Goldman Sachs

MiFID II: RTS 28 Qualitative Commentary – Goldman Sachs Bank Europe SE Professional 2022

Equities – Shares & Depositary Receipts

1. 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 different business units of Goldman Sachs Bank Europe SE (GS), namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for both the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

   When assessing the relative importance given to execution factors where GS determined it had a best execution obligation in respect of an order, GS took 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 generally gave the highest priority to price, then likelihood of execution. The remaining execution factors - cost (including implicit cost such as impact on the market), speed, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order - were generally given equal ranking.

   Notwithstanding the above, we prioritised one or more of the other execution factors in certain scenarios: (i) where there was insufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructed 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 determined that there were other circumstances such that obtaining the best immediately available price was not the best possible result for the client. In these cases, we determined the relative priority of each execution factor on an order-by-order basis, where the order was executed manually, and by order type (e.g. iceberg, VWAP), where the order was executed using an algorithm. We have a degree of discretion in how to apply the different execution factors and this may have resulted in a range of different permissible approaches to executing client orders.

It should also be noted that where we were provided specific instructions in relation to a trade or all trades via a particular execution channel, our relative prioritization of execution factors were limited to those elements of the execution not covered by the client's specific instructions.

GS used brokers, including affiliate brokers, to access equities markets for which it does not have a direct membership itself.

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

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

GS is a member of the Goldman Sachs group of companies. The Goldman Sachs FICC and Equities business units 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 applied to third party entities and execution venues utilized by GS for execution of client orders.

GS has close links and/or common ownership with respect to the following entities:

SIGMA X MTF/SIGMA X Europe MTF – Goldman Sachs Bank Europe SE is under common ownership with Goldman Sachs International Bank, which operates SIGMA X MTF, and Goldman Sachs Paris inc et Cie, which operates SIGMA X Europe MTF, each multilateral trading facilities for trading in European and non-European equity and equity-like instruments. Each of the MTFs are operated on an independent and segregated basis to other Goldman Sachs businesses. Goldman Sachs Bank Europe SE is itself one of several trading participants on SIGMA X Europe MTF. For further information on SIGMA X MTF please visit the SIGMA X MTF website at http://gset.gs.com/sigmaxmtf/

In addition, Goldman Sachs Group entities may have (i) minor, non-controlling ownership stakes in companies which operate or own execution venues and/or; (ii) be founding consortia members of execution venues for which it has revenue share arrangements, which GS may use to execute orders on behalf of clients in certain financial instruments, including:

- *BIDS Holdings L.P.;*
- *CHX Holdings, Inc.;*
- *Chi-X Global Holdings LLC;*
- *SBI Japannext Co., Ltd.;*
- *National Stock Exchange of India Limited;*
- *Turquoise Global Holdings Limited.*

Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such ownership or revenue share arrangements.

For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and their conflicts of interest policy, please refer to EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

Private Wealth Management executed these financial instruments via the Goldman Sachs FICC and Equities business units of GS, and where appropriate, other GS affiliates. Private Wealth Management

determined it could consistently achieve the best results for its clients using a single execution venue. For further details on the execution venues used by the Goldman Sachs FICC and Equities business units please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available via the link above.

For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

3. 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.

4. 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:

   Not applicable.

5. 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 executed orders for professional clients of the Goldman Sachs FICC and Equities and Private Wealth Management business units where the approach to order execution is consistent. GS also executed orders for eligible counterparties, however under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.

6. 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:

   Not applicable.

7. 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:

   GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria is used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

   Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Debt instruments

(i) Bonds

1. 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 different business units of GS, namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

   These instruments are typically traded on a request for quote basis, including where clients approach us for a quote or are responding to our streamed prices/indications of interest through electronic platforms where we predominantly act in a principal capacity and the client ultimately decides whether to proceed with the transaction based upon the price provided by us and those of other liquidity providers from whom it has sourced quotes. Generally, we would not expect clients to be legitimately relying on us to provide best execution, particularly given the market practice for clients to shop around for quotes, and therefore our best execution obligations for these instruments are likely to apply in more limited circumstances than that for other asset classes.

   Private Wealth Management operated an "open architecture" model for executing all fixed income trades, in which the Goldman Sachs FICC business unit was one of the possible execution venues. Where the open architecture platform did not support a certain product or an order was subject to specific instructions Private Wealth Management traded through the Goldman Sachs FICC business unit.

