were to enter into, maintain and/or dispose of, a series of direct investment positions to provide the same exposure to the Components of such Strategy (including, without limitation, transaction costs, servicing costs, financing costs and roll costs). If specified as applicable in the Specifications Annex of any given Strategy, such deductions will be implemented via Transaction Modules which reduce the Component Quantity of one or more Cash Components, which in turn will have the effect of reducing the Strategy Value. As a result, the Strategy Value of such Strategy from time to time may be reduced by these deductions.

In addition, if so specified in the Specifications Annex, a Strategy Deduction Rate will be deducted from the Strategy Value in respect of each Strategy Calculation Day falling after the Strategy Inception Date. The “**Strategy Deduction Rate**” is an annual rate, expressed as a percentage of the Strategy Value. If specified as applicable in the relevant Specifications Annex for any given Strategy, the Strategy Deduction Rate will be implemented via a Transaction Module which reduces the Component Quantity of one or more Cash Components, which in turn will have the effect of reducing the Strategy Value.

Further details regarding such notional costs and deductions in respect of a Strategy can be found in the Strategy Description.

G. Non-Tradable Events

The Strategy Description may define “**Non-Tradable Events**” in respect of one or more Components.

Subject as provided in Section 3.F “*Amendment and Cancellation of a Transaction*” of this General Description, if a Non-Tradable Event occurs in respect of a Component (a “**Non-Tradable Component**”) in respect of a Strategy Calculation Day and Strategy Valuation Time Stamp, the Strategy Sponsor will calculate a tradable value of the Strategy (a “**Strategy Tradable Value**”) in respect of such Strategy Calculation Day and Strategy Valuation Time Stamp using the same methodology for calculating the Strategy Value as set out in Section 4 “*Computation of Strategy Values*” of this General Description save that the “**Component Tradable Value**” (determined in accordance with the specifications of such Non-Tradable Component as set out in the Strategy Description) in respect of the Non-Tradable Component shall be used in place of the Component Timely Value in the “Strategy Value” formula in Section 4 “*Computation of Strategy Values*”. For the avoidance of doubt, if a Non-Tradable Event occurs then the execution of Transactions and the computation of Transaction Quantities shall be performed in accordance with the methodology described in the relevant Specifications Annex or the Other Documentation Elements and no such replacement of the

Component Timely Value with the Component Tradable Value shall take place for the purpose of determining such Transactions or computing such Transaction Quantities.

If no Non-Tradable Event has occurred in respect of any Component in respect of a Strategy Calculation Day and Strategy Valuation Time Stamp, the Strategy Tradable Value in respect of such Strategy Calculation Day and Strategy Valuation Time Stamp shall be equal to the Strategy Value in respect of such Strategy Calculation Day and Strategy Valuation Time Stamp.

If a Non-Tradable Event has occurred in respect of a Component in respect of a Strategy Calculation Day and Strategy Valuation Time Stamp then, unless specified otherwise in the Strategy Description, such Component Tradable Value shall be equal to the Component Timely Value of such Component as of the relevant Strategy Valuation Time Stamp on the immediately following Strategy Calculation Day on which no Non-Tradable Events prevail in respect of such Component.

The Component Tradable Value of a Component in respect of (i) a Strategy Calculation Day which is not a Component Business Day in respect of such Component; and/or (ii) any time or time period that is not an Input Data Observation Time Stamp in respect of such Component (either (i) or (ii) constitutes a **“Non Component Tradable Value Observation Time”**), shall, in each case, be determined in accordance with the Component Tradable Value Convention (as specified in the Specifications Annex). Such Component Tradable Value Convention may, without limitation, calculate the Component Tradable Value of such Component by reference to following Component Tradable Values. If no Component Tradable Value Convention is specified in the Specifications Annex then the Component Tradable Value of a Component at such Non Component Tradable Value Observation Time shall be the Component Tradable Value of such Component in respect of the immediately following Input Data Observation Time Stamp.

