### Goldman Sachs International Bank: Best Execution Reports under RTS 28

This report has been prepared by Goldman Sachs International Bank ("Goldman Sachs") for the period ending 31 December 2018 (the "Reporting Period") for the purposes of meeting Goldman Sachs' regulatory obligations under Article 65(6) of Commission Delegated Regulation 2017/565 and Article 27(6) of Directive 2014/65/EU ("MiFID II") which requires Goldman Sachs to annually publish (i) the top five venues where it executed clients orders; and (ii) the top five firms to whom it transmitted or placed client orders for execution, in respect of each class of financial instruments noted below. This report also provides information on Goldman Sachs' assessment of the quality of execution it obtained from these execution venues and firms (based on its internal monitoring), for each class of financial instruments. Goldman Sachs does not guarantee the correctness or completeness of the information in this report and shall not be responsible for or have any liability whatsoever for any loss or damage caused by errors, inaccuracies or omissions in connection with use or reliance on this information. Goldman Sachs reserve the right to amend, update or re-state the information contained in this report at any time.

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# Equities Shares & Depositary Receipts

Fop Five Venue Report Fype of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Equities - Shares & Depositary Reco	eipts - Tick size liquidity bands 1 and	2 (from 0 to 79 trades per day)		
Notification if <1 average trade per business day in the previous year	N/A	· · ·			
op five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orde
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N1/A	21/2				
	N/A	N/A	N/A	N/A	N/A
Fop Five Broker Report Fype of Client: Professional Client Reporting Entity: GSIB				N/A	N/A
Fop Five Broker Report Fype of Client: Professional Client Reporting Entity: GSIB Class of Instrument	Equities - Shares & Depositary Reco	N/A Peipts - Tick size liquidity bands 1 and		N/A	N/A
Fop Five Broker Report Fype of Client: Professional Client Reporting Entity: GSIB				N/A Percentage of aggressive orders	N/A Percentage of directed orde
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	Equities - Shares & Depositary Reco N/A Proportion of volume traded as a	Proportion of orders executed as	2 (from 0 to 79 trades per day)		
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Equities - Shares & Depositary Reco N/A Proportion of volume traded as a percentage of total in that class	eipts - Tick size liquidity bands 1 and Proportion of orders executed as percentage of total in that class	2 (from 0 to 79 trades per day) Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orde
Top Five Broker Report         Type of Client: Professional Client         Stass of Client: Professional Client         Stass of Instrument         Indification if <1 average trade per business day in the previous year	Equities - Shares & Depositary Reco N/A Proportion of volume traded as a percentage of total in that class N/A	eipts - Tick size liquidity bands 1 and Proportion of orders executed as percentage of total in that class N/A	2 (from 0 to 79 trades per day) Percentage of passive orders N/A	Percentage of aggressive orders N/A	Percentage of directed orde
Top Five Broker Report         Type of Client: Professional Client         Reporting Entity: GSIB         Class of Instrument         Jotification if <1 average trade per business day in the previous year	Equities - Shares & Depositary Reco N/A Proportion of volume traded as a percentage of total in that class N/A N/A	Proportion of orders executed as percentage of total in that class N/A N/A	2 (from 0 to 79 trades per day) Percentage of passive orders N/A N/A	Percentage of aggressive orders N/A N/A N/A	Percentage of directed order N/A N/A



# Equities Shares & Depositary Receipts

Гор Five Venue Report Гуре of Client: Professional Client Reporting Entity: GSIB					
Class of Instrument	Equities - Shares & Depositary Rece	eipts - Tick size liquidity bands 3 and 4	4 (from 80 to 1999 trades per day)		
Notification if <1 average trade per business day in the previous year	N/A				
op five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed order
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
op Five Broker Report					
op Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB		eipts - Tick size liquidity bands 3 and 4			
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year		eipts - Tick size liquidity bands 3 and 4			
op Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument	Equities - Shares & Depositary Rece			Percentage of aggressive orders	Percentage of directed orde
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB Class of Instrument lotification if <1 average trade per business day in the previous year	Equities - Shares & Depositary Reco N/A Proportion of volume traded as a	Proportion of orders executed as	4 (from 80 to 1999 trades per day)		
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB class of Instrument lotification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order)	Equities - Shares & Depositary Reco N/A Proportion of volume traded as a percentage of total in that class	eipts - Tick size liquidity bands 3 and 4 Proportion of orders executed as percentage of total in that class	4 (from 80 to 1999 trades per day) Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orde
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB lass of Instrument lotification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order) N/A	Equities - Shares & Depositary Reco N/A Proportion of volume traded as a percentage of total in that class N/A	eipts - Tick size liquidity bands 3 and 4 Proportion of orders executed as percentage of total in that class N/A	4 (from 80 to 1999 trades per day) Percentage of passive orders N/A	Percentage of aggressive orders N/A	Percentage of directed orde
op Five Broker Report ype of Client: Professional Client teporting Entity: GSIB Class of Instrument lotification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order) N/A N/A	Equities - Shares & Depositary Reco N/A Proportion of volume traded as a percentage of total in that class N/A N/A	Proportion of orders executed as percentage of total in that class N/A N/A	4 (from 80 to 1999 trades per day) Percentage of passive orders N/A N/A	Percentage of aggressive orders N/A N/A	Percentage of directed order N/A N/A



