This report has been prepared by Goldman Sachs Asset Management International ("GSAMI") for the calendar year ending 31 December 2018 (the "Reporting Period"), in accordance with Article 65(6) of Commission Delegated Regulation 2017/565 and Article 27(6) of Directive 2014/65/EU ("MiFID II"), which require GSAMI to annually publish (i) the top five venues where it executed clients' orders; and (ii) the top five firms to whom it transmitted or placed client orders for execution, in respect of each class of financial instruments noted below. This report also provides information on GSAMI's assessment of the quality of execution it obtained from these execution venues and firms (based on its internal monitoring), for each class of financial instruments. Where data for financial instruments was sourced from a third party, it may have been incomplete or inconsistent with the calculation methodology used for other financial instruments.

This report only covers the trading activities of GSAMI and not of any of its affiliates or the wider Goldman Sachs group. The information set out in this report also covers GSAMI's past trading activities and is not necessarily reflective of GSAMI's current or future trading activities and should not be relied on as such.

Please note that this document is not marketing or promotional material, and has been prepared and published on GSAM's website solely to ensure compliance with MiFID II disclosure requirements. GSAMI is authorised and regulated by the Financial Conduct Authority.”
### Top Five Venue Report

**Type of Client:** Professional Client  
**Reporting Entity:** GSAMI

<table>
<thead>
<tr>
<th>Class of Instrument</th>
<th>Notification if &lt;1 average trade per business day in the previous year</th>
<th>Top five execution venues ranked in terms of trading volumes (descending order)</th>
<th>Proportion of volume traded as a percentage of total in that class</th>
<th>Proportion of orders executed as a percentage of total in that class</th>
<th>Percentage of passive orders</th>
<th>Percentage of aggressive orders</th>
<th>Percentage of directed orders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DEUTSCHE BANK AG-LONDON BRANCH</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VIRTU FINANCIAL IRELAND LIMITED</td>
<td>N/A</td>
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<td>N/A</td>
<td>N/A</td>
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<tr>
<td></td>
<td></td>
<td>BANK OF AMERICA, NATIONAL ASSOCIATION</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>MERRILL LYNCH, PIERCE, FENNER &amp; SMITH INCORPORATED</td>
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<tr>
<td></td>
<td></td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</tbody>
</table>

### Top Five Broker Report

**Type of Client:** Professional Client  
**Reporting Entity:** GSAMI

<table>
<thead>
<tr>
<th>Class of Instrument</th>
<th>Notification if &lt;1 average trade per business day in the previous year</th>
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<tbody>
<tr>
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<td>Class of Instrument</td>
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</tbody>
</table>

**Top five Broker Report**

Type of Client: Professional Client

Reporting Entity: GSAMI

Equities - Shares & Depositary Receipts - Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day)

<table>
<thead>
<tr>
<th>Class of Instrument</th>
<th>Notification if &lt;1 average trade per business day in the previous year</th>
<th>Top five execution venues ranked in terms of trading volumes (descending order)</th>
<th>Proportion of volume traded as a percentage of total in that class</th>
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<th>Percentage of directed orders</th>
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<td>8.66</td>
<td>10.66</td>
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### Equities Shares & Depository Receipts

<table>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Proportion of volume traded as a percentage of total in that class</td>
<td>Proportion of orders executed as a percentage of total in that class</td>
<td>Percentage of passive orders</td>
<td>Percentage of aggressive orders</td>
<td>Percentage of bidirectional orders</td>
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<tr>
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### Equities - Shares & Depositary Receipts

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<td>Percentage of bidirectional orders</td>
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</table>

### Top Five Broker Report

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</thead>
<tbody>
<tr>
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<td>Percentage of passive orders</td>
<td>Percentage of aggressive orders</td>
<td>Percentage of bidirectional orders</td>
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<tr>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Financial Stability

- GSAMI only has professional clients.

### Execution Venues

- The criteria used to add an execution venue or broker to the Approved List were generally based on the evaluation of a number of quantitative and qualitative factors that may have included (as applicable), but were not limited to: GSAMI's analysis of the

---

### Execution Quality

- The specific qualitative criteria used to add an execution venue or broker to the Approved List in 2018, generally varied based on the asset class to be traded, but the overall approval process was applied in the same manner across all asset classes. GSAMI did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.

### Execution Strategies

- When trading GSAMI utilised the following Affiliates:
- Goldman Sachs (Asia) L.L.C.
- Goldman Sachs (India) Securities Private Limited
- Goldman Sachs Services Private Limited
- Goldman Sachs International
- Goldman Sachs (Singapore) Pte.
- Goldman Sachs Asset Management, L.P.

### Conflict of Interest

- Goldman Sachs Asset Management Australia Pty Ltd
- Goldman Sachs (New Zealand) Limited
- Goldman Sachs Asset Management (India) Private Limited
- Goldman Sachs Asset Management, L.P.
• creditworthiness;
• reputation;
• financial stability;

(h) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 44 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

+ N/A
Debt Instruments: (1) Bonds

Reporting Entity: GSAMI

Top Risk Issues Report
Type of Client: Professional Client

Reporting Entity: GSAMI

Notification if <1 average trade per business day in the previous year

<table>
<thead>
<tr>
<th>Reporting Entity</th>
<th>Reporting Entity</th>
<th>Date of Trade Report</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

Top five execution venues ranked in terms of trading volumes (Descending order)

<table>
<thead>
<tr>
<th>Top Five Venue</th>
<th>Proportion of volume traded as a percentage of total in that class</th>
<th>Proportion of orders executed as a percentage of total in that class</th>
<th>Percentage of passive orders</th>
<th>Percentage of aggressive orders</th>
<th>Percentage of directed orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>TISU - TRADEWEB EUROPE LIMITED</td>
<td>51.12</td>
<td>27.65</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>NA11 - MARKETAXIS EUROPE LIMITED</td>
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<td>71.31</td>
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<td>BMTT - BLOOMBERG TRADING FACILITY LIMITED</td>
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<td>0.84</td>
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<tr>
<td>TISA - IFRDEAL EXCHANGE LIMITED</td>
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<td>TIGI - TRADEWEB EUROPE LIMITED</td>
<td>0.18</td>
<td>0.38</td>
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</tbody>
</table>

An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

- GSAMI did not use any data or tools for any instrument class

An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

- GSAMI only has professional clients

A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

- GSAM Services Private Limited (formerly Goldman Sachs Asset Management (India) Private Limited)
- Goldman Sachs (India) Securities Private Limited
- Goldman Sachs International
- Goldman Sachs Asset Management (Singapore) Pte. Ltd.
- Goldman Sachs (Singapore) Pte.
- Goldman Sachs Asset Management, L.P.

In determining the relative importance of factors considered, GSAMI took into account:

- the nature of the client's order;
- the characteristics of the financial instruments to which the order relates; and
- the characteristics of the available execution venues which can be used to or to which client orders can be directed.

A description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders.

- Goldman Sachs Group, Inc. and its affiliates.
- Merrill Lynch International
- HSBC Bank PLC
- GGDZP1UYGU9STUHRDP48

The specific qualitative criteria used to add an execution venue or broker to the Approved List in 2018, generally taking into account:

- the nature of the instrument (e.g. bespoke or standardized); or
- the nature of the order;
- the nature of client orders;
- the characteristics of the financial instruments to which the order relates; and
- the characteristics of the available execution venues which can be used to or to which client orders can be directed.

In addition, although different execution strategies were used on a trade-by-trade basis (dependent on factors such as market conditions, liquidity, investment strategy and client guidelines), the ranking of the execution factors was often determined by investment objectives for the strategy, the type of product to be traded, the rationale for the trade (e.g. cash flow or change in analyst view) and other appropriate considerations.

A description of any other circumstances where it has a material interest or conflict of interests, GSAMI will take all appropriate steps to ensure the clients are treated fairly. In this regard, GSAMI has established, implemented and maintains a written conflicts of interest policy.