   To the extent we determined we owed a best execution obligation and subject to any specific instructions, GS generally gave the highest priority to:

   - for Goldman Sachs FICC and Equities - net price. The remaining execution factors, to the extent relevant, – cost (including implicit cost such as impact on the market), speed, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order - were generally given equal ranking;
   - for professional clients of Private Wealth Management - total consideration.

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

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

   Goldman Sachs Group entities may have (i) minor, non-controlling ownership stakes in companies which operate or own execution venues and/or; (ii) be founding consortia members of execution venues for which it has revenue share arrangements, which GS may use to execute orders on behalf of clients or to respond to clients' requests for quotes in certain financial instruments, including:

- *Tradeweb LLC;*
- *Bloomberg;*
- *MarketAxess.*

Our decision to route orders to, or respond to clients' request for quotes on, a particular execution venue was determined, as applicable, by whether execution on such venues allowed us to satisfy our best execution obligations or as necessary to interact with clients and was not influenced by any such ownership or revenue share arrangements.

For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

Private Wealth Management operated an "open architecture" order execution platform for executing all fixed income trades unless the open architecture platform did not support a certain product or an order was subject to specific instructions. Where this was the case, Private Wealth Management traded through the Goldman Sachs FICC business unit.

For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such fee structures or volume discounts.

This is not applicable to Private Wealth Management's open architecture order execution platform.

4. 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:

The Goldman Sachs FICC and Equities have not changed any execution venues for this asset class during the reporting period.

Private Wealth Management revised its list of execution venues for this asset class to add the following broker dealers to enable GS to improve the liquidity access provided to retail clients in certain markets: Guy Butler, Jane Street. Activity with Sberbank and VTB was suspended due to global sanctions impacting these entities.

5. 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:

Private Wealth Management generally gave the highest priority to total consideration for professional clients which is consistent with Private Wealth Management's approach to execution with its retail clients.

GS also executed orders for eligible counterparties, however under applicable law and regulation GS was not obliged to provide best execution when it executed orders on behalf of eligible counterparties.

6. 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:

   Not applicable.

7. 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:

   GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria are used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

   Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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.

   Not applicable.

Bonds

Money Market instruments

1. 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 different business units of GS, namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for both the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

   These instruments are typically traded on a request for quote basis, including where clients approach us for a quote or are responding to our streamed prices/indications of interest through electronic platforms where we predominantly act in a principal capacity and the client ultimately decides whether

to proceed with the transaction based upon the price provided by us and those of other liquidity providers from whom it has sourced quotes. Generally, we would not expect clients to be legitimately relying on us to provide best execution, particularly given the market practice for clients to shop around for quotes, and therefore our best execution obligations for these instruments are likely to apply in more limited circumstances than that for other asset classes.

Private Wealth Management operated an "open architecture" model for execution of all fixed income trades, in which the Goldman Sachs FICC and Equities is one of the possible execution venues. Where the open architecture platform did not support a certain product or an order was subject to specific instructions Private Wealth Management traded through the Goldman Sachs FICC business unit.

To the extent we determined we owed a best execution obligation and subject to any specific instructions, GS generally gave the highest priority to:

- for the Goldman Sachs FICC and Equities - net price. The remaining execution factors, to the extent relevant, – cost (including implicit cost such as impact on the market), speed, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order - were generally given equal ranking;
- for professional clients of Private Wealth Management - total consideration.

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

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

Goldman Sachs Group entities may have (i) minor, non-controlling ownership stakes in companies which operate or own execution venues and/or; (ii) be founding consortia members of execution venues for which it has revenue share arrangements, which GS may use to execute orders on behalf of clients or to respond to clients' requests for quotes in certain financial instruments, including

- *Tradeweb LLC;*
- *Bloomberg;*
- *MarketAxess.*

Our decision to route orders to, or respond to clients' request for quotes on, a particular execution venue was determined, as applicable, by whether execution on such venues allowed us to satisfy our best execution obligations or as necessary to interact with clients and was not influenced by any such ownership or revenue share arrangements.

For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

Private Wealth Management utilized different execution venues to execute client orders. Private Wealth Management operated an "open architecture" model for execution of all fixed income trades unless the open architecture platform did not support a certain product or an order was subject to specific instructions. Where this was the case, Private Wealth Management traded through the Goldman Sachs FICC business unit.

For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue for execution is determined by whether execution on such venues allows us to satisfy our best execution obligations and is not influenced by any such fee structures or volume discounts.

This was not applicable to the Private Wealth Management's open architecture order execution platform.

4. 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:

The Goldman Sachs FICC and Equities have not changed any execution venues for this asset class during the reporting period.