## Equities Shares & Depositary Receipts

Type of Client: Professional Client Reporting Entity: GSIB					
Class of Instrument	Equities - Shares & Depositary Rece	eipts - Tick size liquidity bands 5 and (	6 (from 2000 trades per day)		
Notification if <1 average trade per business day in the previous year	N/A				
op five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument	Equities - Shares & Depositary Rece	eipts - Tick size liquidity bands 5 and (	6 (from 2000 trades per day)		
Reporting Entity: GSIB	Equities - Shares & Depositary Rece N/A	eipts - Tick size liquidity bands 5 and (	6 (from 2000 trades per day)		
Reporting Entity: GSIB Class of Instrument		eipts - Tick size liquidity bands 5 and ( Proportion of orders executed as percentage of total in that class	6 (from 2000 trades per day) Percentage of passive orders	Percentage of aggressive orders	Percentage of directed order
Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	N/A Proportion of volume traded as a	Proportion of orders executed as	-	Percentage of aggressive orders	Percentage of directed order
eporting Entity: GSIB lass of Instrument lotification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order)	N/A Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders		
eporting Entity: GSIB lass of Instrument lotification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order) N/A	N/A Proportion of volume traded as a percentage of total in that class N/A	Proportion of orders executed as percentage of total in that class N/A	Percentage of passive orders N/A	N/A	N/A
eporting Entity: GSIB lass of Instrument lotification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order) N/A N/A	N/A         Proportion of volume traded as a percentage of total in that class         N/A         N/A	Proportion of orders executed as percentage of total in that class N/A N/A	Percentage of passive orders N/A N/A	N/A N/A	N/A N/A







#### Debt instruments: (i) Bonds

Top Five Venue Report					
Type of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Debt instruments: (i) Bonds				
Notification if <1 average trade per business day in the previous year	N				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
TREU - TRADEWEB EUROPE LIMITED	42.10	54.94	N/A	N/A	N/A
N9FYJ29MC81JI74MJE92 - GOLDMAN SACHS INTERNATIONAL BANK	26.28	4.92	N/A	N/A	N/A
BMTF - BLOOMBERG TRADING FACILITY LIMITED	18.21	28.62	N/A	N/A	N/A
TRWB - TRADEWEB LLC	9.25	5.28	N/A	N/A	N/A
					_
SSOB - BONDVISION EUROPE MTF	2.79	5.31	N/A	N/A	N/A
Top Five Broker Report Type of Client: Professional Client	2.79	5.31	N/A	N/A	N/A
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB		5.31	N/A	N/A	N/A
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument	Debt instruments: (i) Bonds	5.31	N/A	N/A	N/A
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB		5.31 Proportion of orders executed as percentage of total in that class	N/A Percentage of passive orders	N/A Percentage of aggressive orders	N/A Percentage of directed orders
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	Debt instruments: (i) Bonds N/A Proportion of volume traded as a	Proportion of orders executed as			
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Debt instruments: (i) Bonds N/A Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order) N/A	Debt instruments: (i) Bonds N/A Proportion of volume traded as a percentage of total in that class N/A	Proportion of orders executed as percentage of total in that class N/A	Percentage of passive orders	Percentage of aggressive orders N/A	Percentage of directed orders N/A
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order) N/A N/A	Debt instruments: (i) Bonds N/A Proportion of volume traded as a percentage of total in that class N/A N/A	Proportion of orders executed as percentage of total in that class N/A N/A	Percentage of passive orders N/A N/A	Percentage of aggressive orders N/A N/A	Percentage of directed orders N/A N/A

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 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 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 determine we do owe a best execution obligation and subject to any specific instructions, GS will generally give the highest priority to net price. The remaining execution factors, to the extent relevant, are 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;

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

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 is determined, as applicable, by whether execution on such venues allows us to satisfy our best execution obligations or as necessary to interact with clients and is not influenced by any such ownership or revenue share arrangements.

