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2019 RTS 28 Quality of Execution Annual Report

In this report, HBK Europe Management LLP ("HBK Europe" or "the Firm") is providing information required by Regulatory Technical Standard 28 of the MiFID II regulation ("RTS 28"), as adopted by the U.K.'s Financial Conduct Authority ("FCA"). On an annual basis, HBK Europe is required to provide disclosures around the brokers and venues it used to effect trades in various asset classes and certain information on the quality of execution obtained in line with the RTS 28 requirements.

HBK Europe's only client is an affiliated entity and a professional client. It is important to emphasize that we are not providing you with any investment management services. We provide these services only to our affiliated client. This report is not a recommendation to sell or purchase any investment, and it does not form a part of any contract for the sale or purchase of any investment.

The accompanying tables have been generated solely to comply with RTS 28 and contain derived information that we believe to be correct. However, much of this information is not used in our operations, nor has it been verified or tested by a third party, and we cannot guarantee that it is reliable or error-free.

Disclosure Period: 1 January 2019 to 31 December 2019

Date: 30 April 2020

Instrument classes included in this report	Instrument classes not included in this report (because the Firm did not execute orders in this class during the Disclosure Period)
 Equities – Shares & Depositary Receipts (i) tick size liquidity bands 5 and 6 Equities – Shares & Depositary Receipts (ii) tick size liquidity bands 3 and 4 Equities – Shares & Depositary Receipts (iii) tick size liquidity bands 1 and 2 Equities - Shares & Depositary Receipts – Other Debt Instruments (i) Bonds Interest Rates Derivatives (ii) swaps, forwards, and other interest rates derivatives Credit Derivatives (i) futures and options admitted to trading on a trading venue Credit Derivatives (ii) other credit derivatives Currency Derivatives (ii) swaps, forwards, and other currency derivatives Structured Finance Instruments Equity Derivatives (i) Futures and options admitted to trading on a trading venue Equity Derivatives (ii) Swaps and other equity derivatives Securitized Derivatives (ii) Other securitized derivatives Commodities Derivatives (i) options and futures admitted to trading on a trading venue Other (i) Exchange traded products (exchange traded funds, exchange traded notes and exchange traded commodities) 	 Debt Instruments (ii) money markets instruments Currency Derivatives (i) futures and options admitted to trading on a trading venue Commodities Derivatives and Emission Allowances Derivatives (ii) other commodities derivatives and emission allowances derivatives Contracts for difference Emission allowances Securitized Derivatives (i) warrants and certificate derivatives Interest Rates Derivatives (i) futures and options admitted to trading on a trading venue

Class of Instrument	Equities - Shares & Do	epositary Receipts (i) Ti	ck size liquidity bands !	5 and 6 (from 2000 trad	des per day)
Notification if < 1 average trade per business day in the previous year	N				
Top five brokers 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Morgan Stanley & Co. International plc 4PQUHN3JPFGFNF3BB653	21.9%	44.5%	N/A	N/A	0%
Merrill Lynch International GGDZP1UYGU9STUHRDP48	18.4%	6.1%	N/A	N/A	0%
JP Morgan Securities plc ZBUT11V806EZRVTWT807	16.3%	3.1%	N/A	N/A	0%
Goldman Sachs Intl W22LROWP2IHZNBB6K528	12.8%	5.4%	N/A	N/A	0%
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	9.0%	2.1%	N/A	N/A	0%

Class of Instrument	Equities - Shares & Do	epositary Receipts (i) Ti	ck size liquidity bands !	5 and 6 (from 2000 trad	des per day)
Notification if < 1 average trade per business day in the previous year	Υ				
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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Morgan Stanley & Co. International plc 4PQUHN3JPFGFNF3BB653	43.8%	62.9%	N/A	N/A	0%
Goldman Sachs Intl W22LROWP2IHZNBB6K528	28.7%	5.7%	N/A	N/A	0%
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	15.7%	2.9%	N/A	N/A	0%
UBS, AG BFM8T61CT2L1QCEMIK50	7.2%	14.3%	N/A	N/A	0%
JP Morgan Securities LLC ZBUT11V806EZRVTWT807	2.4%	5.7%	N/A	N/A	0%

