

Top Venues and Brokers Full Year 2019

Redburn Top Brokers and Venues

This document details the top brokers and venues by volume for flow executed through Redburn (Europe) Limited, ("Redburn"), as detailed under EU Commission Delegated Regulation (EU) 2017/576 (RTS 28). The data contained within is based on all executions taking place between 1 January 2019 and 31 December 2019.

Summary of execution quality monitoring

All orders are executed in-line with Redburn's Order Execution Policy which is available from our public website redburn.com.

A range of factors are considered when selecting a venue to trade on, the venues used will be subject to the agreement with the client and objectives of the order being worked. The primary factors considered are available price, volume and probability of execution. Cost of execution is only considered when all other factors are equal.

Redburn has no close links, conflicts of interest, or common ownerships with any execution venues.

Payments received from or paid to venues are subject to standard venue pricing policies as published by the individual venues.

The list of venues accessed changes over time depending on relative market share and availability of liquidity. During the period covered, the only changes to the firm's existing list of venues was to add those venues that accessed additional liquidity sources and therefore improved overall best execution. During the same period, no venues were removed from our current list of approved trading venues.

The same execution arrangements are available to all clients. Any difference in execution style or venue access is purely driven by client preference.

Redburn does not trade on-behalf of retail clients. Execution of all orders is based on available price and liquidity as outlined in our Order Execution Policy.

Reburn does not make use of a consolidated tape provider.

Redburn gathers data on execution quality through our own trading activity and through feeds provided by the individual trading venues, including data published under RTS-27. This data is monitored to determine the effectiveness of trading strategies and guide decisions on how orders will be executed.

Information on Redburn's exchange memberships, our Principal Execution Venues and Order Execution Policy are available on request from ukcompliance@redburn.com or from our website: https://www.redburn.com/regulatory-information

Top Venues

Shares & Depositary Receipts

Tick size liquidity bands 5 and 6 (from 2,000 trades per day)

Average below one trade per business day: N

Identifier	Proportion of volume traded	Proportion of orders executed	Percent of passive orders	Percent of aggressive orders	Percent of directed orders
CBOE Europe - CXE Order Books	40.40/	20.40/	C4 F0/	25 50/	0.00/
CHIX	13.4%	22.1%	64.5%	35.5%	0.0%
LONDON STOCK EXCHANGE	44.00/	44.00/	47.00/	44.00/	0.00/
XLON	11.0%	11.2%	47.0%	44.3%	0.0%
CBOE Europe - LIS Service		0.404	0.004	0.00/	0.00/
LISX	9.4%	0.1%	0.0%	0.0%	0.0%
TURQUOISE DARK	0.00/	F 40/	22.22	0.00/	0.00/
TRQM	9.0%	5.4%	96.0%	2.6%	0.0%
CBOE Europe - BXE Periodic Auctions	0.70/	7.00/	0.00/	0.00/	
BATP	6.7%	7.3%	0.0%	0.9%	0.0%

Shares & Depositary Receipts

Tick size liquidity bands 3 and 4 (from 80 to 1,999 trades per day)

Average below one trade per business day: N

Identifier	Proportion of volume traded	Proportion of orders executed	Percent of passive orders	Percent of aggressive orders	Percent of directed orders
CBOE Europe - LIS Service	44.20/	0.40/	0.00/	0.00/	0.00/
LISX	11.3%	0.1%	0.0%	0.0%	0.0%
TURQUOISE DARK	44.00/	4.00/	00.00/	C 40/	0.00/
TRQM	11.0%	4.8%	92.0%	6.1%	0.0%
CBOE Europe - BXE Periodic Auctions	0.00/	10.20/	0.00/	0.40/	0.00/
BATP	9.8%	10.3%	0.0%	0.4%	0.0%
LONDON STOCK EXCHANGE	0.50/	44.00/	42.00/	45.00/	0.00/
XLON	8.5%	14.0%	43.9%	45.6%	0.0%
CBOE Europe - CXE Order Books	C 40/	42.70/	50.00/	40.40/	0.00/
CHIX	6.4%	13.7%	59.9%	40.1%	0.0%

Shares & Depositary Receipts

Tick size liquidity bands 1 and 2 (from 0 to 79 trades per day)

