

Best Execution Quality Reporting 2023

Deutsche Bank (Suisse) S.A.

("DB Suisse" hereafter)

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 2023 to 31st Dec 2023

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 2023, 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/deutschewealth/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 program when deploying this process.</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>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><i>Equity Derivatives - Swaps, forwards, and other equity derivatives</i></p>		

As required under Article 3(3) of MiFID RTS 28	Instrument applicability	Commentary (as applicable to DB Suisse)
	<i>Interest Rates Derivatives - Futures and options admitted to trading on a trading venue</i> <i>Commodity Derivatives - Futures and options admitted to trading on a trading venue</i> <i>Equity Derivatives - Futures and options admitted to trading on a trading venue</i> <i>Securitized Derivatives - Warrants and Certificate Derivatives</i>	<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>Any potential conflict of interest arising from fee payments is mentioned clearly to the client in the term sheet</p>
(c) a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;	All (other than Securitized Derivatives)	There are no specific arrangements with any external execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.
	Securitized Derivatives	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 categorization, 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/deutschewealth/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/deutschewealth/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.	All (other than Securitized Derivatives)	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.

As required under Article 3(3) of MiFID RTS 28	Instrument applicability	Commentary (as applicable to DB Suisse)
	<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.
<i>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.</i>	All	Output of consolidated tape providers as per Article 65 of Directive 2014/65/EU has not been utilized for the 2023 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 2023 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

LEGAL UNIT	529900BXXPMXQTR1V05					
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	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%	0.76%	0.71%	0.00%
LEGAL UNIT	529900BXXPMXQTR1V05					
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					
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
INSTINET PACIFIC LIMITED	549300RI6VZUNIR81J81	26.28%	36.69%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	19.69%	19.02%	-	-	0.00%
UBS Switzerland AG	549300WOIFUSNYH0FL22	10.63%	6.30%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	9.43%	3.41%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	9.42%	8.35%	-	-	0.00%



LEGAL UNIT	529900BXKPMXQTR1V05					
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					
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
INSTINET PACIFIC LIMITED	549300RI6VZUNIR81J81	26.28%	36.69%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	19.69%	19.02%	-	-	0.00%
UBS Switzerland AG	549300WOIFUSNYH0FL22	10.63%	6.30%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	9.43%	3.41%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	9.42%	8.35%	-	-	0.00%
LEGAL UNIT	529900BXKPMXQTR1V05					
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%	8.36%	7.86%	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					
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	16.91%	20.93%	-	-	0.10%
BERNSTEIN AUTONOMOUS LLP	213800LBM6PT85IGM996	16.43%	0.64%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	13.49%	15.60%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	11.28%	3.75%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	11.04%	15.93%	-	-	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
SIX SIS AG	549300A3X13YWROC2J57	18.33%	78.87%	8.36%	7.86%	0.10%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	13.81%	4.42%	-	-	0.00%
BERNSTEIN AUTONOMOUS LLP	213800LBM6PT85IGM996	13.42%	0.14%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	11.02%	3.30%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	9.22%	0.79%	-	-	0.00%



LEGAL UNIT	529900BXXPMXQTR1V05					
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 Y						
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%	0.11%	0.10%	0.00%
LEGAL UNIT	529900BXXPMXQTR1V05					
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	22.02%	24.48%	-	-	0.20%
UBS Switzerland AG	549300W0IFUSNYH0FL22	15.93%	6.12%	-	-	0.00%
Merrill Lynch International	GGDZP1UYGU9STUHRDP48	12.93%	13.39%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	9.94%	3.92%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	9.32%	15.06%	-	-	0.00%



LEGAL UNIT	529900BXXPMXQTR1V05					
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	22.02%	24.48%	-	-	0.20%
UBS Switzerland AG	549300WOIFUSNYH0FL22	15.93%	6.12%	-	-	0.00%
Merrill Lynch International	GGDZP1UYGU9STUHRDP48	12.93%	13.39%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	9.94%	3.92%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	9.32%	15.06%	-	-	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	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
J.P. Morgan Securities PLC	K6Q0W1PS1L1O4IQL9C32	7.37%	6.32%	-	-	0.00%
BARCLAYS CAPITAL SECURITIES LIMITED	K9WDOH4D2PYBSLSOB484	7.35%	3.39%	-	-	0.00%
DEUTSCHE BANK AKTIENGESELLSCHAFT	7LTFWZYICNSX8D621K86	7.00%	6.80%	-	-	0.00%
Citigroup Global Markets Limited	XKZZ2JZF41MRHTR1V493	6.94%	3.87%	-	-	0.00%
WELLS FARGO BANK NATIONAL ASSOCIATION	KB1H1DSPRFMYMCFXT09	6.62%	1.85%	-	-	0.00%



LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(B) Debt Instruments - Money Market 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	7LTWFZYICNSX8D621K86	17.66%	22.61%	-	-	0.00%
Nomura International PLC	DGQCSV2PHVF712743539	13.31%	9.55%	-	-	0.00%
Citigroup Global Markets Limited	XKZZ2JZF41MRHTR1V493	11.03%	4.96%	-	-	0.00%
WELLS FARGO BANK NATIONAL ASSOCIATION	KB1H1DSPRFMYMCUFXT09	9.39%	21.28%	-	-	0.00%
Morgan Stanley & Co. International PLC	4PQUHN3JPFGFNF3BB653	8.01%	4.59%	-	-	0.00%

LEGAL UNIT	529900BXXPMXQTRE1V05					
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	7LTWFZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%

LEGAL UNIT	529900BXXPMXQTRE1V05					
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	7LTWFZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%



LEGAL UNIT	529900BXXKPMXQTR1V05					
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	7LTWFZYICNSX8D621K86	27.16%	30.19%	-	-	0.00%
JPMC	7H6GLXDRUGQFU57RNE97	17.89%	16.80%	-	-	0.00%
CITI	XKZZ2JZF41MRHTR1V493	11.27%	4.17%	-	-	0.00%
HSBC	MP6I5ZYZBEU3UXPYFY54	9.80%	17.38%	-	-	0.00%
SOGN	O2RNE8IBXP4R0TD8PU41	7.60%	6.60%	-	-	0.00%

LEGAL UNIT	529900BXXKPMXQTR1V05					
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	7LTWFZYICNSX8D621K86	27.16%	30.19%	-	-	0.00%
JPMC	7H6GLXDRUGQFU57RNE97	17.89%	16.80%	-	-	0.00%
CITI	XKZZ2JZF41MRHTR1V493	11.27%	4.17%	-	-	0.00%
HSBC	MP6I5ZYZBEU3UXPYFY54	9.80%	17.38%	-	-	0.00%
SOGN	O2RNE8IBXP4R0TD8PU41	7.60%	6.60%	-	-	0.00%



LEGAL UNIT	529900BXXPMXQTRE1V05					
CLASS OF INSTRUMENT	(E) Structured Finance 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	7LTWFZYICNSX8D621K86	99.61%	98.06%	-	-	0.00%
US BANK NATIONAL ASSOCIATION	6BYL5QZYBDK8S7L73M02	0.17%	0.24%	-	-	0.00%
Morgan Stanley & Co. International PLC	4PQUHN3JPFGFNF3BB653	0.12%	0.24%	-	-	0.00%
UBS AG	BFM8T61CT2L1QCCEMIK50	0.06%	0.73%	-	-	0.00%
BRIDPORT & CIE SA	213800VGFKO4K5JUUI20	0.02%	0.48%	-	-	0.00%
LEGAL UNIT	529900BXXPMXQTRE1V05					
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	7LTWFZYICNSX8D621K86	100.00%	100.00%	-	-	0.33%



LEGAL UNIT	529900BXXKPMXQTR1V05					
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	7LWTFZYICNSX8D621K86	100.00%	100.00%	-	-	0.00%
LEGAL UNIT	529900BXXKPMXQTR1V05					
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	7LWTFZYICNSX8D621K86	46.45%	21.49%	-	-	0.00%
BNP PARIBAS	6EWKU0FGVX5QQJHFGT48	8.43%	10.46%	-	-	0.00%
	R0MUWSFPU8MPRO8K5P83	0.38%	0.71%	-	-	0.00%
BARCLAYS CAPITAL SECURITIES LIMITED	K9WDOH4D2PYBSLSOB484	8.63%	13.17%	-	-	0.00%
Société Générale SA	O2RNE8IBXP4R0TD8PU41	5.17%	4.41%	-	-	0.00%
Morgan Stanley & Co. International PLC	4PQUHN3JPFQFNF3BB653	5.15%	5.05%	-	-	0.00%
LEGAL UNIT	529900BXXKPMXQTR1V05					
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	7LWTFZYICNSX8D621K86	100.00%	100.00%	-	-	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	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%	22.65%	21.29%	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	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
ABN AMRO CLEARING BANK N.V.	G8ZTNESV NKW4NN761W05	24.78%	12.59%	-	-	0.00%
Berner Kantonalbank AG	4T0J6O251JXNEB0VEZ08	0.13%	0.06%	-	-	0.00%
BERNSTEIN AUTONOMOUS LLP	213800LBM6PT85IGM996	1.81%	0.13%	-	-	0.00%
BRIDPORT & CIE SA	213800VGFKO4K5IJUI20	0.07%	0.06%	-	-	0.00%
CANACCORD GENUITY LIMITED	ZBU7V5NIMN4ILRFC23	4.25%	3.09%	-	-	0.00%