Class of Instrument	Securities Financing Transactions on Equities	(i) Tick size liquidity bands 5 and 6
Notification if < 1 average trade per business day in the previous year	Υ	
Top five 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 a percentage of total in that class
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	34.3%	9.6%
Goldman Sachs & Co. LLC FOR8UP27PHTHYVLBNG30	19.0%	5.2%
Merrill Lynch Professional Clearing Corp. 549300PMHS66E71I2D34	14.0%	31.3%
Citigroup Global Markets Inc. MBNUM2BPBDO7JBLYG310	12.7%	19.1%
J.P. Morgan Clearing Corp. 549300BRNI54SX6NX725	5.9%	5.2%

Class of Instrument	Equities – Shares & Depositary Receipts (i) Tick size liquidity bands 5 and 6 (from 2000 trades per day)
Summary Analysis and	For this instrument class, the Firm considered the following execution factors to be important: price, likelihood and speed of execution,
Conclusion	and minimal impact to market. Other execution factors ranked equally. The relative importance of the execution factors given to this
	instrument class was determined by the following execution criteria:
	The Firm's only client is a professional client
	• The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and
	venues to which that order could be directed

Class of Instrument	Equities - Shares & D	epositary Receipts (ii) T	ick size liquidity bands	3 and 4 (from 80 to 19	99 trades per day)
Notification if < 1 average trade per business day in the previous year	Υ				
Top five brokers 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
ABG Sundal Collier Holding ASA	18.7%	9.5%	N/A	N/A	0%
2138005DRCU66B8BNY04					
Morgan Stanley & Co. International plc 4PQUHN3JPFGFNF3BB653	15.8%	20.4%	N/A	N/A	0%
Clarksons Platou Securities AS 5967007LIEEXZXA40G44	11.5%	5.2%	N/A	N/A	0%
UBS, AG BFM8T61CT2L1QCEMIK50	8.2%	17.1%	N/A	N/A	0%
Credit Suisse Securities (Europe) Limited DL6FFRRLF74S01HE2M14	7.6%	13.7%	N/A	N/A	0%

Class of Instrument	Equities - Shares & Do	epositary Receipts (ii) T	ick size liquidity bands	3 and 4 (from 80 to 19	99 trades per day)
Notification if < 1 average trade per business day in the previous year	Υ				
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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	47.9%	20.0%	N/A	N/A	0%
Morgan Stanley & Co. International plc 4PQUHN3JPFGFNF3BB653	30.5%	50.0%	N/A	N/A	0%
Credit Suisse Securities (Europe) Limited DL6FFRRLF74S01HE2M14	16.7%	15.0%	N/A	N/A	0%
Societe Generale O2RNE8IBXP4R0TD8PU41	3.7%	5.0%	N/A	N/A	0%
Cantor Fitzgerald Europe 549300KM6VUHPKQLQX53	1.2%	10.0%	N/A	N/A	0%

Class of Instrument	Securities Financing Transactions on Equities (ii) Tick size liquidity bands 3 and 4
Notification if < 1 average trade per business day in the previous year	Υ	
Top five 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 a percentage of total in that class
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	48.2%	26.3%
Goldman Sachs & Co. LLC FOR8UP27PHTHYVLBNG30	21.8%	13.8%
Credit Suisse Securities (USA) LLC 1V8Y6QCX6YMJ2OELII46	13.3%	21.3%
Citigroup Global Markets Inc. MBNUM2BPBDO7JBLYG310	8.3%	10.0%
Goldman Sachs Intl W22LROWP2IHZNBB6K528	2.2%	7.5%

Class of Instrument	Equities – Shares & Depositary Receipts (ii) Tick size liquidity bands 3 and 4 (from 80 to 1999 trades per day)
Summary of Analysis and	For this instrument class, the Firm considered the following execution factors to be important: price, likelihood and speed of execution,
Conclusion	and minimal impact to market. Other execution factors ranked equally. The relative importance of the execution factors given to this
	instrument class was determined by the following execution criteria:
	The Firm's only client is a professional client
	The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and
	venues to which that order could be directed