Identifier	Proportion of volume traded	Proportion of orders executed	Percent of passive orders	Percent of aggressive orders	Percent of directed orders
EURONEXT - EURONEXT AMSTERDAM	40.40/	7.00/	22.70/	00.00/	0.00/
XAMS	12.4%	7.0%	33.7%	60.6%	0.0%
SIX SWISS EXCHANGE - BLUE CHIPS	40.40/	40.40/	00.50/	05.70/	0.00/
XVTX	12.1%	12.1%	30.5%	65.7%	0.0%
CBOE Europe - CXE Order Books	0.40/	44.00/	74 70/	20.20/	0.00/
CHIX	9.4%	14.9%	71.7%	28.3%	0.0%
CBOE Europe - LIS Service	0.40/	0.00/	0.00/	0.00/	0.004
LISX	8.4%	0.2%	0.0%	0.0%	0.0%
TURQUOISE DARK	7.50/	2.00/			
TRQM	7.5%	2.9%	86.6%	9.7%	0.0%

Top Venues

Exchange Traded Products

Average below one trade per business day: N

Identifier	Proportion of volume traded	Proportion of orders executed	Percent of passive orders	Percent of aggressive orders	Percent of directed orders
LONDON STOCK EXCHANGE	75.00/	04.70/	47.70/	75.00/	0.00/
XLON	75.6%	61.7%	17.7%	75.2%	0.0%
CBOE Europe - CXE Order Books	14.7%	24.40/	24.00/	70.00/	0.00/
CHIX		21.4%	21.8%	78.2%	0.0%
XETRA	5.50/	0.00/	04.00/	70.00/	0.00/
XETR	5.5%	6.9%	21.8%	78.2%	0.0%
XETRA - REGULIERTER MARKT	0.00/	4.00/	0.00/	07.40/	0.00/
XETA	2.2%	4.8%	0.0%	97.4%	0.0%
CBOE Europe - BXE Order Books	4.20/	0.00/	22.20/	00.70/	
BATE	1.3%	2.6%	33.3%	66.7%	0.0%

Other Instruments

Identifier	Proportion of volume traded	Proportion of orders executed	Percent of passive orders	Percent of aggressive orders	Percent of directed orders
LONDON STOCK EXCHANGE	4.4.60/	47.70/	4F 00/	46.20/	0.00/
XLON	14.6%	17.7%	45.9%	46.2%	0.0%
CBOE Europe - CXE Order Books	0.70/	40.70/	0.4.00/	05.40/	0.00/
CHIX	8.7%	16.7%	64.6%	35.4%	0.0%
CBOE Europe - LIS Service	7.00/	0.00/	0.00/	0.00/	0.00/
LISX	7.8%	0.2%	0.0%	0.0%	0.0%
TURQUOISE DARK	7.50/	4.40/	05.00/	2.00/	0.00/
TRQM	7.5%	4.4%	95.2%	3.6%	0.0%
CBOE Europe - CXE Dark Order Books	7.00/	0.00/	0.4.00/	5.00/	0.004
CHID	7.3%	6.2%	94.8%	5.2%	0.0%

Top Brokers

Shares & Depositary Receipts

Tick size liquidity bands 5 and 6 (from 2,000 trades per day)

Average below one trade per business day: N

Identifier	Proportion of volume traded	Proportion of orders executed	Percent of passive orders	Percent of aggressive orders	Percent of directed orders
Instinet Europe Ltd	44.00/	00.70/	50.40/	05.00/	0.00/
213800MXAKR2LA1VBM44	44.9%	30.7%	52.1%	35.8%	0.0%
JP Morgan Securities Plc	20.00/	20.40/	20.50/	67.50/	0.00/
K6Q0W1PS1L1O4IQL9C32	20.9%	32.1%	28.5%	67.5%	0.0%
UBS AG	4.4.40/	14.1% 18.5%	68.5%	45 40/	0.00/
BFM8T61CT2L1QCEMIK50	14.1%			15.4%	0.0%
Credit Suisse Securities Eur Ltd	0.40/	40.00/	47.50/	00.00/	0.00/
DL6FFRRLF74S01HE2M14	6.4%	10.3%	17.5%	60.6%	0.0%
Virtu ITG Europe Limited	F 00/	4.70/	74.50/	F 50/	0.00/
213800EEC95PRUCEUP63	5.0%	1.7%	74.5%	5.5%	0.0%

Shares & Depositary Receipts

Tick size liquidity bands 3 and 4 (from 80 to 1,999 trades per day)

