



Best Execution Quality Reporting 2021

Deutsche Bank (Suisse) S.A.

Disclosure document related to the Commission Delegated Regulation (EU) 2017/576 of 8 June 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council with regard to regulatory technical standards for the annual publication by investment firms of information on the identity of execution venues and on the quality of execution.

Commentary to accompany the RTS 28 Top 5 Venue Report for DB Suisse

Reporting Period: 01st Jan 2021 to 31st Dec 2021

In accordance with EU Commission Delegated Regulation 2017/576 of 8 June 2016 (“Regulatory Technical Standard (RTS) 28”) supplementing MiFID (Directive 2014/65/EU), this document provides information on the top 5 venues / brokers (in terms of trading volumes) used by DB Suisse in calendar year 2021, to execute client orders. We also provide below information pertaining to the quality of execution obtained, as asked under Article 3(3) of RTS 28.

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R0576&from=EN>

As required under Article 3(3) of MiFID RTS 28	Instrument applicability	Commentary (as applicable to DB Suisse)
<p><i>a) an explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when making assessments of the quality of execution;</i></p>	<p>All</p>	<p>The execution factors and their relative importance are described in our Order Execution Policy. This can found here: https://deutschewealth.com/content/deutsche-wealth/en/articles/regulatory_information.html</p>
<p><i>(b) a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;</i></p>	<p><i>Equities - Shares and Depositary Receipts</i></p>	<p>There are no close links, conflicts of interests, and common ownerships with respect to any external execution venue / broker used to execute orders. Some orders may be executed using DB AG (group parent entity) as the broker / counterparty, pursuant to application of Best Execution principles. For certain products DB Suisse will offer the opportunity to DB affiliates to match the best price received through the request for quote process for the relevant product, and if so enable DB Suisse to offer the DB affiliate product. Whilst aware of potential conflicts of interest in using affiliates to execute your transactions, DB Suisse will seek to mitigate such conflicts through our monitoring and review programme when deploying this process.</p> <p>Execution is carried out solely against DB AG which is the group parent entity. Controls are in place to ensure that best results are obtained for the client on a consistent basis.</p> <p>All orders are routed to the exchange via either the DB AG (group parent entity) platform or via Bloomberg EMSX. Best Execution monitoring controls are in place to ensure that orders are routed to exchange accurately and promptly.</p>
	<p><i>Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)</i></p>	
	<p><i>Debt Instruments</i></p>	
	<p><i>Structured Finance instruments</i></p>	
	<p><i>Other Instruments</i></p>	
	<p><i>Currency Derivatives - Futures and options admitted to trading on a trading venue</i></p>	
	<p><i>Currency Derivatives - Swaps, forwards and other currency derivatives</i></p>	
	<p><i>Interest Rates Derivatives - Swaps, forwards and other interest rates derivatives</i></p>	
	<p><i>Equity Derivatives - Swaps, forwards and other equity derivatives</i></p>	
	<p><i>Interest Rates Derivatives - Futures and options admitted to trading on a trading venue</i></p>	
<p><i>Commodity Derivatives - Futures and options admitted to trading on a trading venue</i></p>		
<p><i>Equity Derivatives - Futures and options admitted to trading on a trading venue</i></p>		