Class of Instrument	Equities - Shares & Do	epositary Receipts (iii)	Γick 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				
Top five brokers/order handling affiliates¹ 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
HBK Investments L.P.	56.3%	62.7%	N/A	N/A	0%
HELATY3NJ3Y3YM0BQS70					
UBS, AG BFM8T61CT2L1QCEMIK50	20.3%	13.5%	N/A	N/A	0%
Merrill Lynch International GGDZP1UYGU9STUHRDP48	7.0%	12.3%	N/A	N/A	0%
Barclays Bank PLC G5GSEF7VJP5I7OUK5573	6.5%	0.8%	N/A	N/A	0%
Goldman Sachs Intl W22LROWP2IHZNBB6K528	6.3%	1.2%	N/A	N/A	0%

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¹ For certain transactions, where the Firm makes an investment decision it may pass the resultant order to a group affiliate to execute the purchase or sale. Because such transactions result from the Firm transmitting orders to an affiliate, those transactions are classed as "indirect trading" and, as a result, such affiliate is included in this table.

Class of Instrument	Securities Financing Transactions on Equition	Securities Financing Transactions on Equities (iii) Tick size liquidity bands 1 and 2		
Notification if < 1 average trade per business day in the previous year	Υ			
Top five 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 a percentage of total in that class		
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	53.4%	25.0%		
Goldman Sachs Intl W22LROWP2IHZNBB6K528	22.0%	5.0%		
UBS, AG BFM8T61CT2L1QCEMIK50	8.5%	10.0%		
Barclays Capital Inc. AC28XWWI3WIBK2824319	6.8%	20.0%		
Goldman Sachs & Co. LLC FOR8UP27PHTHYVLBNG30	4.2%	20.0%		

Class of Instrument	Equities – Shares & Depositary Receipts (iii) Tick size liquidity bands 1 and 2 (from 0 to 79 trades per day)
Summary of Analysis and Conclusion	For this instrument class, the Firm considered the following execution factors to be important: price, likelihood and speed of execution, and minimal impact to market. Other execution factors ranked equally. The relative importance of the execution factors given to this
	instrument class was determined by the following execution criteria:
	 The Firm's only client is a professional client The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and venues to which that order could be directed

Class of Instrument	Equities - Shares & D	epositary Receipts - Oth	ner²			
Notification if < 1 average trade per business day in the previous year	Υ					
Top five brokers 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders	
JP Morgan Securities LLC ZBUT11V806EZRVTWT807	59.6%	32.1%	N/A	N/A	0%	
Goldman Sachs Intl W22LROWP2IHZNBB6K528	14.4%	17.9%	N/A	N/A	0%	
UBS, AG BFM8T61CT2L1QCEMIK50	8.9%	28.6%	N/A	N/A	0%	
HSBC Bank Plc MP6I5ZYZBEU3UXPYFY54	5.7%	3.6%	N/A	N/A	0%	
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	5.4%	10.7%	N/A	N/A	0%	

Class of Instrument	Equities – Shares & Depositary Receipts - Tick size liquidity bands 1 and 2 (from 0 to 79 trades per day)
Summary of Analysis and	For this instrument class, the Firm considered the following execution factors to be important: price, likelihood and speed of execution, and
Conclusion	minimal impact to market. Other execution factors ranked equally. The relative importance of the execution factors given to this instrument
	class was determined by the following execution criteria:
	The Firm's only client is a professional client
	• The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and
	venues to which that order could be directed

² This asset category is comprised of equities traded by the Firm that did not have an Average Daily Number of Transactions published by ESMA.

Class of Instrument	Debt Instruments (i) I	Bonds			
Notification if < 1 average trade per business day in the previous year	Υ				
Top five brokers/order handling affiliates ¹ 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
HBK Investments L.P. HELATY3NJ3Y3YM0BQS70	100.0%	100.0%	N/A	N/A	0%

Class of Instrument	Debt Instruments (i)	Bonds				
Notification if < 1 average trade per business day in the previous year	N					
Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders	
Barclays Bank PLC	11.78%	6.6%	N/A	N/A	0%	
G5GSEF7VJP5I7OUK5573						
Goldman Sachs Intl W22LROWP2IHZNBB6K528	9.6%	5.0%	N/A	N/A	0%	
Merrill Lynch International GGDZP1UYGU9STUHRDP48	9.6%	6.6%	N/A	N/A	0%	
Bloomberg Multilateral Trading Facility 549300ROEJDDAXM6LU05	8.3%	9.7%	N/A	N/A	0%	
MarketAxess Europe MTF 549300TTHIODYMGND828	7.7%	13.4%	N/A	N/A	0%	