For further details on the execution venues used by GSIB and its conflicts of interest policy, please refer to the Securities Division'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 publically 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.

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 revised our execution venues list for this asset class to remove those execution venues that are not used for the execution of client orders. Please note GS may use selected brokers venues, OTFs, SEFs, and other platforms as part of its hedging and price discovery process.

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 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.

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. As part of its overall best execution monitoring framework and on-going assessment of execution venues utilised, GS may also take account of information published under RTS 27 by those execution venues (if applicable) alongside data sources used as part of its systematic best execution monitoring arrangements.

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.

N/A





#### Debt instruments: (ii) Money markets instruments

Reporting Entity: GSIB					
Top Five Venue Report					
Type of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Debt instruments: (ii) Money marke	ets instruments			
Notification if <1 average trade per business day in the previous year	N Droportion of volume traded on a	Drepartian of orders even tod as	Deveoutogo of possive orders	Demonstrate of extremely and are	Devecutors of divested and are
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N9FYJ29MC81JI74MJE92 - GOLDMAN SACHS INTERNATIONAL BANK	40.92	9.31	N/A	N/A	N/A
BMTF - BLOOMBERG TRADING FACILITY LIMITED	31.19	41.47	N/A	N/A	N/A
TREU - TRADEWEB EUROPE LIMITED	18.20	40.00	N/A	N/A	N/A
SSOB - BONDVISION EUROPE MTF	4.63	7.25	N/A	N/A	N/A
TRWB - TRADEWEB LLC	3.09	1.57	N/A	N/A	N/A
TRWB - TRADEWEB LLC Top Five Broker Report Type of Client: Professional Client	3.09	1.57	N/A	N/A	N/A
TRWB - TRADEWEB LLC Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB			N/A	N/A	N/A
TRWB - TRADEWEB LLC Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument	3.09 Debt instruments: (ii) Money marke		N/A	N/A	N/A
TRWB - TRADEWEB LLC Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB	Debt instruments: (ii) Money marke		N/A Percentage of passive orders	N/A Percentage of aggressive orders	N/A Percentage of directed orders
TRWB - TRADEWEB LLC Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	Debt instruments: (ii) Money market N/A Proportion of volume traded as a	ets instruments Proportion of orders executed as			
TRWB - TRADEWEB LLC Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Debt instruments: (ii) Money marke N/A Proportion of volume traded as a percentage of total in that class	ets instruments Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
TRWB - TRADEWEB LLC Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order) N/A	Debt instruments: (ii) Money market N/A Proportion of volume traded as a percentage of total in that class N/A	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders N/A	Percentage of directed orders N/A
TRWB - TRADEWEB LLC Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order) N/A N/A	Debt instruments: (ii) Money market N/A Proportion of volume traded as a percentage of total in that class N/A N/A	Proportion of orders executed as percentage of total in that class N/A N/A	Percentage of passive orders N/A N/A	Percentage of aggressive orders N/A N/A	Percentage of directed orders N/A N/A

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 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 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 determine we do owe a best execution obligation and subject to any specific instructions, GS will generally give the highest priority to net price. The remaining execution factors, to the extent relevant, are 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;

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

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 is determined, as applicable, by whether execution on such venues allows us to satisfy our best execution obligations or as necessary to interact with clients and is not influenced by any such ownership or revenue share arrangements.

For further details on the execution venues used by GSIB and its conflicts of interest policy, please refer to the Securities Division'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 publically 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.

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 revised our execution venues list for this asset class to remove those execution venues that are not used for the execution of client orders. Please note GS may use selected brokers venues, OTFs, SEFs, and other platforms as part of its hedging and price discovery process.

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 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.

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. As part of its overall best execution monitoring framework and on-going assessment of execution venues utilised, GS may also take account of information published under RTS 27 by those execution venues (if applicable) alongside data sources used as part of its systematic best execution monitoring arrangements.

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.

