This report has been prepared by Goldman Sachs AG ("GSAG") for the period ending 31 December 2017 (the "Reporting Period") for the purposes of meeting Goldman Sachs' regulatory obligations under Commission Delegated Regulation (EU) 2017/575 ("MiFID II") which requires Goldman Sachs to annually publish (i) the top five venues where it executed client 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 Goldman Sachs' 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.

Please note that information for the Reporting Period has been collected based on the regulatory obligations that applied to Goldman Sachs, its affiliates, brokers and execution venues during that time. In respect of Goldman Sachs and other financial institutions to whom MiFID II applies, those regulatory obligations were different to those that apply to them now and pursuant to which this report has been prepared. Consequently, there are certain sections in this report for which information required under MiFID II for the Reporting Period was not available; (i) was only available partly; or (ii) was available in a different format. As a result this report has been prepared on a best efforts basis only. The assumptions and available information used to prepare this report may result in inconsistencies in information across asset classes presented hereon, in the case of ETFs, no data being presented and therefore may not accurately reflect the trading activities undertaken by Goldman Sachs during 2017. Please also note that the assumptions and methodologies used to produce this report may not be used for the preparation of future reports.

Goldman Sachs does not guarantee the correctness or completeness of the information in this report and shall not be responsible for or have any liability whatsoever for any loss or damage caused by errors, inaccuracy or omission in connection with use or reliance on this information.

### Equities – Shares & Repurchase Receipts

<table>
<thead>
<tr>
<th>Reporting Entity: GSAG</th>
<th>Top Five Broker Report</th>
<th>Type of Client: Professional Client</th>
<th>Reporting Entity: GSAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Institution</td>
<td>Equities – Shares &amp; Repurchase Receipts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top five execution venues ranked in terms of trading volumes (descending order)</td>
<td>Proportion of volume traded as a percentage of total in that class</td>
<td>Percentage of passive orders</td>
<td>Percentage of aggressive orders</td>
</tr>
<tr>
<td>1. Goldman Sachs &amp; Co. LLC</td>
<td>43.85</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2. Goldman Sachs International</td>
<td>39.89</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>3. Goldman Sachs Bank AG Zürich</td>
<td>17.72</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- the characteristics of the client including the regulatory categorisation of the client;
- the characteristics of the relevant order;
- the characteristics of financial instruments that are the subject of the relevant order; and
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- net price for professional clients; or
- total consideration for retail clients. Notwithstanding any asset class-specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result to the retail client.

We may prioritise one or more of the other execution factors if:

1. there is insufficient immediately available liquidity on the relevant execution venue to execute the relevant order in full; or
2. where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client.

In these cases, we will determine the relative priority of each execution factor on an order by order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

### Table 3: An Explanation of the Relative Importance Given to the Execution Factors

This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG ("GS"). For further information on the best execution arrangements please refer to the EMEA Private Wealth Management summary which is available at: [http://www.goldmansachs.com/disclosures/mifid](http://www.goldmansachs.com/disclosures/mifid)

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- net price for professional clients; or
- total consideration for retail clients. Notwithstanding any asset class-specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result to the retail client.

We may prioritise one or more of the other execution factors if:

1. there is insufficient immediately available liquidity on the relevant execution venue to execute the relevant order in full; or
2. where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client.

In these cases, we will determine the relative priority of each execution factor on an order by order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

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- the characteristics of the client including the regulatory categorisation of the client;
- the characteristics of the relevant order;
- the characteristics of financial instruments that are the subject of the relevant order; and
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- net price for professional clients; or
- total consideration for retail clients. Notwithstanding any asset class-specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result to the retail client.

We may prioritise one or more of the other execution factors if:

1. there is insufficient immediately available liquidity on the relevant execution venue to execute the relevant order in full; or
2. where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client.

In these cases, we will determine the relative priority of each execution factor on an order by order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

Monitoring is undertaken on a systematic basis via best execution monitoring systems. It is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders. We may prioritise one or more of the other execution factors if: (i) there is insufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructs us to work a limit order. Subject to any specific instructions, GS will generally give the highest priority to:

- the characteristics of the execution venue to which that relevant order can be directed.
- the characteristics of the relevant order;
- the characteristics of the client including the regulatory categorisation of the client;
- total consideration for retail clients. Notwithstanding any asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Notwithstanding any asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS's legal and regulatory obligations, GS will execute the retail client's order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client's specific instruction.

Topic 8: an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU.

Data published under Delegated Regulation (EU) 2017/757 was not available for the reporting period covered by this report. However, GS has in place post-exchange supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 9: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMEA Private Wealth Management summary which is available at: http://www.goldmansachs.com/disclosures/mifid.

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- The characteristics of the client including the regulatory categorisation of the client;
- The characteristics of the relevant order;
- The characteristics of financial instruments that are the subject of the relevant order; and
- The characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, GS will generally give the highest priority to:

- a net price for professional clients;
- a total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit factors constituting a conflict of interest, will determine the relative importance of the execution factors. However, GS will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

Topic 1: an explanation of the relative importance the firm gave to the execution factors of price, size, speed, likelihood of execution or any other consideration including qualitative factors when assessing the quality of execution. GS determines the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

GS’ management summary which is available at: http://www.goldmansachs.com/disclosures/mifid

This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMEA Private Wealth Management summary which is available at: http://www.goldmansachs.com/disclosures/mifid.

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- The characteristics of the client including the regulatory categorisation of the client;
- The characteristics of the relevant order;
- The characteristics of financial instruments that are the subject of the relevant order; and
- The characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, GS will give the highest priority to:

- A net price for professional clients;
- A total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit factors constituting a conflict of interest, will determine the relative importance of the execution factors. However, GS will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

Topic 1: an explanation of the relative importance the firm gave to the execution factors of price, size, speed, likelihood of execution or any other consideration including qualitative factors when assessing the quality of execution.

The starting presumption is that retail clients do not rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order (i.e. GS owes a duty of best execution to retail clients and professional clients do not rely on GS to protect their interests); however, these presumptions may be revised depending on the application of the fourfold test for determining legitimate reliance (set out below) to the particular circumstances of GS’ interaction with the client and how the market operates for the relevant product.

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

- which party initiates the transaction – where GS approaches the client and suggests that the client should enter into a transaction, it is more likely that the client will be placing reliance on GS. Where the client initiates the transaction it is less likely that the client will be placing reliance on GS;
- market practice and the existence of a convention to ‘shop around’ – where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction (e.g. there is a market convention to ‘shop around’ for a quote), it is less likely that the client will be placing reliance on GS;
- the relative levels of price transparency across a market – if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. IF GS’s access to pricing transparency is equal or similar to the client, it is less likely that the client will be placing reliance on GS;
- the information provided by GS and any agreement reached – where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS.