Private Wealth Management revised its list of execution venues for this asset class to add the following broker dealers to enable GS to improve the liquidity access provided to retail clients in certain markets: Guy Butler, Jane Street. Activity with Sberbank and VTB was suspended due to global sanctions impacting these entities.

5. 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:

Private Wealth Management generally gave the highest priority to total consideration for professional clients which was consistent with Private Wealth Management's approach to execution with its retail clients.

GS also executed orders for eligible counterparties, however under applicable law and regulation GS was not obliged to provide best execution when it executed orders on behalf of eligible counterparties.

6. 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:

Not applicable.

7. 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:

GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other

criteria are used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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.

   Not applicable.

Interest Rate Derivatives

(i) Futures and options admitted to trading on a trading venue

1. 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**:

   These instruments are typically traded only on the execution venue of their listing and therefore client orders in the instrument determined the execution venue. Application of best execution is therefore limited to liquidity available on the relevant execution venue for the instrument.

   When assessing the relative importance given to execution factors where GS determined it had a best execution obligation in respect of an order GS took 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 relevant criteria above, the ranking of execution factors was typically as follows:

   - price;
   - speed of execution.

   The remaining execution factors, to the extent applicable, – cost (including implicit cost such as impact on the market), likelihood of execution, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order - were generally given equal ranking.

   It should also be noted that where we were provided with specific instructions in relation to a trade, our relative prioritization of execution factors were limited to those elements of the execution not covered by the client's specific instructions.

   For further information on GS' best execution arrangements please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

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

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

   For further details on the execution venues used by GS and its conflicts of interest policy, please refer to its best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

   Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such fee structures or volume discounts.

4. 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:

   We have not changed any execution venues for this asset class during the reporting period.

5. 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 Goldman Sachs FICC and Equities business units of GS only executes orders for professional clients and eligible counterparties. Under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.

   Private Wealth Management did not have clients for which it executes orders in this asset class.

6. 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:

   Not applicable.

7. 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:

   GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria were used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

   Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Interest Rate Derivatives

(ii) Swaps, forwards, and other interest rates derivatives

1. 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 different business units of GS, namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for both the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

   These instruments are typically traded on a request for quote basis, including where clients approach us for a quote or are responding to our streamed prices where we predominantly act in a principal capacity and the client ultimately decides whether to proceed with the transaction based upon the price provided by us and those of other liquidity providers from whom it has sourced quotes. Generally, we would not expect clients to be legitimately relying on us to provide best execution, particularly given the market practice for clients to shop around for quotes, and therefore our best execution obligations for these instruments are likely to apply in more limited circumstances than that for other asset classes.

   To the extent we determined we owed best execution and, subject to any specific instructions, GS generally gave the highest priority to net price. Other execution factors, to the extent relevant – cost (including implicit cost such as impact on the market), speed, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order - were generally given equal ranking.

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

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

   Goldman Sachs Group entities may have (i) minor, non-controlling ownership stakes in companies which operate or own execution venues and/or; (ii) be founding consortia members of execution venues for which it has revenue share arrangements, which GS may use to execute orders on behalf of clients or to respond to clients' requests for quotes in certain financial instruments, including

   - *Tradeweb LLC*
   - *Bloomberg*
   - *MarketAxess*

Our decision to route orders to, or respond to clients' request for quotes on, a particular execution venue was determined, as applicable, by whether execution on such venues allowed us to satisfy our best execution obligations or as necessary to interact with clients and was not influenced by any such ownership or revenue share arrangements.

For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

Private Wealth Management executed these financial instruments via the Goldman Sachs FICC business unit of GS, and where appropriate, other GS affiliates. Private Wealth Management has determined that it can consistently achieve the best results for its clients using a single execution venue. For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary.

For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

   Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such fee structures or volume discounts.

4. 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:

   We have not changed any execution venues for this asset class during the reporting period.

5. 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 executed orders for professional clients of the Goldman Sachs FICC and Equities and Private Wealth Management where the approach to order execution was consistent. GS also executed orders for eligible counterparties, however under applicable law and regulation GS was not obliged to provide best execution when it executed orders on behalf of eligible counterparties.

6. 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:

   Not applicable.

7. 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:

   GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria are used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

   Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Credit Derivatives

(i) Futures and options admitted to trading on a trading venue)

Goldman Sachs Bank Europe SE did not undertake client executions in this Asset Class.