N/A





# Interest rates derivatives: (i) Futures and options admitted to trading on a trading venue

ype of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Interest rates derivatives: (i) Euture	es and options admitted to trading or	a trading venue		
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed order
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Type of Client: Professional Client					
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument		es and options admitted to trading or	n a trading venue		
Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	N/A				
Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument		es and options admitted to trading or Proportion of orders executed as percentage of total in that class	n a trading venue Percentage of passive orders	Percentage of aggressive orders	Percentage of directed order
Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	N/A Proportion of volume traded as a	Proportion of orders executed as		Percentage of aggressive orders N/A	Percentage of directed order
Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	N/A Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders		
Type of Client: Professional Client         Reporting Entity: GSIB         Class of Instrument         Notification if <1 average trade per business day in the previous year	N/A         Proportion of volume traded as a percentage of total in that class         N/A	Proportion of orders executed as percentage of total in that class N/A	Percentage of passive orders N/A	N/A	N/A
Type of Client: Professional Client         Reporting Entity: GSIB         Class of Instrument         Notification if <1 average trade per business day in the previous year	N/A         Proportion of volume traded as a percentage of total in that class         N/A         N/A	Proportion of orders executed as percentage of total in that class N/A N/A	Percentage of passive orders N/A N/A	N/A N/A	N/A N/A







### Interest rates derivatives: (ii) Swaps, forwards, and other interest rates derivatives

Reporting Entity: GSIB					
Top Five Venue Report					
Type of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Interest rates derivatives: (ii) Swaps	s, forwards, and other Interest rate d	erivatives		
Notification if <1 average trade per business day in the previous year	N				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N9FYJ29MC81JI74MJE92 - GOLDMAN SACHS INTERNATIONAL BANK	100.00	100.00	N/A	N/A	N/A
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB					
Class of Instrument	Interest rates derivatives: (ii) Swaps	s, forwards, and other Interest rate d	erivatives		
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A

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 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 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 determine we do owe a best execution obligation and subject to any specific instructions, GS will generally give the highest priority to net price. The remaining execution factors, to the extent relevant, are 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;

Not applicable, as Goldman Sachs International Bank is the only execution venue for this class of financial instrument.

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, as Goldman Sachs International Bank is the only execution venue for this class of financial instrument.

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 revised our execution venues list for this asset class to remove those execution venues that are not used for the execution of client orders. Please note GS may use selected brokers venues, OTFs, SEFs, and other platforms as part of its hedging and price discovery process.

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 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.

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. As part of its overall best execution monitoring framework and on-going assessment of execution venues utilised, GS may also take account of information published under RTS 27 by those execution venues (if applicable) alongside data sources used as part of its systematic best execution monitoring arrangements.

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.

N/A





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

<b>Reporting Entity: GSIB</b> Top Five Venue Report Type of Client: Professional Client Reporting Entity: GSIB					
Class of Instrument	Credit derivatives (i) Futures and op	ptions admitted to trading on a tradi	ng venue		
Notification if <1 average trade per business day in the previous year	N/A		-		
Fop five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB					
Class of Instrument		ptions admitted to trading on a tradi	ng venue		
Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	N/A Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A







# Credit derivatives: (ii) Other credit derivatives

Reporting Entity: GSIB					
op Five Venue Report					
ype of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Credit derivatives: (ii) Other credit	derivatives			
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Fop Five Broker Report Fype of Client: Professional Client Reporting Entity: GSIB					
Class of Instrument	Credit derivatives: (ii) Other credit	derivatives			
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
			N/A	N/A	N/A
N/A	N/A	N/A	N/A		







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

op Five Venue Report					
ype of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Currency derivatives: (i) Futures and	d options admitted to trading on a tr	ading venue		
Notification if <1 average trade per business day in the previous year	N/A		0		
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed order
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB					
Class of Instrument	Currency derivatives: (i) Futures and	d options admitted to trading on a tr	ading venue		
Notification if <1 average trade per business day in the previous year	N/A				
nouncation in st average trade per business day in the previous year					
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed order
	Proportion of volume traded as a		Percentage of passive orders N/A	Percentage of aggressive orders N/A	Percentage of directed order
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	percentage of total in that class			
op five execution venues ranked in terms of trading volumes (descending order) N/A	Proportion of volume traded as a percentage of total in that class	percentage of total in that class N/A	N/A	N/A	N/A
op five execution venues ranked in terms of trading volumes (descending order) N/A N/A	Proportion of volume traded as a percentage of total in that class N/A N/A	percentage of total in that class N/A N/A	N/A N/A	N/A N/A	N/A N/A







