

Fulcrum Asset Management LLP

RTS 28 Reporting for period 1st January 2017 – 31st December 2017

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1. Introduction

MiFID II and the associated regulations require investment management firms to report on the quality of the execution obtained on behalf of clients alongside figures describing top 5 venues and counterparties used in this execution. The contents of this report and the trading data provided are published to meet the requirements prescribed by Article 3(3) of Regulatory Technical Standard 28 (“RTS 28”) of MiFID/R.

2. Structure of report

Section 5 of this report contains the execution quality and the venue and counterparty reports for each of the identifiable MiFID financial instruments that Fulcrum has traded during calendar year 2017¹. Each sub-section contains both a quantitative and qualitative analysis of executions within the instrument class for the period of concern as required by RTS 28. The quantitative section presents data on the top five counterparties and/or venues. For some instruments Fulcrum executes on a ‘venue’ against an identifiable ‘counterparty’. This presents the issue as to whether we report the venue or counterparty in the quantitative data. For clarity, where this is the case, we provide information on both in separate tables. The qualitative sections assess the quality of the executions obtained from these counterparties and/or venues and justifies their inclusion.

Section 3 describes the trading data from which the information in this report is constructed and Section 4 provides some additional disclosures as required by RTS 28.

3. Data

Fulcrum collects detailed data around each and every execution, including information that allows the calculation of notional and other volume metrics. This information forms the basis of the quantitative elements of these reports.

The data on trades executed directly against counterparties and also those where trades are placed with counterparties for execution on Fulcrum’s behalf. Portfolio management firms are required to report on both direct execution and placement. The requirements envisage two sets of trading data, one reporting

¹ http://ec.europa.eu/finance/securities/docs/isd/mifid/rts/160608-rts-28-annex_en.pdf

executions, the “RTS 28” data, and the other reporting placements, the “Article 65” data, which refers to Article 65 of the delegated regulation. As guidance evolves, Fulcrum intends to adapt its data and reporting accordingly.

4. Other disclosures

RTS 28 requires further commentary and disclosures:

- a. Fulcrum had no close links with, or common ownership of or by, any execution venue or counterparty in the Relevant Period. There were no conflicts of interest with venue or counterparties which impacted on Fulcrum’s ability to deliver best execution to its clients.
- b. Fulcrum deals as a professional client trading in an Institutional capacity. Order execution does not differ across different client categories.
- c. Fulcrum is a Non-Clearing Member (NCM) of Eurex Frankfurt AG. In the period in question no trades were executed by Fulcrum under this membership.
- d. Fulcrum participates in a volume rebate scheme offered by the CBOE in relation to VIX options. All rebates are passed to the underlying client funds/accounts.

5. Venue and Counterparty reporting

5.a.i Debt instruments – Bonds

Class of Instrument	Counterparty				
	Debt instruments - bonds				
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
J.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	41.92%	32.95%	0.00%	100.00%	0.00%
Goldman Sachs International - W22LROWP2IHZNBB6K528	33.78%	40.91%	0.00%	100.00%	0.00%
Barclays Bank PLC - G5GSEF7VJPSI7OUK5573	19.42%	22.73%	0.00%	100.00%	0.00%
Morgan Stanley & Co. International PLC - 4PQUHN3JPFGFNF3BB653	4.87%	3.41%	0.00%	100.00%	0.00%

Ordinarily price has been the most important execution factor. However, for some bonds, particularly emerging market bonds, sourcing adequate liquidity and minimising subsequent market impact is also a concern. As such, for highly liquid product the trading team will normally operate an RQF process using a sub-section from Fulcrum’s panel of execution counterparties. For less liquid issues, sourcing begins with discussions around potential inventory held, followed by an RFQ process for a first tranche. In certain circumstances, the counterparty to the first tranche will then be tasked with working the balance of the order.

5.a.ii Debt instruments - Money markets instruments

Class of Instrument	Counterparty				
	Debt instruments - money market instruments				
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.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	48.10%	42.90%	0.00%	100.00%	0.00%
Goldman Sachs International - W22LROWP2IHZNBB6K528	21.49%	19.51%	0.00%	100.00%	0.00%
Barclays Bank PLC - G5GSEF7VJP5I7OUK5573	17.32%	23.10%	0.00%	100.00%	0.00%
Morgan Stanley & Co. International PLC - 4PQUHN3JPFGFNF3BB653	11.75%	11.48%	0.00%	100.00%	0.00%
Nomura International Plc - DGQCSV2PHVF712743539	1.09%	0.86%	0.00%	100.00%	0.00%

The money market instruments Fulcrum trades are highly liquid government issuances, price (yield) is the main determinant in execution, and trades are always executed at best price available from the panel of quoting counterparties. Orders are electronically routed to an aggregated RQF platform for execution (TSOX in Bloomberg).