As required under Article 3(3) of MiFID RTS 28	Instrument applicability	Commentary (as applicable to DB Suisse)
	<i>Securitized Derivatives - Warrants and Certificate Derivatives</i>	Any potential conflict of interest arising from fee payments is mentioned clearly to the client in the term sheet
(c) a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;	<i>All (other than Securitized Derivatives)</i>	There are no specific arrangements with any external execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.
	<i>Securitized Derivatives</i>	Structuring fees are paid by the issuer via invoice.
(d) an explanation of the factors that led to a change in the list of execution venues listed in the firm's execution policy, if such a change occurred;	All	No change in the list of execution venues occurred during the year.
(e) an explanation of how order execution differs according to client categorisation, where the firm treats such category of client differently and where it may affect the order execution arrangements;	All	For Best Execution principles, refer to Section 2.1.1 & 2.1.2 of the Order Execution Policy. This can be found here: https://deutschewealth.com/content/deutsche-wealth/en/articles/regulatory_information.html
(f) an explanation of when other criteria were given precedence over immediate price and cost when executing retail client orders and how these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client;	All	For Best Execution principles, refer to Section 2.1.1 & 2.1.2 of the Order Execution Policy. This can be found here: https://deutschewealth.com/content/deutsche-wealth/en/articles/regulatory_information.html
g) an explanation of how the investment firm has used any data or tools relating to the quality of execution including any data published under 27(10) (a) of Directive 2014/65/EU.	<i>All (other than Securitized Derivatives)</i>	We have used other independent benchmarking tools to assess our execution prices against the average prevailing prices in the market. Such a benchmarking exercise helped us to assess the quality of execution by our brokers / counterparties and enabled us to optimize selection of the same to improve execution results.
	<i>Securitized Derivatives</i>	Benchmarking was not used for structured products. However, quality of execution was ensured by obtaining, on average, pricing from three different counterparties for each trade.
h) an explanation of how the investment firm has used, if applicable, output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU which will allow for the development of enhanced measures of execution quality or any other algorithms used to optimize and assess execution performances.	All	Output of consolidated tape providers as per Article 65 of Directive 2014/65/EU was only available from 31 st July 2021. However this has not been utilized for the 2021 reporting year.

The following tables provide information on the top five execution venues / executing brokers (by proportion of volume traded as a % of total volume) used by DB Suisse in calendar year 2021 for executing orders from clients in various classes of Financial Instruments. A machine readable version of these tables (CSV format) has also been made available separately.

https://deutschewealth.com/content/deutschewealth/en/articles/regulatory_information.html

The terms "Execution Venue" and "Executing Broker" as used in the tables below imply "Execution" and "Transmission" of orders respectively.

For Retail Clients

Execution Venue	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
SIX SIS AG	549300A3XI3YWROC2J57	100.00%	100.00%	2.47%	2.80%	0.00%

Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	25.26%	24.93%	-	-	0.00%
Sanford C. Bernstein Limited	54930049G8WQ5OOUSD19	21.72%	1.44%	-	-	100.00%
Steubing AG	39120043LUI1WJS8IX30	17.00%	34.42%	-	-	0.00%
INSTINET PACIFIC LIMITED	549300RI6VZUNIR81J81	10.58%	18.49%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	9.45%	7.58%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	3.96%	1.84%	-	-	0.00%

LEGAL UNIT	529900BXXKPMXQTR1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - 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					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	23.65%	6.58%	-	-	0.00%
Sanford C. Bernstein Limited	54930049G8WQ5OOUSD19	20.33%	0.38%	-	-	100.00%
Steubing AG	39120043LUI1WJS8IX30	15.92%	9.09%	-	-	0.00%
INSTINET PACIFIC LIMITED	549300RI6VZUNIR81J81	9.91%	4.88%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	8.85%	2.00%	-	-	0.00%
LEGAL UNIT	529900BXXKPMXQTR1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Execution Venue	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
SIX SIS AG	549300A3XI3YWROC2J57	100.00%	100.00%	6.57%	7.44%	0.00%
LEGAL UNIT	529900BXXKPMXQTR1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
Sanford C. Bernstein Limited	54930049G8WQ5OOUSD19	37.05%	3.12%	-	-	100.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	21.43%	23.56%	-	-	0.00%
Steubing AG	39120043LUI1WJS8IX30	16.55%	44.11%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	8.58%	6.17%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	3.78%	2.02%	-	-	0.00%

LEGAL UNIT	529900BXXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
Sanford C. Bernstein Limited	54930049G8WQ50OUSD19	34.54%	1.13%	-	-	100.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	19.98%	8.56%	-	-	0.00%
Steubing AG	39120043LUI1WJS8IX30	15.43%	16.03%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	8.00%	2.24%	-	-	0.00%
SIX SIS AG	549300A3X13YWROC2J57	6.79%	63.67%	6.57%	7.44%	0.00%
LEGAL UNIT	529900BXXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - 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					
Client Type	Retail					
Execution Venue	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
SIX SIS AG	549300A3X13YWROC2J57	100.00%	100.00%	0.16%	0.18%	0.00%
LEGAL UNIT	529900BXXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - 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					
Client Type	Retail					
Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	34.37%	20.91%	-	-	0.00%
Steubing AG	39120043LUI1WJS8IX30	20.63%	50.66%	-	-	0.00%
Sanford C. Bernstein Limited	54930049G8WQ50OUSD19	18.87%	1.72%	-	-	100.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	8.50%	1.09%	-	-	0.00%
Merrill Lynch International	GGDZP1UYGU9STUHRDP48	7.37%	8.92%	-	-	0.00%