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

op Five Venue Report					
pe of Client: Professional Client					
eporting Entity: GSIB					
lass of Instrument		wards, and other currency derivativ	es		
lotification if <1 average trade per business day in the previous year	N/A				
op five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	21/2	N1/A	ni / n
		IN/A	N/A	N/A	N/A
op Five Broker Report ype of Client: Professional Client		IN/A	N/A	N/A	N/A
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB				N/A	N/A
op Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument		rwards, and other currency derivativ		N/A	N/A
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB	Currency derivatives: (ii) Swaps, fo			Percentage of aggressive orders	Percentage of directed orders
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB lass of Instrument otification if <1 average trade per business day in the previous year	Currency derivatives: (ii) Swaps, fo N/A Proportion of volume traded as a	rwards, and other currency derivativ Proportion of orders executed as	es		
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB ass of Instrument otification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order)	Currency derivatives: (ii) Swaps, fo N/A Proportion of volume traded as a percentage of total in that class	rwards, and other currency derivativ Proportion of orders executed as percentage of total in that class	es Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB ass of Instrument otification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order) N/A	Currency derivatives: (ii) Swaps, fo N/A Proportion of volume traded as a percentage of total in that class N/A	rwards, and other currency derivativ Proportion of orders executed as percentage of total in that class N/A	es Percentage of passive orders N/A	Percentage of aggressive orders N/A	Percentage of directed orders
pp Five Broker Report ype of Client: Professional Client eporting Entity: GSIB ass of Instrument otification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order) N/A N/A	Currency derivatives: (ii) Swaps, fo N/A Proportion of volume traded as a percentage of total in that class N/A N/A	rwards, and other currency derivativ Proportion of orders executed as percentage of total in that class N/A N/A	es Percentage of passive orders N/A N/A N/A	Percentage of aggressive orders N/A N/A N/A	Percentage of directed orders N/A N/A







### Structured finance instruments

Top Five Venue Report					
ype of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Structured finance instruments				
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Гор Five Broker Report Гуре of Client: Professional Client Reporting Entity: GSIB					
Class of Instrument	Structured finance instruments				
Class of Instrument	Structured finance instruments N/A				
		Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Class of Instrument Notification if <1 average trade per business day in the previous year	N/A Proportion of volume traded as a		Percentage of passive orders N/A	Percentage of aggressive orders N/A	Percentage of directed orders
Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	N/A Proportion of volume traded as a percentage of total in that class	percentage of total in that class			
Class of Instrument Notification if <1 average trade per business day in the previous year Fop five execution venues ranked in terms of trading volumes (descending order) N/A	N/A Proportion of volume traded as a percentage of total in that class N/A	percentage of total in that class N/A	N/A	N/A	N/A
Class of Instrument Notification if <1 average trade per business day in the previous year Fop five execution venues ranked in terms of trading volumes (descending order) N/A N/A	N/A         Proportion of volume traded as a percentage of total in that class         N/A         N/A	percentage of total in that class N/A N/A	N/A N/A	N/A N/A	N/A N/A







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

Reporting Entity: GSIB Top Five Venue Report Type of Client: Professional Client Reporting Entity: GSIB						
Class of Instrument	Equity Derivatives: (i) Options and	Futures admitted to trading on a trad	ding venue			
Notification if <1 average trade per business day in the previous year	N/A					
Γοp five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
Fop Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument		Futures admitted to trading on a trad	ding venue			
Notification if <1 average trade per business day in the previous year Fop five execution venues ranked in terms of trading volumes (descending order)	N/A Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A						







