

GOLDMAN SACHS INTERNATIONAL - COMMODITIES ESG BENCHMARK FAMILY STATEMENT (EXTERNAL DATA)

Publication Date: 14 May 2021

Last Update: 14 May 2021

A. Definitions

- **Adjustment Events:** Business, market, legal, regulatory, judicial, financial, fiscal or other circumstances that may arise that could necessitate or make desirable a modification or change to a GSI Benchmark's methodology.
- **Administrator:** GSI acting as the "administrator" as defined in Article 3.1(6) of the EUBMR.
- **Benchmark:** A benchmark pursuant to Article 3.1(3) of the EUBMR.
- **Benchmark Families:** A family of benchmarks as defined in Article 3.1(4) of the EUBMR.
- **Calculation Agent:** GSI or a third party, when tasked with the determination of a GSI Benchmark.
- **Control Framework:** GSI's Policy and Control Framework, governing its benchmark administration activities.
- **EUBMR:** Regulation 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) No 596/2014.
- **ESG:** Environmental, Social and Governance.
- **Expert Judgment:** The exercise of discretion by GSI, including, but not limited to, extrapolating values from prior or related transactions, adjusting values for factors that might influence the quality of data and weighting firm bids or offers greater than a particular concluded transaction.
- **GSI:** Goldman Sachs International.
- **GSI Benchmark:** A GSI administered Benchmark administered pursuant to Article 3.1(6) of the EUBMR or, an index that GSI may treat as if it is a benchmark under Article 3.1(3) EUBMR that GSI has grouped within the Commodities ESG Benchmark Family (External Data). GSI may consider certain indices that do not fall within the scope of the EUBMR, as if they are GSI Benchmarks for the purposes of applying the requirements of the EUBMR but shall not be obliged to do so.
- **Incidents:** Input data or calculation errors or anomalies affecting the published level of the GSI Benchmarks.
- **Index:** An index pursuant to Article 3.1(1) of the EUBMR.
- **Internal Input Data:** Data already available in the Goldman Sachs Group, prior to the provision of the GSI Benchmarks, which was created for purposes other than the determination of GSI Benchmarks.

- **Index Committee:** Oversight Function of GSI pursuant Article 5.1 of the EUBMR.
- **Investor Disclosures:** Documentation outlining the methodology for each GSI Benchmark that is made available to counterparties to, or investors in, financial instruments referencing the GSI Benchmarks.
- **Input Data:** The data in respect of the value of one or more underliers used by GSI to determine an Index.
- **Non-significant benchmark:** A Benchmark categorised as a non-significant benchmark following the provisions of Article 3.1(27) of the EUBMR.
- **Published Level:** The closing level of a GSI Benchmark as defined the relevant Investor Disclosures.
- **Restatement Event:** An Incident that results in the restatement of the published level of a GSI Benchmark.
- **Statement:** The benchmark statement published by GSI pursuant Article 27 EUBMR.
- **Third Party Calculation Agent:** A third party to GSI involved in certain determinations and calculations in respect of a GSI Benchmark.
- **Third Party Data:** Combination of Third Party Transactional Data and Third Party Non-Transactional Data.
- **Third Party Non-Transactional Data:** Input data consisting of estimated prices, actual or estimated rates, quotes and committed quotes, or other values or surveys provided by third parties to GSI.
- **Third Party Transactional Data:** Input data in the form of observable prices, rates, indices or values representing transactions in third party trading venues or other market places where GSI may or may not participate.
- **Underliers:** Listed commodity derivatives, or other financial instruments referencing commodities or commodity indices.

B. Statement Overview

The Global Markets Division of GSI creates and sponsors a number of Benchmarks that it considers to be within the scope of the EUBMR.

This Statement is being published in accordance with Article 27 of the EUBMR. GSI classifies the GSI Benchmarks it administers into Benchmark Families for the purposes of the publication of the Statements.