- GSAMI may act in circumstances in which it or one of its affiliates has a material interest or a relationship of any description with another party which may involve an actual or potential conflict with GSAMI’s duty to its clients. However, if GSAMI acts in circumstances where it has a material interest or conflict of interests, GSAMI will take all appropriate steps to ensure the clients are treated fairly. In this regard, GSAMI has established, implemented and maintains a written conflicts of interest policy.

When trading GSAMI utilises the following investment management AFFILIATES:

- Goldman Sachs Asset Management, L.P.
- Goldman Sachs (Singapore) Pte.
- Goldman Sachs Asset Management (Singapore) Pte. Ltd.
- Goldman Sachs International
- Goldman Sachs Services Private Limited
- Goldman Sachs [India] Securities Private Limited
- Goldman Sachs (Kos) L.L.C.
(a) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

• GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues in relation to its use of execution venues.

(b) An explanation of the factors that led to a change in the list of execution venues listed in the firm’s execution policy, if such a change occurred. • There were no material changes to execution venues used by GSAMI over 2018.

• GSAMI has a process for the selection of (i) execution venues (including brokers) for executing client orders; and (ii) brokers, with whom it places or transmits client orders for execution. GSAMI maintains a list of approved execution venues and brokers (the “Approved List”).

• The specific qualitative criteria used to add an execution venue or broker to the Approved List in 2018, generally varied based on the asset class to be traded, but the overall approval process was applied in the same manner across all asset classes. GSAMI did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.

• The criteria used to add an execution venue or broker to the Approved List were generally based on the evaluation of a number of quantitative and qualitative factors that may have included (as applicable), but were not limited to, GSAMI’s analysis of the broker or execution venue’s:
  • competitiveness of commission rates or spreads;
  • promptness of execution;
  • clearance and settlement capabilities;
  • willingness to commit capital;
  • reputation;
  • financial stability;

(c) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

• GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues in relation to its use of execution venues.

(d) An explanation of the factors that led to a change in the list of execution venues listed in the firm’s execution policy, if such a change occurred. • There were no material changes to execution venues used by GSAMI over 2018.

• GSAMI only has professional clients.

(e) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

• GSAMI only has professional clients.

(f) An explanation of when other criteria were given precedence over immediate price and cost when executing retail client orders and how these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.

• GSAMI only has professional clients.

(g) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

• GSAMI did not use any data or tools for any instrument classes.

(h) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 45 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

• N/A
Debt instruments: (ii) Money markets instruments

### Reporting Entity: GSAM

#### Reporting Period
- Reporting Date: 31 December 2018

### Business Model
- Name of prevailing business model: (a) Same as described in the Firm's other periodic report

### Determination of the relative importance of factors
- An explanation of the relative importance the firm gives to execution factors of price, costs, speed, likelihood of execution and other factors is included in the firm's other periodic report.

### Execution venues
- GSAMI maintained a list of execution venues as at 31 December 2018:
  - Goldman Sachs (India) Securities Private Limited
  - Goldman Sachs Services Private Limited
  - Goldman Sachs International
  - Goldman Sachs Asset Management (Singapore) Pte. Ltd.
  - Goldman Sachs (Singapore) Pte.
  - Goldman Sachs Asset Management, L.P.

### Execution framework
- GSAMI maintains an execution framework as at 31 December 2018:
  - Goldman Sachs (India) Securities Private Limited

### Criteria for adding execution venues to the Approved List
- The criteria used to add an execution venue or broker to the Approved List were generally based on the evaluation of a broker's business model, capabilities, and the relative importance of factors that may have included, but were not limited to, GSAMI's analysis of the

### Selection of execution venues
- GSAMI does not operate execution venues and act as brokers in respect of orders executed for its clients.

### Execution policies
- GSAMI and its affiliates may:
  - Operate execution venues and act as brokers in respect of orders executed for its clients.
  - Have multiple advisory, transactional and financial and other interests in execution venues and brokers used by GSAM.

### Execution factors
- In determining the relative importance of factors considered, GSAMI took into account:
  - The nature of client orders;
  - The characteristics of the financial instruments to which the order relates; and
  - The characteristics of the available execution venues which can be used to direct execution orders can be directed.

### Execution venue and broker rankings
- GSAMI has a process for the selection of execution venues (including brokers) for executing client orders, and it places or transmits client orders for execution. GSAMI maintains a list of approved execution venues and brokers (the "Approved List").

### Proportion of orders executed as percentage of total in that class

<table>
<thead>
<tr>
<th>Top Five Broker Report</th>
<th>Reporting Entity: GSAMI</th>
<th>Type of Client: Professional Client</th>
<th>Reporting Period: 31 December 2018</th>
<th>Net percentage of orders executed as percentage of total in that class</th>
<th>Proportion of volume traded as percentage of total in that class</th>
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<td>Notification if &lt;1 average trade per business day in the previous year</td>
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</table>
GSAMI only has professional clients.

(d) An explanation of the factors that led to a change in the list of execution venues listed in the firm's execution policy, if such a change occurred.

GSAMI did not use any data or tools for any instrument classes.

(e) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues.

(f) An explanation of when other criteria were given precedence over immediate price and cost when executing retail client orders and how these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.

GSAM has a process for the selection of (i) execution venues (including brokers) for executing client orders; and (ii) operate execution venues and act as brokers in respect of orders executed for GSAMI's clients.

(g) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

N/A

(h) An explanation of how the investment firm has used, if applicable, any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

(i) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

(j) An explanation of how the investment firm has used any data or tools for any instrument classes.

Goldman Sachs Group, Inc. and its affiliates.

GSAMI may act in circumstances in which it or one of its affiliates has a material interest or a relationship of any kind with any other party which may involve an actual or potential conflict with GSAMI's duty to its clients. However, if GSAMI acts in such circumstances, it will do so in the best interests of its clients.
### Interest rates derivatives: (i) Futures and options admitted to trading on a trading venue

#### Reporting Entity: GSAMI

<table>
<thead>
<tr>
<th>Type of Client: Professional Client</th>
<th>Reporting Entity: GSAMI</th>
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</table>

### Top Five Venue Report

<table>
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<tr>
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### Notifications: (i) average trade per business day in the previous year

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<thead>
<tr>
<th>Reporting Entity: GSAMI</th>
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</tr>
</thead>
</table>

### Proportion of volume traded as a percentage of total in that class

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<tr>
<th>Reporting Entity: GSAMI</th>
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### Proportion of orders executed as a percentage of total in that class

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<thead>
<tr>
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### Percentage of passive orders

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<th>Reporting Entity: GSAMI</th>
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### Percentage of aggressive orders

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</table>

### Percentage of directed orders

<table>
<thead>
<tr>
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(c) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 5(1) of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performance.

N/A
Interest rates derivatives: (ii) Swaps, forwards, and other interest rates derivatives

### Reporting Entity: GSAM

- **Type of Client:** Professional Client
- **Reporting Entity:** GSAM

#### Notified Failing (in average trade per business day in the previous year)

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<tr>
<th>Proportion of volume traded as a percentage of total in that class</th>
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### GSAM Broker Report

- **Type of Client:** Professional Client
- **Reporting Entity:** GSAM

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</tbody>
</table>

### GSAM's analysis of the relative importance of factors

- **Financial stability:**
- **Creditworthiness:**
- **Willingness to commit capital:**
- **Quality of service:**
- **Clearance and settlement capabilities:**
- **Promptness of execution:**

### GSAM's use of data or tools

- GSAM did not use any data or tools for any instrument classes.
- GSAM did not receive any discounts, rebates or non-monetary benefits nor did GSAM make any payments to execution venues in relation to its use of execution venues.

### GSAM's selection of execution venues

- GSAM has a process for the selection of (i) execution venues (including brokers) for executing client orders; and (ii) operate execution venues and act as brokers in respect of orders executed for GSAM's clients.

### GSAM's analysis of the relative importance of factors

- GSAM took into account the relative importance of factors when making assessments of the quality of execution. GSAM's analysis of the relative importance of factors included:
  - Price
  - Size
  - Liquidity
  - Speed
- In determining the relative importance of factors considered, GSAM took into account:
  - The nature of client orders,
  - The characteristics of the financial instruments to which the order relates, and
  - The characteristics of the available execution venues which can be used to achieve the client's objectives.

