

# Explanatory Note for Clients re RTS28 Providing Quantitative and Qualitative Assessment of Quality of Execution of Orders for Retail and Professional Clients for year ended 31 December 2019

Effective **Q2 2020**

## Qualitative Assessment

### A. Introduction

#### Order Execution – Regulatory Technical Standards 28 (“RTS 28”)

Directive 2014/65/EU in financial instruments (MIFID II) requires investment firms who execute client orders to summarise and make public on an annual basis, for each class of financial instruments the top five execution venues used in terms of trading volumes where there were executed client orders in the preceding year and information on the quality of execution obtained.

The purpose of this requirement is to provide all clients with increased transparency on how firms execute client orders in relation to venues selected on an annual basis.

Cantor Fitzgerald Ireland (“Cantor”) has carried out an analysis of our trading for the period January 1 to December 31 2019 and has listed key information concerning our top five execution venues used during this period. Cantor has also published a statement of information on the quality of execution obtained during this same period.

Cantor has an obligation under Article 3(3) of RTS 28 to provide a qualitative summary of the analysis and conclusions drawn from our detailed monitoring of the quality of execution obtained on the execution venues we use and third party brokers where we executed client orders in the previous year.

The purpose of the report is to allow Retail and Professional clients to ascertain the likely effectiveness of the execution of orders placed with us based on where and how we execute those orders.

### B. Relative importance given to price, costs, speed, likelihood of execution or other considerations used by Cantor when assessing the quality of execution.

The importance of the various execution factors will vary based on the circumstances of the order. Cantor strives to obtain the Best Possible Result (‘BPR’) for all clients when executing orders. This will include ensuring the client receives the best possible price taking account all relevant factors including price, cost, speed and likelihood of execution.

#### 1. Equities

Cantor executes Irish and UK equities mainly by execution directly to Exchanges in Europe but would note that to a limited extent they also transmit orders to other brokers for central European and rest of world equity orders. Central European and rest of world orders are transmitted to brokers in line with our policy to ensure best execution result for clients based on price, cost, speed and likelihood of execution.

The Irish Stock Exchange and the London Stock Exchange are therefore our primary execution venues as we contend that for our clients direct market access where possible represents the best overall choice for clients based on price, cost, speed and likelihood of execution.

#### 2. Debt Securities

Cantor is a market maker and systematic internaliser (SI) in various Irish sovereign instruments and our Debt Capital markets trading desk is deemed an execution venue for all debt instrument orders.

Our Debt Capital Markets (“DCM”) division is a market maker and therefore makes prices when requested for Professional and Retail Clients. This decision affords all clients a liquid

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tradeable price, as opposed to the often wider bid/offer spread that would be offered to a non-institutional client. As there is no predominant centralised exchange or venue for the transaction of bonds but a range of differing platforms, clients' interests are best served by our operation as an execution venue in terms of cost, speed of execution and best price achieved.

The Firm could therefore list Cantor as the sole execution venue but instead chooses to provide some visibility as to the platforms including, our own institutional bond desk, MTF's, OTF's, SIs and other liquidity providers.

As a consequence of MIFID certain clients requested a change to their client classification and in this regard the classification used for the purpose of analysis reflects their final designation classification.

SI information is not available for market participants at the time of publication and it is intended to provide this information when available in the future.

### 3. CFD's and Spread Betting Contracts,

Cantor provides two platforms for execution of CFD and Spreadbetting orders but notes that Cantor clients predominantly use the IG Markets platform. As most clients grant us authority to execute orders on their behalf, we deem IG Markets as our primary execution venue. The quality of the IG Markets platform in terms of IT delivery, execution, cost and overall service, for what is a complex product, is the basis for our selection as our preferred execution venue.

### 4. Exchange Traded Products

Cantor executes Irish, UK and EU exchange traded products mainly by execution directly to Exchanges in Europe and via 'Request for Quote' within Bloomberg MTF, but would note that to some extent they transmit orders to other brokers for central European, U.S. and rest of world exchange traded product orders.

Central European and rest of world orders are transmitted to brokers in line with our policy to ensure best execution result for clients based on price, cost, speed and likelihood of execution.

### 5. Money Market Instruments

Cantor Fitzgerald Ireland offers a full service in Money Market instruments engaging in requests from their customers purely on an execution only basis. The products involved are predominantly Cash Deposits and Repos in the Interbank Market.