Credit Derivatives

(ii) Other credit derivatives

1. 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 different business units of GS, namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for both the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

   These instruments are typically traded on a request for quote basis, including where clients approach us for a quote or are responding to our streamed prices where we predominantly act in a principal capacity and the client ultimately decides whether to proceed with the transaction based upon the price provided by us and those of other liquidity providers from whom it has sourced quotes. Generally, we would not expect clients to be legitimately relying on us to provide best execution, particularly given the market practice for clients to shop around for quotes, and therefore our best execution obligations for these instruments are likely to apply in more limited circumstances than that for other asset classes.

   To the extent we determined we owed best execution and, subject to any specific instructions, GS generally gave the highest priority to net price. Other execution factors, to the extent relevant – cost (including implicit cost such as impact on the market), likelihood of execution, order size, nature of the

order and any other consideration relevant to the efficient execution of the client's order - were generally given equal ranking.

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

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

   Goldman Sachs Group entities may have (i) minor, non-controlling ownership stakes in companies which operate or own execution venues and/or; (ii) be founding consortia members of execution venues for which it has revenue share arrangements, which GS may use to execute orders on behalf of clients or to respond to clients' requests for quotes in certain financial instruments, including

   - *Tradeweb LLC;*
   - *Bloomberg;*
   - *MarketAxess.*

   Our decision to route orders to, or respond to clients' request for quotes on, a particular execution venue was determined, as applicable, by whether execution on such venues allowed us to satisfy our best execution obligations or as necessary to interact with clients and was not influenced by any such ownership or revenue share arrangements.

   For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

   Private Wealth Management executed these financial instruments via the Goldman Sachs FICC and Equities of GS, and where appropriate, other GS affiliates. Private Wealth Management has determined that it can consistently achieve the best results for its clients using a single execution venue. For further details on the execution venues used by the Goldman Sachs FICC and Equities business units please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available via the link above.

   For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

   Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such fee structures or volume discounts.

4. 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:

We have not changed any execution venues for this asset class during the reporting period.

5. 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 executed orders for professional clients of the Goldman Sachs FICC and Equities and Private Wealth Management where the approach to order execution was consistent. GS also executed orders for eligible counterparties, however under applicable law and regulation GS was not obliged to provide best execution when it executed orders on behalf of eligible counterparties.

6. 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:

   Not applicable.

7. 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:

   GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria are used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

   Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Currency Derivatives

(i) Futures and options admitted to trading on a trading venue

1. 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**:

   These instruments are typically traded only on the execution venue of their listing and therefore client orders in the instrument determined the execution venue. Application of best execution is therefore limited to liquidity available on the relevant execution venue for the instrument.

   When assessing the relative importance given to execution factors where GS determined it had a best execution obligation in respect of an order GS took 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 relevant criteria above, the ranking of execution factors was typically as follows:

- price;
- speed of execution.

The remaining execution factors, to the extent applicable, – cost (including implicit cost such as impact on the market), likelihood of execution, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order - were generally given equal ranking.

It should also be noted that where we were provided with specific instructions in relation to a trade, our relative prioritization of execution factors were limited to those elements of the execution not covered by the client's specific instructions.

For further information on GS' best execution arrangements please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

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

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

   For further details on the execution venues used by GS and its conflicts of interest policy, please refer to its best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

   Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such fee structures or volume discounts.

4. 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:

   We have not changed any execution venues for this asset class during the reporting period.

5. 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 Goldman Sachs FICC and Equities of GS only executed orders for professional clients and eligible counterparties. Under applicable law and regulation GS was not obliged to provide best execution when it executes orders on behalf of eligible counterparties.

Private Wealth Management did not have clients for which it executes orders in this asset class.

6. 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:

   Not applicable.

7. 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:

   GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria were used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

   Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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.

   Not applicable.

Currency Derivatives

(ii) Swaps, forwards, and other currency derivatives

1. 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 different business units of GS, namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for both the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

   These instruments are typically traded on a request for quote basis, including where clients approach us for a quote or are responding to our streamed prices where we predominantly act in a principal capacity and the client ultimately decides whether to proceed with the transaction based upon the price provided by us and those of other liquidity providers from whom it has sourced quotes. Generally, we would not expect clients to be legitimately relying on us to provide best execution, particularly given the market practice for clients to shop around for quotes and the high levels of transparency/liquidity

in most markets for these products, and therefore our best execution obligations for these instruments are likely to apply in more limited circumstances than that for other asset classes.

To the extent we determined we owed best execution and, subject to any specific instructions, GS generally gave the highest priority to net price followed by likelihood of execution and settlement. Other execution factors, to the extent relevant – costs, nature of the order and other considerations relevant to the efficient execution of the client's order - were generally given equal ranking.