Class of Instrument	Securities Financing Transactions on Debt I	nstruments (i) Bonds
Notification if < 1 average trade per business day in the previous year	N	
Top five 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 a percentage of total in that class
Barclays Bank PLC G5GSEF7VJP5I7OUK5573	23.0%	28.7%
Credit Suisse Securities (Europe) Limited DL6FFRRLF74S01HE2M14	15.3%	13.9%
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	12.3%	9.6%
JP Morgan Securities plc K6Q0W1PS1L1O4IQL9C32	11.3%	16.1%
RBC Europe Limited TXDSU46SXBWIGJ8G8E98	11.2%	3.1%

Class of Instrument	Debt Instruments (i) Bonds
Summary of Analysis and	For this instrument class, the Firm considered the following execution factors to be important: price, likelihood of execution, and size.
Conclusion	Other execution factors ranked equally. The relative importance of the execution factors given to this instrument class was determined by the following execution criteria:
	 The firm's only client is a professional client The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and venues to which that order could be directed

Class of Instrument	Interest Rates Deriva	Interest Rates Derivatives (ii) Swaps, forwards, and other interest rates derivatives				
Notification if < 1 average trade per business day in the previous year	Υ					
Top five brokers/order handling affiliates ¹ 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders	
HBK Investments L.P. HELATY3NJ3Y3YM0BQS70	100.0%	100.0%	N/A	N/A	0%	

Class of Instrument	Interest Rates Deriva	tives (ii) Swaps, forward	ds, and other interest r	ates derivatives		
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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders	
Bloomberg SEF LLC 5493003IUYOH354SNS58	98.8%	99.0%	N/A	N/A	0%	
Citadel Securities Swap Dealer LLC 549300DZV7T0LV9QYE62	0.4%	0.2%	N/A	N/A	0%	
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	0.3%	0.2%	N/A	N/A	0%	
UBS, AG BFM8T61CT2L1QCEMIK50	0.2%	0.2%	N/A	N/A	0%	
JP Morgan Securities LLC ZBUT11V806EZRVTWT807	0.1%	0.2%	N/A	N/A	0%	

Class of Instrument	Interest Rates Derivatives (ii) Swaps, forwards, and other interest rates derivatives
Summary of Analysis and	For this instrument class, the Firm considered price to be the most important execution factor, with other factors ranking equally. The
Conclusion	relative importance of the execution factors given to this instrument class was determined by the following execution criteria:
	The Firm's only client is a professional client
	• The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and
	venues to which that order could be directed

Class of Instrument	Credit Derivatives (i)	Futures and options ad	mitted to trading on a	trading venue		
Notification if < 1 average trade per business day in the previous year	N					
Top five brokers/order handling affiliates ¹ 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders	
HBK Investments L.P. HELATY3NJ3Y3YM0BQS70	55.0%	36.2%	N/A	N/A	0%	
JP Morgan Securities LLC ZBUT11V806EZRVTWT807	45.0%	63.8%	N/A	N/A	0%	

Class of Instrument	Credit Derivatives (i) Futures and options admitted to trading on a trading venue
Summary of Analysis and	For this instrument class, the Firm considered price to be the most important execution factor, with other factors ranking equally. The
Conclusion	relative importance of the execution factors given to this instrument class was determined by the following execution criteria:
	The Firm's only client is a professional client
	The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and
	venues to which that order could be directed

Class of Instrument	Credit Derivatives (ii)	Other credit derivative	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)	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders	
TW SEF LLC 5493003NKIZWOQGS5U67	15.8%	8.6%	N/A	N/A	0%	
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	15.4%	12.7%	N/A	N/A	0%	
BNP Paribas ROMUWSFPU8MPRO8K5P83	13.8%	14.5%	N/A	N/A	0%	
Goldman Sachs Intl W22LROWP2IHZNBB6K528	10.4%	9.1%	N/A	N/A	0%	
Barclays Bank PLC G5GSEF7VJP5I7OUK5573	9.7%	8.2%	N/A	N/A	0%	