5.b.i Interest rates derivatives- Futures and options admitted to trading on a trading venue

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Interest Rate Derivatives - Futures and options admitted to trading on a trading venue				
	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
J.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	48.14%	35.52%	0.00%	100.00%	100.00%
Morgan Stanley & Co. International PLC - 4PQUHN3JPFGFNF3BB653	13.71%	10.51%	0.00%	100.00%	100.00%
GoldmanSachs	11.51%	8.75%	0.00%	100.00%	100.00%
Societe Generale International Limited - 0IKLU6X1B10WK7X42C15	11.46%	30.90%	0.00%	100.00%	100.00%
Barclays Bank PLC - G5GSEF7VJP5I7OUK5573	8.04%	5.79%	0.00%	100.00%	100.00%

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Venue				
	Interest Rate Derivatives - Futures and options admitted to trading on a trading venue				
	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
EUREX Frankfurt Aktiengesellschaft - 529900UT4DG0LG5R9O07	41.48%	40.14%	0.00%	100.00%	100.00%
Board of Trade of the City of Chicago, Inc. - 549300EX04Q2QBFQTQ27	39.97%	29.60%	0.00%	100.00%	100.00%
ICE Futures Europe - 549300UF4R84F48NCH34	11.35%	9.40%	0.00%	100.00%	100.00%
The Montreal Exchange	5.78%	11.43%	0.00%	100.00%	100.00%
ASX	1.42%	9.44%	0.00%	100.00%	100.00%

The current prices of listed futures and options are verifiable by reference to the public order book for the products in consideration. Most Fulcrum trades in these instruments are executed directly on these venues via provider algorithms which access these order books directly. For off-screen block trades and RFQ process is followed.

5.b.ii Interest rates derivatives - Swaps, forwards, and other interest rate derivatives

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Interest Rate Derivatives - Swaps, forwards, and other interest rate derivatives				
	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
Goldman Sachs International - W22LROWP2IHZNBB6K528	50.55%	52.69%	0.00%	100.00%	0.00%
J.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	49.39%	47.19%	0.00%	100.00%	0.00%
Morgan Stanley & Co. International PLC - 4PQUHN3JPFQFN3BB653	0.06%	0.12%	0.00%	100.00%	0.00%

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Venue				
	Interest Rate Derivatives - Swaps, forwards, and other interest rate derivatives				
	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
Bloomberg SEF LLC - 5493003IUYOH354SNS58	2.96%	3.77%	0.00%	100.00%	0.00%

Interest rate swap trading has evolved rapidly post-financial crisis. The advent of OTC clearing brought greater price transparency to the market and widened the range of potential counterparties. Fulcrum's IRS executions are run via an RFQ process with a panel containing counterparties with a global reach.

5.c.i Credit derivatives - Other credit derivatives

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Credit derivatives - Other credit derivatives				
	Y				
	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.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	80.57%	56.00%	0.00%	100.00%	0.00%
Goldman Sachs International - W22LROWP2IHZNBB6K528	13.66%	28.00%	0.00%	100.00%	0.00%
Morgan Stanley & Co. International PLC - 4PQUHN3JPFQFNF3BB653	5.76%	16.00%	0.00%	100.00%	0.00%

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Venue				
	Credit derivatives - Other credit derivatives				
	Y				
	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
Bloomberg SEF LLC - 5493003IUYOH354SNS58	4.07%	12.00%	0.00%	100.00%	0.00%

Credit default swaps also evolved rapidly post-financial crisis. Similar to IRS, Fulcrum’s CDS executions are run via an RFQ process with a panel containing counterparties with a global reach. For US entities when executing ‘Made Available for Trading (MAT)’ order, the Bloomberg SEF is accessed as the venue for execution.