### GSAM's treatment of different categories of clients

- GSAM treated specific categories of clients differently and where it may affect the order execution arrangements.

### GSAM's use of data or tools

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• Goldman Sachs Asset Management Australia Pty Ltd
• GSAM Services Private Limited (formerly Goldman Sachs Asset Management (India) Private Limited)
• Goldman Sachs (India) Securities Private Limited
• Goldman Sachs Services Private Limited
• Goldman Sachs International
• Goldman Sachs Asset Management (Singapore) Pte. Ltd.
• Goldman Sachs (Singapore) Pte.
• Goldman Sachs Asset Management (Australia) Pty Ltd.
• Goldman Sachs (Australia) Pty.
• Goldman Sachs Securities (Canada) Inc.
• Goldman Sachs Securities (Europe) SE

10. GSAMI may act in circumstances in which it or one of its affiliates has a material interest or a relationship of any kind to an execution venue or a broker used by GSAMI. In such circumstances, GSAMI will not engage in transactions with the execution venue or the broker in question unless: (i) it places or transmits client orders for execution. GSAMI maintains a list of approved execution venues and brokers (the "Approved List").

11. GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues in relation to its use of execution venues.

12. GSAMI did not use any data or tools for any instrument classes.

13. GSAMI only has professional clients.

14. An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

15. GSAMI did not use any data or tools for any instrument classes.

16. An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 20 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

17. N/A
<table>
<thead>
<tr>
<th>Class of Instrument</th>
<th>Notification if &lt;1 average trade per business day in the previous year</th>
<th>Top five execution venues ranked in terms of trading volumes (descending order)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
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<td>N/A</td>
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</tr>
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Goldman Sachs Asset Management International does not trade credit related futures or options that are admitted to trading on trading venues with clients.
(c) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

• GSAM Services Private Limited (formerly Goldman Sachs Asset Management (India) Private Limited)
• Goldman Sachs (India) Securities Private Limited
• Goldman Sachs Services Private Limited
• Goldman Sachs Asset Management (Singapore) Pte. Ltd.
• Goldman Sachs Asset Management, L.P.

When trading GSAMI utilised the following investment management Affiliates:
• Goldman Sachs Asset Management, L.P.
• Goldman Sachs (Singapore) Pte. Ltd.
• Goldman Sachs Asset Management (Singapore) Pte. Ltd.
• Goldman Sachs International
• Goldman Sachs Services Private Limited
• Goldman Sachs (India) Securities Private Limited
• Goldman Sachs (India) Private Limited
• GSAM Services Private Limited

GSAMI is part of a worldwide, full service investment banking, broker-dealer, asset management organisation, The Goldman Sachs Group, Inc. and its affiliates. GSAMI and its affiliates (the firm) and (where applicable) the personnel of the firm may: (i) have multiple advisory, transactional and financial and other interests in execution venues and brokers used by GSAMI; (ii) operate execution venues and act as brokers in respect of orders executed for GSAMI’s clients.

GSAMI may act in circumstances where it has a material interest or conflict of interests, GSAMI will take all appropriate steps to ensure the clients are treated fairly. In this regard, GSAMI has established, implemented and maintains a written conflicts of interest policy.

(a) An explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when making assessments of the quality of execution.

GSAMI took into account a range of factors in deciding how and where to execute client orders, including, but not limited to:
• price;
• costs;
• timing and speed of execution;
• likelihood of execution, clearance and settlement;
• capabilities in execution, clearance and settlement;
• size;
• liquidity in or with a broker;
• nature of the order;
• nature of the instrument (e.g. bespoke or standardised); or
• other appropriate factors, such as a broker's willingness to commit capital and the availability of external venues for the order or a particular product.

In determining the relative importance of factors considered, GSAMI took into account:
• the nature of client orders,
• the characteristics of the financial instruments to which the order relates; and
• the characteristics of the available execution venues which can be used or to which client orders can be directed.

In addition, although different execution strategies were used or a trade-by-trade basis (dependent on factors such as market conditions, liquidity, investment strategy and client guidelines), the ranking of the execution factors was often determined by investment objectives for the strategy, the type of product to be traded, the rationale for the trade (e.g. cash-flow or change in analyst view) and other appropriate considerations.

The relative importance of execution factors of different trading desks:

Emerging Market Desks
• Liquidity
• Size
• Price
• Venue
• Cost
— Balance Sheet
— Nature of Order
— Likelihood of Settlement
Market access to certain otherwise inaccessible markets (e.g. EM Frontier markets) may change the order of these execution factors.

High Yield Desk
• Size
• Price
• Speed
• Liquidity
• Likelihood of execution
• Cost
• Likelihood of settlement
Liquidity may become the primary factor due to a broker having a particular flow resulting in a greater amount of risk being transformed.

Investment Grade Desk
• Size
• Price
• Speed
• Liquidity
• Likelihood of execution
• Cost
• Likelihood of settlement
Liquidity may become the primary factor due to a broker having a particular flow resulting in a greater amount of risk being transformed.

Alternative Investment Strategies / Customised Macro desks
• Size
• Price
• Speed
• Liquidity
• Likelihood of execution
• Cost
• Likelihood of settlement

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(6) A description of any close links, conflicts of interests, and common ownerships with respect to any execution venue used to execute orders.

GSAMI has a process for the selection of (i) execution venues (including brokers) for executing client orders; and (ii) have multiple advisory, transactional and financial and other interests in execution venues and brokers used by GSAMI;

(i) have multiple advisory, transactional and financial and other interests in execution venues and brokers used by GSAMI;

(ii) operate execution venues and act as brokers in respect of orders executed for GSAMI’s clients.

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• Goldman Sachs Services Private Limited
• Goldman Sachs (India) Securities Private Limited
• Goldman Sachs (India) Private Limited
• GSAM Services Private Limited
• Goldman Sachs Asset Management Australia Pty Ltd

(a) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

• GSAM did not receive any discounts, rebates or non-monetary benefits nor did GSAM make any payments to execution venues in relation to its use of execution venues.

(b) An explanation of the factors that led to a change in the list of execution venues listed in the firm’s execution policy, if such a change occurred.

• There were no material changes to execution venues used by GSAM during 2018.

• GSAM has a process for the selection of (i) execution venues (including brokers) for executing client orders; and (ii) brokers, with whom it places or transmits client orders for execution. GSAM maintains a list of approved execution venues and brokers (the “Approved List”).

• The specific qualitative criteria used to add an execution venue or broker to the Approved List in 2018, generally varied based on the asset class to be traded, but the overall approval process was applied in the same manner across all asset classes. GSAM did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.

• The criteria used to add an execution venue or broker to the Approved List were generally based on the evaluation of a number of quantitative and qualitative factors that may have included (as applicable), but were not limited to, GSAM’s analysis of the broker or execution venue’s:
  
  • competitiveness of commission rates or spreads;
  
  • promptness of execution;
  
  • clearance and settlement capabilities;
  
  • quality of service;
  
  • willingness to commit capital;
  
  • creditworthiness;
  
  • reputation;
  
  • financial stability;

(c) An description of how the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when making assessments of the quality of execution.

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• Goldman Sachs Services Private Limited

• Goldman Sachs International

• Goldman Sachs (Singapore) Pte.

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(e) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

• GSAM did not use any data or tools for any instrument class.

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(h) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 40 of Directive 2016/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

• N/A
An explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when making assessments of the quality of execution.

(b) A description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders. GSAMI did not use any data or tools for any instrument classes.

(c) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received. GSAMI did not receive any discounts, rebates or non-monetary benefits nor did it make any payments to execution venues in relation to its use of execution venues.

(d) An explanation of the factors that led to a change in the list of execution venues listed in the firm’s execution policy, if such a change occurred.

(e) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received. GSAMI did not receive any discounts, rebates or non-monetary benefits nor did it make any payments to execution venues in relation to its use of execution venues.