LEGAL UNIT	529900BXXPMXQTR1V05					
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
ABN AMRO CLEARING BANK N.V.	G8ZTNESVNKW4NN761W05	22.05%	5.99%	-	-	0.00%
Berner Kantonalbank AG	4T0J6O251JXNEB0VEZ08	20.27%	64.16%	-	-	0.00%
BERNSTEIN AUTONOMOUS LLP	213800LBM6PT85IGM996	19.33%	19.19%	-	-	0.00%
BRIDPORT & CIE SA	213800VGFKO4K5IJUI20	18.24%	4.05%	-	-	0.00%
CANACCORD GENUITY LIMITED	ZBU7V5V5NIMN4ILRFC23	5.23%	0.85%	-	-	0.00%
LEGAL UNIT	529900BXXPMXQTR1V05					
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	7LTWFZYICNSX8D621K86	47.64%	92.28%	-	-	0.00%
UBS AG	BFM8T61CT2L1QCEMIK50	46.73%	5.66%	-	-	0.00%
Citigroup Global Markets Limited	XKZZ2JZF41MRHTR1V493	2.73%	0.13%	-	-	0.00%
BARCLAYS CAPITAL SECURITIES LIMITED	K9WDOH4D2PYBSLSOB484	0.88%	0.45%	-	-	0.00%
RBC Europe Limited	TXDSU46SXBWIGJ8G8E98	0.56%	0.19%	-	-	0.00%

For Professional Clients:



LEGAL UNIT	529900BXKPMXQTRE1V05					
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	Y					
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%	0.35%	0.33%	0.00%
LEGAL UNIT	529900BXKPMXQTRE1V05					
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
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	35.36%	12.12%	-	-	0.00%
INSTINET PACIFIC LIMITED	549300RI6VZUNIR81J81	16.71%	24.52%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	11.50%	7.93%	-	-	0.00%
UBS Switzerland AG	549300WOIFUSNYH0FL22	8.68%	5.20%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	7.62%	20.78%	-	-	0.00%



LEGAL UNIT	529900BXKPMXQTR1V05					
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
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	35.36%	12.12%	-	-	0.00%
INSTINET PACIFIC LIMITED	549300RI6VZUNIR81J81	16.71%	24.52%	-	-	0.00%
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	11.50%	7.93%	-	-	0.00%
UBS Switzerland AG	549300WOIFUSNYH0FL22	8.68%	5.20%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	7.62%	20.78%	-	-	0.00%



LEGAL UNIT	529900BXKPMXQTR1V05					
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%	6.28%	5.90%	0.00%
LEGAL UNIT	529900BXKPMXQTR1V05					
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
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	55.01%	15.88%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	15.63%	23.78%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	10.61%	3.09%	-	-	0.00%
UBS Switzerland AG	549300WOIFUSNYH0FL22	6.65%	4.56%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	4.05%	15.36%	-	-	0.00%