This Statement intends to define the economic reality measured by the Commodities ESG Benchmark Family (External Data) and the circumstances in which such measurement may become unreliable. The

Statements also highlights, where applicable, any elements of the calculation of the GSI Benchmarks where GSI may apply discretion or Expert Judgment. The statement also provides an overview of those internal or external factors which may require changes to the methodology of the GSI Benchmarks and the potential impact on the value of financial instruments referencing such GSI Benchmarks.

Information about the GSI Benchmarks' methodologies is available to counterparties to, or investors in, financial instruments referencing the GSI Benchmarks via the Investor Disclosures. Counterparties and investors should carefully read the relevant Investor Disclosures prior to making any investment decision on the GSI Benchmarks.

C. GSI Benchmarks' ISINs

The GSI Benchmarks do not have ISIN codes allocated to them at the time of publication of this Statement.

D. Contributions

The GSI Benchmarks are not determined using contributions of input data, as defined in Article 3.1(8) of the EUBMR.

E. Category of GSI Benchmarks

The GSI Benchmarks are non-significant benchmarks as set out in Article 3.1(27) of the EUBMR.

F. Market or economic reality measured by the Commodities ESG Benchmark Family (External Data)

The GSI Benchmarks are based on synthetic rules based GSI proprietary strategies which aim to notionally replicate the realized performance of a systematic investment process referencing Underliers.

The GSI Benchmarks may also include various types of computation steps which reference market data outside of the commodities market, including, but not limited to, an internal simulated currency hedge or a volatility target mechanism, or a synthetic interest rate return. Such computation steps referencing market data outside of the commodities market are not expected to be the primary driver of the performance of the GSI Benchmarks, and, where applicable in the relevant GSI Benchmarks methodology, would be added to hedge foreign exchange exposure of the GSI Benchmark underlying assets or target a particular level for the volatility of the GSI Benchmark.

The Underliers may be selected from one or more commodity type, and/or based on a set of criteria established in the Investor Disclosures.

G. GSI Benchmarks' Methodology

The methodologies of the GSI Benchmarks are developed by GSI to establish a set of rules, aiming to achieve a defined objective through replicating the performance of a basket of the Underliers. Detailed information related to the methodologies of the GSI Benchmarks, including calculation arrangements and parameters applied, input data used and a detailed description, can be found in the Investor Disclosures.

GSI Benchmarks are determined using prices of the Underliers, based on their relative weight or quantity

determined as per the defined methodology, and relying on a combination of:

- (i) Third Party Transactional Data; and
- (ii) Third Party Non-Transactional Data.

Changes in the value of the Underliers may, where applicable in the relevant GSI Benchmarks methodology, impact their weighting in the Index. The value of the GSI Benchmarks may be reduced by the deduction of rebalancing costs, asset servicing costs and/or other types of deductions, each as specified in the Investor Disclosure.

Prior to being launched, new GSI Benchmarks are subject to a defined approval process including but not limited to approval by the Index Committee. The Index Committee:

- Reviews and approves new GSI Benchmarks;
- Periodically reviews and provides challenges on aspects of the provision of the GSI Benchmarks, including the GSI Benchmarks' methodologies, the expected or known usage of the GSI Benchmarks and the materiality of existing or potential conflicts of interests identified in respect of the GSI Benchmarks; and
- Oversees the implementation and control infrastructure as well as the continuous operation of the GSI Benchmarks.

GSI is entitled to make modification or changes to the methodologies of the GSI Benchmarks under the circumstances defined in the Investor Disclosures, and subject to the oversight of the Index Committee. Circumstances may include correction of manifest or proven error, correction of contradictory or defective provisions, necessary changes to the calculation frequency, changes to allow the calculation and determination of weights and value in case of market, legal, regulatory, judicial or other changes. The changes may only result in methodologies that are consistent with the Investor Disclosures.

Changes to a GSI Benchmark's methodology may have an impact on financial instruments that reference the GSI Benchmark or the measurement of the performance of investment funds directly or indirectly linked to the GSI Benchmark. Specific processes related to review of and changes to the methodologies of the GSI Benchmarks and cessation of GSI Benchmarks are defined in the Investor Disclosures.