3. Transaction Modules and the Determination of the Component Quantities

A. Transaction Modules

Each Strategy uses one or more algorithms (each being a “**Transaction Module**”) to change the Component Quantity of the Components. The Transaction Modules applicable to a Strategy (the “**Applicable Transaction Modules**”) shall be set out in the relevant Strategy Description and the parameters of the Transaction Modules are specified in the Specifications Annex.

The algorithms underlying a Transaction Module may be systematic, actively managed, or a combination thereof. Transaction Modules may be used for various purposes including, without limitation, to implement the economic rationale of a Strategy and to make certain adjustments to a Strategy to make it a tradable and replicable strategy. Changes to the composition of the Basket of a Strategy are generally effected via Transactions which are generated by Transaction Modules.

B. Transactions

Each Transaction Module shall compute synthetic transactions in respect of one or more Components (each a “**Transaction Component**” in respect of such Transaction). Such computed synthetic transaction in respect of a Strategy Calculation Day, a Strategy Transaction Time Stamp and each individual Transaction Component is a “**Transaction**”.

A Transaction has the following attributes:

- (i) the Strategy Calculation Day on which such Transaction is executed;
- (ii) the “**Strategy Transaction Time Stamp**” on which such Transaction is notionally executed on the relevant Strategy Calculation Day;
- (iii) the Transaction Component to which such Transaction relates;
- (iv) the Transaction Quantity;
- (v) the Transaction Price;
- (vi) the Associated Transaction Module (being the name of the Transaction Module that has generated such Transaction);
- (vii) any relevant data fields which are associated with such Transaction (as specified in the description of the relevant Transaction Module);
- (viii) the Transaction Module Cash Type in respect of the Transaction Module that has generated such Transaction (as further described in Section 3.C “*Transaction Module Cash Type*” below); and
- (ix) the Transaction Module Quantity Type that has generated such Transaction (as further described in Section 3.D “*Transaction Module Quantity Type and Transaction Quantities*” below).

The “**Transaction Price**” with respect to a Transaction shall be, unless otherwise specified in the description of the relevant Transaction Module, the Component Timely Value in respect of the Transaction Component and the relevant Strategy Transaction Time Stamp on the relevant Strategy Calculation Day.

In respect of a Transaction Module, a Strategy Calculation Day and a Strategy Transaction Time Stamp, a Strategy may generate more than one Transaction. For the avoidance of doubt, a single Transaction will only have the effect of changing the Component Quantity of a single Component.

In respect of each Transaction:

- (i) the Strategy Calculation Day on which such Transaction is executed shall be the **“Transaction Module Execution Day”** of the relevant Transaction Module which has generated such Transaction; and
- (ii) the Strategy Transaction Time Stamp on which such Transaction is executed shall be **“Transaction Module Execution Time Stamp”** of the relevant Transaction Module which has generated such Transaction.

The Component Quantity of a Component in respect of a Time Stamp and a Strategy Calculation Day will be an amount equal to the sum of (i) the Initial Component Quantity in respect of such Component and (ii) the sum of the Transaction Quantities of all Transactions relating to such Component which have been effected up to (and including) such Time Stamp on such Strategy Calculation Day.

Under certain circumstances described in the Strategy Description, the Strategy Calculation Agent in its sole discretion, may delay, modify or cancel a Transaction.

The Transaction Modules in respect of a Strategy shall be executed, and the corresponding Transactions shall be computed, during the course of each Strategy Calculation Day in the order of their respective Transaction Module Execution Time Stamps. In the event that more than one Transaction Module has the same Transaction Module Execution Time Stamp in respect of a Strategy Calculation Day, the relevant Transaction Modules shall be executed in the order in which they appear in the Strategy Description, unless Transaction Module Execution Order Numbers have been specified in the Specifications Annex, in which case the relevant Transaction Modules shall be executed in accordance with their Transaction Module Execution Order Numbers. Unless otherwise specified in the relevant Specifications Annex, the Transaction Module Execution Time Stamp in respect of a Transaction Module shall be the end of the relevant Strategy Calculation Day.