(f) An explanation of when other criteria were given precedence over immediate price and cost when executing retail orders. These other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.

(g) An explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when making assessments of the quality of execution.

(h) A description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders. GSAMI did not use any data or tools for any instrument classes.
(a) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.
• GSAMI only has professional clients.

(b) An explanation of when other criteria were given precedence over immediate price and cost when executing retail client orders and how these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.
• GSAMI only has professional clients.

(c) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.
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(f) An explanation of when other criteria were given precedence over immediate price and cost when executing retail client orders and how these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.
• GSAMI only has professional clients.

(g) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.
• GSAMI did not use any data or tools for any instrument classes.

(h) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 60 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.
• N/A
Currency derivatives: (b) Swaps, forwards, and other currency derivatives

- Goldman Sachs (Asia) L.L.C.
- Goldman Sachs (India) Securities Private Limited
- Goldman Sachs Services Private Limited
- Goldman Sachs International
- Goldman Sachs (Singapore) Pte.
- Goldman Sachs Asset Management, L.P.

When trading GSAMI utilised the following investment management Affiliates:

- Goldman Sachs Asset Management, L.P.
- Goldman Sachs (Singapore) Pte.
- Goldman Sachs Asset Management (Singapore) Pte. Ltd.
- Goldman Sachs International
- Goldman Sachs Services Private Limited
- Goldman Sachs (India) Securities Private Limited
- Goldman Sachs (Asia) L.L.C.
- GSAM Services Private Limited (formerly Goldman Sachs Asset Management (India) Private Limited)
- Goldman Sachs Asset Management Australia Pty Ltd

(1) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

- Goldman Sachs (Asia) L.L.C.
- Goldman Sachs Asset Management Australia Pty Ltd

(2) An explanation of the factors that led to a change in the list of execution venues listed in the firm’s execution policy, if such a change occurred.

- As pricing and functionality improved throughout 2018, GSAM saw an increase of FX trading volume through e-platforms.
- GSAMI and its affiliates (the Firm) and (where applicable) the personnel of the Firm may:
- Have multiple advisory, transactional and financial and other interests in execution venues and brokers used by GSAMI; and
- Have diverse counterparty risk.
- GSAMI has a process for the selection of (a) execution venues (including brokers) for executing client orders; and (ii) the brokers or execution venue’s:
  - Price
  - Liquidity or Spread
  - Likelihood of settlement
  - Nature of the order
  - Size; and
  - Other appropriate factors, such as a broker’s willingness to commit capital and the availability of external venues for the order or a particular product.

- In determining the relative importance of factors considered, GSAMI took into account:
  - The nature of client orders,
  - The characteristics of the financial instruments to which the order relates; and
  - The characteristics of the available execution venues which can be used to or to which client orders can be directed.

- In addition, although different execution strategies were used or trades by trade basis (dependent on factors such as market conditions, liquidity, investment strategy and client guidelines), the ranking of the execution factors was often determined by investment objectives for the strategy, the type of product to be traded, the rationale for the trade (e.g. cash flow or change in analyst view) and other appropriate considerations.

- GSAMI did not use any data or tools for any instrument classes.
- GSAMI did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.
- The specific qualitative criteria used to add an execution venue or broker to the Approved List in 2018, generally varied based on the asset class to be traded, but the overall approval process was applied in the same manner across all asset classes.
- GSAMI maintained a list of approved execution venues and brokers (the "Approved List").
- GSAMI did not use any data or tools for any instrument classes.
- GSAMI did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.
- The specific qualitative criteria used to add an execution venue or broker to the Approved List in 2018, generally varied based on the asset class to be traded, but the overall approval process was applied in the same manner across all asset classes.
(a) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

- GSAMI did not use any data or tools for any instrument classes.

(b) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

- GSAMI did not use any data or tools for any instrument classes.

(c) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 66 of Directive 2014/65/EU which allows for the development of enhanced measures of execution quality or any other algorithm used to optimise and assess execution performance.

- N/A
Structured finance instruments

Reporting Entity: GSAMI
Top Five Broker Report
Type of Client: Professional Client

Reporting Entity: GSAMI

Notification if <1 average trade per business day in the previous year

<table>
<thead>
<tr>
<th>Class of Instrument</th>
<th>Reporting Entity</th>
<th>Proportion of volume traded as a percentage of total in that class</th>
<th>Proportion of orders executed as a percentage of total in that class</th>
<th>Percentage of passive orders</th>
<th>Percentage of aggressive orders</th>
<th>Percentage of direct orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structured finance instruments</td>
<td>GSAMI</td>
<td>94.88</td>
<td>94.87</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Structured finance instruments</td>
<td>GSG</td>
<td>5.12</td>
<td>2.13</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Top Five Execution Venues Ranked in Terms of Trading Volumes (Descending Order)

<table>
<thead>
<tr>
<th>Reporting Entity</th>
<th>Proportion of volume traded as a percentage of total in that class</th>
<th>Proportion of orders executed as a percentage of total in that class</th>
<th>Percentage of passive orders</th>
<th>Percentage of aggressive orders</th>
<th>Percentage of direct orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAEL - NAMESTEEL EUROPE LIMITED</td>
<td>94.88</td>
<td>94.87</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>EUG - TRADER ECUREX LIMITED</td>
<td>5.12</td>
<td>2.13</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

GSAMI did not use any data or tools for any instrument classes

An explanation of the relative importance the firm gives to the execution factors of price, costs, speed, reliability of execution or any other consideration including qualitative factors when making assessments of the quality of execution. GSAMI took account of a range of factors in deciding how and where to execute client orders, including, but not limited to:

- Price
- Costs
- Timing and speed of execution
- Likelihood of execution, clearance and settlement
- Capabilities in execution, clearance and settlement
- Size
- Liquidity in or with a broker
- Nature of the order
- Nature of the instrument (e.g. security or standardized)
- Other appropriate factors, such as a broker's willingness to commit capital and the availability of external venues for the order or a particular product

In determining the relative importance of factors considered, GSAMI took into account:

- The nature of client orders
- The characteristics of the financial instruments to which the order relates
- The characteristics of the available execution venues which can be used or to which client orders can be directed

In addition, although different execution strategies were used or a trade derived from the execution factor framework, the ranking of the execution factors was often determined by investment objectives for the strategy, the type of product to be traded, the rationale for the trade (e.g. cash flow or change in analyst view) and other appropriate considerations.

The relative importance of execution factors of different trading desks:

- Fundamental Equities/Quantitative Investment Strategy desks:
  - Liquidity
  - Price
  - Likelihood of execution
  - Speed
  - Cost
  - Coverage
  - Nature of Order
  - Likelihood of settlement

Speed may become the primary factor due to an interest to trade ahead of a news event, company meeting or impacting news

Alternative Investment Strategies / Customized Macro desks:

- Size
- Price
- Liquidity
- Speed
- Likelihood of execution
- Cost
- Mandate Funding Profile
  - Nature of the order
  - Likelihood of settlement
  - Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

A description of any close links, conflicts of interests, and common ownership with respect to any execution venues used to execute orders. GSAMI is part of a worldwide, full service investment banking, broker-dealer, asset management organization. The Goldman Sachs Group, Inc. and its affiliates.

GSAMI and its affiliates (the Firm) and (where applicable) the personnel of the Firm may:

- Have multiple advisory, transactional and financial and other interests in execution venues and brokers used by GSAMI
- Operate execution venues and act as brokers in respect of orders executed for GSAMI's clients.
- GSAMI may act in circumstances in which it or one of its affiliates has a material interest or a relationship of any description with another party which may involve an actual or potential conflict with GSAMI's duty to its clients. However, if GSAMI acts in circumstances where there is a material interest or conflict of interests, GSAMI will take all appropriate steps to ensure the clients are treated fairly. In this regard, GSAMI has established, implemented and maintains a written conflicts of interest policy.