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

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

   Goldman Sachs Group entities may have (i) minor, non-controlling ownership stakes in companies which operate or own execution venues and/or; (ii) be founding consortia members of execution venues for which it has revenue share arrangements, which GS may use to execute orders on behalf of clients or to respond to clients' requests for quotes in certain financial instruments, including

   - *Tradeweb LLC;*
   - *Bloomberg;*
   - *MarketAxess.*

   Our decision to route orders to, or respond to clients' request for quotes on, a particular execution venue was determined, as applicable, by whether execution on such venues allowed us to satisfy our best execution obligations or as necessary to interact with clients and was not influenced by any such ownership or revenue share arrangements.

   For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

   Private Wealth Management executed these financial instruments via the FICC business unit in Goldman Sachs International and, where and if appropriate, other GS affiliates. Private Wealth Management has determined that it can consistently achieve the best results for its clients using a single execution venue. For further details on the execution venues used by the Goldman Sachs FICC and Equities business units please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available via the link above.

   For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

   Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue

for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such fee structures or volume discounts.

4. 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:

   We have not changed any execution venues for this asset class during the reporting period.

5. 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 executed orders for professional clients of the Goldman Sachs FICC and Equities business units and Private Wealth Management where the approach to order execution is consistent. GS also executed orders for eligible counterparties, however under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.

6. 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:

   Not applicable.

7. 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:

   GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria are used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

   Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Structured Finance Instruments

1. 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 different business units of GS, namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for both the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when

references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

These instruments are typically traded on a request for quote and via a Bid Wanted in Competition basis, including where clients approach us for a quote or are responding to our streamed prices where we predominantly act in a principal capacity and the client ultimately decides whether to proceed with the transaction based upon the price provided by us and those of other liquidity providers from whom it has sourced quotes. Generally, we would not expect clients to be legitimately relying on us to provide best execution and therefore our best execution obligations for these instruments are likely to apply in more limited circumstances than that for other asset classes. In limited circumstances, structured finance products may involve bilateral discussions which typically include specific unique client customization. For such products, there are generally few comparable alternatives, price transparency is limited as a consequence of the product customization and the client has limited ability to obtain alternative quotes for the same product from other broker/dealers in the market. As a consequence, we would generally expect that clients are legitimately relying on us to provide best execution in such unique bespoke situations.

To the extent we determined we owed best execution and, subject to any specific instructions, GS generally gave the highest priority to net price. Other execution factors – costs, nature of the order and other considerations relevant to the efficient execution of the client's order – to the extent relevant, were generally given equal ranking.

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

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

   Goldman Sachs Group entities may have (i) minor, non-controlling ownership stakes in companies which operate or own execution venues and/or; (ii) be founding consortia members of execution venues for which it has revenue share arrangements, which GS may use to execute orders on behalf of clients or to respond to clients' requests for quotes in certain financial instruments, including

   - *Tradeweb LLC*
   - *Bloomberg*
   - *MarketAxess*

   Our decision to route orders to, or respond to clients' request for quotes on, a particular execution venue was determined, as applicable, by whether execution on such venues allowed us to satisfy our best execution obligations or as necessary to interact with clients and was not influenced by any such ownership or revenue share arrangements.

   For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

   Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such fee structures or volume discounts.

4. 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:

   We have not changed any execution venues for this asset class during the reporting period.

5. 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 only executed orders for professional clients and eligible counterparties in these financial instruments. Under applicable law and regulation GS was not obliged to provide best execution when it executed orders on behalf of eligible counterparties.

   Private Wealth Management did not have clients for which it executes orders in this asset class.

6. 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:

   Not Applicable.

7. 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:

   GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria are used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems.

   Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Equity Derivatives

(i) Options and Futures admitted to trading on a trading venue

1. 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 different business units of GS, namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for both the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

   These instruments are typically traded only on the execution venue of their listing and therefore client orders in the instrument will determine the execution venue. Application of best execution is therefore limited to liquidity available on the relevant execution venue for the instrument.

   When assessing the relative importance given to those execution factors that are applicable where GS determined that it owed a best execution obligation for a relevant order, GS took 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 relevant criteria above, the ranking of execution factors was typically as follows:

   - price;
   - speed of execution.

   The remaining execution factors, to the extent applicable– cost (including implicit cost such as impact on the market), likelihood of execution, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order – were generally given equal ranking.

   It should also be noted that where were provided with specific instructions in relation to a trade or all trades via a particular execution channel, our relative prioritization of execution factors was limited to those elements of the execution not covered by the client's specific instructions.