No execution services provided by Cantor in Money Markets will give rise to any fiduciary, equitable or contractual duties which would prevent or hinder the Cantor Group from providing similar services to other clients or otherwise acting on behalf of other clients for its accounts.

### **C. Relevant close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders.**

As noted our Debt Capital Markets division is a market maker and therefore makes prices when requested for Professional and Retail Clients. On this basis we may sell clients bonds we already hold or may purchase bonds from clients for the purpose of selling such bonds in the market at a profit. While this affords the client in our view the best possible execution on a consistent basis we review the efficiency of the venue and quality of pricing on a periodic basis and by transaction as appropriate.

Cantor may leverage the execution capabilities of certain affiliates within the Cantor Group. These affiliates include BGC Partners for the execution of debt security trades, Cantor

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Fitzgerald Europe for the execution of equity trades and Cantor Fitzgerald & Co (U.S.).

The Cantor Group comprises a full service securities group, engaging in a wide range of activities for their own accounts and the accounts of customers, including corporate finance, mergers and acquisitions, merchant banking, equity and fixed income sales, trading and research, derivatives, foreign exchange, futures, asset management, custody, clearance and securities lending.

No execution services provided by the Cantor Group to Cantor Fitzgerald Ireland will give rise to any fiduciary, equitable or contractual duties (including without limitation any duty of confidence or care) which would prevent or hinder the Cantor Group from providing similar services to other clients, or otherwise acting on behalf of other clients or for its account. The Cantor Group, excluding Cantor Fitzgerald Ireland, is not required to account to clients of Cantor Fitzgerald Ireland for any payment, remuneration, profit or benefit it obtains as a result of acting in the ways referred to in this paragraph or as a result of entering into any transaction with or for Cantor Fitzgerald Ireland or providing any services to Cantor Fitzgerald Ireland.

The execution of orders by the Cantor Group (excluding Cantor Fitzgerald Ireland) does not create a fiduciary relationship between the Cantor Group, other than Cantor Fitzgerald Ireland, and any client. Nothing in this explanatory note shall deem the Cantor Group as the agent of Cantor Fitzgerald Ireland nor create any partnership or fiduciary relationship between them in regard of any client of Cantor Fitzgerald Ireland.

As noted our preference for U.S. equity orders is to transmit orders mostly to Cantor Fitzgerald & Co. Any affiliate may transact such orders onto their own book for the purpose of making a profit, disposing of a holding or purchasing a holding for the purpose of making a profit

### **D. Any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or nonmonetary benefits received**

Cantor does not have any arrangements with execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received.

IG Markets pay Cantor a rebate in regard of commission, fees and charges applied to Professional CFD and spreadbetting clients.

Cantor Fitzgerald Ireland is recognised as a Primary Dealer. In this regard where clients provide Cantor with orders for a Bond Auction Cantor may receive compensation in the form of a right to purchase additional bonds at the auction price for a number of days post the auction. Where Cantor accepts orders for a Bond Syndication Cantor may be paid a fee. The allocation of fills in regard of Syndicate orders received is covered by our Syndicate and Allocation Principles Policy Note published Jan 2018 and available upon request.

### **E. Any change in the list of execution venues listed in the firm's execution policy, if such a change occurred**

No change in the list of execution venues between 2017 and 2018

### **F. Order execution differences in regard of different client categorisations**

This requirement to disclose pertains to circumstances where the firm treats categories of clients differently and where such differences may affect order execution arrangements. We seek to obtain the best possible result for all clients, regardless of client categorisation.

**G. Other criteria 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**

Cantor always seeks BPR in regard of retail client orders but criteria other than price and cost may effect the delivery of BPR. These would include;

- 1) Settlement terms: where a client select a non-standard (>T+2) settlement date or where a client selects a non-standard settlement venue to deliver securities.
- 2) Where a client directs an order to a specific venue
- 3) Execution terms may vary based on the totality of the size of the order where an order falls below or outside what is normal for a particular venue.

**H. Has Cantor used any data or tools relating to the quality of execution, including any data published under Delegated Regulation (EU) 2017/575 [RTS 27]**

Cantor assesses on an ongoing basis, and not just in regard of RTS 27, the quality of execution obtained from the various execution venues and third party brokers that were used for execution. Cantor does use a third party provider to review relevant trade data to assist in determining that we have fully complied with our requirements in regard of best execution.