Execution Factors

Subject to any specific instructions, GS will give the highest priority to:

- a net price for professional clients;
- a total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit factors constituting a conflict of interest, will determine the relative importance of the execution factors. However, GS will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

Under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.
subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Nonetheless any of the asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only so far as they are instrumental in delivering the best possible result in terms of the total consideration to the client.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Subject to any specific instructions, GS will generally give the highest priority to:

- immediate price and cost if the client is not a professional client;
- net price for retail clients unless a professional is involved;
- the characteristics of the client including the regulatory categorisation of the client;
- market practice and the existence of a convention to ‘shop around’ - where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction if GS is involved;
- the characteristics of financial instruments that are the subject of the relevant order;
- the characteristics of the execution venue to which that relevant order can be directed.

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- net price for retail clients if the client is not a professional client;
- market practice and the existence of a convention to ‘shop around’ - where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction if GS is involved;
- the characteristics of financial instruments that are the subject of the relevant order;
- the characteristics of the execution venue to which that relevant order can be directed.

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

- the nature of the transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the client.

A client’s regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

To determine the relative priority of each execution factor on an order by order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.
Topic 1: an explanation of the relative importance the firm gave to the execution factors of price, size, speed, likelihood of execution or any other consideration including qualitative factors when assessing the quality of execution.

This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMEA Private Wealth Management summary which is available at: http://www.goldmansachs.com/disclosures/mifid

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- the characteristics of the client including the regulatory categorization of the client;
- the characteristics of the relevant order;
- the characteristics of financial instruments that are the subject of the relevant order, and
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- net price for professional clients;
- market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

We may prioritize one or more of the other execution factors if (i) there is sufficient immediately available liquidity on the relevant execution venue to execute the relevant order in full; or (ii) where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP) or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

Topic 2: a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders.

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.

GSAG is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution quality received from affiliated entities is subject to the same monitoring and assessment which would be applied to third party entities and execution venues utilized for execution of client orders.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:

- rely on the Securities Divisions of the relevant GS affiliate for the selection and ongoing review of execution venues (this ongoing review is in addition to the monitoring and oversight of order execution arrangements conducted by the Private Wealth Management Division);

have determined that it can consistently achieve the best results for clients using a single execution venue and that this single execution venue may be the Securities Divisions at other GS affiliates.

Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

Not applicable.

Topic 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 has been no change to the execution venues listed in GS’ execution policy.

Topic 5: an explanation of how order execution differs according to client categorization, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

A client’s regulatory categorization is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

The starting presumption is that retail clients do not sufficiently rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order (i.e. GS owes a duty of best execution to retail clients) and professional clients do not legitimately rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS’ interaction with the client and how the market operates for the relevant product.

In determining whether a client is sufficiently relying on GS to protect their interests, the following factors are considered:

- which party initiates the transaction - where GS acts as the principal to the client and initiates the transaction, it is less likely that the client will be placing reliance on GS. Where the client initiates the transaction it is more likely that the client will be placing reliance on GS;
- market practice and the existence of a convention - if there is no market convention (e.g. a market convention to “shop around” where the practice in the market in which a business operates suggests that the client takes responsibility for the pricing and other elements of the transaction (e.g. there is a market convention to “shop around” for a quote). It is less likely that the client will be placing reliance on GS;
- the relative levels of transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to pricing transparency is equal or superior to the client’s, it is less likely that the client will be placing reliance on GS;
- the information provided by GS and any agreement reached - if GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS.

Execution Factors

Subject to any specific instructions, GS will generally give the highest priority to:

- net price for professional clients;
- market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

If no applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

Monitoring is undertaken on a systematic basis via best execution monitoring systems.

Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post-execution supervisory monitoring procedures which use market data, where specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

- GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS;
- The information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS; and
- The relative levels of price transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to transaction (e.g. there is a market convention to “shop around” for a quote), it is less likely that the client will be placing reliance on GS;
- Market practice and the existence of a convention to ‘shop around’ - where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction it is less likely that the client will be placing reliance on GS;
- The characteristics of financial instruments that are the subject of the relevant order; and
- The characteristics of the client including the regulatory categorisation of the client.

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- The information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS;
- The characteristics of financial instruments that are the subject of the relevant order; and
- The characteristics of the client including the regulatory categorisation of the client.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Nonetheless, any of the asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Topic 6: an explanation of whether 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;

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27;

Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post-execution supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU;

The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU; it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27;

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that instruction or instructions.

Particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that instruction or instructions.

Subject to any specific instructions, GS will generally give the highest priority to:
• the characteristics of the client including the regulatory categorisation of the client;
• the characteristics of the relevant order;
• the characteristics of financial instruments that are the subject of the relevant order; and
• the characteristics of the execution venue to which that relevant order can be directed.

Subject to specific instructions, GS will give the highest priority to:
• net price for professional clients; or
• the information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS. If GS’s access to the relevant information is more restricted, the client is more likely to be placing reliance on GS; or
• which party initiates the transaction - where GS approaches the client and suggests that the client should enter into a transaction, it is more likely that the client will be placing reliance on GS. Where the client initiates the transaction it is less likely that the client will be placing reliance on GS.

Test for determining legitimate reliance (set out below) to the particular circumstances of GS' interaction with the client and how the market operates for the relevant product.

Topic 5: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

GS has determined that it can consistently achieve the best results for its clients using a single execution venue and that this single execution venue may be the Securities Division at other GS affiliates.

There has been no change to the execution venues listed in GS’ execution policy.

GS is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution-quality received from affiliated entities is subject to the same monitoring and assessment which would be applied to third-party entities and execution venues utilized for order execution of clients.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:
• rely on the Securities Division of the relevant GS affiliate for the selection and ongoing review of execution venues (this ongoing review is in addition to the monitoring and oversight of order execution arrangements conducted by the Private Wealth Management Division);
• have determined that it can consistently achieve the best results for its clients using a single execution venue and that that single execution venue may be the Securities Division at other GS affiliates.

Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;

Not applicable.

Topic 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 has been no change to the execution venues listed in GS’ execution policy.

Topic 6: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

Client’s regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

The starting presumption is that retail clients do legitimately rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order (i.e. GS owns a duty of best execution to retail clients) and professional clients do not legitimately rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the fourfold test for determining legitimate reliance (set out below) to the particular circumstances of GS’ interaction with the client and how the market operates for the relevant product.