   For further information on GS' best execution arrangements please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

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

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

For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

Private Wealth Management executed these financial instruments via the Equities business unit of GS (and where appropriate, other GS affiliates) and, in certain limited cases, using an open architecture model. For further details on the execution venues used by the Goldman Sachs FICC and Equities business units please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available via the link above.

For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

   Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such fee structures or volume discounts.

4. 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:

   We have not changed any execution venues for this asset class during the reporting period.

5. 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 executed orders for professional clients of the Goldman Sachs FICC and Equities business units and Private Wealth Management where the approach to order execution is consistent. GS also executed orders for eligible counterparties, however under applicable law and regulation GS was not obliged to provide best execution when it executed orders on behalf of eligible counterparties.

6. 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:

   Not applicable.

7. 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:

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 or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Equity Derivatives

(ii) Swaps and other equity derivatives

3. 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 different business units of GS, namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for both the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

   These instruments are typically traded on a request for quote basis, including where clients approach us for a quote or are responding to our streamed prices where we predominantly act in a principal capacity and the client ultimately decides whether to proceed with the transaction based upon the price provided by us and those of other liquidity providers from whom it has sourced quotes. Generally, we would not expect clients to be legitimately relying on us to provide best execution, particularly given the market practice for clients to shop around for quotes and the levels of transparency in the market for these products, and therefore our best execution obligations for these instruments are likely to apply in more limited circumstances than that for other asset classes.

   To the extent we determined we owed best execution and, subject to any specific instructions, GS generally gave the highest priority to net price. Other execution factors, to the extent relevant – cost (including implicit cost such as impact on the market), speed, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order – were generally given equal ranking.

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

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

Goldman Sachs Group entities may have (i) minor, non-controlling ownership stakes in companies which operate or own execution venues and/or; (ii) be founding consortia members of execution venues for which it has revenue share arrangements, which GS may use to execute orders on behalf of clients or to respond to clients' requests for quotes in certain financial instruments, including

- *Tradeweb LLC.*

Our decision to route orders to, or respond to clients' request for quotes on, a particular execution venue was determined, as applicable, by whether execution on such venues allowed us to satisfy our best execution obligations or as necessary to interact with clients and was not influenced by any such ownership or revenue share arrangements.

For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

Private Wealth Management executed these financial instruments via the Goldman Sachs FICC and Equities business units of GS, and where appropriate, other GS affiliates. Private Wealth Management has determined that it can consistently achieve the best results for its clients using a single execution venue. For further details on the execution venues used by the Goldman Sachs FICC and Equities business units please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available via the link above.

For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

   Some Execution Venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the Execution Venues rules. Information on such arrangements is publicly available on the relevant Execution Venues website. Our decision to route orders to a particular venue for execution for this asset class was typically driven by the listing of the product the client wishes to trade, and was not influenced by any such fee structures or volume discounts.

4. 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:

   Not applicable.

5. 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 executed orders for professional clients of the Goldman Sachs FICC and Equities business units and Private Wealth Management where the approach to order execution is consistent. GS also executed

orders for eligible counterparties, however under applicable law and regulation GS was not obliged to provide best execution when it executed orders on behalf of eligible counterparties.

6. 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:

   Not applicable.

7. 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:

   GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria are used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

   Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Securitized Derivatives

(i) Warrants and Certificate Derivatives

5. 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 business within Asset and Wealth Management. For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

   These instruments are typically traded only on the execution venue of their listing and therefore client orders in the instrument determined the execution venue. Application of best execution was therefore limited to liquidity available on the relevant execution venue for the instrument.

   Where GS determined it had a best execution obligation in respect of an order, GS took 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 generally gave the highest priority to total consideration for retail clients.

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

   Private Wealth Management utilised different execution venues to execute client orders. Private Wealth Management operates an "open architecture" model for executing these financial instruments, in which the Goldman Sachs FICC and Equities business units are possible execution venues. Where the open architecture platform did not support a certain product or an order was subject to specific instructions Private Wealth Management may have traded through Goldman Sachs FICC or Equities.

   When executing transactions in these financial instruments using this open architecture model, GS utilises the external broker relationships of GSI. For transparency purposes, GS has disclosed the underlying broker data in its best execution report.

   For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

   This is not applicable to Private Wealth Management's open architecture order execution platform.

4. 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:

   Private Wealth Management revised its execution venue list for this asset class to include an additional issuer on the open architecture platform (Barclays Bank Plc), providing further issuer credit diversification and optionality for its clients. Private Wealth Management ceased distributing products issued by Credit Suisse during this period, however they remained on the Private Wealth Management platform and therefore were not removed from the list of execution venues listed in Private Wealth Management's execution policy.