5.d.i Currency derivatives - Futures and options admitted to trading on a trading venue

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Currency derivatives - Futures and options admitted to trading on a trading venue				
	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
J.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	39.15%	30.64%	0.00%	100.00%	100.00%
Morgan Stanley & Co. International PLC - 4PQUHN3JPFQFNF3BB653	15.27%	13.98%	0.00%	100.00%	100.00%
Quantitative Brokers, LLC - 254900AHM34WYQJ50R22	12.99%	1.03%	0.00%	100.00%	100.00%
Barclays Bank PLC - G5GSEF7VJPSI7OUK5573	10.95%	8.37%	0.00%	100.00%	100.00%
Societe Generale International Limited - 0IKLU6X1B10WK7X42C15	9.07%	25.86%	0.00%	100.00%	100.00%

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Venue				
	Currency derivatives - Futures and options admitted to trading on a trading venue				
	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
Chicago Mercantile Exchange Inc. - SNZ2OJLFK8MNNCLQOF39	100.00%	100.00%	0.00%	100.00%	100.00%

The current prices of listed futures and options are verifiable by reference to the public order book for the products in consideration. Most Fulcrum trades in these instruments are executed directly on these venues via provider algorithms which access these order books directly. For off-screen block trades and RFQ process is followed.

5.d.ii Currency derivatives - Swaps, forwards and other currency derivatives

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Currency derivatives - Swaps, forwards and other currency derivatives				
	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
JPMorgan Chase Bank NA - 7H6GLXDRUGQFU57RNE97	49.91%	36.22%	0.00%	100.00%	0.00%
Goldman Sachs International - W22LROWP2IHZNBB6K528	17.76%	23.85%	0.00%	100.00%	0.00%
Barclays Bank PLC - G5GSEF7VJP5I7OUK5573	12.33%	11.60%	0.00%	100.00%	0.00%
Deutsche Bank AG - 7LTFWZYICNSX8D621K86	4.53%	6.06%	0.00%	100.00%	0.00%
UBS AG, Zurich - BFM8T61CT2L1QCCEMIK50	4.42%	2.40%	0.00%	100.00%	0.00%

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Venue				
	Currency derivatives - Swaps, forwards and other currency derivatives				
	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
Thomson Reuters (SEF) LLC - 549300WQWDPFSMQ8I087	0.62%	1.70%	0.00%	100.00%	0.00%

FX forward trades are primarily executed via an electronic aggregated RFS system, called FXall. Fulcrum selects up to five counterparties to provided streaming, executable prices for the requests raised. Credit risk is minimised as all trades are given up to the firm's FX prime broker upon execution. For US entities a small portion of trades are executed on the Thomson Reuters swap execution facility (SEF).

5.e.i Equity Derivatives - Options and Futures admitted to trading on a trading venue

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Equity Derivatives - Options and Futures admitted to trading on a trading venue				
	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
J.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	58.05%	45.16%	0.00%	100.00%	100.00%
Morgan Stanley & Co. International PLC - 4PQUHN3JPFQFN3BB653	13.26%	15.83%	0.00%	100.00%	100.00%
Barclays Bank PLC - G5GSEF7VJP5I7OUK5573	12.29%	4.74%	0.00%	100.00%	100.00%
Societe Generale International Limited - 0IKLU6X1B10WK7X42C15	6.23%	17.24%	0.00%	100.00%	100.00%
GoldmanSachs	5.20%	4.74%	0.00%	100.00%	100.00%

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Venue				
	Equity Derivatives - Options and Futures admitted to trading on a trading venue				
	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
Chicago Mercantile Exchange Inc. - SNZ2OJLFK8MNNCLQOF39	41.81%	15.83%	0.00%	100.00%	100.00%
EUREX Frankfurt Aktiengesellschaft - 529900UT4DG0LG5R9O07	17.51%	14.12%	0.00%	100.00%	100.00%
Singapore Exchange Limited - 549300IQ650PPXM76X03	6.93%	12.64%	0.00%	100.00%	100.00%
Cboe Futures Exchange, LLC - 254900O9GJPIWCP8RH13	6.20%	4.85%	0.00%	100.00%	100.00%
Hong Kong Futures Exchange Limited	6.03%	8.09%	0.00%	100.00%	100.00%

The current prices of listed futures and options are verifiable by reference to the public order book for the products in consideration. Most Fulcrum trades in these instruments are executed directly on these venues via provider algorithms which access these order books directly. For off-screen block trades and RFQ process is followed. Where similar/mirrored contracts are available across different exchanges, comparisons are made as to the most efficient method for accessing the desired risk.