The framework for determining whether a client is legitimately relying on GS to protect their interests is based on the following factors:
• which party initiates the transaction - where GS approaches the client and suggests that the client should enter into a transaction, it is more likely that the client will be placing reliance on GS. Where the client initiates the transaction it is less likely that the client will be placing reliance on GS;
• market practice and the existence of a convention to “shop around” - where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction (e.g. there is a market convention to “shop around” for a quote). It is less likely that the client will be placing reliance on GS;
• the relative levels of price transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to pricing transparency is equal or similar to the client’s, it is less likely that the client will be placing reliance on GS;
• the information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS.

Execution Factors

Subject to any specific instructions, GS will generally give the highest priority to:
• net price for professional clients; or
• the information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS.

Under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

It is available to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that execution factors may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- the characteristics of financial instruments that are the subject of the relevant order; and
- the characteristics of the execution venue to which that relevant order can be directed.

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- the characteristics of financial instruments that are the subject of the relevant order; and
- the characteristics of the execution venue to which that relevant order can be directed.

The starting presumption is that retail clients do legitimately rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price topic 6: an explanation of whether 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;

subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Nonetheless any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27:

Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU:

The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
### Reporting Entity: GSAG

#### Top Five Broker Report

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>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.</td>
</tr>
<tr>
<td>2</td>
<td>A description of anyClose links, conflicts of interests, and common ownership with respect to any execution venues used to execute orders.</td>
</tr>
<tr>
<td>3</td>
<td>A description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.</td>
</tr>
<tr>
<td>4</td>
<td>An explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements.</td>
</tr>
<tr>
<td>5</td>
<td>An explanation of the start of a new order execution policy that the firm has implemented.</td>
</tr>
</tbody>
</table>

### Execution Factors

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

- The characteristics of the client including the regulatory categorisation of the client.
- The characteristics of the relevant order.
- The characteristics of financial instruments that are the subject of the relevant order.
- The characteristics of the execution venue to which that relevant order can be directed.
- Subject to specific instructions, including the client’s specific instructions.
- The characteristics of the client including the regulatory categorisation of the client.
- The characteristics of the relevant order.
- The characteristics of financial instruments that are the subject of the relevant order.
- The characteristics of the execution venue to which that relevant order can be directed.
- Subject to specific instructions, including the client’s specific instructions.

### Total Consideration

The total consideration for retail clients is determined by considering the following factors:

- The characteristics of the client including the regulatory categorisation of the client.
- The characteristics of the relevant order.
- The characteristics of financial instruments that are the subject of the relevant order.
- The characteristics of the execution venue to which that relevant order can be directed.
- Subject to specific instructions, including the client’s specific instructions.
- The characteristics of the client including the regulatory categorisation of the client.
- The characteristics of the relevant order.
- The characteristics of financial instruments that are the subject of the relevant order.
- The characteristics of the execution venue to which that relevant order can be directed.
- Subject to specific instructions, including the client’s specific instructions.

### Execution Policy

GSAG is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution quality received from affiliated entities is subject to the same monitoring and assessment which would be applied to third-party entities and execution venues utilized for execution of client orders.

### Conflict of Interest

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27;

Data published under Delegated Regulation (EU) 2017/75 was not available for the reporting period covered by this report. However, GS has in place post-execution supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU;

The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
### Credit derivatives: (i) Futures and options admitted to trading on a trading venue

<table>
<thead>
<tr>
<th>Type of Client: Professional Client</th>
<th>Reporting Entity: GSAG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Top Five Brokers Report</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Top five venues ranked in terms of trading volumes</strong> (descending order)</td>
<td></td>
</tr>
<tr>
<td>Number of average trade per business day in the previous year</td>
<td>N/A</td>
</tr>
<tr>
<td>Proportion of volume traded as a percentage of total in that class</td>
<td>N/A</td>
</tr>
<tr>
<td>Proportion of orders executed as percentage of total in that class</td>
<td>N/A</td>
</tr>
<tr>
<td>Percentage of passive orders</td>
<td>N/A</td>
</tr>
<tr>
<td>Percentage of aggressive orders</td>
<td>N/A</td>
</tr>
<tr>
<td>Percentage of directed orders</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Table 1: 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 assessing the quality of execution.

This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMEA Private Wealth Management summary which is available at: [http://www.goldmansachs.com/disclosures/mifid](http://www.goldmansachs.com/disclosures/mifid)

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- The characteristics of the client including the regulatory categorisation of the client;
- The characteristics of the relevant order;
- The characteristics of financial instruments that are the subject of the relevant order; and
- The characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- Net price for professional clients; or
- Total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit characteristics may be given precedence over the immediate price and cost consideration only if such as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

We may prioritise one or more of the other execution factors if (i) there is insufficient immediately available liquidity on the relevant execution venue to execute the relevant order in full; or (ii) where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. cash, spot), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

### Topic 2: a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.

GSAG is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution quality received from affiliated entities is subject to the same monitoring and assessment which would be applied to third-party entities and execution venues utilised for execution of client orders.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:

- rely on the Securities Division of the relevant GS affiliate for the selection and ongoing review of execution venues (this ongoing review is in addition to the monitoring and oversight of order execution arrangements conducted by the Private Wealth Management Division);
- have determined that it can consistently achieve the best results for its clients using a single execution venue and that this single execution venue may be the Securities Division at other GS affiliates.

### Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;

Not applicable.

### Topic 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 has been no change to the execution venues listed in GS execution policy.

### Topic 5: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

A client’s regulatory categorisation is an important factor both as the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

The starting presumption is that retail clients do not inherently rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order (i.e. GS owes a duty of best execution to retail clients) and professional clients do not inherently rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS’ interaction with the client and how the market operates for the relevant product.

### Legitimate Reliance

To determine whether a client is legitimately relying on GS to protect their interests, the following factors are considered:

- which party initiates the transaction - where GS approaches the client and suggests that the client should enter into a transaction, it is more likely that the client will be placing reliance on GS. Where the client initiates the transaction it is less likely that the client will be placing reliance on GS;
- market practice and the existence of a convention to ‘shop around’ - where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction (e.g. there is a market convention to ‘shop around’ for a quote), it is less likely that the client will be placing reliance on GS;
- the relative levels of price transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to pricing transparency is equal or similar to the client’s, it is less likely that the client will be placing reliance on GS; and
- the information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS.

### Execution Factors

Subject to any specific instructions, GS will generally give the highest priority to:

- net price for professional clients; or
- total consideration for retail clients. Notwithstanding any of the asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit characteristics may be given precedence over the immediate price and cost consideration only if such as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.
Topic 6: an explanation of whether 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.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Nonetheless, any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only as far as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27.

Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU.

The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Notwithstanding any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit criteria (subject to being given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client).