Class of Instrument	Credit Derivatives (ii) Other credit derivatives
Summary of Analysis and	For this instrument class, the Firm considered price to be the most important execution factor, with other factors ranking equally. The
Conclusion	relative importance of the execution factors given to this instrument class was determined by the following execution criteria:
	The Firm's only client is a professional client
	• The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and
	venues to which that order could be directed

Class of Instrument	Currency Derivatives	Currency Derivatives (ii) Swaps, forwards, and other currency derivatives			
Notification if < 1 average trade per business day in the previous year	Y				
Top five brokers/order handling affiliates ¹ 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
HBK Investments L.P. HELATY3NJ3Y3YM0BQS70	100.0%	100.0%	N/A	N/A	0%

Class of Instrument	Currency Derivatives	(ii) Swaps, forwards, ar	nd other currency deriv	atives	
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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
JP Morgan Securities plc	31.2%	33.6%	N/A	N/A	0%
K6Q0W1PS1L1O4IQL9C32					
NatWest Markets plc RR3QWICWWIPCS8A4S074	24.3%	15.9%	N/A	N/A	0%
BNP Paribas ROMUWSFPU8MPRO8K5P83	9.3%	8.7%	N/A	N/A	0%
HSBC Securities (USA) Inc. CYYGQCGNHMHPSMRL3R97	6.7%	10.8%	N/A	N/A	0%
Goldman Sachs Intl W22LROWP2IHZNBB6K528	6.1%	4.9%	N/A	N/A	0%

Class of Instrument	Currency Derivatives (ii) Swaps, forwards, and other currency derivatives
Summary of Analysis and	For this instrument class, the Firm considered price to be the most important execution factor, with other factors ranking equally. The
Conclusion	relative importance of the execution factors given to this instrument class was determined by the following execution criteria:
	 The Firm's only client is a professional client The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and venues to which that order could be directed

Class of Instrument	Structured Finance In	nstruments			
Notification if < 1 average trade per business day in the previous year	Υ				
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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Jefferies International Limited S5THZMDUJCTQZBTRVI98	78.7%	50.0%	N/A	N/A	0%
Goldman Sachs & Co. LLC FOR8UP27PHTHYVLBNG30	21.3%	50.0%	N/A	N/A	0%

Class of Instrument	Securities Financing Transactions on Structured Finance Instruments			
Notification if < 1 average trade per business day in the previous year	Υ			
Top five 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 a percentage of total in that class		
HSBC Bank Plc MP6I5ZYZBEU3UXPYFY54	100.0%	100.0%		

Class of Instrument	Structured Finance Instruments
Summary of Analysis and Conclusion	For this instrument class, the Firm considered the following execution factors to be important: price and likelihood and speed of execution. Other execution factors ranked equally. The relative importance of the execution factors given to this instrument class was determined by the following execution criteria:
	 The Firm's only client is a professional client The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and venues to which that order could be directed

Class of Instrument	Equity Derivatives (i)	Equity Derivatives (i) Futures and options admitted to trading on a trading venue			
Notification if < 1 average trade per business day in the previous year	Z				
Top five brokers/order handling affiliates ¹ 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
JP Morgan Securities LLC ZBUT11V806EZRVTWT807	77.8%	51.5%	N/A	N/A	0%
Merrill Lynch International GGDZP1UYGU9STUHRDP48	20.6%	3.8%	N/A	N/A	0%
UBS, AG BFM8T61CT2L1QCEMIK50	0.6%	2.2%	N/A	N/A	0%
HBK Investments L.P. HELATY3NJ3Y3YM0BQS70	0.3%	15.5%	N/A	N/A	0%
Goldman Sachs Intl W22LROWP2IHZNBB6K528	0.3%	7.4%	N/A	N/A	0%

Class of Instrument	Equity Derivatives (i) Futures and options admitted to trading on a trading venue
Summary of Analysis and	For this instrument class, the Firm considered price to be the most important execution factor, with other factors ranking equally. The
Conclusion	relative importance of the execution factors given to this instrument class was determined by the following execution criteria:
	The Firm's only client is a professional client
	• The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and
	venues to which that order could be directed