C. Transaction Module Cash Type

The **“Transaction Module Cash Type”** in respect of a Transaction Module will either be:

- (i) **“Value Neutral”**, meaning that a Transaction generated by such Transaction Module will not lead to a change in the Strategy Value; or
- (ii) **“Value Effective”**, meaning that a Transaction generated by such Transaction Module will lead to a change in the Strategy Value.

The Transaction Module Cash Type of a Transaction Module will be specified in the Specifications Annex or the Other Documentation Elements of a Strategy.

Any Transaction (a **“Value Neutral Transaction”**) generated by a Transaction Module with the Transaction Module Cash Type specified as “Value Neutral” will result in the automatic generation of a second Transaction (an **“Offsetting Cash Transaction”**) in the Cash Component (the **“Offsetting Cash Component”**) that corresponds to the Component Currency of the relevant Transaction Component of the Value Neutral Transaction. The attributes of such Offsetting Cash Transaction shall be as follows:

- (i) the Strategy Calculation Day of the Offsetting Cash Transaction shall be equal to the Strategy Calculation Day of the Value Neutral Transaction;
- (ii) the Strategy Transaction Time Stamp of the Offsetting Cash Transaction shall be equal to the Strategy Transaction Time Stamp of the Value Neutral Transaction;
- (iii) the Transaction Component of the Offsetting Cash Transaction shall be the Offsetting Cash Component; and

- (iv) and the Transaction Quantity of the Offsetting Cash Transaction shall be equal to:

$$TQ_{Offset} = -1 \times TQ_{ValueNeutral} \times TP_{ValueNeutral}$$

where:

Subscript_(Offset) refers to the Offsetting Cash Transaction;

Subscript_(ValueNeutral) refers to the Value Neutral Transaction;

TQ_{Offset} is the Transaction Quantity of the Offsetting Cash Transaction;

$TQ_{ValueNeutral}$ is the Transaction Quantity of the Value Neutral Transaction; and

$TP_{ValueNeutral}$ is the Transaction Price of the Value Neutral Transaction.

D. Transaction Module Quantity Type and Transaction Quantities

The “**Transaction Module Quantity Type**” in respect of a Transaction Module shall be either “Additive” or “Target”. The Transaction Module Quantity Type of a Transaction Module will be specified in the relevant Other Documentation Element.

The “**Transaction Quantity**” in respect of a Transaction specifies the number of units by which the Component Quantity of a Component will change as a result of a Transaction. A positive Transaction Quantity has the effect of increasing the Component Quantity of a Component and, vice versa, a negative Transaction Quantity has the effect of decreasing the Component Quantity of a Component. The Transaction Quantity in respect of a Transaction generated by a Transaction Module shall be determined as follows:

- (i) in respect of a Transaction generated by a Transaction Module with the Transaction Module Quantity Type specified as “Additive”, the Transaction Quantity shall be equal to the “**Preliminary Component Transaction Quantity**” in respect of such Transaction Module (as specified in the relevant Other Documentation Element); and
- (ii) in respect of a Transaction generated by a Transaction Module with the Transaction Module Quantity Type specified as “Target”, the Transaction Quantity will be calculated as follows:

$$TQ_x = TQ_x^{Preliminary} - q_i^{Preceding}$$

where:

Subscript_(x) refers to the relevant Transaction;

Subscript_(i) refers to the relevant Component;

TQ_x is the Transaction Quantity of the relevant Transaction;

$TQ_x^{Preliminary}$ is the Preliminary Component Transaction Quantity of the relevant Transaction as determined in accordance with the Other Documentation Elements; and

$q_i^{Preceding}$ is the Component Quantity of Component_(i) immediately before the execution of such Transaction.