We may prioritise one or more of the other execution factors if (i) there is insufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructs us to look for an order over a period of time or in reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible arrangements to execute client orders.

Topic 6: an explanation of whether 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.

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

- the characteristics of the client including the regulatory categorisation of the client;
- the characteristics of the relevant order;
- the characteristics of financial instruments that are the subject of the relevant order; and
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- set price for professional clients;
- total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit criteria (subject to being given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client).

We may prioritise one or more of the other execution factors if (i) there is insufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructs us to look for an order over a period of time or in reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible arrangements to execute client orders.

Topic 5: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

There has been no change to the execution venues listed in GS’ execution policy.

Topic 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;

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.

Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;

Not applicable.

Topic 2: a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;

Goldman Sachs is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution-quality related to affiliated entities is subject to the same monitoring and assessment which would be applied to third-party entities and execution venues utilized for execution of client orders.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:

- rely on the Securities Division of the relevant GS affiliate for the selection and ongoing review of execution venues (this ongoing review is in addition to the monitoring and oversight of order execution arrangements conducted by the Private Wealth Management Division);
- have determined that it can consistently achieve the best result for its clients using a single execution venue and that this single execution venue may be the Securities Division at other GS affiliates.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible arrangements to execute client orders.

Topic 1: an explanation of the relative importance the firm gave to the execution factors of price, size, speed, likelihood of execution or any other consideration including qualitative factors when assessing the quality of executions.

The qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMEA Private Wealth Management summary which is available at: http://www.goldmansachs.com/disclosures/mifid

This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMEA Private Wealth Management summary which is available at: http://www.goldmansachs.com/disclosures/mifid

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- the characteristics of the client including the regulatory categorisation of the client;
- the characteristics of the relevant order;
- the characteristics of financial instruments that are the subject of the relevant order; and
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- set price for professional clients;
- total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit criteria (subject to being given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client).

We may prioritise one or more of the other execution factors if (i) there is insufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructs us to look for an order over a period of time or in reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible arrangements to execute client orders.

Topic 6: an explanation of whether 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.

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

- the characteristics of the client including the regulatory categorisation of the client;
- the characteristics of the relevant order;
- the characteristics of financial instruments that are the subject of the relevant order; and
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- set price for professional clients;
- total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit criteria (subject to being given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client).

In addition to the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS’s interaction with the client and how the market operates for the relevant product.

Execution Factors

Subject to any specific instructions, GS will generally give the highest priority to:

- set price for professional clients;
- total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit criteria (subject to being given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client).

In addition to the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS’s interaction with the client and how the market operates for the relevant product.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

monitoring is undertaken on a systematic basis via best execution monitoring systems. If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy), then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU.

The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
### Currency derivatives: [i] Futures and options admitted to trading on a trading venue

**Reporting Entity: GSAG**

**Top Five Client Report**
**Type of Client: Professional Client**
**Reporting Entity: GSAG**

#### Table 1: 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 assessing the quality of execution:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic 1</td>
<td>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 assessing the quality of execution:</td>
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<td>Topic 2</td>
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<td>Topic 4</td>
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<tr>
<td>Topic 5</td>
<td>an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;</td>
</tr>
</tbody>
</table>

#### Table 2: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic 2</td>
<td>a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;</td>
</tr>
<tr>
<td>Topic 3</td>
<td>a description of any specific arrangements with any execution venues regarding payments made or received; discounts, rebates or non-monetary benefits received;</td>
</tr>
</tbody>
</table>

### Management summary which is available at: http://www.goldmansachs.com/disclosures/mifid

This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMEA Private Wealth Management summary which is available at: http://www.goldmansachs.com/disclosures/mifid

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- the characteristics of the client including the regulatory categorisation of the client;  
- the characteristics of the relevant order;  
- the characteristics of financial instruments that are the subject of the relevant order;  
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, GS will generally give the highest priority to:

- net price for professional clients;  
- total consideration for retail clients. Notwithstanding any asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit performance criteria, GS will give precedence over the immediate price and cost consideration only where it is instrumental in delivering the best possible result in terms of the total consideration to the retail client.

We may prioritise one or more of the other execution factors if: (i) there is insufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order by order basis, where the order is executed manually, and by order type (e.g. cash, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.

GSAG is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution quality received from affiliated entities is subject to the same monitoring and assessment which would be applied to third-party entities and execution venues used for execution of client orders.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:

- rely on the Securities Division of the relevant GS affiliate for the selection and ongoing review of execution venues (this ongoing review is in addition to the monitoring and oversight of order execution arrangements conducted by the Private Wealth Management Division);  
- have determined that it can consistently achieve the best results for clients using a single execution venue and that this single execution venue may be the Securities Division at other GS affiliates.

**Not applicable.**

**Topic 6:** 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 has been no change to the execution venues listed in GS’ execution policy.

**Topic 5:** an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

An client’s regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

The starting presumption is that retail clients do legitimately rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order (i.e. GS owes a duty of best execution to retail clients) and professional clients do not legitimately rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS’ interaction with the client and how the market operates for the relevant product.

**Legitimate Reliance:**

To determine whether a client is legitimately relying on GS to protect their interests, the following factors are considered:

- which party initiates the transaction - where GS approaches the client and suggests that the client should enter into a transaction, it is more likely that the client will be placing reliance on GS. Where the client initiates the transaction it is less likely that the client will be placing reliance on GS;  
- market practice and the existence of a convention to “shop around” - where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction (e.g. there is a market convention to “shop around” for a quote), it is less likely that the client will be placing reliance on GS;  
- the relative levels of price transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to pricing transparency is equal or similar to the client’s, it is less likely that the client will be placing reliance on GS; and  
- the information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS.

**Execution Factors**

Subject to any specific instructions, GS will generally give the highest priority to:

- net price for professional clients;  
- total consideration for retail clients. Notwithstanding any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit performance criteria, GS may be given precedence over the immediate price and cost consideration only where it is instrumental in delivering the best possible result in terms of the total consideration to the retail client.

GSAG is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.

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### Table 3: an explanation of the relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic 2</td>
<td>a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;</td>
</tr>
<tr>
<td>Topic 3</td>
<td>a description of any specific arrangements with any execution venues regarding payments made or received; discounts, rebates or non-monetary benefits received;</td>
</tr>
</tbody>
</table>

Not applicable.

**Topic 6:** an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27;

**Topic 7:** an explanation of whether 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 retail client.

- the relative levels of price transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to pricing transparency is equal or similar to the client’s, it is less likely that the client will be placing reliance on GS; and  
- the information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS.