H. Input Data

Input data for the GSI Benchmarks is a combination of Third Party Data.

Input Data are subject to quality controls prior to being used in the determination of the GSI Benchmarks. Multiple different data sources may be used, where readily available to GSI or its appointed Third Party Calculation Agent, depending on the type of Input Data. GSI has controls in place to ensure completeness and accuracy of the input data used.

GSI uses multiple sources of input data for the determination of GSI Benchmarks. In the event of a discrepancy between the data obtained from the different sources, GSI will strive to find alternative sources of data to corroborate the previously available input data. In limited circumstances, GSI may define different

hierarchies for input data, depending on their precision in terms of the number of decimal places. The input data with the higher precision would be used by GSI for the determination of a GSI Benchmark in those circumstances.

GSI may change the Input Data on which the GSI Benchmarks are determined and/or change the frequency of publication of the GSI Benchmarks following the provisions of the Investor Disclosures.

I. Discretion and Expert Judgment

GSI may apply discretion and/or Expert Judgment in limited circumstances, for example where GSI is required or entitled to make a determination in relation to a GSI Benchmark and that determination involves the exercise of Expert Judgment or discretion. Such expert judgement or discretion is exercised in good faith and in a commercially reasonable manner, and subject to GSI's Control Framework. This includes but is not limited to when a restatement of the GSI Benchmark is required or when dealing with errors in input data, or disruption events including but not limited to market disruption events, asset substitution event and adjustment events.

J. Cessation of GSI Benchmarks

GSI may discontinue or terminate the determination and publication of the GSI Benchmarks, in accordance with the provision of the Investor Disclosures. The Index Committee may, prior to the discontinuation or cessation of a GSI Benchmark, assess the potential impact of the cessation. GSI will strive to inform stakeholders about the possibility of discontinuation and timeliness for discontinuation and will apply best efforts to offer alternative solutions to counterparties to, and investors in financial instruments referencing the GSI Benchmark to ensure an orderly transition out of the discontinued GSI Benchmark.

K. Incidents and Adjustment Events

From time to time, Adjustment Events may arise that could necessitate or make desirable a modification or change to the GSI Benchmarks. The Index Committee approves all changes to the methodologies of GSI Benchmarks as a consequence of Adjustment Events.

Additionally, GSI maintains controls and processes to identify and correct Incidents. All Incidents, attributable to GSI or to a third-party are subject to internal policies and procedures for handling potential Restatement Events.

Unless otherwise specified, GSI may make adjustments to the GSI Benchmark as a result of Adjustment Events and Incidents. Adjustment Events and Incidents are subject to the oversight of the Index Committee and to the provisions of the Investor Disclosures. Those adjustments are announced, where necessary, to counterparties to, and investors in financial instruments referencing the GSI Benchmarks.

L. Limitations to the determination of GSI Benchmarks

GSI identifies as the main potential limitations to the determination of the GSI Benchmarks the following situations:

- Compromise of input data

The GSI Benchmarks' input data is generally available via third party data providers, which may be inaccessible and/or be compromised in certain circumstances. If the input data is compromised (for example as a result of an Adjustment Event), the Published Level could stop being a reliable representation of the market or economic reality the GSI Benchmarks intend to measure.

In those situations, GSI may lack alternative input data to determine the GSI Benchmarks in accordance with their methodologies. The Investor Disclosures document specifies provisions for the use of alternative input data, including the possibility to use Internal Input Data in certain circumstances under the oversight of the Index Committee.

- Limitations in methodologies of the GSI Benchmarks

Some methodologies may show constraints and limitations which, in certain events (for example in illiquid or fragmented markets or in the case of concentrated input data), may cause the GSI Benchmarks to not accurately capture the market or economic reality they intend to measure. These constraints and limitations could be a result of assumptions used in the design of the methodology or implementation complexities.