When trading GSAMI utilised the following Affiliates:

- Goldman Sachs Asset Management, L.P.
- Goldman Sachs (Singapore) Pte.
- Goldman Sachs Asset Management (Singapore) Pte. Ltd.
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- GSAM Services Private Limited (formerly Goldman Sachs Asset Management (India) Private Limited)
- Goldman Sachs Asset Management Australia Pty Ltd

A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received. GSAMI did not receive any discounts, rebates or non-monetary benefits.

An explanation of the factors that led to a change in the list of execution venues listed in the firm's execution policy. If such a change occurred, there were no material changes to execution venues used by GSAMI over 2018. However, in a move to prepare the market for NAIFD, a number of new execution venues appeared within the equities market and these venues started seeing volumes increase towards the end of the year. Examples include rise of periodic auctions, MTFs, SAs and US venues types.

GSAMI has a policy for the selection of execution venues (including brokers) for executing client orders; and (b) brokers, with whom it places or transacts client orders for execution. GSAMI maintains a list of approved execution venues and brokers (the "Approved List").

- The specific qualitative criteria used to add an execution venue or broker to the Approved List in 2018, generally varied based on the asset class to be traded, but the overall approval process was applied in the same manner across all asset classes. GSAMI did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.
- The criteria used to add an execution venue or broker to the Approved List were generally based on the evaluation of a number of quantitative and qualitative factors that may have included (as applicable), but were not limited to, GSAMI's analysis of the broker or execution venue's:
  - Competitiveness of commission rates or spreads;
  - Prominence of execution;
  - Clearance and settlement capabilities;
  - Quality of service;
  - Willingness to commit capital;
An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 10 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

GSAMI did not use any data or tools for any instrument classes.

An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

GSAMI only has professional clients.

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GSAM has a process for the selection of (i) execution venues (including brokers) for executing client orders; and (ii) the brokers or execution venue's:

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A description of the factors that led to a change in the list of execution venues listed in the firm's execution strategy.

GSAMI may act in circumstances in which it or one of its affiliates has a material interest or a relationship of any description with a party which may involve an actual or potential conflict with GSAMI's duty to its clients. However, if GSAMI acts in such circumstances it will ensure that appropriate measures are in place to address the conflict.

A description of the factors that led to a change in the list of execution venues listed in the firm's execution strategy.

GSAMI only has professional clients.

An explanation of the firm's method for determining the relative importance of the execution factors.

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A description of the factors that led to a change in the list of execution venues listed in the firm's execution strategy.

GSAMI only has professional clients.
### Equity Derivatives: (i) Options and Futures admitted to trading on a trading venue

#### Reporting Entity: GSAMI

**Type of Client: Professional Client**

### Notification of IS-s Average trade per business day in the previous year

<table>
<thead>
<tr>
<th>Top 5Execution venues ranked in terms of trading volumes (descending order)</th>
<th>Proportion of volume traded as a percentage of total in that class</th>
<th>Proportion of orders executed as a percentage of total in that class</th>
<th>Percentage of passive orders</th>
<th>Percentage of aggressive orders</th>
<th>Percentage of directed orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goldman Sachs Services Private Limited</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Goldman Sachs International</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Goldman Sachs Asset Management (Singapore) Pte. Ltd.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Goldman Sachs Asset Management Australia Pty Ltd</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

#### Notes on Reporting

- **Notification of IS-s Average trade per business day in the previous year**
  - **Equity Derivatives: (i) Options and Futures admitted to trading on a trading venue**
  - **Type of Client: Professional Client**
  - **Reporting Entity: GSAMI**

### Top 5 Venue Report

- **Equity Derivatives: (i) Options and Futures admitted to trading on a trading venue**
- **Type of Client: Professional Client**
- **Reporting Entity: GSAMI**

#### Class of Instrument: Equity Derivatives: (i) Options and Futures admitted to trading on a trading venue

- **Notification if <1 average trade per business day in the previous year**

#### Reporting Entity: GSAMI

**Type of Client: Professional Client**

### Top Five Venue Report

<table>
<thead>
<tr>
<th>Class of Instrument</th>
<th>Reporting Entity: GSAMI</th>
<th>Type of Client: Professional Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity Derivatives: (i) Options and Futures admitted to trading on a trading venue</td>
<td>GSAMI</td>
<td>GSAMI</td>
</tr>
</tbody>
</table>

### Notes on Reporting

- **Notification of IS-s Average trade per business day in the previous year**
- **Top Five Venue Report**
- **Reporting Entity: GSAMI**
- **Type of Client: Professional Client**

---

### Additional Information

- **An explanation of the relative importance the firm gave to the execution factors of price, costs, speed, fill/depth of execution or any other consideration including qualitative factors when making assessments of the quality of execution.**
- **Alternative Investment Strategies / Customized Macro desk**
- **In determining the relative importance of factors considered, GSAMI took into account:**
  - the nature of client orders;
  - the characteristics of the financial instruments to which the order relates; and
  - the characteristics of the available execution venues which can be used or to which client orders can be directed.

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### Specific Qualitative Criteria

- **Likelihood of execution**
  - Speed
  - Cost
  - Liquidity
- **Likelihood of settlement**
  - Nature of the order;
  - Operational risk

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### Conclusion

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

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### Financial Instruments

- **Class of Instrument**
  - Fundamental Equity / Quantitative Investment Strategy desks:
  - Size
  - Cost
  - Nature of the order;
  - Liquidity in or with a broker;

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### Location and Ownership

- **GSAMI is part of a worldwide, full service investment banking, broker-dealer, asset management organisation, The Goldman Sachs Group, Inc. and its affiliates.**

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### Reporting

- **GSAMI may act in circumstances in which it or one of its affiliates has a material interest or a relationship of any nature with a counterparty which may involve an actual or potential conflict with GSAMI's duty to its clients. However, if GSAMI acts in circumstances where it has a material interest or conflict of interests, GSAMI will take all appropriate steps to ensure the clients are treated fairly. In this regard, GSAMI has established, implemented and maintains a written conflicts of interest policy.**

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### Further Information

- **GSAMI is part of a worldwide, full service investment banking, broker-dealer, asset management organisation, The Goldman Sachs Group, Inc. and its affiliates.**

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### Other Considerations

- **GSAMI maintains a list of approved execution venues and brokers (the Approved List).**

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### Additional Notes

- **GSAMI has a process for the selection of (i) execution venues (including brokers) for executing client orders; and (ii) operate execution venues and act as brokers in respect of orders executed for GSAMI's clients.**

---

### Contact Information

- **Goldman Sachs Services Private Limited**
- **Goldman Sachs International**
- **Goldman Sachs Asset Management (Singapore) Pte. Ltd.**
- **Goldman Sachs Services Private Limited**
- **Goldman Sachs Asset Management Australia Pty Ltd**

---

### Terminology

- **A description of specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.**
- **GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues in relation to its use of execution venues.**

---

### Further Considerations

- **An explanation of the factors that led to a change in the list of execution venues listed in the firm’s execution policy. If such a change occurred:**
  - **There were no material changes to execution venues used by GSAMI over 2018. However, in a move to prepare the market for MiFID II, a number of new execution venues appeared within the equities market and these venues started seeing volumes increase towards the end of the year. Examples include rise of periodic auctions, MiFID II and US venue types.**
  - **GSAMI has a process for the selection of execution venues (including brokers) for executing client orders; and brokers, with whom they place or transmit client orders for execution. GSAMI maintains a list of approved execution venues and brokers (the Approved List).**
  - **The specific qualitative criteria used to add an execution venue or broker to the Approved List in 2018, generally varied based on the asset class to be traded, but the overall approval process was applied in the same manner across all asset classes. GSAMI did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.**
  - **The criteria used to add an execution venue or broker to the Approved List were generally based on the evaluation of a number of quantitative and qualitative factors that may have included (as applicable), but were not limited to, GSAM’s analysis of the broker or execution venue’s:**
    - speed in executing orders
    - likelihood of execution
    - likelihood of settlement
    - quality of service
    - williness to commit capital
    - creditworthiness

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(i) An explanation of how order execution differs according to client categorisation, where the firm treats such categories of client differently and where it may affect the order execution arrangements.