**Execution Factors**

Subject to any specific instructions, GS will generally give the highest priority to:

- net price for professional clients;  
- total consideration for retail clients. Notwithstanding any asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit performance criteria, GS may be given precedence over the immediate price and cost consideration only where it is instrumental in delivering the best possible result in terms of the total consideration to the retail client.

GSAG is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU;

monitoring is undertaken on a systematic basis via best execution monitoring systems.

it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This

Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post execution supervisory monitoring procedures which use market data, where

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27;

be subject to the best execution obligation in respect of the elements of the order that are not covered by the client's specific instruction.  Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to

specific instruction.  Not applicable.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.

Topic 2: a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;

VWAP), where the order is executed using an algorithm.

relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price

• the characteristics of financial instruments that are the subject of the relevant order; and

• the characteristics of the client including the regulatory categorisation of the client;

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

A client's regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

There has been no change to the execution venues listed in GS' execution policy.

Topic 1: 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 assessing the quality of execution:

A client may be generally willing to take a slightly lower price for the potential that the order will be filled quickly, or a slightly higher price for the potential that there will be a lower impact on the market.  However, a client may be subject to the best execution obligation in respect of the elements of the order that are not covered by the client's specific instruction.

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To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

A client's regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

A client may be generally willing to take a slightly lower price for the potential that the order will be filled quickly, or a slightly higher price for the potential that there will be a lower impact on the market.  However, a client may be subject to the best execution obligation in respect of the elements of the order that are not covered by the client's specific instruction.

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Currency derivatives: (i) Swaps, forwards, and other currency derivatives

Reporting Entity: GSAG
Type of Client: Professional Client
Reporting Entity: GSAG

<table>
<thead>
<tr>
<th>Top Five Broker Report</th>
<th>Currency derivatives: (i) Swaps, forwards, and other currency derivatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of institution</td>
<td>Proportion of volume traded as a percentage of total in that class</td>
</tr>
<tr>
<td></td>
<td>Proportion of orders executed as percentage of total in that class</td>
</tr>
<tr>
<td></td>
<td>Percentage of passive orders</td>
</tr>
<tr>
<td></td>
<td>Percentage of aggressive orders</td>
</tr>
<tr>
<td></td>
<td>Percentage of directed orders</td>
</tr>
</tbody>
</table>

| Execution Factors       | Proportion of volume traded as a percentage of total in that class |
|                        | Proportion of orders executed as percentage of total in that class |
|                        | Percentage of passive orders                                      |
|                        | Percentage of aggressive orders                                   |
|                        | Percentage of directed orders                                     |

Topic 1: 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 assessing the quality of execution.

This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMIR Private Wealth Management summary which is available at: http://www.goldmansachs.com/disclosures/mifid

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- the characteristics of the client including the regulatory categorisation of the client;
- the characteristics of the relevant order;
- the characteristics of financial instruments that are the subject of the relevant order, and
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- net price for professional clients;
- total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

We may prioritise one or more of the other execution factors if (i) there is insufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order by order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

Topic 2: a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders; Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.

GSAG is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution quality received from affiliated entities is subject to the same monitoring and assessment which would be applied to third party entities and execution venues utilised for execution of client orders.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:

- rely on the Securities Division of the relevant GS affiliate for the selection and ongoing review of execution venues (this ongoing review is in addition to the monitoring and oversight of order execution arrangements conducted by the Private Wealth Management Division);
- have determined that it can consistently achieve the best results for its clients using a single execution venue and that this single execution venue may be the Securities Division at other GS affiliates.

Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

Not applicable.

Topic 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 has been no change to the execution venues listed in GS’s execution policy.

Topic 5: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

A client’s regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution. The starting presumption is that retail clients do not rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order (i.e. GS owes a duty of best execution to retail clients) and professional clients do not rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS’ interaction with the client and how the market operates for the relevant product.

1. Legitimate Reliance:

To determine whether a client is legitimate relying on GS to protect their interests, the following factors are considered:

- which party initiates the transaction - where GS approaches the client and suggests that the client should enter into a transaction, it is more likely that the client will be placing reliance on GS. Where the client initiates the transaction it is less likely that the client will be placing reliance on GS.
- market practice and the existence of a convention to shop around - where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction (e.g. there is a market convention to “shop around” for a quote), it is less likely that the client will be placing reliance on GS.
- the relative levels of transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to pricing transparency is equal or similar to the client’s, it is less likely that the client will be placing reliance on GS.
- the information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS.

Execution Factors

Subject to any specific instructions, GS will generally give the highest priority to:

- net price for professional clients;
- total consideration for retail clients. Notwithstanding any of the asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Under applicable law and regulation, GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.
Topic 6: an explanation of whether 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.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Notwithstanding any of the asset class-specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only to the extent they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27.

Data published under Delegated Regulation (EU) 2017/75 was not available for the reporting period covered by this report. However, GS has in place post-execution supervised monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU.

The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
Structured finance Instruments

Reporting Entity: GSAG
Type of Client: Professional Client

<table>
<thead>
<tr>
<th>Name of indicator</th>
<th>Structured Finance Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top five execution venues ranked in terms of trading volume in the period covered by this report</td>
<td>N/A</td>
</tr>
<tr>
<td>Proportion of volume traded as a percentage of total in that class</td>
<td>N/A</td>
</tr>
<tr>
<td>Proportion of orders executed as percentage of total in that class</td>
<td>N/A</td>
</tr>
<tr>
<td>Percentage of passive orders</td>
<td>N/A</td>
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<tr>
<td>Percentage of aggressive orders</td>
<td>N/A</td>
</tr>
<tr>
<td>Percentage of directed orders</td>
<td>N/A</td>
</tr>
</tbody>
</table>

This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMN Private Wealth Management summary which is available at: [http://www.goldmansachs.com/disclosures/mifid](http://www.goldmansachs.com/disclosures/mifid)

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- the characteristics of the client including the regulatory categorisation of the client;
- the characteristics of the relevant order;
- the characteristics of financial instruments that are the subject of the relevant order, and
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:
- net price for professional clients;
- the characteristics of financial instruments that are the subject of the relevant order;
- the characteristics of the execution venue to which that relevant order can be directed.

Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post-execution supervisory monitoring procedures which use market data, where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU; monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27; subject to the best execution obligation in respect of the elements of the order that are not covered by the client's specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client's specific instruction. If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS's legal and regulatory obligations, GS will execute the retail client's order in accordance with that specific instruction or specific instructions in the manner that best reflects the particular circumstances of the order (i.e. GS owes a duty of best execution to retail clients) and professional clients do not legitimately rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS' interaction with the client and how the market operates for the relevant product.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS's legal and regulatory obligations, GS will execute the retail client's order in accordance with that specific instruction or specific instructions in the manner that best reflects the particular circumstances of the order (i.e. GS owes a duty of best execution to retail clients) and professional clients do not legitimately rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS' interaction with the client and how the market operates for the relevant product.