# Equity Derivatives: (ii) Swaps and other equity derivatives

Reporting Entity: GSIB Top Five Venue Report					
Type of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Equity Derivatives: (ii) Swaps and o	ther equity derivatives			
Notification if <1 average trade per business day in the previous year	N/A				
Γοp five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
	NI / A	NI / A	NI/A	N/A	NI/A
N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	IN/A	N/A	N/A
Гор Five Broker Report	N/A	N/A		IN/A	N/A
Гор Five Broker Report Гуре of Client: Professional Client	N/A	N/A			N/A
Fop Five Broker Report Fype of Client: Professional Client	N/A	N/A	IN/A	IN/A	N/A
Fop Five Broker Report Fype of Client: Professional Client Reporting Entity: GSIB				IN/A	N/A
Гор Five Broker Report Гуре of Client: Professional Client Reporting Entity: GSIB Class of Instrument	Equity Derivatives: (ii) Swaps and o				N/A
Fop Five Broker Report Fype of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	Equity Derivatives: (ii) Swaps and o	ther equity derivatives			
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB class of Instrument lotification if <1 average trade per business day in the previous year	Equity Derivatives: (ii) Swaps and o		Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB class of Instrument lotification if <1 average trade per business day in the previous year	Equity Derivatives: (ii) Swaps and o N/A Proportion of volume traded as a	ther equity derivatives Proportion of orders executed as			
Top Five Broker Report         Type of Client: Professional Client         Steporting Entity: GSIB         Class of Instrument         Iotification if <1 average trade per business day in the previous year	Equity Derivatives: (ii) Swaps and o N/A Proportion of volume traded as a percentage of total in that class	ther equity derivatives Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Top Five Broker Report         Type of Client: Professional Client         Stass of Client: Professional Client         Stass of Instrument         Indification if <1 average trade per business day in the previous year	Equity Derivatives: (ii) Swaps and o N/A Proportion of volume traded as a percentage of total in that class N/A	ther equity derivatives Proportion of orders executed as percentage of total in that class N/A	Percentage of passive orders N/A	Percentage of aggressive orders N/A	Percentage of directed orders
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB class of Instrument lotification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order) N/A N/A	Equity Derivatives: (ii) Swaps and o N/A Proportion of volume traded as a percentage of total in that class N/A N/A	ther equity derivatives Proportion of orders executed as percentage of total in that class N/A N/A N/A	Percentage of passive orders N/A N/A	Percentage of aggressive orders N/A N/A N/A	Percentage of directed orders N/A N/A







# Securitized Derivatives: (i) Warrants and Certificate Derivatives

Top Five Venue Report					
ype of Client: Professional Client					
eporting Entity: GSIB					
Class of Instrument	Securitized Derivatives: (i) Warrant	s and Certificate Derivatives			
Notification if <1 average trade per business day in the previous year	N/A				
Γοp five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	NI / A	
N/A	N/A		N/A	N/A	N/A
op Five Broker Report Type of Client: Professional Client	N/A		N/A	N/A	N/A
Гор Five Broker Report Гуре of Client: Professional Client Reporting Entity: GSIB			N/A	N/A	N/A
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument	Securitized Derivatives: (i) Warrant		N/A	N/A	N/A
op Five Broker Report ype of Client: Professional Client Reporting Entity: GSIB			Percentage of passive orders	Percentage of aggressive orders	
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	Securitized Derivatives: (i) Warrant N/A Proportion of volume traded as a	s and Certificate Derivatives Proportion of orders executed as			
op Five Broker Report ype of Client: Professional Client eporting Entity: GSIB class of Instrument lotification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order)	Securitized Derivatives: (i) Warrant N/A Proportion of volume traded as a percentage of total in that class	s and Certificate Derivatives Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Top Five Broker Report         Type of Client: Professional Client         Reporting Entity: GSIB         Class of Instrument         N/A	Securitized Derivatives: (i) Warrant N/A Proportion of volume traded as a percentage of total in that class N/A	s and Certificate Derivatives Proportion of orders executed as percentage of total in that class N/A	Percentage of passive orders N/A	Percentage of aggressive orders N/A	Percentage of directed orders
op Five Broker Report         ype of Client: Professional Client         reporting Entity: GSIB         class of Instrument         lotification if <1 average trade per business day in the previous year	Securitized Derivatives: (i) Warrant N/A Proportion of volume traded as a percentage of total in that class N/A N/A	s and Certificate Derivatives  Proportion of orders executed as percentage of total in that class  N/A  N/A  N/A	Percentage of passive orders N/A N/A	Percentage of aggressive orders N/A N/A	Percentage of directed orders N/A N/A