**I. Clarification as to if and how Cantor has used the output of a consolidated tape provider**

A consolidated tape provider means a person authorised under the Directive to provide the services of collecting trade reports for financial instruments from regulated markets, MTFs, OTFs and APA and consolidating them into a

continuous electronic live data stream providing price and volume per financial instrument.

At the time of finalising this statement no such providers existed and no relevant data has been published. Cantor will review its order execution policy when and if this service becomes available.

## Quantitative Assessment Year 2018

### Equities - Shares & Depository Receipts

<b>Table 1 - Top 5 Venues for Professional Clients</b>						
Class of Instrument	Equities					
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	
XLON	20.5%	34.6%	9.9%	90.1%	0%	
XOFF	62.6%	32.3%	9.9%	90.1%	0%	
XMSM	14.8%	21.1%	9.9%	90.1%	0%	
AIMX	1.3%	8.9%	9.9%	90.1%	0%	
XESM	0.8%	3.0%	9.9%	90.1%	0%	

\* Passive and aggressive split is estimated based on a sample of trades over the year

<b>Table 2 - Top 5 Venues for Retail Clients</b>						
Class of Instrument	Equities					
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	
XOFF	38.9%	32.6%	9.9%	90.1%	0%	
XLON	21.3%	29.6%	9.9%	90.1%	0%	
XMSM	31.4%	26.9%	9.9%	90.1%	0%	
AIMX	4.1%	7.0%	9.9%	90.1%	0%	
XESM	4.2%	4.0%	9.9%	90.1%	0%	

\* Passive and aggressive split is estimated based on a sample of trades over the year

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**Equities - Shares & Depository Receipts contd**

<b>Table 3 - Top 5 Brokers for Professional Clients (XLON/XDUB)</b>						
Class of Instrument	Equities					
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	
CENTRAL COUNTERPARTY MARKET 549300TXTCI7WVVJS380	6.0%	22.0%	9.9%	90.1%	0%	
WINTERFLOOD SECURITIES 8BRUP6V1DX3PIG2R0745	21.7%	13.9%	9.9%	90.1%	0%	
European Central Counterparty N.V. 724500937F740MHCX307	3.4%	12.3%	9.9%	90.1%	0%	
EUREX Clearing AG 529900LN3S50JPU47S06	1.6%	10.1%	9.9%	90.1%	0%	
SHORE CAPITAL STOCKBROKERS LTD 2138009KZO3MK7TV6372	0.4%	9.6%	9.9%	90.1%	0%	

\* Passive and aggressive split is estimated based on a sample of trades over the year

<b>Table 4 - Top 5 Brokers for Retail Clients (XLON/XDUB)</b>						
Class of Instrument	Equities					
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	
J+E DAVY 63540061DPCBNMCGRY22	52.3%	33.5%	9.9%	90.1%	0%	
WINTERFLOOD SECURITIES 8BRUP6V1DX3PIG2R0745	15.3%	21.0%	9.9%	90.1%	0%	
European Central Counterparty N.V. 724500937F740MHCX307	4.8%	16.0%	9.9%	90.1%	0%	
PEEL HUNT LLP 5493007DWN0R4YBM4C84	7.3%	10.2%	9.9%	90.1%	0%	
CENTRAL COUNTERPARTY MARKET 549300TXTCI7WVVJS380	2.4%	7.1%	9.9%	90.1%	0%	

\* Passive and aggressive split is estimated based on a sample of trades over the year

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Equities - Shares & Depository Receipts contd

<b>Table 5 - Top 5 Brokers for Professional Clients (XOFF)</b>						
Class of Instrument	Equities					
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	
VIRTU FINANCIAL IRELAND LTD 549300XG5LFGN1IGYC71	41.2%	67.3%	9.9%	90.1%	0%	
CANTOR FITZGERALD EUROPE 549300KM6VUHPKQLQX53	56.9%	24.6%	9.9%	90.1%	0%	
PERSHING SECURITIES LIMITED 549300NC3GURN0AEZU06	0.9%	7.5%	9.9%	90.1%	0%	
Barclays Capital Securities Limited K9WDOH4D2PYBSLSOB484	1.0%	0.3%	9.9%	90.1%	0%	
KCG EUROPE LIMITED 549300346EFUPFCXJT79	0.0%	0.3%	9.9%	90.1%	0%	