5.e.ii Equity Derivatives - Swaps and other equity derivatives

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Equity Derivatives - Swaps and other equity derivatives				
	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
J.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	100.00%	100.00%	0.00%	100.00%	0.00%

Fulcrum trades some equity index/basket product through OTC swaps. These are executed with a counterparty under ISDA documentation, which needs to be in place for all funds/accounts trading the swap. Across 2017, JPM were the counterparty with complete ISDA coverage across Fulcrum's fund range.

5.f.i Securitized Derivatives - Warrants and Certificate Derivatives

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Securitized Derivatives - Warrants and Certificate Derivatives				
	Y				
	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.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	42.04%	40.00%	0.00%	100.00%	0.00%
Societe Generale International Limited - 0IKLU6X1B10WK7X42C15	41.40%	40.00%	0.00%	100.00%	0.00%
Deutsche Bank AG - 7LTWFZYICNSX8D621K86	16.56%	20.00%	0.00%	100.00%	0.00%

Across 2017 Fulcrum traded warrants with a selection of counterparties. For these products a competitive RFQ process is held for pricing the underlying risk and the winning counterparty then packages the risk into a warrant.

5.g.i Commodities derivatives and emission allowances Derivatives - Options and Futures admitted to trading on a trading venue

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Commodities derivatives and emission allowances Derivatives - Options and Futures admitted to trading on a trading venue				
	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
J.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	45.75%	39.01%	0.00%	100.00%	100.00%
Morgan Stanley & Co. International PLC - 4PQUHN3JPFQFN3BB653	19.45%	16.62%	0.00%	100.00%	100.00%
Barclays Bank PLC - G5GSEF7VJPSI7OUK5573	8.51%	7.04%	0.00%	100.00%	100.00%
Societe Generale International Limited - 0IKLU6X1B10WK7X42C15	7.33%	18.01%	0.00%	100.00%	100.00%
WF	6.76%	8.10%	0.00%	100.00%	100.00%

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Venue				
	Commodities derivatives and emission allowances Derivatives - Options and Futures admitted to trading on a trading venue				
	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
New York Mercantile Exchange, Inc. - 5493008GFNDTXFPHW147	29.99%	22.96%	0.00%	100.00%	100.00%
Board of Trade of the City of Chicago, Inc. - 549300EX04Q2QBFQTQ27	23.26%	24.54%	0.00%	100.00%	100.00%
ICE USIntercontinental Exchange, Inc. - 5493000F4ZO33MV32P92	18.76%	19.78%	0.00%	100.00%	100.00%
COMEX	13.16%	6.72%	0.00%	100.00%	100.00%
THE LONDON METAL EXCHANGE - 213800NB8G5VRT1DXC91	7.86%	12.28%	0.00%	100.00%	100.00%

The current prices of listed futures and options are verifiable by reference to the public order book for the products in consideration. Most Fulcrum trades in these instruments are executed directly on these venues via provider algorithms which access these order books directly. For off-screen block trades and

RFQ process is followed. Where similar/mirrored contracts are available across different exchanges, comparisons are made as to the most efficient method for accessing the desired risk.

5.g.ii Commodities derivatives and emission allowances Derivatives - Other commodities derivatives and emission allowances derivatives

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Commodities derivatives and emission allowances Derivatives - Other commodities derivatives and emission allowances derivatives				
	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
J.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	86.22%	94.62%	0.00%	100.00%	0.00%
Morgan Stanley & Co. International PLC - 4PQUHN3JPFGFNF3BB653	13.78%	5.38%	0.00%	100.00%	0.00%

Fulcrum's implementation of commodity index swaps uses close prices as execution levels. The products are OTC in nature and trade under ISDA.

5.h.i Exchange traded products - Exchange traded funds, exchange traded notes

Class of Instrument Notification if <1 average trade per business day in the previous year Top five execution venues ranked in terms of trading volumes (descending order)	Counterparty				
	Exchange traded products - Exchange traded funds, exchange traded notes				
	Y				
	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.P. Morgan Securitites PLC - K6Q0W1PS1L1O4IQL9C32	88.71%	48.63%	0.00%	100.00%	0.00%
Goldman Sachs International - W22LROWP2IHZNBB6K528	11.08%	50.68%	0.00%	100.00%	0.00%
Edmond de Rothschild (Europe) - 5493009T9IBHZZKFR082	0.21%	0.68%	0.00%	100.00%	0.00%

As exchange traded products, the current public price of these assets is verifiable through public lit order books. Fulcrum accesses these ETFs through execution counterparties, primarily on an agency execution basis.

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