E. Basket States

The generation of Transactions may result in the list of Components and/or their Component Quantities (together the “**Basket State**”) being amended in respect of a relevant Strategy Calculation Day and Strategy Transaction Time Stamp. The Basket State in respect of a Strategy Calculation Day and Strategy Transaction Time Stamp may be used as an input in

the calculation of Transactions generated by a Transaction Module in respect of a further Strategy Transaction Time Stamp if so specified in the relevant Other Documentation Element.

F. Amendment and Cancellation of Transactions

Notwithstanding Section 2.G “*Non-Tradable Events*” of this General Description, and if so specified in the Strategy Description, if a Non-Tradable Event occurs in respect of a Component, one or more Transactions generated by a Transaction Module may be amended, postponed or cancelled (each a “**Non-Tradable Transaction**”). Please refer to the Specifications Annex and Other Documentation Elements for further details.

4. Computation of Strategy Values

Strategy Value The Strategy Value on the Strategy Inception Date is equal to the Strategy Initial Value.

On each Strategy Calculation Day (t) from (but excluding) the Strategy Inception Date the Strategy Value in respect of a Strategy Valuation Time Stamp (u) will be calculated as follows:

$$S_{t,u} = \sum_{i=1}^n q_{i,t,u} \times A_{i,t,u} \times FX_{i,t,u}$$

Where:

Subscript (t) refers to the relevant Strategy Calculation Day;

Subscript (u) refers to the relevant Strategy Valuation Time Stamp;

Subscript (i) refers to the relevant Component;

n is the number of Components contained in the Basket at Strategy Valuation Time Stamp u on Strategy Calculation Day (t) ;

$q_{i,t,u}$ is the Component Quantity (i) in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp u ;

$A_{i,t,u}$ is the Component Timely Value (i) in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp u ; and

$FX_{i,t,u}$ is the applicable Currency Exchange Rate to convert one unit of the Component Currency of Component (i) into the Strategy Currency in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp u .

Component Quantity The Component Quantity in respect of a Component, a Strategy Calculation Day and a Time Stamp shall be computed as follows:

$$q_{i,t,u} = q_i^{initial} + \sum_x TQ_x$$

where:

Subscript (i) refers to the relevant Component;

Subscript (t) refers to the relevant Strategy Calculation Day;

Subscript (u) refers to the relevant Time Stamp;

Subscript (x) refers to each Transaction for which Component i is the Transaction Component and:

- (i) which has occurred on any Strategy Calculation Day preceding Strategy Calculation Day t ; or
- (ii) which has occurred on or before Time Stamp u on Strategy Calculation Day t .

$q_i^{initial}$ is Initial Component Quantity of Component i ;

TQ_x is the Transaction Quantity of the relevant Transaction.

Currency Exchange Rate

The Currency Exchange Rate shall be one (1) in respect of each Strategy Calculation Day and Time Stamp for the case where the relevant Component Currency is equal to the Strategy Currency.

The Currency Exchange Rate to convert one unit of the relevant Component Currency into the Strategy Currency in respect of a Strategy Calculation Day and a Strategy Valuation Time Stamp shall be calculated by the Strategy Calculation Agent using the currency exchange rates of the relevant non U.S. Dollar currencies in such currency pair against the U.S. Dollar, as published by the relevant Currency Exchange Rate Source.

The days and times on which the Currency Exchange Rates are usually fixed and published, as determined by the Strategy Calculation Agent, by the Currency Exchange Rate Source are referred to herein as "**Currency Fixing Days**" and "**Currency Fixing Time Stamps**", respectively.

Unless a different "**Currency Exchange Rate Convention**" is specified in the relevant Specifications Annex, if any Strategy Calculation Day and Time Stamp is not a Currency Fixing Day and Currency Fixing Time Stamp then the Currency Exchange Rate in respect of such day and such Time Stamp shall be the Currency Exchange Rate published by the Currency Exchange Rate Source in respect of the relevant Currency Fixing Time Stamp on the immediately preceding Currency Fixing Day.