Class of Instrument	Equity Derivatives (ii)	Equity Derivatives (ii) Swaps and other equity derivatives			
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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Goldman Sachs Intl	17.4%	10.9%	N/A	N/A	0%
W22LROWP2IHZNBB6K528	17.470	10.570	1971	0 /0	
Credit Suisse Securities (Europe) Limited	15.6%	9.1%	N/A	N/A	0%
DL6FFRRLF74S01HE2M14	15.0%	9.1%	N/A	N/A	076
JPMorgan Chase Bank, N.A.	45.20/		N1/A	21/2	20/
7H6GLXDRUGQFU57RNE97	15.2%	13.7%	N/A	N/A	0%
UBS, AG	10.50	0.20/	21/2	21/2	00/
BFM8T61CT2L1QCEMIK50	12.5%	9.2%	N/A	N/A	0%
Citigroup Global Markets Limited	11.6%	47.40/	N/A	N/A	00/
XKZZ2JZF41MRHTR1V493	11.070	17.4%	N/A	N/A	0%

Class of Instrument

Equity Derivatives (ii) Swaps and other equity derivatives

Summary of Analysis and Conclusion

For this instrument class, the Firm considered price to be the most important execution factor, with other factors ranking equally. The relative importance of the execution factors given to this instrument class was determined by the following execution criteria:

- The Firm's only client is a professional client
- The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and venues to which that order could be directed

Transactions included within this instrument class are often effected in connection with a request for "indicative pricing" from a broker. If the indicative pricing is acceptable to the Firm, the broker then enters into a cash equity transaction with the relevant swap counterparty and a corresponding swap arises between the swap counterparty and the underlying fund or funds on whose behalf the Firm is acting. Although the pricing of the cash equities transaction influences the pricing of the related swap, the Firm has not included the indicative pricing activity conducted with brokers in the analysis of its top five execution venues above (or in the equities instrument class) because the Firm does not execute (or transmit or place orders that give rise to) such cash equities transactions. Instead, the Firm has, for the purposes of the equity derivatives instrument class, counted only the swap transactions to which the relevant funds are party (and has treated its involvement in effecting those transactions as a form of "direct" execution, with the consequence that it has categorized the relevant swap counterparties as execution venues rather than brokers).

Class of Instrument	Securitized Derivatives (ii) Other securitized derivatives				
Notification if < 1 average trade per business day in the previous year	Υ				
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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Citigroup Global Markets Limited XKZZ2JZF41MRHTR1V493	43.3%	32.7%	N/A	N/A	0%
UBS, AG BFM8T61CT2L1QCEMIK50	28.5%	4.1%	N/A	N/A	0%
JPMorgan Chase Bank, N.A. 7H6GLXDRUGQFU57RNE97	13.4%	2.0%	N/A	N/A	0%
Credit Suisse Securities (Europe) Limited DL6FFRRLF74S01HE2M14	9.1%	36.7%	N/A	N/A	0%
Barclays Bank PLC G5GSEF7VJP5I7OUK5573	5.0%	4.1%	N/A	N/A	0%

Class of Instrument	Securitized Derivatives (ii) Other securitized derivatives
Summary of Analysis and	For this instrument class, the Firm considered price to be the most important execution factor, with other execution factors ranking
Conclusion	equally. The relative importance of the execution factors given to this instrument class was determined by the following execution criteria:
	 The Firm's only client is a professional client The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and venues to which that order could be directed

Class of Instrument	Commodities Derivatives (i) Options and Futures admitted to trading on a trading venue				
Notification if < 1 average trade per business day in the previous year	N				
Top five brokers 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Macquarie Bank Limited	29.2%	28.9%	N/A	N/A	0%
4ZHCHI4KYZG2WVRT8631					
Goldman Sachs Intl	28.7%	33.4%	N/A	N/A	0%
W22LROWP2IHZNBB6K528					
Citigroup Global Markets Limited	25.1%	22.3%	N/A	N/A	0%
XKZZ2JZF41MRHTR1V493					
Societe Generale	8.2%	10.0%	N/A	N/A	0%
O2RNE8IBXP4R0TD8PU41					
Societe Generale	5.4%	3.3%	N/A	N/A	0%
0IKLU6X1B10WK7X42C15	J.4/0				