- GSAMI only has professional clients.

(ii) An explanation of when other criteria were given precedence over immediate price and cost when executing retail client orders and how those other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.

- GSAMI only has professional clients.

(iii) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

- N/A
Equity Derivatives: (ii) Swaps and other equity derivatives

B4TYDEB6GKMZO031MB27 - BANK OF AMERICA, NATIONAL ASSOCIATION
E57ODZWZ7FF32TWEFA76 - CITIBANK, NATIONAL ASSOCIATION
7LTWFZYICNSX8D621K86 - DEUTSCHE BANK AKTIENGESELLSCHAFT
9ZT8J4827T7278R7354 - HSBC BANK PLC
8ASW8569269999999927 - BANK OF AMERICA, NATIONAL ASSOCIATION
5GDZP101UV76Q9ERDF 98 - MERRILL LYNCH INTERNATIONAL

Type of Client: Professional Client

(a) An explanation of the relative importance the firm gave to the execution factors of price, speed, tightness of execution or any other consideration including qualitative factors when making assessments of the quality of execution. GSAMI took into account a range of factors in deciding how and where to execute client orders, including, but not limited to:
- price;
- cost;
- timing and speed of execution;
- likelihood of execution, clearance and settlement;
- capabilities in execution, clearance and settlement;
- size;
- liquidity in and out of a broker; and
- nature of the order;
- nature of the instrument (e.g. bespoke or standardized); or
- other appropriate factors, such as a broker’s willingness to commit capital and the availability of external venues for the order or a particular product.

(b) A description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders. GSAMI is part of a worldwide, full service investment banking, broker-dealer, asset management organisation, The Goldman Sachs Group, Inc. and its affiliates.

(c) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

(d) An explanation of the factors that led to a change in the list of execution venues used to execute orders. GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues in relation to its use of execution venues.

(e) An explanation of an activity or a new venue which made the broker or execution venue licensed in that state available for trading.

(f) An explanation of when other criteria were given precedence over immediate price and cost when executing retail orders. GSAMI is part of a worldwide, full service investment banking, broker-dealer, asset management organisation, The Goldman Sachs Group, Inc. and its affiliates.

(g) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established in accordance with the national market rules.

(h) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

(i) An example of how order execution differed according to client categorisation.

(j) An explanation of how the investment firm has used, if applicable, any data or tools for any instrument classes.

(k) An explanation of how the investment firm has used, if applicable, an output of a consolidated tape provider for any instrument classes.

(l) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(m) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(n) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(o) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(p) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(q) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(r) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(s) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(t) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(u) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(v) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(w) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(x) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(y) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.

(z) An explanation of how the investment firm has used, if applicable, any other data or tools for any instrument classes.
(b) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

• GSAMI only has professional clients.

(c) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

• GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues in relation to its use of execution venues.

(d) An explanation of the factors that led to a change in the list of execution venues listed in the firm’s execution policy, if such a change occurred.

• GSAMI did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.

(e) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

• GSAMI only has professional clients.

(f) An explanation of when other criteria were given precedence over immediate price and cost when executing retail client orders and how these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.

• GSAMI only has professional clients.

(g) An explanation of how the investment firm has used data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

• GSAMI did not use any data or tools for any instrument classes.

(h) An explanation of how the investment firm has used any output of a consolidated tape provider established under Article 63 of Directive 2014/65/EU which allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

• N/A
Securitized Derivatives: (i) Warrants and Certificate Derivatives

Reporting Entity: GSAMI

(1) An explanation of the relative importance the firm gave to the execution factors of price, costs, speed, timeliness of execution or any other consideration including qualitative factors when making assessments of the quality of execution. GSAMI took into account a range of factors in deciding how and where to execute client orders, including, but not limited to:
- price;
- costs;
- timeliness and speed of execution;
- likelihood of execution, clearance and settlement;
- capabilities in execution, clearance and settlement;
- size; 
- liquidity in or with a broker; 
- nature of the order; 
- nature of the instrument (e.g. bespoke or standardized); or 
- other appropriate factors, such as a broker’s willingness to commit capital and the availability of external venues for the order or a particular product.

In determining the relative importance of factors considered, GSAMI took into account:
- the nature of client orders;
- the characteristics of the financial instruments to which the order relates; and
- the characteristics of the available execution venues which can be used to or which client orders can be directed.

In addition, although different execution strategies were used or a trade by trade basis (dependent on factors such as market conditions, liquidity, investment strategy and client guidelines), the ranking of the execution factors was often determined by investment objectives for the strategy, the type of product to be traded, the rationale for the trade (e.g. cash flow or change in delta) and other appropriate considerations.

The relative importance of execution factors of different trading desks:
- Fundamental Equity / Quantitative Investment Strategy desks:
  - Liquidity
  - Price
  - Speed
  - Likelihood of execution
- Cost
  — Coverage
  — Nature of Order
  — Likelihood of settlement

Speed may become the primary factor due to an interest to trade ahead/after of a data event, company meeting or impacting news event in circumstances where it has a material interest or conflict of interests, GSAMI will take all appropriate steps to ensure the clients are treated fairly. In this regard, GSAMI has established, implemented and maintains a written conflicts of interest policy.

(2) A description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders.
- GSAMI is part of a worldwide, full service investment banking, broker-dealer, asset management organization, The Goldman Sachs Group, Inc. and its affiliates.
- GSAMI and its affiliates (the firm) and (where applicable) the personnel of the firm may:
  [i] have multiple advisory, transactional and financial and other interests in execution venues and brokers used by GSAMI;
  [ii] operate execution venues and act as brokers in respect of orders executed for GSAMI’s clients.

GSAMI may act in circumstances in which it or one of its affiliates has a material interest or a relationship of any description with another party which may involve an actual or potential conflict with GSAMI’s duty to its clients. However, if GSAMI acts in circumstances where it has a material interest or conflict of interests, GSAMI will take all appropriate steps to ensure the clients are treated fairly. In this regard, GSAMI has established, implemented and maintains a written conflicts of interest policy.

When trading, GSAMI utilised the following investment management affiliates:
- Goldman Sachs Asset Management Australia Pty Ltd.
- Goldman Sachs Asset Management (International) Ltd.
- Goldman Sachs (India) Securities Private Limited
- Goldman Sachs (India) L.I.C.
- Goldman Sachs Services Private Limited (formerly Goldman Sachs Asset Management (India) Private Limited)
- Goldman Sachs Asset Management Australia Pty Ltd

(3) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues in relation to its use of execution venues.

(4) An explanation of the factors that led to a change in the list of execution venues listed in the firm’s execution policy, if such a change occurred.
- There were no material changes to execution venues used by GSAMI over 2018.
- GSAMI has a process for the selection of [i] execution venues (including brokers) for executing client orders; and [ii] brokers, with whom it places or transmits client orders for execution. GSAMI maintains a list of approved execution venues and brokers (the “Approved List”).
- The specific qualitative criteria used to add an execution venue or broker to the Approved List in 2018, generally varied based on the asset class to be traded, but the overall approval process was applied in the same manner across all asset classes. GSAMI did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.
- The criteria used to add an execution venue or broker to the Approved list were generally based on the evaluation of a number of quantitative and qualitative factors that may have included [as applicable], but were not limited to, GSAMI’s analysis of the broker or execution venue’s:
  - competitiveness of commission rates or spreads;
  - promptness of execution;
  - clearance and settlement capabilities;
  - quality of service;
  - willingness to commit capital;
  - creditworthiness;
  - reputation;
  - financial stability;

GSAMI did not use any data or tools for any instrument classes.
(h) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 6 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

- N/A
#### Goldman Sachs Asset Management International does not execute client orders in Other Securitized Derivatives.
Commodities derivatives and emission allowances Derivatives: (i) Options and Futures admitted to trading on a trading venue

<table>
<thead>
<tr>
<th>Reporting Entity: GSAMI</th>
</tr>
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<tbody>
<tr>
<td>Reporting Date:</td>
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### Notation of US average trade per business day in the previous year