# Securitized Derivatives: (ii) Other securitized derivatives

Top Five Venue Report					
/pe of Client: Professional Client					
eporting Entity: GSIB					
Class of Instrument	Securitized Derivatives: (ii) Other se	ecuritized derivatives			
Notification if <1 average trade per business day in the previous year	N/A				
op five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
	N/A	N/A	N/A	N/A	N/A
N/A Fop Five Broker Report Type of Client: Professional Client	N/A	N/A	N/A	N/A	N/A
Fop Five Broker Report Fype of Client: Professional Client	N/A	N/A	N/A	N/A	N/A
Fop Five Broker Report Fype of Client: Professional Client Reporting Entity: GSIB			N/A	N/A	N/A
Гор Five Broker Report Гуре of Client: Professional Client Reporting Entity: GSIB Class of Instrument	Securitized Derivatives: (ii) Other securitized		N/A	N/A	N/A
op Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB			N/A Percentage of passive orders	N/A Percentage of aggressive orders	
Top Five Broker Report         Type of Client: Professional Client         Reporting Entity: GSIB         Class of Instrument         Notification if <1 average trade per business day in the previous year	Securitized Derivatives: (ii) Other se N/A Proportion of volume traded as a	ecuritized derivatives Proportion of orders executed as			
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Securitized Derivatives: (ii) Other so N/A Proportion of volume traded as a percentage of total in that class	ecuritized derivatives Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed order
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order) N/A	Securitized Derivatives: (ii) Other set N/A Proportion of volume traded as a percentage of total in that class N/A	ecuritized derivatives Proportion of orders executed as percentage of total in that class N/A	Percentage of passive orders N/A	Percentage of aggressive orders N/A	Percentage of directed order
op Five Broker Report         ype of Client: Professional Client         reporting Entity: GSIB         Class of Instrument         Iotification if <1 average trade per business day in the previous year	Securitized Derivatives: (ii) Other so N/A Proportion of volume traded as a percentage of total in that class N/A N/A	ecuritized derivatives  Proportion of orders executed as percentage of total in that class  N/A  N/A  N/A	Percentage of passive orders N/A N/A	Percentage of aggressive orders N/A N/A N/A	Percentage of directed order N/A N/A







Commodities derivatives and emission allowances Derivatives: (i) Options and Futures admitted to trading on a trading venue

Top Five Venue Report					
ype of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument Notification if <1 average trade per business day in the previous year	N/A	ion allowances Derivatives: (i) Optio	ins and Futures admitted to trading (	on a trading venue	
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed order
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Top Five Broker Report					
Гор Five Broker Report Гуре of Client: Professional Client					
Γορ Five Broker Report Γγpe of Client: Professional Client Reporting Entity: GSIB		ion allowances Derivatives: (i) Optio	ns and Futures admitted to trading o	on a trading venue	
		ion allowances Derivatives: (i) Optio	ns and Futures admitted to trading o	on a trading venue	
Гор Five Broker Report Гуре of Client: Professional Client Reporting Entity: GSIB Class of Instrument	Commodities derivatives and emiss	ion allowances Derivatives: (i) Optio Proportion of orders executed as percentage of total in that class	ns and Futures admitted to trading of passive orders	on a trading venue Percentage of aggressive orders	Percentage of directed order
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	Commodities derivatives and emiss N/A Proportion of volume traded as a	Proportion of orders executed as			
Top Five Broker Report         Type of Client: Professional Client         Reporting Entity: GSIB         Class of Instrument         Notification if <1 average trade per business day in the previous year	Commodities derivatives and emiss N/A Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orde
Top Five Broker Report         Type of Client: Professional Client         Reporting Entity: GSIB         Class of Instrument         Notification if <1 average trade per business day in the previous year	Commodities derivatives and emiss N/A Proportion of volume traded as a percentage of total in that class N/A	Proportion of orders executed as percentage of total in that class N/A	Percentage of passive orders N/A	Percentage of aggressive orders N/A	Percentage of directed orde
Top Five Broker Report         Type of Client: Professional Client         Reporting Entity: GSIB         Class of Instrument         Notification if <1 average trade per business day in the previous year	Commodities derivatives and emiss N/A Proportion of volume traded as a percentage of total in that class N/A N/A	Proportion of orders executed as percentage of total in that class N/A N/A	Percentage of passive orders N/A N/A	Percentage of aggressive orders         N/A         N/A	Percentage of directed order N/A N/A







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

Reporting Entity: GSIB					
Top Five Venue Report					
Type of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Commodities derivatives and emiss	ion allowances Derivatives: (ii) Other	r commodities derivatives and emiss	ion allowances derivatives	
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB					
Class of Instrument	Commodities derivatives and emiss	ion allowances Derivatives: (ii) Other	r commodities derivatives and emiss	ion allowances derivatives	
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A