5. 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 executed orders for professional clients of Private Wealth Management where, subject to any specific instructions and issuer concentration limits, GS generally gave the highest priority to price. The remaining execution factors, to the extent applicable, were generally given equal ranking.

6. 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:

   Not applicable.

7. 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:

GS had in place post execution supervisory monitoring procedures which used market data, where it was available, to assess client transactions against relevant market prices and benchmarks. For products with no observable external market data other criteria was used to benchmark client transactions for monitoring purposes. This monitoring was undertaken on a systematic basis via best execution monitoring systems or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Securitized Derivatives

(ii) Other Securitized Derivatives

Goldman Sachs Bank Europe SE does not undertake client executions in this Asset Class.

Commodities derivatives and emission allowances Derivatives

(i) Options and Futures admitted to trading on a trading venue

1. 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 Global Markets FICC and Equities business units of GS. For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

   These instruments are typically traded only on the execution venue of their listing and therefore client orders in the instrument will determine the execution venue. Application of best execution is therefore limited to liquidity available on the relevant execution venue for the instrument.

   When assessing the relative importance given to those execution factors that are applicable where GS determined that it owed a best execution obligation for a relevant order, GS took 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 relevant criteria above, the ranking of execution factors was typically as follows:

- price;
- speed of execution.

The remaining execution factors, to the extent applicable– cost (including implicit cost such as impact on the market), likelihood of execution, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order – were generally given equal ranking.

It should also be noted that where we are provided specific instructions in relation to a trade or all trades via a particular execution channel, our relative prioritization of execution factors is limited to those elements of the execution not covered by the client's specific instructions.

For further information on GS' best execution arrangements please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

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

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

   For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and its conflicts of interest policy, please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

   Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such fee structures or volume discounts.

4. 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:

   We have not changed any execution venues for this asset class during the reporting period.

5. 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 executed orders for professional clients of the Goldman Sachs FICC and Equities business units. GS also executes orders for eligible counterparties, however under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.

Private Wealth Management did not have clients for which it executes orders in this asset class.

6. 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:

   Not applicable.

7. 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:

   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 or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

   Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Commodities derivatives and emission allowances Derivatives

(ii) Other commodities derivatives and emission allowances derivatives

1. 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 different business units of GS, namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for both the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

   These instruments are typically traded on a request for quote basis, including where clients approach us for a quote or are responding to our streamed prices where we predominantly act in a principal capacity and the client ultimately decides whether to proceed with the transaction based upon the price provided by us and those of other liquidity providers from whom it has sourced quotes. Generally, we would not expect clients to be legitimately relying on us to provide best execution, particularly given the market practice for clients to shop around for quotes and therefore our best execution obligations for these instruments are likely to apply in more limited circumstances than that for other asset classes.

To the extent we determined we owed best execution and, subject to any specific instructions, GS generally gave the highest priority to net price. Other execution factors, to the extent relevant – cost (including implicit cost such as impact on the market), speed, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order – were generally given equal ranking.

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

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

   GS is a member of the Goldman Sachs group of companies. The Goldman Sachs FICC and Equities 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 applied to third party entities and execution venues utilized by GS for execution of client orders.

3. 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.

4. 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:

   Not applicable.

5. 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 executed orders for professional clients of the Goldman Sachs FICC and Equities business units and Private Wealth Management where the approach to order execution is consistent. GS also executed orders for eligible counterparties, however under applicable law and regulation GS was not obliged to provide best execution when it executed orders on behalf of eligible counterparties.

6. 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:

   Not applicable.

7. 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:

   GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria are used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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:

   Not applicable.

Contracts for Difference

Not applicable– Contracts for Difference instrumented are addressed under the MiFID II Swaps Asset Class.

Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)

1. 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 different business units of GS, namely the Goldman Sachs FICC and Equities and Private Wealth Management within the Goldman Sachs Asset & Wealth Management. Unless otherwise indicated, the responses provided below are relevant for both the Goldman Sachs FICC and Equities and Private Wealth Management business units save for when references are made to the Goldman Sachs FICC and Equities or Private Wealth Management specifically. For further information on best execution arrangements of each the Goldman Sachs FICC and Equities and Private Wealth Management business units please refer to the relevant summaries which are available at: http://www.goldmansachs.com/disclosures/mifid/

   When assessing the relative importance given to execution factors, where GS determined that it had a best execution obligation in respect of relevant orders, GS took 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 generally gave the highest priority to net price, then likelihood of execution. The remaining execution factors – cost (including implicit cost such as impact on the market), speed, order size, nature of the order and any other consideration relevant to the efficient execution of the client's order - were generally given equal ranking.