\* Passive and aggressive split is estimated based on a sample of trades over the year

<b>Table 6 - Top 5 Brokers for Retail Clients (XOFF)</b>						
Class of Instrument	Equities					
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	
VIRTU FINANCIAL IRELAND LTD 549300XG5LFGN1IGYC71	54.8%	84.6%	9.9%	90.1%	0%	
PERSHING SECURITIES LIMITED 549300NC3GURN0AEZU06	3.5%	11.3%	9.9%	90.1%	0%	
CANTOR FITZGERALD EUROPE 549300KM6VUHPKQLQX53	40.6%	3.9%	9.9%	90.1%	0%	
J+E DAVY 63540061DPCBNMCGRY22	0.1%	0.1%	9.9%	90.1%	0%	
SOCIETE GENERALE PARIS O2RNE8IBXP4R0TD8PU41	0.8%	0.0%	9.9%	90.1%	0%	

\* Passive and aggressive split is estimated based on a sample of trades over the year

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**Bonds**

<b>Table 1 - Top 5 Venues for Professional Clients</b>						
<b>Class of Instrument</b>	<b>Bonds</b>					
Notification if <1 average trade per business day in the previous year	N	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 Execution Venues ranked in terms of trading volume (descending order) /LEI or MIC Code						
CANTOR FITZGERALD IRELAND LIMITED - 635400N5XVNTLTWTUK34		66.3%	52.0%	100%	0%	0%
BLOOMBERG - BMTF		10.0%	18.5%	100%	0%	0%
TRADEWEB EUROPE LIMITED - TREU		12.7%	14.2%	100%	0%	0%
BGC BROKERS - BGCO		8.5%	11.9%	0%	100%	0%
MTS CASH DOMESTIC MARKET - IMTS		1.4%	1.8%	0%	100%	0%

<b>Table 2 - Top 5 Venues for Retail Clients</b>						
<b>Class of Instrument</b>	<b>Bonds</b>					
Notification if <1 average trade per business day in the previous year	N	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 Execution Venues ranked in terms of trading volume (descending order) /LEI or MIC Code						
CANTOR FITZGERALD IRELAND LIMITED - 635400N5XVNTLTWTUK34		83.5%	83.3%	100%	0%	0%
BLOOMBERG - BMTF		16.5%	16.7%	100%	0%	0%

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**Contracts for Differences (CFD's)**

<b>Table 1 - Top five venues for Professional Clients</b>					
Class of Instrument	CFD's				
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) /LEI	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
IG MARKETS LIMITED 21380017XKSVQ3LC3V75	81%	95%	N/A	N/A	0%
CMC Markets 213800IU529ADVZ1GL50	19%	5%	N/A	N/A	0%

N/A - Not available

<b>Table 2 - Top Five venues for Retail Clients</b>					
Class of Instrument	CFD's				
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) /LEI	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
IG MARKETS LIMITED 21380017XKSVQ3LC3V75	99%	100%	N/A	N/A	0%
CMC Markets 213800IU529ADVZ1GL50	1%	0%	N/A	N/A	0%

N/A - Not available

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**Exchange Traded Products**

<b>Table 1 - Top 5 Venues for Professional Clients</b>						
Class of Instrument	Exchange Traded Funds/Commodities					
Notification if <1 average trade per business day in the previous year	Y					
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	
XOFF	57%	70%	1.2%	98.8%	0.0%	
XLON	42%	29%	1.2%	98.8%	0.0%	
XMSM	1%	1%	1.2%	98.8%	0.0%	

\* Passive and aggressive split is estimated based on a sample of trades over the year

<b>Table 2 - Top 5 Venues for Retail Clients</b>						
Class of Instrument	Exchange Traded Funds/Commodities					
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	
XOFF	55.5%	56.1%	1.2%	98.8%	0.0%	
XLON	41.7%	39.9%	1.2%	98.8%	0.0%	
NEXN	2.0%	2.7%	1.2%	98.8%	0.0%	
BMTF	0.6%	0.8%	1.2%	98.8%	0.0%	
XMSM	0.2%	0.4%	1.2%	98.8%	0.0%	

\* Passive and aggressive split is estimated based on a sample of trades over the year

**Explanatory note re Quality of Execution  
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**Exchange Traded Products Contd**