### **Contracts for difference**

Reporting Entity: GSIB Top Five Venue Report						
in the second seco						
ype of Client: Professional Client						
Reporting Entity: GSIB						
Class of Instrument	Contracts for difference					
Notification if <1 average trade per business day in the previous year						
op five execution venues ranked in terms of trading volumes (descending order)		Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	
Type of Client: Professional Client Reporting Entity: GSIB		·	·			
Reporting Entity: GSI Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument	Contracts for difference					
Type of Client: Professional Client Reporting Entity: GSIB	N/A Proportion of volume traded as a	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders	
Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	N/A Proportion of volume traded as a		Percentage of passive orders N/A	Percentage of aggressive orders	Percentage of directed orders	
ype of Client: Professional Client Reporting Entity: GSIB Class of Instrument Iotification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order)	N/A Proportion of volume traded as a percentage of total in that class	percentage of total in that class				
ype of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order) N/A	N/A Proportion of volume traded as a percentage of total in that class N/A	percentage of total in that class N/A	N/A	N/A	N/A	
ype of Client: Professional Client eporting Entity: GSIB class of Instrument lotification if <1 average trade per business day in the previous year op five execution venues ranked in terms of trading volumes (descending order) N/A N/A	N/A         Proportion of volume traded as a percentage of total in that class         N/A         N/A	percentage of total in that class N/A N/A	N/A N/A	N/A N/A	N/A	







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

Penerting Entity CCIP					
Reporting Entity: GSIB Top Five Venue Report					
Type of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument		e traded funds, exchange traded note	es and exchange traded commodities	5)	
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB					
Class of Instrument	Exchange traded products (Exchange	ge traded funds, exchange traded not	tes and exchange traded commoditie	rs)*	
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A					







### **Emission Allowances**

op Five Venue Report					
pe of Client: Professional Client					
eporting Entity: GSIB					
Class of Instrument	Emission Allowances				
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed order
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Reporting Entity: GSI					
Reporting Entity: GSIB	Emission Allowances				
Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	Emission Allowances				
Reporting Entity: GSIB	Emission Allowances N/A Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed order
Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	N/A Proportion of volume traded as a	-	Percentage of passive orders N/A	Percentage of aggressive orders N/A	Percentage of directed order
Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	N/A Proportion of volume traded as a percentage of total in that class	percentage of total in that class			
Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order) N/A	N/A Proportion of volume traded as a percentage of total in that class N/A	percentage of total in that class N/A	N/A	N/A	N/A
Reporting Entity: GSIB         Class of Instrument         Iotification if <1 average trade per business day in the previous year	N/A         Proportion of volume traded as a percentage of total in that class         N/A         N/A	percentage of total in that class N/A N/A	N/A N/A	N/A N/A	N/A N/A

N/A – Emission Allowances will be addressed under the MiFID II Commodities Derivatives and Emission Allowances Derivatives report







### Other instruments

Reporting Entity: GSIB Top Five Venue Report					
ype of Client: Professional Client					
Reporting Entity: GSIB					
Class of Instrument	Other instruments				
Notification if <1 average trade per business day in the previous year	N/A				
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
Type of Client: Professional Client					
Type of Client: Professional Client Reporting Entity: GSIB	Other instruments				
Top Five Broker Report Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	Other instruments N/A				
Type of Client: Professional Client Reporting Entity: GSIB	Other instruments N/A Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year	N/A Proportion of volume traded as a		Percentage of passive orders N/A	Percentage of aggressive orders	Percentage of directed orders
Type of Client: Professional Client Reporting Entity: GSIB Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	N/A Proportion of volume traded as a percentage of total in that class	percentage of total in that class			
Type of Client: Professional Client         Reporting Entity: GSIB         Class of Instrument         Notification if <1 average trade per business day in the previous year	N/A Proportion of volume traded as a percentage of total in that class N/A	percentage of total in that class N/A	N/A	N/A	N/A
Type of Client: Professional Client         Reporting Entity: GSIB         Class of Instrument         Notification if <1 average trade per business day in the previous year	N/A         Proportion of volume traded as a percentage of total in that class         N/A         N/A	percentage of total in that class N/A N/A	N/A N/A	N/A N/A	N/A

N/A - There are no instruments that fall into this category in 2018