The starting presumption is that retail clients do legitimately rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be afforded by the choice made by GS in executing the relevant order (i.e. GS owes a duty of best execution to retail clients) and professional clients do not legitimately rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS' interaction with the client and how the market operates for the relevant product.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS's legal and regulatory obligations, GS will execute the retail client's order in accordance with that specific instruction or specific instructions in the manner that best reflects the particular circumstances of the order (i.e. GS owes a duty of best execution to retail clients) and professional clients do not legitimately rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS' interaction with the client and how the market operates for the relevant product.

Topic 1: 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 assessing the quality of execution.

Transaction Costs

- transaction costs may be given precedence over the immediate price and cost consideration only where they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.
- GS will not give precedence to the immediate price and cost consideration only where they are instrumental in delivering the best possible result in terms of the total consideration to the retail client. There has been no change to the execution venues listed in GS' execution policy.

Topic 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 has been no change to the execution venues listed in GS’ execution policy.

Execution Factors

- total consideration for retail clients. Notwithstanding any asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit considerations be given precedence over the immediate price and cost consideration only where they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.
- has in place post-execution supervisory monitoring procedures which use market data, where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU; monitoring is undertaken on a systematic basis via best execution monitoring systems.
- has in place post-execution supervisory monitoring procedures which use market data, where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU; monitoring is undertaken on a systematic basis via best execution monitoring systems.
Topic 6: an explanation of whether 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.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Nonetheless any of the asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only as far as they are instrumental in delivering the best possible result in terms of the total consideration to the client.

If GS receives an order from a retail client that includes specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27.

Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU.

The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

Monitoring is undertaken on a systematic basis via best execution monitoring systems. It is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This applies particularly where the order cannot be given precedence over the immediate price and cost consideration only because as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27;

Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post execution supervisory monitoring procedures which use market data, where available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes.

GS has used the following data to understand client transactions and make decisions about execution:

1. Market data;
2. Execution history of GS and other market participants;
3. Active times and trading activity during the relevant transactions;
4. The presence of market liquidity;
5. The relative levels of price transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to market data is not as good as the client’s, it is less likely that the client will be placing reliance on GS.

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

• the characteristics of the client including the regulatory categorisation of the client;
• the characteristics of the relevant order;
• the characteristics of financial instruments that are the subject of the relevant order, and
• the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

• net price for professional clients;
• total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit transaction costs may be given precedence over the immediate price and cost consideration only if they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

In circumstances where there is insufficient immediately available liquidity on the relevant execution venues, the relevant order will be executed in the order on an order by order basis, or by a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP).

GS takes into account the following factors when assessing the relative importance given to execution factors: if (i) there is insufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client.

In these cases, we will determine the relative priority of each execution factor on an order by order basis, where the order is executed manually, and by order type (e.g. cash, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

Topic 2: description of any close links, conflicts of interest, and common ownership with respect to any execution venues used to execute orders;

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.

GSAG is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GSAG may execute transactions in certain asset classes with or through affiliated entities. Execution quality received from affiliated entities is subject to the same monitoring and assessment which would be applied to third-party entities and execution venues utilised for execution of client orders.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:

• rely on the Securities Division of the relevant GS affiliate for the selection and ongoing review of execution venues (this ongoing review is in addition to the monitoring and oversight of order execution arrangements conducted by the Private Wealth Management Division);

• have determined that it can consistently achieve the best results for its clients using a single execution venue and that this single execution venue may be the Securities Division at other GS affiliates.

Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;

Not applicable.

Topic 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 has been no change to the execution venues listed in GS’s execution policy.

Topic 5: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

A client’s regulatory categorisation is an important factor both as the assessment of whether the client is relying on GS to deliver the best execution and in providing best execution.

The starting presumption is that retail clients do not rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order. This applies particularly where the order cannot be given precedence over the immediate price and cost consideration only because as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Execution Factors

Subject to any specific instructions, GS will generally give the highest priority to:

• net price for professional clients;
• total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit transaction costs may be given precedence over the immediate price and cost consideration only if they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.
Topic 6: an explanation of whether 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;

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Notwithstanding any of the asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only as far as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27; Data published under Delegated Regulation (EU) 2017/775 was not available for the reporting period covered by this report. However, GS has in place post-execution supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU; The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
Equity Derivatives: (ii) Swaps and other equity derivatives

<table>
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<th>Equity Derivatives: (ii) Swaps and other equity derivatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of instrument</td>
<td>Proportion of volume traded as a percentage of total in that class</td>
</tr>
<tr>
<td>Top five execution venues ranked in terms of trading volume (descending order)</td>
<td></td>
</tr>
<tr>
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</table>

This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMEA Private Wealth Management summary which is available at: http://www.goldmansachs.com/disclosure/medd

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- the characteristics of the client including the regulatory categorisation of the client;
- the characteristics of the relevant order;
- the characteristics of financial instruments that are the subject of the relevant order; and
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- price for professional clients;
- cost for retail clients.

Total consideration for retail clients. Notwithstanding any asset class-specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit consideration given precedence over the immediate price and cost consideration only where they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

We may prioritise one or more of the other execution factors if (i) there is sufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP) or (iii) where we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP) where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

In certain circumstances, GS may change the execution policy described above to reflect changes in trading conditions and regulatory requirements.

GSAG is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution quality received from affiliated entities is subject to the same monitoring and assessment which would be applied to third party entities and execution venues utilised for execution of client orders.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:

- rely on the Securities Division of the relevant GS affiliate for the selection and ongoing review of execution venues (this ongoing review is in addition to the monitoring and oversight of order execution arrangements conducted by the Private Wealth Management Division);
- have determined that it can consistently achieve the best results for its clients using a single execution venue and that this single execution venue may be the Securities Division at other GS affiliates.

Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received; discounts, rebates or non-monetary benefits received.

Not applicable.

Topic 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 has been no change to the execution venues listed in GS execution policy.

Topic 5: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements; the regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

The starting presumption is that retail clients do not rely on GS to protect their interests relating to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order (i.e. GS owns a duty of best execution to retail clients) and professional clients do not rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS’s interaction with the client and how the market operates for the relevant product.