LEGAL UNIT	529900BXKPMXQTR1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - 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					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	34.30%	20.47%	-	-	0.00%
Steubing AG	39120043LUI1WJS8IX30	20.59%	49.59%	-	-	0.00%
Sanford C. Bernstein Limited	54930049G8WQ500USD19	18.84%	1.68%	-	-	100.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	8.48%	1.07%	-	-	0.00%
Merrill Lynch International	GGDZP1UYGU9STUHRDP48	7.36%	8.74%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTR1V05					
CLASS OF INSTRUMENT	(B) Debt Instruments - Bonds					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
Citigroup Global Markets Limited	XKZZ2JZF41MRHTR1V493	6.81%	5.49%	-	-	0.00%
Morgan Stanley & Co. International PLC	4PQUHN3JPFQFNF3BB653	6.04%	7.68%	-	-	0.00%
Jane Street Financial Limited	549300ZHEHX8M31RP142	5.61%	6.42%	-	-	0.00%
Jefferies International Limited	S5THZMDUJCTQBTRV198	5.22%	4.20%	-	-	0.00%
UBS AG	BFM8T61CT2L1QCEMIK50	5.22%	7.83%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTR1V05					
CLASS OF INSTRUMENT	(B) Debt Instruments - Money Market Instruments					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
BARCLAYS CAPITAL SECURITIES LIMITED	K9WDOH4D2PYBSLSOB484	18.88%	10.14%	-	-	0.00%
Citigroup Global Markets Limited	XKZZ2JZF41MRHTR1V493	13.82%	23.19%	-	-	0.00%
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTWFZYICNSX8D621K86	10.42%	5.07%	-	-	0.00%
The Toronto-Dominion Bank	PT3QB789TSUIDF371261	9.97%	7.97%	-	-	0.00%
J.P. Morgan Securities PLC	K6Q0W1PS1L104IQL9C32	8.13%	13.04%	-	-	0.00%

LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(C) Interest Rate Derivatives - Futures and options admitted to trading on a trading venue					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y					
Client Type	Retail					
Execution Venue / Executing Broker	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWFZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(C) Interest Rate Derivatives - Swaps, forwards and other interest rate derivatives					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y					
Client Type	Retail					
Execution Venue / Executing Broker	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWFZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(D) Currency Derivatives - Futures and options admitted to trading on a trading venue					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE	7LTFWFZYICNSX8D621K86	37.12%	24.99%	-	-	0.00%
JPMC	7H6GLXDRUGQFU57RNE97	13.19%	15.94%	-	-	0.00%
UBS	BFM8T61CT2L1QCCEMIK50	7.10%	9.41%	-	-	0.00%
STANC	RILFO74KP1CM8P6PCT96	6.06%	5.14%	-	-	0.00%
RBS	21380078CCZSEIKA41	5.13%	6.25%	-	-	0.00%

LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(D) Currency Derivatives - Swaps, forwards and other currency derivatives					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
JPMC	7H6GLXDRUGQFU57RNE97	22.08%	21.06%	-	-	0.00%
DEUTSCHE	7LTFWZYICNSX8D621K86	17.44%	18.73%	-	-	0.00%
UBS	BFM8T61CT2L1QCCEMIK50	9.43%	9.82%	-	-	0.00%
RBS	21380078CCZSEIKA41	7.90%	6.62%	-	-	0.00%
CITI	XKZZ2JZF41MRHTR1V493	7.08%	5.23%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(E) Structured Finance Instruments					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	69.13%	89.41%	-	-	0.00%
Standard Chartered Bank	RILFO74KP1CM8P6PCT96	28.93%	2.54%	-	-	0.00%
Jefferies International Limited	S5THZMDUJCTQZBTRVI98	0.46%	2.12%	-	-	0.00%
Citigroup Global Markets Limited	XKZZ2JZF41MRHTR1V493	0.44%	1.27%	-	-	0.00%
Credit Suisse Securities (Europe) Limited	DL6FFRRL74S01HE2M14	0.41%	1.69%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(F) Equity Derivatives - Futures and options admitted to trading on a trading venue					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Execution Venue / Executing Broker	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%

LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(F) Equity Derivatives - Swaps and other equity derivatives					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y					
Client Type	Retail					
Execution Venue / Executing Broker	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(G) Securitised Derivatives - Warrants and Certificate Derivatives					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	21.46%	12.64%	-	-	0.00%
HSBC BANK PLC	MP6I5ZYZBEU3UXPYFY54	16.80%	7.90%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	15.23%	2.59%	-	-	0.00%
BNP PARIBAS	R0MUWSFPU8MPRO8K5P83	13.99%	11.58%	-	-	0.00%
BARCLAYS CAPITAL SECURITIES LIMITED	K9WDOH4D2PYBSLSOB484	10.38%	20.49%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(H) Commodities Derivatives - Futures and options admitted to trading on a trading venue					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(I) Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Execution Venue	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
SIX SIS AG	549300A3XI3YWROC2J57	100.00%	100.00%	21.05%	23.86%	0.00%

LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(I) Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
Jane Street Financial Limited	549300ZHEHX8M31RP142	28.17%	13.43%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	24.91%	64.46%	-	-	0.00%
ABN AMRO CLEARING BANK N.V.	G8ZTNESVNKW4NN761W05	19.95%	8.28%	-	-	0.00%
Sanford C. Bernstein Limited	54930049G8WQ5OOUSD19	9.85%	1.37%	-	-	100.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	5.25%	1.63%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(I) Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
Jane Street Financial Limited	549300ZHEHX8M31RP142	22.90%	7.83%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	20.25%	37.58%	-	-	0.00%
SIX SIS AG	549300A3X13YWROC2J57	18.71%	41.70%	21.05%	23.86%	0.00%
ABN AMRO CLEARING BANK N.V.	G8ZTNESVNKW4NN761W05	16.22%	4.83%	-	-	0.00%
Sanford C. Bernstein Limited	54930049G8WQ5OOUSD19	8.01%	0.80%	-	-	100.00%
LEGAL UNIT	529900BXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(J) Other instruments					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Retail					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LWTFZYICNSX8D621K86	67.80%	94.06%	-	-	0.00%
UBS AG	BFM8T61CT2L1QCEMIK50	30.85%	3.69%	-	-	0.00%
SIX SIS AG	549300A3X13YWROC2J57	0.66%	1.32%	0.10%	0.12%	0.00%
BARCLAYS CAPITAL SECURITIES LIMITED	K9WDOH4D2PYBSLSOB484	0.25%	0.21%	-	-	0.00%
Jane Street Financial Limited	549300ZHEHX8M31RP142	0.19%	0.04%	-	-	0.00%

For Professional Clients:

LEGAL UNIT	529900BKKPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - 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					
Client Type	Professional					
Execution Venue	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
SIX SIS AG	549300A3X13YWROC2J57	100.00%	100.00%	1.01%	1.15%	0.00%
LEGAL UNIT	529900BKKPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - 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					
Client Type	Professional					
Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	26.93%	22.11%	-	-	0.00%
INSTINET PACIFIC LIMITED	549300RI6VZUNIR81J81	16.75%	20.68%	-	-	0.00%
Steubing AG	39120043LUI1WJS8IX30	16.50%	38.26%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	14.97%	1.31%	-	-	4.55%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	8.11%	7.51%	-	-	0.00%
LEGAL UNIT	529900BKKPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - 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					
Client Type	Professional					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	25.00%	12.91%	-	-	0.00%
INSTINET PACIFIC LIMITED	549300RI6VZUNIR81J81	15.55%	12.08%	-	-	0.00%
Steubing AG	39120043LUI1WJS8IX30	15.32%	22.35%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	13.90%	0.77%	-	-	4.55%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	7.53%	4.39%	-	-	0.00%

LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Professional					
Execution Venue	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
SIX SIS AG	549300A3XI3YWROC2J57	100.00%	100.00%	2.95%	3.34%	0.00%
LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Professional					
Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
Steubing AG	39120043LUI1WJS8IX30	24.20%	51.89%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	23.09%	19.50%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47TOY26Q87YOQP81	16.79%	5.04%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	16.29%	1.17%	-	-	0.00%
INSTINET PACIFIC LIMITED	549300RI6VZUNIR81J81	5.84%	5.21%	-	-	0.00%
LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Professional					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
Steubing AG	39120043LUI1WJS8IX30	21.27%	26.78%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	20.29%	10.07%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47TOY26Q87YOQP81	14.76%	2.60%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	14.32%	0.60%	-	-	0.00%
SIX SIS AG	549300A3XI3YWROC2J57	12.12%	48.38%	2.95%	3.34%	0.00%

LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - 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					
Client Type	Professional					
Execution Venue	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
SIX SIS AG	549300A3XI3YWROC2J57	100.00%	100.00%	0.04%	0.04%	0.00%
LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - 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					
Client Type	Professional					
Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	27.47%	19.28%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	20.62%	0.81%	-	-	0.00%
Merrill Lynch International	GGDZP1UYGU9STUHRDP48	20.19%	8.89%	-	-	0.00%
Steubing AG	39120043LUI1WJS8IX30	20.16%	53.78%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	3.89%	2.00%	-	-	0.00%
LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(A) Equities - Shares and Depository Receipts - 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					
Client Type	Professional					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	27.45%	19.11%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	20.60%	0.81%	-	-	0.00%
Merrill Lynch International	GGDZP1UYGU9STUHRDP48	20.17%	8.81%	-	-	0.00%
Steubing AG	39120043LUI1WJS8IX30	20.14%	53.29%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	3.88%	1.98%	-	-	0.00%

LEGAL UNIT	529900BXXPMXQTR1V05					
CLASS OF INSTRUMENT	(B) Debt Instruments - Bonds					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Professional					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
Citigroup Global Markets Limited	XKZZ2JZF41MRHTR1V493	8.62%	5.60%	-	-	0.00%
BNP PARIBAS	ROMUWSFPU8MPRO8K5P83	8.20%	4.87%	-	-	0.00%
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTWFZYICNSX8D621K86	8.14%	3.79%	-	-	0.00%
UBS AG	BFM8T61CT2L1QCCEMIK50	7.87%	9.05%	-	-	0.00%
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	5.63%	7.18%	-	-	0.00%
LEGAL UNIT	529900BXXPMXQTR1V05					
CLASS OF INSTRUMENT	(B) Debt Instruments - Money Market Instruments					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y					
Client Type	Professional					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
BNP PARIBAS	ROMUWSFPU8MPRO8K5P83	41.51%	33.33%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNB6K528	22.64%	16.67%	-	-	0.00%
Citigroup Global Markets Limited	XKZZ2JZF41MRHTR1V493	18.87%	16.67%	-	-	0.00%
MIZUHO INTERNATIONAL PLC	213800HZ54TG54H2KV03	13.21%	16.67%	-	-	0.00%
LEGAL UNIT	529900BXXPMXQTR1V05					
CLASS OF INSTRUMENT	(C) Interest Rate Derivatives - Futures and options admitted to trading on a trading venue					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y					
Client Type	Professional					
Execution Venue / Executing Broker	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTWFZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%