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### Top five execution venues ranked in terms of trading volumes (descending order)

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### Top five execution venues ranked in terms of trading volumes (descending order)

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### Alternative Investment Strategies / Customized Macro desk–

- (a) An explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when making assessments of the quality of execution.
- GSAMI took into account a range of factors in deciding how and where to execute client orders, including, but not limited to:
  - price;
  - costs;
  - timing and speed of execution;
  - likelihood of execution, clearance and settlement;
  - capital levels for execution, clearance and settlement;
  - size;
  - liquidity in or with a broker;
  - nature of the order;
  - nature of the instrument (e.g. bespoke or standardised);
  - other appropriate factors, such as a broker’s willingness to commit capital and the availability of external resources for the order or a particular product.
- In determining the relative importance of factors considered, GSAMI took into account:
  - the nature of client orders;
  - the characteristics of the financial instruments to which the order relates; and
  - the characteristics of the available execution venues which can be used to or from which client orders can be directed.
- In addition, although different execution strategies were used or a trade by trade basis (dependent on factors such as market conditions, liquidity, investment strategy and client guidelines), the ranking of the execution factors was often determined by investment objectives for the strategy, the type of product to be traded, the market for the trade (e.g. cash flow or change in analyst view) and other appropriate considerations.

### Relative importance of execution factors of different trading desks:

- (a) An explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when making assessments of the quality of execution.

### Alternative Investment Strategies / Customized Macro desk–

- (a) An explanation of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders.
- GSAMI is part of a worldwide, full service investment banking, broker-dealer, asset management organisation, The Goldman Sachs Group, Inc. and its affiliates.
- GSAMI and its affiliates (this firm) and parent-applicable (the parent) firms in the group: (i) have multiple advisory, transactional and financial and other interests in execution venues and brokers used by GSAMI;
- (ii) operate execution venues and act as brokers in respect of orders executed for GSAMI’s clients.
- GSAMI may act in circumstances in which it or one of its affiliates has a material interest or a relationship of any description with another party which may involve an actual or potential conflict with GSAMI’s duty to its clients. However, if GSAMI acts in circumstances where it has a material interest or conflict of interests, GSAMI will take all appropriate steps to ensure the clients are treated fairly. In this regard, GSAMI has established, implemented and maintains a written conflicts of interest policy. when trading GSAMI utilised the following investment management Affiliates:
  - Goldman Sachs Asset Management, L.P.
  - Goldman Sachs Asset Management (Singapore) Pte. Ltd.
  - Goldman Sachs Asset Management (Hong Kong) Limited
  - Goldman Sachs Services Private Limited
  - Goldman Sachs Asia (India) Securities Private Limited
  - Goldman Sachs Asset Management Australia Pty Ltd
  - Goldman Sachs Asset Management Asia Limited

### Description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

- GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues in relation to its use of execution venues.

### Description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

- GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues in relation to its use of execution venues.

### An explanation of the factors that led to a change in the list of execution venues listed in the firm’s execution policy, if such a change occurred.

- There were no material changes to execution venues used by GSAMI over 2018. However, in a move to prepare the market for MIFID II, a number of new execution venues appeared within the equities market and these venues started seeing volumes increase towards the end of the year. Examples include rise of periodic auctions, MTFs, SIs and LIS venue types. GSAMI did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.
- The criteria used to add an execution venue or broker to the Approved List were generally based on the evaluation of a number of quantitative and qualitative factors that may have included [as applicable], but were not limited to, GSAMI’s analysis of the broker or execution venue’s:
  - competitiveness of commission rates or spreads;
  - promptness of execution;
  - clearance and settlement capabilities;
  - quality of service;
  - willingness to commit capital;
(a) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

(b) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 30 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

(c) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

(d) An explanation of the factors that led to a change in the list of execution venues listed in the firm’s execution policy, if such a change occurred.

(e) An explanation of when other criteria were given precedence over immediate price and cost when executing retail client orders and how these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.

(f) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

(g) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

(h) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 30 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

(i) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 30 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

(j) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

(k) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

(l) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 30 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

(m) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

(n) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

(o) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 30 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

(p) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

(q) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

(r) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 30 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

(s) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

(t) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

(u) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 30 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.
Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

Notified in its average trade per business day in the previous year

<table>
<thead>
<tr>
<th>Type of Client: Professional Client</th>
<th>GSAMI</th>
</tr>
</thead>
<tbody>
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(a) An explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when making assessments of the quality of execution.

GSAMI took into account a range of factors in deciding how and where to execute client orders, including, but not limited to:

- price;
- costs;
- timing and speed of execution;
- likelihood of execution, clearance and settlement;
- capabilities in execution, clearance and settlement;
- size;
- liquidity in or with a broker;
- nature of the order;
- nature of the instrument (e.g. bespoke or standardized); and
- other appropriate factors, such as a broker’s willingness to commit capital and the availability of external venues for the order or a particular product.

(b) A description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders.

GSAMI is part of a worldwide, full-service investment banking, broker-dealer, asset management organisation, The Goldman Sachs Group, Inc. and its affiliates.

(c) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established to monitor execution quality.

GSAMI only has professional clients.

(d) An explanation of when other criteria were given precedence over immediate price and cost when executing retail orders.

(e) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

(f) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established to monitor execution quality or any other consideration when making assessments of the quality of execution.

(g) An explanation of how the firm has used, if applicable, output of a consolidated tape provider established to monitor execution quality or any other consideration when making assessments of the quality of execution.

(h) An explanation of when other criteria were given precedence over immediate price and cost when executing retail orders.

(iii) Operational Risk

- Likelihood of settlement
- Speed
- Price
- Cost
- Liquidity
- Likelihood of execution

Alternative Investment Strategies / Customized Macro desk–

- Size
- Price
- Liquidity
- Speed
- Likely hood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(iv) Coverage

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Likelihood of execution
- Size
- Price
- Liquidity
- Speed
- Likelihood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

(v) Mandate Funding Profile

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Likelihood of execution
- Size
- Price
- Liquidity
- Speed
- Likely hood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(vi) Nature of the order

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Likelihood of execution
- Size
- Price
- Liquidity
- Speed
- Likely hood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(vii) Likelihood of execution

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Size
- Price
- Liquidity
- Speed
- Likely hood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(viii) Size

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Price
- Liquidity
- Speed
- Likelihood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(ix) Price

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Liquidity
- Speed
- Likelihood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(x) Liquidity

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Speed
- Likelihood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(xi) Speed

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Likelihood of execution
- Size
- Price
- Liquidity
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(xii) Likelihood of execution

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Size
- Price
- Liquidity
- Speed
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(xiii) Size

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Price
- Liquidity
- Speed
- Likelihood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(xiv) Price

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Liquidity
- Speed
- Likelihood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.

(xv) Liquidity

- Commodities derivatives and emission allowances Derivatives: (ii) Other commodities derivatives and emission allowances derivatives

- Speed
- Likelihood of execution
- Cost
- Mandate Funding Profile
- Nature of the order
- Likelihood of settlement
- Operational Risk

This trading desk does not change the importance of execution factors. If a major data event is declared, the trading desk will execute at the next feasible point.
An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

GSAMI did not use any data or tools for any instrument classes.

An explanation of when other criteria were given precedence over immediate price and cost when executing retail client orders and how these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.

GSAMI only has professional clients.

An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

GSAMI did not use any data or tools for any instrument classes.

An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

GSAMI did not use any data or tools for any instrument classes.

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An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

GSAMI did not use any data or tools for any instrument classes.