In addition, and as set out disclosed in the Investor Disclosures, trading activity on the Underliers, carried out by GSI or other market participants, could affect the Published Level of the GSI Benchmarks as well as the fundamental assumptions of the GSI Benchmarks' methodologies.

ANNEX 1

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 BENCHMARK STATEMENT IN THE CASE OF FIXED WEIGHT COMMODITIES GSI BENCHMARKS	
SECTION 1 – CONSIDERATION OF ESG FACTORS (IN FIXED WEIGHT COMMODITIES GSI BENCHMARKS)	
Item 1. Name of the benchmark administrator.	Goldman Sachs International
Item 2. Type of benchmark or family of benchmarks.	Commodity benchmarks
Item 3. Name of the benchmark or family of benchmarks.	Commodities ESG Benchmark Family (External Data) (the “ Benchmark Family ” and each benchmark in the Benchmark Family being a “ Benchmark ”)
Item 4. Are there in the portfolio of the benchmark administrator any EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks, benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors?	Yes
Item 5. Does the benchmark or family of benchmarks pursue ESG objectives?	<p>Yes, the ESG information disclosed in this table is used for pursuing ESG objectives in the construction of each Benchmark.</p> <p>The Benchmark methodology in respect of each Benchmark (including, without limitation, certain risk factors and disclaimers relating to the GIR Framework (as defined below), can be found in the Index Rules.</p> <p>The “Index Rules” in respect of each Benchmark shall be constituted of the following documentation elements read together: (i) the relevant specifications annex in respect of such Benchmark (the “Specifications Annex”), (ii) the Goldman Sachs General Basket Strategy Base Description and (iii) the Goldman Sachs General Index Provisions (in each case, as may be amended from time to time) and,</p>

	<p>in the event of any inconsistency between such documentation elements, the provisions of the Specifications Annex shall prevail over the other documentation elements. Terms used but not defined in this disclosure shall have the meanings given to them in the Index Rules.</p>
<p>Item 6. Where the response to Item 5 is positive, provide below the details (score) in relation to the ESG factors listed in Annex II for each family of benchmarks at aggregated level.</p> <p>The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.</p>	
<p>Not Applicable -as noted under Item 7(a)-(d), the Benchmarks do not directly use the applicable factors in the pursuit of the ESG objectives described below. Disclosure in relation to those ESG objectives is at the Benchmark level.</p>	
<p>Item 7. Where the response to Item 5 is positive, provide below the details (score) for each benchmark, in relation to the ESG factors listed in Annex II, depending on the relevant underlying asset concerned.</p> <p>Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in the benchmark statement. The information on the website shall be easily available and accessible.</p> <p>Benchmark administrators shall ensure that information published on their website remains available for five years.</p> <p>The score of the ESG factors shall not be disclosed for each constituent of the benchmark but shall be disclosed at an aggregated weighted average value of the benchmark.</p>	
<p>Pursuit of ESG objectives</p> <p>Each Benchmark pursues a particular environmental, social and governance (“ESG”) objective which is to provide access to a basket which combines a calibrated exposure to carbon emissions allowances to a commodity index exposure.</p> <p>The composition of each Benchmark (and specifically the fixed weight assigned to the carbon emissions allowances included in each basket) seeks, using weights selected by reference to the methodology set out in the framework (the “GIR Framework”) published by the Goldman Sachs Global Investment Research (“GIR”) Division on 21 April 2021 (GS Research, “Commodity Insights: A Carbon-Inclusive Commodity Index Framework”).</p> <p>The value of each Benchmark is determined by reference to a weighted basket of underlying commodity indices (each a “Component”). Although each Benchmark is rebalanced regularly, each Benchmark is a “static basket” because the weights of its respective Components do not vary from one Rebalancing Date to another Rebalancing Date regardless of any changes or updates to the GIR Framework.</p> <p>The Components referenced in each Benchmark shall comprise (i) an index (which may be a third-party index) providing exposure to one or more defined commodity futures contracts (the “Reference Index”) and (ii) an index (which may be a third-party index) providing exposure to Emission Allowances (EUA) ER (the “EUA Index”) which provides exposure to futures contracts referencing EU Emission Allowances.</p> <p>The weight assigned to the EUA Index in a particular Benchmark shall be set out in the Index Rules and has been selected by reference to the methodology set out in the GIR Framework published on 21 April 2021.</p> <p>The factors set out below against which Goldman Sachs International is required to disclose data are not factors used by Goldman Sachs International in constructing each Benchmark.</p>	