LEGAL UNIT	529900BXXKPMXQTRE1V05						
CLASS OF INSTRUMENT	(C) Interest Rate Derivatives - Swaps, forwards and other interest rate derivatives						
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y						
Client Type	Professional						
Execution Venue / Executing Broker	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders	
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%	
LEGAL UNIT	529900BXXKPMXQTRE1V05						
CLASS OF INSTRUMENT	(E) Structured Finance Instruments						
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y						
Client Type	Professional						
Execution Venue / Executing Broker	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders	
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	83.68%	60.00%	-	-	0.00%	
HSBC BANK PLC	MP615ZYBZBEU3UXPYFY54	9.47%	16.00%	-	-	0.00%	
RBC Europe Limited	TXDSU46SXBWIGJ8G8E98	5.44%	4.00%	-	-	0.00%	
BARCLAYS CAPITAL SECURITIES LIMITED	K9WDOH4D2PYBSLSOB484	1.25%	4.00%	-	-	0.00%	
Morgan Stanley & Co. International PLC	4PQUHN3JPF6FNF3BB653	0.12%	12.00%	-	-	0.00%	
LEGAL UNIT	529900BXXKPMXQTRE1V05						
CLASS OF INSTRUMENT	(F) Equity Derivatives - Futures and options admitted to trading on a trading venue						
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y						
Client Type	Professional						
Execution Venue / Executing Broker	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders	
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%	

LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(F) Equity Derivatives - Swaps and other equity derivatives					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y					
Client Type	Professional					
Execution Venue / Executing Broker	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%
LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(G) Securitised Derivatives - Warrants and Certificate Derivatives					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	Y					
Client Type	Professional					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	58.15%	12.36%	-	-	0.00%
HSBC BANK PLC	MP615ZYBUEU3UXPYFY54	20.50%	1.10%	-	-	0.00%
Steubing AG	39120043LUI1WJS8IX30	3.43%	47.53%	-	-	0.00%
UBS Switzerland AG	549300WOIFUSNYH0FL22	3.16%	3.30%	-	-	8.33%
ICBC Standard Bank PLC	F01VVKN4DRF2NWKQGQ283	2.39%	1.10%	-	-	0.00%
LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(I) Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Professional					
Execution Venue	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
SIX SIS AG	549300A3XI3YWROC2J57	100.00%	100.00%	8.03%	9.10%	0.00%

LEGAL UNIT	529900BXXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(I) Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Professional					
Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
Jane Street Financial Limited	549300ZHEHX8M31RP142	35.36%	6.94%	-	-	0.00%
ABN AMRO CLEARING BANK N.V.	G8ZTNESVNKW4NN761W05	24.47%	4.63%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	20.61%	79.17%	-	-	0.00%
CANACCORD GENUITY LIMITED	ZBU7V5NIMN4ILRFC23	5.95%	0.67%	-	-	0.00%
Société Générale SA	O2RNE8IBXP4R0TD8PU41	3.75%	1.41%	-	-	0.00%
LEGAL UNIT	529900BXXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(I) Exchange traded products (Exchange traded funds, exchange traded notes and exchange traded commodities)					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Professional					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
Jane Street Financial Limited	549300ZHEHX8M31RP142	31.37%	5.48%	-	-	0.00%
ABN AMRO CLEARING BANK N.V.	G8ZTNESVNKW4NN761W05	21.71%	3.65%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	18.28%	62.53%	-	-	0.00%
SIX SIS AG	549300A3XI3YWROC2J57	11.29%	21.03%	8.03%	9.10%	0.00%
CANACCORD GENUITY LIMITED	ZBU7V5NIMN4ILRFC23	5.28%	0.53%	-	-	0.00%
LEGAL UNIT	529900BXXKPMXQTRE1V05					
CLASS OF INSTRUMENT	(J) Other instruments					
NOTIFICATION IF < 1 AVERAGE TRADE PER BUSINESS DAY IN THE PREVIOUS YEAR	N					
Client Type	Professional					
Execution Venue / Executing Broker (ranked by Volume in descending order)	LEI	Proportion of Volume traded as a % of total	Proportion of Trades executed as a % of total	Percentage of Passive orders	Percentage of Aggressive orders	Percentage of Directed orders
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTWFZYICNSX8D621K86	72.38%	71.53%	-	-	0.00%
SIX SIS AG	549300A3XI3YWROC2J57	14.33%	18.00%	0.65%	0.73%	0.00%
Clearstream banking S.A.	549300OL514RA0SXJJ44	4.24%	0.24%	-	-	0.00%
Commerzbank Aktiengesellschaft	851WYGNLUQLFZBSYGB56	3.96%	0.24%	-	-	0.00%
RBC Europe Limited	TXDSU46SXBWIGJ8G8E98	3.91%	0.24%	-	-	0.00%