<b>Table 3 - Top 5 Brokers for Professional Clients (XLON/XDUB)</b>						
Class of Instrument	Exchange Traded Funds/Commodities					
Notification if <1 average trade per business day in the previous year	Y					
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	
CENTRAL COUNTERPARTY MARKET 549300TXTCI7WVVJS380	19.2%	36.1%	1.2%	98.8%	0.0%	
PEEL HUNT LLP 5493007DWNOR4YBM4C84	27.1%	30.6%	1.2%	98.8%	0.0%	
WINTERFLOOD SECURITIES 8BRUP6V1DX3PIG2R0745	14.8%	11.1%	1.2%	98.8%	0.0%	
STIFEL NICOLAUS EUROPE LIMITED 213800BVEFNZ8UYPKL03	6.0%	8.3%	1.2%	98.8%	0.0%	
PERSHING SECURITIES LIMITED 549300NC3GURN0AEZU06	7.2%	5.6%	1.2%	98.8%	0.0%	

\* Passive and aggressive split is estimated based on a sample of trades over the year

<b>Table 4 - Top 5 Brokers for Retail Clients (XLON/XDUB)</b>						
Class of Instrument	Exchange Traded Funds/Commodities					
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	
PEEL HUNT LLP 5493007DWNOR4YBM4C84	31.4%	30.9%	1.2%	98.8%	0.0%	
INVESTEC BANK PLC 84S0VF8TSMH0T6D4K848	22.2%	24.0%	1.2%	98.8%	0.0%	
STIFEL NICOLAUS EUROPE LIMITED 213800BVEFNZ8UYPKL03	28.6%	19.8%	1.2%	98.8%	0.0%	
WINTERFLOOD SECURITIES 8BRUP6V1DX3PIG2R0745	11.1%	16.0%	1.2%	98.8%	0.0%	
PERSHING SECURITIES LIMITED 549300NC3GURN0AEZU06	1.2%	2.6%	1.2%	98.8%	0.0%	

\* Passive and aggressive split is estimated based on a sample of trades over the year

**Exchange Traded Products Contd**

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**Exchange Traded Products Contd**

<b>Table 5 - Top 5 Brokers for Professional Clients (XOFF)</b>					
Class of Instrument	Exchange Traded Funds/Commodities				
Notification if <1 average trade per business day in the previous year	Y				
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
VIRTU FINANCIAL IRELAND LTD 549300XG5LFGN1IGYC71	51.4%	75.9%	1.2%	98.8%	0.0%
CANTOR FITZGERALD EUROPE 549300KM6VUHPKQLQX53	27.3%	16.9%	1.2%	98.8%	0.0%
PERSHING SECURITIES LIMITED 549300NC3GURN0AEZU06	1.2%	2.4%	1.2%	98.8%	0.0%
BNP Paribas 6EWKU0FGVX5QQJHFGT48	1.0%	1.2%	1.2%	98.8%	0.0%
FLOW TRADERS B.V. 549300CLJI9XDH12XV51	12.5%	1.2%	1.2%	98.8%	0.0%

\* Passive and aggressive split is estimated based on a sample of trades over the year

<b>Table 6 - Top 5 Brokers for Retail Clients (XOFF)</b>					
Class of Instrument	Exchange Traded Funds/Commodities				
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
VIRTU FINANCIAL IRELAND LTD 549300XG5LFGN1IGYC71	75.6%	83.6%	1.2%	98.8%	0.0%
PERSHING SECURITIES LIMITED 549300NC3GURN0AEZU06	7.3%	12.6%	1.2%	98.8%	0.0%
CANTOR FITZGERALD EUROPE 549300KM6VUHPKQLQX53	5.4%	0.9%	1.2%	98.8%	0.0%
SOCIETE GENERALE PARIS O2RNE8IBXP4R0TD8PU41	0.8%	0.8%	1.2%	98.8%	0.0%
BNP Paribas 6EWKU0FGVX5QQJHFGT48	1.1%	0.6%	1.2%	98.8%	0.0%

\* Passive and aggressive split is estimated based on a sample of trades over the year

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Money Market Instruments

<b>Table 1 - Top 5 Venues for Professional Clients</b>					
Class of Instrument	Money Market Instrument				
Notification if >1 average trade per business day in the previous year	Y				
Top Five Execution Venues ranked in terms of trading volume (descending order)/LEI	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
Cantor Fitzgerald Ireland Limited - 635400N5XVNTLTWTUK34	100.0%	100.0%	0%	100%	0%

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