   Notwithstanding the above, we prioritised one or more of the other execution factors in certain scenarios: (i) where there was insufficient immediately available liquidity on the relevant execution venues to execute the relevant order in full; or (ii) where a client instructed 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 determined that there were other circumstances such that obtaining the best immediately

available price was not the best possible result for the client. In these cases, we determined 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 have resulted in a range of different permissible approaches to executing client orders.

It should also be noted that where we are provided with specific instructions in relation to a trade or all trades via a particular execution channel, our relative prioritization of execution factors was limited to those elements of the execution not covered by the client's specific instructions.

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

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

GS has close links and/or common ownership with respect to the following entities:

SIGMA X MTF/SIGMA X Europe MTF – Goldman Sachs Bank Europe SE is under common ownership with Goldman Sachs International Bank, which operates SIGMA X MTF, and Goldman Sachs Paris inc et Cie, which operates SIGMA X Europe MTF, each multilateral trading facilities for trading in European and non-European equity and equity-like instruments. Each of the MTFs are operated on an independent and segregated basis to other Goldman Sachs businesses. Goldman Sachs Bank Europe SE is itself one of several trading participants on SIGMA X Europe MTF. For further information on SIGMA X MTF please visit the SIGMA X MTF website at http://gset.gs.com/sigmaxmtf/

In addition, Goldman Sachs Group entities may have (i) minor, non-controlling ownership stakes in companies which operate or own execution venues and/or; (ii) be founding consortia members of execution venues for which it has revenue share arrangements, which GS may use to execute orders on behalf of clients in certain financial instruments, including:

- *BIDS Holdings L.P.;*
- *CHX Holdings, Inc.;*
- *Chi-X Global Holdings LLC;*
- *Turquoise Global Holdings Limited;*
- *Tradeweb LLC;*
- *Bloomberg.*

Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such ownership or revenue share arrangements.

For further details on the execution venues used by the Goldman Sachs FICC and Equities business units and their conflicts of interest policy, please refer to EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

Private Wealth Management executed these financial instruments via the Goldman Sachs FICC and Equities business units of GS, and where appropriate, other GS affiliates. Private Wealth Management has determined that it can consistently achieve the best results for its clients using a single execution venue. For further details on the execution venues used by the Goldman Sachs FICC and Equities

business units please refer to the EMEA Goldman Sachs FICC and Equities Best Execution Policy Summary which is available via the link above.

For further details on the execution venues used by Private Wealth Management and its conflicts of interest policy, please refer to EMEA Private Wealth Management's best execution summary which is available at: http://www.goldmansachs.com/disclosures/mifid/

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

Some execution venues may offer differing fee plans to trading members depending on the volume and nature/type of a trading activity on the venue as well as fee discounts depending on average volume of trading undertaken. Such arrangements apply equally to all trading members who satisfy the relevant criteria under the execution venues rules. Information on such arrangements is publicly available on the relevant execution venues website. Our decision to route orders to a particular venue for execution was determined by whether execution on such venues allowed us to satisfy our best execution obligations and was not influenced by any such fee structures or volume discounts.

4. 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:

We have not changed any execution venues for this asset class during the reporting period.

5. 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 executed orders for professional clients of the Goldman Sachs FICC and Equities and Private Wealth Management where the approach to order execution is consistent. GS also executes orders for eligible counterparties, however under applicable law and regulation GS is not obliged to provide best execution when it executes orders on behalf of eligible counterparties.

6. 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:

Not applicable.

7. 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:

GS has in place post execution supervisory monitoring procedures which use market data, where it is available, to assess relevant client transactions. Where appropriate market data is not available other criteria are used to review relevant client transactions for monitoring purposes. This monitoring is undertaken on a systematic basis via best execution monitoring systems or, where required, on a manual basis in accordance with internal monitoring policies and procedures.

Data published under RTS 27 has not been used as it is not available for the reporting period following the publication of Directive 2021/338 which suspended the obligation for execution venues to make available RTS 27 Reports until 28 February 2023.

8. 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.

   Not applicable.

Emissions Allowances

Not applicable – Emission Allowances will be addressed under the MiFID II Commodities Derivatives and Emission Allowances Derivatives report.

Other Instruments

The data within the report is inclusive of order execution in Equity, Interest Rate and Commodity Derivatives executed on non-EU trading venues by GS Affiliates or Brokers. Please cross refer to the relevant asset class specific sections of this report for applicable commentary.