Legitimate Reliance:

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

- which party initiates the transaction - where GS approaches the client and suggests that the client should enter into a transaction, it is more likely that the client will be placing reliance on GS. Where the client initiates the transaction it is less likely that the client will be placing reliance on GS;
- market practice and the existence of a convention to ‘shop around’ - where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction (e.g. there is a market convention to ‘shop around’ for a quote), it is less likely that the client will be placing reliance on GS;
- the relative levels of price transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to pricing transparency is equal or superior to the client’s, it is less likely that the client will be placing reliance on GS; and
- the information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS.

Execution Factors

Subject to any specific instructions, GS will generally give the highest priority to:

- market pricing for professional clients;
- total consideration for retail clients. Notwithstanding any of the asset class-specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit consideration given precedence over the immediate price and cost consideration only where they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU;

monitoring is undertaken on a systematic basis via best execution monitoring systems.

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Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This

Topic 6: an explanation of whether 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;

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Notwithstanding any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client's order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27;

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If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue), GS will generally give the highest priority to:

- the characteristics of the financial instruments that are the subject of the relevant order;
- the characteristics of the market in which the transaction is to be executed;
- the characteristics of the relevant order;
- the characteristics of the relevant execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- net price for professional clients; or
- total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit criteria could be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

We may prioritise one or more of the other execution factors if (i) there is insufficient immediately available liquidity on the relevant execution venue to execute the relevant order in full, or (ii) where a client instructs us to work a relevant order over a period of time or to reference a benchmark calculated over a period of time (such as VWAP), or (iii) where we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

Topic 5: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

There has been no change to the execution venues listed in GS’ execution policy.

Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;

Not applicable.

Topic 6: an explanation of whether 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;

A client’s regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

The starting presumption is that retail clients do legitimately rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order (i.e. GS does not rely solely on GS to protect their interests); however, these presumptions may be reviewed depending on the application of the fourfold test for determining legitimate reliance (set out below) to the particular circumstances of GS’ interaction with the client and how the market operates for the relevant product.

Subject to any specific instructions, GS will generally give the highest priority to:

- net price for professional clients;
- total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit criteria could be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.

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

<table>
<thead>
<tr>
<th>Reporting Entity</th>
<th>Proportion of volume traded as a percentage of total in that class</th>
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### Table: Proportion of orders executed as percentage of total in that class

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<th>Reporting Entity</th>
<th>Proportion of orders executed as percentage of total in that class</th>
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### Table: Percentage of passive orders

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### Table: Percentage of aggressive orders

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### Table: Percentage of directed orders

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</table>
Topic 5: an explanation of whether 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.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Nonetheless any of the asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only to the extent that they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27.

Data published under Delegated Regulation (EU) 2017/75 was not available for the reporting period covered by this report. However, GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU.

The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
<table>
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<tr>
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Goldman Sachs AG does not undertake client executions in this Asset Class.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Notwithstanding any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit transactions may be given precedence over the immediate price and cost consideration only if the client is instrumental in delivering the best possible result in terms of the total consideration to the retail client.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

We have considered the relevant order and whether the client is relying on GS to deliver best execution.

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.

The GSOM’s role is to ensure the relevant order is executed and the client receives a fair price for the execution. If a competing order exists, GSOM will reasonably assess whether the client is relying on GS to deliver best execution and will take appropriate action to manage the conflict.

Goldman Sachs’ conflict of interest policy is approved by the Board of Directors and GSAM is required to operate in accordance with the policies, procedures and guidelines set forth by the Board.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Notwithstanding any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit transactions may be given precedence over the immediate price and cost consideration only if the client is instrumental in delivering the best possible result in terms of the total consideration to the retail client.

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Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU; monitoring is undertaken on a systematic basis via best execution monitoring systems. It is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27; specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Topic 6: an explanation of whether 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; Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Nonetheless, any of the asset-class-specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

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Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received; Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Nonetheless, any of the asset-class-specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

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A client’s regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution. There has been no change to the execution venues listed in GS’ execution policy.

Execution Factors

- the information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS. If GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to market data is not as comprehensive as that of a client, it is then even more likely that the client will be placing reliance on GS.
- the relative levels of price transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to market data is not as comprehensive as that of a client, it is then even more likely that the client will be placing reliance on GS.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Nonetheless, any of the asset-class-specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

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The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

monitoring is undertaken on a systematic basis via best execution monitoring systems.

Specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Notwithstanding any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit features which would give precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

We may prioritise one or more of the other execution factors if (i) there is insufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. cash, VWAP), where the order is executed using an algorithm.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

Topic 2: a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.

GSAG is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution quality received from affiliated entities is subject to the same monitoring and assessment which would be applied to third party entities and execution venues utilised for execution of client orders.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:

• rely on the Securities Division of the relevant GS affiliate for the selection and ongoing review of execution venues (this ongoing review is in addition to the monitoring and oversight of order execution arrangements conducted by the Private Wealth Management Division);

• have determined that it can consistently achieve the best results for its clients using a single execution venue and that this single execution venue may be the Securities Division at other GS affiliates.

Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;

Not applicable.

Topic 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 has been no change to the execution venues listed in GS’ execution policy.

Topic 5: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

A client’s regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

The starting presumption is that retail clients do legitimately rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be afforded by the choice made by GS in executing the relevant order (i.e. GS owes a duty of best execution to retail clients) and professional clients do not legitimately rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS’s interaction with the client and how the market operates for the relevant product.

Legitimate Reliance:
To determine whether a client is legitimately relying on GS to protect their interests, the following factors are considered:

• which party initiated the transaction – where GS approaches the client and suggests that the client should enter into a transaction, it is more likely that the client will be placing reliance on GS. Where the client initiates the transaction it is less likely that the client will be placing reliance on GS;

• market practice and the existence of a convention to “shop around” – where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction (e.g. there is a market convention to “shop around” for a quote), it is less likely that the client will be placing reliance on GS;

• the relative levels of price transparency within a market – if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to pricing transparency is equal or superior to the client’s, it is less likely that the client will be placing reliance on GS; and

• the information provided by GS and any agreement reached – where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS.

Execution Factors
Subject to any specific instructions, GS will generally give the highest priority to:

• net price for professional clients; or

• total consideration for retail clients. Notwithstanding any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit or explicit features which would give precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.
The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU; monitoring is undertaken on a systematic basis via best execution monitoring systems.

Execution Factors

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

- the characteristics of the client including the regulatory categorisation of the client;
- the characteristics of the relevant order;
- the relative levels of price transparency within a market - if GS has ready access to prices in the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS's access to relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. iceberg, if available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

We have a degree of discretion in how to apply the different execution factors and this may result in a range of different permissible approaches to executing client orders.

• total consideration for retail clients. Notwithstanding any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the client.