Basket Transaction Cost Rate

On any given Strategy Calculation Day (t) from (and including) the Strategy Inception Date the Basket Transaction Cost Rate in respect of a Strategy Valuation Time Stamp (u) is calculated as follows:

$$TC_{t,u}^B = \sum_{i=1}^n (TC_{i,t,u}^A \times |w_{i,t,u}^B|)$$

Where:

Subscript (t) refers to the relevant Strategy Calculation Day;

Subscript (u) refers to the relevant Strategy Valuation Time Stamp;

n is the number of Components contained in the Basket at Strategy Valuation Time Stamp u on Strategy Calculation Day (t);

$TC_{i,t,u}^A$ is the Component Transaction Cost Rate in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp (u) for Component (i); and

$w_{i,t,u}^B$ is the Component Weight Equivalent in respect of Strategy Calculation Day (t) and Strategy Valuation Time Stamp (u) for Component (i).

Component Weight Equivalent

On any given Strategy Calculation Day (t) from (and including) the Strategy Inception Date, the Component Weight Equivalent in respect of each Component and a Time Stamp (u) is calculated as follows:

$$w_{i,t,u}^B = q_{i,t,u} \times \frac{A_{i,t,u} \times FX_{i,t,u}}{S_{t,u}}$$

Where:

Subscript _(i) refers to the relevant Component;

Subscript _(t) refers to the relevant Strategy Calculation Day;

Subscript _(u) refers to the relevant Time Stamp;

$q_{i,t,u}$ is the Component Quantity_(i) in respect of Strategy Calculation Day _(t) and Time Stamp u ;

$A_{i,t,u}$ is the Component Timely Value_(i) in respect of Strategy Calculation Day_(t) and Strategy Valuation Time Stamp u ;

$FX_{i,t,u}$ is the applicable Currency Exchange Rate to convert one unit of the Component Currency of Component_(i) into the Strategy Currency in respect of Strategy Calculation Day _(t) and Strategy Valuation Time Stamp u ; and

$S_{t,u}$ is the Strategy Value in respect of Strategy Calculation Day _(t) and Strategy Valuation Time Stamp u .

5. Composition Look-Through

If Composition Look-Through is not specified to be applicable in the relevant Specifications Annex (or if the relevant Specifications Annex does not contain any specification regarding the Composition Look-Through) then the following provisions of this Section 5 “*Composition Look-Through*” are not applicable in respect of a Strategy. Otherwise, if “**Composition Look-Through**” is specified to be applicable in the relevant Specifications Annex, then the following provisions of this Section 5 “*Composition Look-Through*” shall apply.

A. Composition of the Basket if Composition Look-Through is Applicable

A Strategy will determine the Non-Cash Components of the Basket and the corresponding Component Quantities via a mechanism which decomposes the Immediate Components of a Strategy into its Terminal Components, such that the Basket solely consists of Terminal Components as its only Non-Cash Components. The “**Terminal Components**” of a Strategy consist of:

- (i) all Immediate Components of the Strategy which are not explicitly specified to be Non-Terminal Components in the Strategy Description (the “**Immediate Terminal Components**”); and
- (ii) the Terminal Components contained within each Immediate Component of the Strategy when such Immediate Component is specified to be a Non-Terminal Component (the “**Indirect Terminal Components**”).

The Components of the Basket of a Strategy for the purpose of computing the Strategy Value shall consist of:

- (i) the Terminal Components of the Strategy as defined above; and
- (ii) each Cash Component of the Strategy.

The following shall not be considered to be Components of the Basket for the purpose of computing the Strategy Value:

- (i) each Immediate Component which is a Non-Terminal Component; and
- (ii) each Cash Component which is an underlying of an Immediate Component.

A given type of Terminal Component may appear more than once in the composition of the Basket. For instance, it may be an Immediate Terminal Component and an Indirect Terminal Component at the same time. Equally, it may be an Indirect Terminal Component which is contained in multiple Immediate Components of the Strategy at the same time.