a) List of combined ESG factors:	Not Applicable	
b) List of environmental factors:	Degree of exposure of the underlying commodities to climate-related physical risks, measuring the effects of extreme weather events on companies' operation and production or on the different stages of the supply chain (low, moderate or high) (voluntary).	Not Applicable – each Benchmark does not directly use this measure in the pursuit of its ESG objectives, as explained above.
	The methodology used to calculate the climate-related physical risks (voluntary).	Not Applicable - each Benchmark does not directly use this measure in the pursuit of its ESG objectives, as explained above.
	Degree of exposure of the underlying commodities to climate-transition risks, measuring the financial impacts resulting from the effects of the implementation of a low-carbon strategies (low, moderate or high).	Not Applicable - each Benchmark does not directly use this measure in the pursuit of its ESG objectives, as explained above.
c) List of social factors:	Degree of exposure of the underlying commodities to social risks (low, moderate or high)	Not Applicable – each Benchmark does not directly use this measure in the pursuit of its ESG objectives, as explained above.
d) List of governance factors:	Degree of exposure of the underlying commodities to governance risks (low, moderate or high)	Not Applicable – each Benchmark does not directly use this measure in the pursuit of its ESG objectives, as explained above.
	Average rule of law score, based on the absence of corruption, respect for fundamental rights and the state of civil and	Not Applicable – each Benchmark does not directly use this measure in the pursuit of its ESG objectives, as explained above.

	criminal justice (including a quantitative indicator and the methodology used to calculate it)	
Hyperlink to the information on ESG factors for each benchmark:	Not Applicable	
Item 8. Data and Standards used.		
a) Description of data sources used to provide information on the ESG factors in the benchmark statement	Given the nature of the ESG objective outlined above, data sources are not used to provide information on ESG factors in the benchmark statement. The ESG element of each Benchmark is obtained through exposure to the EUA Index. However, information relating to the Components in respect of a Benchmark is sourced through the administrator of such Component.	
b) Reference standards	<p>Goldman Sachs International does not independently assess or apply data used or relied on in constructing each Benchmark using an international standard.</p> <p>For a detailed overview of the methodology in respect of a Component please visit the website of the benchmark administrator in respect of such Component.</p> <p>Goldman Sachs International is not responsible for any data provided on a third party website.</p>	
SECTION 2 – ADDITIONAL DISCLOSURE REQUIREMENTS FOR EU CLIMATE TRANSITION AND EU PARIS-ALIGNED BENCHMARKS		
Not Applicable – each Benchmark is not an EU Climate Transition or an EU Paris-Aligned Benchmark		
SECTION 3 – DISCLOSURE OF THE ALIGNMENT WITH THE OBJECTIVES OF THE PARIS AGREEMENT		
<p>Item 10. By the date of application of this Regulation, for significant equity and bond benchmarks, EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks, benchmark administrators shall also disclose the following information.</p> <p>By 31 December 2021, benchmark administrators shall, for each benchmark or, where applicable, each family of benchmarks, disclose the following information:</p>		
a) Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of	Not Applicable – in accordance with the Regulation, Goldman Sachs International will disclose this information by 31 December 2021.	

the Paris Agreement;	
b) the temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement;	As above.
c) the name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement;	As above.
d) the methodology used for the measurement of the alignment with the temperature scenario;	As above.
e) the hyperlink to the website of the temperature scenario used.	As above.
Date on which information has last been updated and reason for the update:	14 May 2021 Please note that Goldman Sachs International may update or amend this ESG disclosure statement from time to time.