LEGAL UNIT	529900BXKPMXQTRE1V05
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
Merrill Lynch, Pierce, Fenner & Smith Incorporated	8NAV47T0Y26Q87Y0QP81	49.98%	6.31%	-	-	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	14.20%	9.45%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	9.64%	1.23%	-	-	0.00%
SIX SIS AG	549300A3XI3YWROC2J57	9.14%	60.25%	6.28%	5.90%	0.00%
UBS Switzerland AG	549300WOIFUSNYH0FL22	6.04%	1.81%	-	-	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	Y					
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%	0.10%	0.09%	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	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	18.78%	23.91%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	17.88%	1.64%	-	-	0.00%
Merrill Lynch International	GGDZP1UYGU9STUHRDP48	15.75%	15.12%	-	-	0.00%
UBS Switzerland AG	549300WOIFUSNYH0FL22	12.75%	9.06%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	9.62%	15.97%	-	-	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	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	18.72%	23.57%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	17.82%	1.62%	-	-	0.00%
Merrill Lynch International	GGDZP1UYGU9STUHRDP48	15.70%	14.90%	-	-	0.00%
UBS Switzerland AG	549300WOIFUSNYH0FL22	12.71%	8.93%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	9.59%	15.75%	-	-	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	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	9.87%	7.41%	-	-	0.00%
Merrill Lynch International	GGDZP1UYGU9STUHRDP48	8.57%	6.22%	-	-	0.00%
BNP PARIBAS	R0MUWSFPU8MPRO8K5P83	7.47%	7.15%	-	-	0.00%
Morgan Stanley & Co. International PLC	4PQUHN3JPFGFNF3BB653	6.90%	8.08%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	6.06%	3.99%	-	-	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	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	25.66%	21.89%	-	-	0.00%
Nomura International PLC	DGQCSV2PHVF7I2743539	14.14%	10.65%	-	-	0.00%
RBC Europe Limited	TXDSU46SXBWIGJ8G8E98	10.11%	6.51%	-	-	0.00%
Morgan Stanley & Co. International PLC	4PQUHN3JPFGFNF3BB653	8.35%	2.37%	-	-	0.00%
WELLS FARGO BANK NATIONAL ASSOCIATION	KB1H1DSPRFMYMCUFXT09	6.45%	14.79%	-	-	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	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	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	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	529900BXKPMXQTRE1V05					
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	7LTWFZYICNSX8D621K86	100.00%	100.00%	-	-	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	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	529900BXKPMXQTR1V05
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	529900BXKPMXQTR1V05
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	70.74%	19.77%	-	-	0.00%
BNP PARIBAS	6EWKU0FGVX5QJHFGT48	7.22%	6.84%	-	-	0.00%
	R0MUWSFPU8MPRO8K5P83	0.46%	1.14%	-	-	0.00%
Goldman Sachs International	N9FYJ29MC81J174MJE92	2.54%	1.14%	-	-	8.33%
	W22LROWP2IHZNBB6K528	3.27%	2.28%	-	-	0.00%
BARCLAYS CAPITAL SECURITIES LIMITED	K9WDOH4D2PYBSLSOB484	3.64%	2.66%	-	-	0.00%
Bank Vontobel AG	549300L7V4MGECYRM576	2.32%	5.32%	-	-	0.00%



LEGAL UNIT	529900BXKPMXQTR1V05
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%	9.76%	9.17%	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	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
ABN AMRO CLEARING BANK N.V.	G8ZTNESVKNW4NN761W05	36.42%	8.12%	-	-	0.00%
CANACCORD GENUITY LIMITED	ZBU7VVFV5NIMN4ILRFC23	2.22%	0.91%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	3.28%	0.25%	-	-	0.00%
Citigroup Global Markets Limited	XKZZ2JZF41MRHTR1V493	0.13%	0.10%	-	-	0.00%
Goldman Sachs International	W22LROWP2IHZNBB6K528	1.63%	1.02%	-	-	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	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	35.71%	10.87%	-	-	0.00%
ABN AMRO CLEARING BANK N.V.	G8ZTNESVKNW4NN761W05	31.70%	5.90%	-	-	0.00%
SIX SIS AG	549300A3XI3YWROC2J57	12.97%	27.41%	9.76%	9.17%	0.00%
VIRTU FINANCIAL IRELAND LIMITED	549300XG5LFGN1IGYC71	9.06%	45.36%	-	-	0.00%
CANTOR FITZGERALD EUROPE	549300KM6VUHPKQLQX53	2.86%	0.18%	-	-	0.00%



LEGAL UNIT	529900BXKPMXQTR1V05
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	7LTFWZYICNSX8D621K86	73.74%	50.82%	-	-	0.00%
RBC Europe Limited	TXDSU46SXBWIGJ8G8E98	4.59%	3.28%	-	-	0.00%
Jane Street Financial Limited	549300ZHEHX8M31RP142	4.40%	1.64%	-	-	0.00%
UBS Switzerland AG	549300WOIFUSNYH0FL22	3.86%	3.28%	-	-	0.00%
BARCLAYS CAPITAL SECURITIES LIMITED	K9WDOH4D2PYBSLSOB484	2.83%	1.64%	-	-	0.00%