GSAMI took into account a range of factors in deciding how and where to execute client orders, including, but not limited to:

- Reputation;
- Creditworthiness;
- Willingness to commit capital;
- Quality of service;
- Clearance and settlement capabilities;
- Promptness of execution;
- Competitiveness of commission rates or spreads;

The criteria used to add an execution venue or broker to the Approved List were generally based on the evaluation of a number of factors, such as:

- Operational Risk
- Likelihood of settlement
- Nature of the order
- Cost
- Likelihood of execution
- Speed
- Liquidity

Alternative Investment Strategies / Customized Macro desk–

- Likelihood of settlement
- Nature of Order
- Price

Fundamental Equity / Quantitative Investment Strategy desks–

- Likelihood of settlement
- Nature of the instrument (e.g. bespoke or standardized); or
- Nature of the order;
- Liquidity in or with a broker;
- Size;
- Likelihood of execution, clearance and settlement;
- Timing and speed of execution;
- Price;
- Nature of the instrument (e.g. bespoke or standardized); or
- Nature of the order;
- Liquidity in or with a broker;
- Size;
- Likelihood of execution, clearance and settlement;
- Timing and speed of execution;
- Price;
<table>
<thead>
<tr>
<th>Class of Instrument</th>
<th>Contracts for Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notification if &lt;1 average trade per business day in the previous year</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Top five execution venues ranked in terms of trading volumes (descending order)**

<table>
<thead>
<tr>
<th>Venue</th>
<th>Proportion of orders executed as percentage of total in that class</th>
<th>Percentage of passive orders</th>
<th>Percentage of aggressive orders</th>
<th>Percentage of directed orders</th>
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</tbody>
</table>

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**Reporting Entity: GSAMI**

**Type of Client: Professional Client**

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Goldman Sachs Asset Management International does not execute client orders in Contracts for Difference.
Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)

(a) An explanation of the relative importance the Firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when making assessments of the quality of execution.

(b) A description of any close links, conflicts of interests, and common ownership with respect to any execution venues used to execute orders.

(c) A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

(d) An explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements.

(e) An explanation of when other criteria were given precedence over immediate price and cost when executing retail orders or when executing retail orders and where these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.

(f) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established for the purpose of calculating execution results in accordance with paragraph 52 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other criteria of execution quality used by the investment firm.

(g) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

Top Five Broker Report

Type of Client: Professional Client
Monitoring Entity: GSAMI

<table>
<thead>
<tr>
<th>Reporting Entity</th>
<th>Reporting Entity</th>
<th>Exchange traded products</th>
<th>Exchange traded notes</th>
<th>Exchange traded commodities</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSAMI</td>
<td>GSAMI</td>
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<td>N/A</td>
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</tbody>
</table>

Top Five Venue Report

Reporting Entity: GSAMI

<table>
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<tr>
<th>Reporting Entity</th>
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<th>Exchange traded notes</th>
<th>Exchange traded commodities</th>
</tr>
</thead>
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<td>N/A</td>
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</tr>
</tbody>
</table>

In 2018, GSAMI did not use any data or tools for any instrument classes.

- Goldman Sachs Asset Management Australia Pty Ltd
- GSAM Services Private Limited (formerly Goldman Sachs Asset Management (India) Private Limited)
- Goldman Sachs Asset Management Australia Pty Ltd
- Goldman Sachs Asset Management (India) Securities Private Limited
- Goldman Sachs Asset Management (India) L.C.I.
- Goldman Sachs Asset Management (Singapore) Pte. Ltd.
- Goldman Sachs Services Private Limited
- Goldman Sachs (Singapore) Pte. Ltd.
- Goldman Sachs Services (Asia) Limited
- Goldman Sachs (Asia) L.C.I.
- Goldman Sachs Asset Management (Singapore) Pte. Ltd.
- Goldman Sachs Asset Management (Singapore) Ltd.
- Goldman Sachs Asset Management, L.P.
- Goldman Sachs (India) Securities Private Limited
- Goldman Sachs (India) L.C.I.

When trading GSAMI utilised the following investment management affiliates:

- Goldman Sachs Asset Management, L.P.
- Goldman Sachs (Singapore) Pte. Ltd.
- Goldman Sachs Asset Management (Singapore) Pte. Ltd.
- Goldman Sachs (Singapore) Pte. Ltd.
- Goldman Sachs Services Private Limited
- Goldman Sachs Asset Management (India) L.C.I.
- Goldman Sachs Asset Management Australia Pty Ltd

The specific qualitative criteria used to add an execution venue to the Approved List in 2018, generally varied based on the asset class to be traded, but the overall approval process was applied in the same manner across all asset classes. GSAMI did not conduct any activity with a new execution venue or broker until the screening and approval process had been completed.

- The criteria used to add an execution venue or broker to the Approved List were generally based on the evaluation of a number of quantitative and qualitative factors that may have included (as applicable), but were not limited to, GSAMI’s analysis of the broker’s or execution venue’s:
  - competitiveness of commission rates or spreads;
  - promptness of execution;
  - clearance and settlement capabilities;
  - quality of service;
  - willingness to commit capital;
  - creditworthiness;
  - reputation;
  - financial stability.

Next, GSAMI will use any data or tools relating to the quality of execution in accordance with any data published under 27(10)(a) of Directive 2014/65/EU.

GSAMI did not use any data or tools for any instrument classes.

Exchange traded products, exchange traded notes and exchange traded commodities (arbitrage order)
(f) An explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10)(a) of Directive 2014/65/EU.

(g) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 3(1) of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

• GSAMI did not use any data or tools for any instrument classes.

• GSAMI only has professional clients.

(d) An explanation of the factors that led to a change in the list of execution venues listed in the firm's execution policy, if such a change occurred.

• GSAMI did not receive any discounts, rebates or non-monetary benefits nor did GSAMI make any payments to execution venues in relation to its use of execution venues.

• Goldman Sachs Asset Management Australia Pty Ltd
• GSAM Services Private Limited (formerly Goldman Sachs Asset Management (India) Private Limited)
• Goldman Sachs (India) Securities Private Limited
• Goldman Sachs Services Private Limited
• Goldman Sachs International
• Goldman Sachs Asset Management (Singapore) Pte. Ltd.
• Goldman Sachs (Singapore) Pte.
• Goldman Sachs Asset Management, L.P.

When trading GSAMI utilised the following investment management Affiliates:

GSAMI may act in circumstances in which it or one of its affiliates has a material interest or a relationship of any kind to any other party which may involve an actual or potential conflict with GSAMI's duty to its clients. However, if GSAMI acts in such a manner, it places or transmits client orders for execution. GSAM maintains a list of approved execution venues and brokers (the "Approved List").

There were no material changes to execution venues used by GSAMI over 2018.

(b) A description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders.

• GSAMI and its affiliates (the Firm) and (where applicable) the personnel of the Firm may:

  • have multiple advisory, transactional and financial and other interests in execution venues and brokers used by GSAMI;
  • operate execution venues and act as brokers in respect of orders executed for GSAMI’s clients;

In determining the relative importance of factors considered, GSAMI took into account:

- other appropriate factors, such as a broker's willingness to commit capital and the availability of external venues for the order or a particular product.
- nature of the instrument (e.g. bespoke or standardized); or
- nature of the order;
- liquidity in or with a broker;
- capabilities in execution, clearance and settlement;
- likelihood of execution, clearance and settlement;
- costs;
- price;
- the characteristics of the available execution venues which can be used or to which client orders can be directed.
- the characteristics of the financial instruments to which the order relates; and
- the nature of client orders,

• GSAMI took into account a range of factors in deciding how and where to execute client orders, including, but not limited to:

(a) An explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when making assessments of the quality of execution.

• N/A
### Emission Allowances

**Reporting Entity:** GSAMI  
**Type of Client:** Professional Client  
**Reporting Entity:** GSAMI

<table>
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<th>Class of Instrument</th>
<th>Notification if &lt;1 average trade per business day in the previous year</th>
<th>Top five execution venues ranked in terms of trading volumes (descending order)</th>
<th>Proportion of volume traded as a percentage of total in that class</th>
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N/A – Emission allowances will be addressed under the MiFID II Commodities Derivatives and Emission Allowances Derivatives report.
### Proportion of orders executed as a percentage of total in that class

<table>
<thead>
<tr>
<th>Class of Instrument</th>
<th>Reporting Entity: GSAMI</th>
<th>Percentage of total in that class</th>
<th>Proportion of orders executed as a percentage of total in that class</th>
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(b) An explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 63 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimise and assess execution performances.

N/A