Average below one trade per business day: N

Identifier	Proportion of volume traded	Proportion of orders executed	Percent of passive orders	Percent of aggressive orders	Percent of directed orders
Instinet Europe Ltd	37.4%	22.00/	47.00/	20, 40/	0.00/
213800MXAKR2LA1VBM44	37.4%	32.9%	47.2%	36.4%	0.0%
JP Morgan Securities Plc	05.40/	07.00/	04.00/	04.00/	0.00/
K6Q0W1PS1L1O4IQL9C32	25.1%	37.0%	31.6%	64.6%	0.0%
UBS AG	4.4.00/	13.8%	56.4%	23.2%	0.0%
BFM8T61CT2L1QCEMIK50	14.0%				
Virtu ITG Europe Limited	7.00/		00.40/	0.004	0.00/
213800EEC95PRUCEUP63	7.6%	2.3%	62.4%	6.8%	0.0%
Credit Suisse Securities Eur Ltd	C 50/	0.50/	20.00/	40.6%	0.0%
DL6FFRRLF74S01HE2M14	6.5%	8.5%	28.6%		

Shares & Depositary Receipts

Tick size liquidity bands 1 and 2 (from 0 to 79 trades per day)

Identifier	Proportion of volume traded	Proportion of orders executed	Percent of passive orders	Percent of aggressive orders	Percent of directed orders
Instinet Europe Ltd	55.9%	47.00/	40,407	45.007	0.00/
213800MXAKR2LA1VBM44	55.9%	47.6%	46.4%	45.0%	0.0%
JP Morgan Securities Plc	40.40/	20.70/	20.50/	CO 70/	0.00/
K6Q0W1PS1L1O4IQL9C32	19.1%	29.7%	28.5%	68.7%	0.0%
UBS AG	7.70/	9.9%	57.4%	00.00/	0.00/
BFM8T61CT2L1QCEMIK50	7.7%			28.9%	0.0%
Virtu ITG Europe Limited	6.60/	0.50/	F4.00/	40.00/	0.00/
213800EEC95PRUCEUP63	6.6%	2.5%	54.0%	12.9%	0.0%
Credit Suisse Securities Eur Ltd	4.00/	0.00/	24.20/	40.00	
DL6FFRRLF74S01HE2M14	4.0%	6.0%	24.2%	46.9%	0.0%

Top Brokers

Exchange Traded Products

Average below one trade per business day: N

Identifier	Proportion of volume traded	Proportion of orders executed	Percent of passive orders	Percent of aggressive orders	Percent of directed orders
JP Morgan Securities Plc	00.00/	07.00/	0.00/	04.40/	0.00/
K6Q0W1PS1L1O4IQL9C32	68.3%	37.6%	8.9%	91.1%	0.0%
Instinet Europe Ltd	40.40/	00.00/	40.00/	00.00/	0.00/
213800MXAKR2LA1VBM44	19.1%	26.6%	13.9%	63.3%	0.0%
Societe Generale	C 40/	20.00/	40.40/	20.00/	0.004
O2RNE8IBXP4R0TD8PU41	6.4%	26.9%	16.1%	83.9%	0.0%
Credit Suisse Securities Eur Ltd	0.40/				0.00/
DL6FFRRLF74S01HE2M14	6.1%	8.8%	0.0%	100.0%	0.0%
Citigroup Global Markets Ltd	0.00/	0.00/	400.00/	0.00/	0.00/
XKZZ2JZF41MRHTR1V493	0.0%	0.2%	100.0%	0.0%	0.0%

Other Instruments

Identifier	Proportion of volume traded	Proportion of orders executed	Percent of passive orders	Percent of aggressive orders	Percent of directed orders
Instinet Europe Ltd	40.00/	04.00/	50.00/	07.00/	0.00/
213800MXAKR2LA1VBM44	42.8%	31.9%	50.2%	37.9%	0.0%
JP Morgan Securities Plc	00.00/	04.40/	05.40/	50.00/	0.004
K6Q0W1PS1L1O4IQL9C32	23.6%	34.1%	35.1%	59.8%	0.0%
UBS AG			40.00/	00.00/	0.004
BFM8T61CT2L1QCEMIK50	12.1%	18.2%	48.8%	36.6%	0.0%
Credit Suisse Securities Eur Ltd	0.00/	0.50/	40.70/	05.00/	0.00/
DL6FFRRLF74S01HE2M14	6.9%	9.5%	18.7%	65.9%	0.0%
Virtu ITG Europe Limited	5.00/		70.00/		
213800EEC95PRUCEUP63	5.3%	1.4%	72.0%	7.8%	0.0%