Consequently, the Component Quantity of a Terminal Component in respect of a Strategy Calculation Day and a Strategy Valuation Time Stamp shall be computed as:

$$q_{i,t,u} = \sum_{j \in M} q_{j,t,u}^{Immediate} \times q_{i,t,u}^{Indirect}$$

Where:

Subscript (t) refers to the relevant Strategy Calculation Day;

Subscript (u) refers to the relevant Strategy Valuation Time Stamp;

Subscript (i) refers to the relevant Terminal Component;

Subscript (j) refers to an Immediate Component which is contained in set *M*;

M is the set of Immediate Components which either:

- (i) is a Terminal Component of type i ; or
- (ii) contains a Terminal Component of type i either as an Immediate Terminal Component or as an Indirect Terminal Component at Strategy Valuation Time Stamp u on Strategy Calculation Day (t) ;

$q_{j,t,u}^{Immediate}$ is the Component Quantity of Immediate Component j in respect of Strategy Calculation Day t and Strategy Valuation Time Stamp u ; and

$q_{i,t,u}^{Indirect}$ is equal to:

- (iii) one (1) if the relevant Immediate Component j is an Immediate Terminal Component of type i of the Strategy; or otherwise
- (iv) the Component Quantity of the Indirect Terminal Component i within Immediate Component j in respect of Strategy Calculation Day t and Strategy Valuation Time Stamp u .

B. Transactions if Composition Look-Through is Applicable

If a Transaction Module executes a Transaction whereby the Transaction Component is a Non-Terminal Component then such Transaction (the “**Non-Terminal Component Transaction**”) shall be void and instead be replaced with one or multiple Transactions with respect to the relevant Indirect Terminal Components which are contained within such Non-Terminal Component (each a “**Terminal Component Transaction**”). A separate Terminal Component Transaction shall be generated in respect of each Indirect Terminal Component which is contained within such Non-Terminal Component on the relevant Strategy Calculation Day and Strategy Transaction Time Stamp. The attributes of each Terminal Component Transaction shall be identical to the attributes of the Non-Terminal Component Transaction (including, without limitation, the Transaction Module Quantity Type and the Transaction Module Cash Type), save that:

- (i) The Transaction Component shall be the relevant Indirect Terminal Component;
- (ii) The Preliminary Component Transaction Quantity shall be the product of:
 - (A) the Preliminary Component Transaction Quantity of the Non-Terminal Component Transaction; multiplied by
 - (B) the Component Quantity of the relevant Indirect Terminal Component within the Non-Terminal Component on the relevant Strategy Calculation Day and Strategy Transaction Time Stamp, whereby such Component Quantity shall reflect all Transactions which have taken effect on such Strategy Calculation Day and Strategy Transaction Time within the Non-Terminal Component; and
- (iii) The Transaction Price shall be, unless otherwise specified in the description of the relevant Transaction Module, the Component Timely Value in respect of the Terminal Component on the relevant Strategy Transaction Time Stamp and Strategy Calculation Day.

If the relevant Non-Terminal Component Transaction has been generated by a Transaction Module with the Transaction Module Cash Type being specified as “Value Neutral” then an Offsetting Cash Transaction shall be generated in respect of each Terminal Component Transaction and no Offsetting Cash Transaction shall occur in respect of the void Non-Terminal Component Transaction.

6. Publication of Strategy Values

The Strategy Calculation Agent will publish the Strategy Value of a Strategy in respect of each Strategy Valuation Time Stamp in respect of a Strategy Calculation Day on the “**Strategy Publication Data Source**” according to the “**Strategy Value Publication Precision**” (in each case, as may be set out in the Specifications Annex) in accordance with the Strategy Description. Unless otherwise specified in the relevant Specifications Annex, the Strategy Publication Data Source in respect of a Strategy shall be <https://marquee.gs.com/studio> or any successor page. Also unless otherwise specified in the relevant Specifications Annex, the Strategy Value Publication Precision in respect of a Strategy shall be 2 decimal places with 0.005 rounded upwards.

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