Class of Instrument	Commodities Derivatives (i) Options and Futures admitted to trading on a trading venue
Summary of Analysis and	For this instrument class, the Firm considered price to be the most important execution factor, with other factors ranking equally. The
Conclusion	relative importance of the execution factors given to this instrument class was determined by the following execution criteria:
	The Firm's only client is a professional client
	• The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and
	venues to which that order could be directed

Class of Instrument	Other (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	Υ				
Top five brokers/order handling affiliates ¹ 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 a percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
HBK Investments L.P. HELATY3NJ3Y3YM0BQS70	80.2%	50.0%	N/A	N/A	0%
Barclays Capital Securities Limited K9WDOH4D2PYBSLSOB484	19.8%	50.0%	N/A	N/A	0%

Class of Instrument	Exchange Traded Products (exchange traded funds, exchange traded notes and exchange traded commodities)
Summary of Analysis and Conclusion	For this instrument class, the Firm considered price to be the most important execution factor, with other factors ranking equally. The relative importance of the execution factors given to this instrument class was determined by the following execution criteria:
	 The Firm's only client is a professional client The characteristics of the relevant order, the nature and liquidity of financial instruments subject to that order, and the brokers and venues to which that order could be directed

	Summary of Analysis and Conclusion (Applicable for all reported classes of instruments)
Close links, conflicts of interest and common ownership with respect to execution venues	Close Links The Firm has a close link relationship with HBK Services LLC (the Firm's only client), which in turn is a subadvisor to HBK Investments L.P., a group affiliate used by the Firm during the Disclosure Period for indirect execution of orders. This allows trading desks in different geographical locations to be utilized to execute orders. There is no commercial incentive to route orders to different HBK-affiliated entities and the prime objective is to assist the Firm in taking sufficient steps towards achieving the best possible outcome on a consistent basis. Conflicts of Interest Front office employees of the Firm have personal connections with certain of the venues/brokers used during the Disclosure Period. These potential conflicts of interest were disclosed, reviewed and managed in accordance with Firm policy. Common Ownerships The Firm and HBK Investments L.P. are under common control. There is no commercial incentive to route orders to different HBK-affiliated entities and the prime objective is to assist the Firm in taking sufficient steps towards achieving the best possible outcome on a consistent basis.
Specific arrangements with execution venues regarding payments made or received, discounts, rebates or nonmonetary benefits received.	None, other than receipt of minor non-monetary benefits that were disclosed and managed in accordance with Firm policy.
Factors leading to a change in the list of execution venues listed in the order execution policy	Routine additions and deletions to the Firm's list of approved execution venues/brokers was based upon a number of factors, including: • Level of use • Regulatory status • Quality of execution • Ability to provide liquidity • Changing business needs (such as trading in a new geographical region or a new instrument type)
Differentiation across client categories	N/A – the Firm's only client is a professional client.
Use of data/tools relating to quality of execution	 During the Disclosure Period, the Firm used the following data and/or tools relating to quality of execution: Group level Counterparty Review Committee, comprised of senior management and front office personnel, which meets at least annually Broker vote platform, which incorporates periodic assessments of execution topics Real-time market data feeds provided by exchanges Pricing and shredder system that compiled and published fixed income pricing data Monitoring activities conducted on a regular basis, including in some cases, the use of TCA outlier reports generated from trading platforms Proprietary systems that provide personnel with real-time transaction and commission information and facilitate the onboarding and ongoing monitoring of approved brokers and authorized traders Note: RTS 27 data became available for the first time during 2018. However, the raw data published by venues and relevant investment firms is in a format that is difficult to use/assess, and the Firm is not aware of any product that facilitates a comparative analysis of the performance of relevant brokers and venues based on the data. The Firm has therefore not used RTS 27 data this year in carrying out its analysis of execution quality, but will keep its approach under review and monitor for developments, particularly as regards the availability of a product, as referenced, which enables market participants to harness and make better use of the data.
Use of consolidated tape provider output	N/A – no consolidated tape providers were in operation in the EEA during the Disclosure Period.