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GSAG is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution quality received from
### Contract For Difference

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<tr>
<th>Reporting Entity: GSAG</th>
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<tbody>
<tr>
<td>Notification if &lt;1 average trade per business day in the previous year</td>
<td>N/A</td>
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<tr>
<td>Top five execution venues ranked in terms of trading volumes (descending order)</td>
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<tr>
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<th>Proportion of volume traded as a percentage of total in that class</th>
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### N/A - Contracts for Difference will be addressed under the MiFID II Swaps Asset Class for the First Report
Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)

Reporting Entity: GSAG
Topic of Client: Professional Client
Reporting Entity: GSAG

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Top Five Broker Report
Topic of Client: Professional Client
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This qualitative commentary covers the activity of the Private Wealth Management Division of Goldman Sachs AG (GS). For further information on the best execution arrangements please refer to the EMEA Private Wealth Management summary which is available at: http://www.goldmansachs.com/disclosures/html

When assessing the relative importance given to execution factors, GS will take into account the following criteria for determining the relative importance of the execution factors in the circumstances:

- the characteristics of the client including the regulatory categorisation of the client;
- the characteristics of the relevant order;
- the characteristics of financial instruments that are the subject of the relevant order; and
- the characteristics of the execution venue to which that relevant order can be directed.

Subject to any specific instructions, taking into account the criteria above, GS will generally give the highest priority to:

- net price for professional clients; or
- total consideration for retail clients. Notwithstanding any asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit price risk management or other consideration may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

We may prioritise one or more of the other execution factors if (i) there is insufficient immediately available liquidity on the relevant execution venue to execute the relevant order in full; or (ii) where a client instructs us to work a relevant order over a period of time or by reference to a benchmark calculated over a period of time (such as VWAP); or (iii) we determine that there are other circumstances such that obtaining the best immediately available price may not be the best possible result for the client. In these cases, we will determine the relative priority of each execution factor on an order-by-order basis, where the order is executed manually, and by order type (e.g. cash, VWAP), where the order is executed using an algorithm.

We have a discretion in how to apply the different execution factors and this may result in a number of different permissible approaches to execution order clients.

Topic 2: a description of any close links, conflicts of interest, and common ownership with respect to any execution venues used to execute orders;

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.

GSAG is a member of the Goldman Sachs group of companies. The Private Wealth Management Division of GS may execute transactions in certain asset classes with or through affiliated entities. Execution quality received from affiliated entities is subject to the same monitoring and assessment which would be applied to third-party entities and execution venues utilised for execution of client orders.

Furthermore, the Private Wealth Management Division may, depending on the asset class or financial instrument:

- rely on the Securities Division of the relevant GS affiliate for the selection and ongoing review of execution venues (this ongoing review is in addition to the monitoring and oversight of order execution arrangements conducted by the Private Wealth Management Division);

have determined that it can consistently achieve the best results for the clients using a single execution venue and that this single execution venue may be the Securities Division at other GS affiliates.

Topic 3: a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;

Not applicable.

Topic 4: a description 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 has been no change to the execution venues listed in GS’s execution policy.

Topic 5: an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;

A client’s regulatory categorisation is an important factor both in the assessment of whether the client is relying on GS to deliver best execution and in providing best execution.

The starting presumption is that retail clients do not legislatively rely on GS to protect their interests in relation to pricing and other elements of the transaction that may be affected by the choice made by GS in executing the relevant order (i.e. GS owes a duty of best execution to retail clients) and professional clients do not legislatively rely on GS to protect their interests; however, these presumptions may be revised depending on the application of the four-fold test for determining legitimate reliance (set out below) to the particular circumstances of GS’ interaction with the client and how the market operates for the relevant product.

Legitimate Reliance:

To determine whether a client is legitimately relying on GS to protect its interests, the following factors are considered:

- which party initiates the transaction - where GS approaches the client and suggests that the client should enter into a transaction, it is more likely that the client will be placing reliance on GS. Where the client initiates the transaction it is less likely that the client will be placing reliance on GS;
- market practice and the existence of a convention to shop around - where the practice in the market in which a business area operates suggests that the client takes responsibility for the pricing and other elements of the transaction (e.g. there is a market convention to “shop around” for a quote), it is less likely that the client will be placing reliance on GS;
- the relative price transparency within a market - if GS has ready access to, or knowledge of, the market in which we operate and the client does not, it is more likely that the client will be placing reliance on GS. If GS’s access to pricing transparency is equal or similar to the client’s, it is less likely that the client will be placing reliance on GS;
- the information provided by GS and any agreement reached - where GS’s arrangements and agreements with the client do not indicate or suggest a relationship of reliance, it is less likely that the client will be placing reliance on GS;
- total consideration for retail clients. Notwithstanding any of the asset class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit price risk factors may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

Goldman Sachs and persons connected with Goldman Sachs provide diversified financial services to a broad range of clients and counterparties and circumstances may arise in which Goldman Sachs may have a conflict of interest.
Topic 6: an explanation of whether 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.

Subject to any specific instructions, GS will generally give the highest priority to total consideration for its retail clients. Nonetheless, any of the asset-class specific requirements, speed, likelihood of execution and settlement, the size and nature of the relevant order, market impact and any other implicit transaction costs may be given precedence over the immediate price and cost consideration only insofar as they are instrumental in delivering the best possible result in terms of the total consideration to the retail client.

If GS receives an order from a retail client that includes a specific instruction or specific instructions in relation to the handling and execution of the entire order or a particular aspect or aspects of an order (including selecting a particular execution venue, executing at a particular price or time or through the use of a particular strategy) then, subject to GS’s legal and regulatory obligations, GS will execute the retail client’s order in accordance with that specific instruction. Where the specific instruction covers only a portion of an order (for example, as to the choice of execution venue), and GS has discretion over the execution of other elements of the order, then GS will continue to be subject to the best execution obligation in respect of the elements of the order that are not covered by the client’s specific instruction.

Topic 7: an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under RTS 27.

Data published under Delegated Regulation (EU) 2017/575 was not available for the reporting period covered by this report. However, GS has in place post-execution supervisory monitoring procedures which use market data, where it is available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data, other criteria are used to benchmark client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

Topic 8: where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU.

The relevant laws and regulations transposing Article 65 of Directive 2014/65/EU into national legislation did not apply for the reporting period covered by this report.
## Emission allowances

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

<table>
<thead>
<tr>
<th>Name of instrument</th>
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<tbody>
<tr>
<td>Notification if &lt;1 average trade per business day in the previous year</td>
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<td>Proportion of volume traded as a percentage of total in that class</td>
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<td>Proportion of orders executed as percentage of total in that class</td>
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Goldman Sachs AG does not undertake client executions in this Asset Class.
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*Note: There are no instruments that fall into this category in 2017*