

## Top 5 Execution Venues

(Execution venues include trading venues, systematic internalisers, market makers or other liquidity providers, broker-dealers that perform a similar function)

Equities – Shares & Depositary Receipts - Tick size liquidity bands 5 and 6 (from 2 000 trades per day)					
Class of Instrument					
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 <sup>(1)</sup>	Percentage of aggressive orders <sup>(1)</sup>	Percentage of directed orders
Credit Suisse Securities (Europe) Limited (DL6FFRRLF74S01HE2M14)	87.2%	95.4%	N/A	N/A	0
Autonomous Research LLP (213800LBM6PT85IGM996)	12.8%	4.6%	N/A	N/A	0
Equities – Shares & Depositary Receipts - Tick size liquidity bands 3 and 4 (from 80 to 1 999 trades per day)					
Class of Instrument					
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 <sup>(1)</sup>	Percentage of aggressive orders <sup>(1)</sup>	Percentage of directed orders
Credit Suisse Securities (Europe) Limited (DL6FFRRLF74S01HE2M14)	100.0%	100.0%	N/A	N/A	0
Equities – Shares & Depositary Receipts - Tick size liquidity band 1 and 2 (from 0 to 79 trades per day)					
Class of Instrument					
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 <sup>(1)</sup>	Percentage of aggressive orders <sup>(1)</sup>	Percentage of directed orders
Credit Suisse Securities (Europe) Limited (DL6FFRRLF74S01HE2M14)	100.0%	100.0%	N/A	N/A	0
Debt instruments - Bonds					
Class of Instrument					
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 <sup>(1)</sup>	Percentage of aggressive orders <sup>(1)</sup>	Percentage of directed orders
Nomura International PLC (DGQCSV2PHVF7I2743539)	64.2%	22.8%	N/A	N/A	0
Deutsche Bank AG (7LTWFZYICNSX8D621K86)	9.2%	5.8%	N/A	N/A	0
Morgan Stanley & Co. International PLC (4PQUHN3JPFQFNF3BB653)	8.4%	8.8%	N/A	N/A	0
Nomura Securities International, Inc (OXTKY6Q8X53C9ILVV871)	3.4%	1.2%	N/A	N/A	0
Citigroup Global Markets Limited (XKZZ2JZF41MRHTR1V493)	2.8%	10.8%	N/A	N/A	0
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	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 <sup>(1)</sup>	Percentage of aggressive orders <sup>(1)</sup>	Percentage of directed orders
Goldman Sachs International (W22LROWP2IHZNBB6K528)	95.5%	92.4%	N/A	N/A	0
Goldman Sachs AG (8IBZUGJ7JPLH368JE346)	4.5%	7.6%	N/A	N/A	0
Currency derivatives - Swaps, forwards, and other currency derivatives					
Class of Instrument					
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 <sup>(1)</sup>	Percentage of aggressive orders <sup>(1)</sup>	Percentage of directed orders
Nomura International PLC (DGQCSV2PHVF7I2743539)	99.7%	83.6%	N/A	N/A	0
Deutsche Bank AG (7LTWFZYICNSX8D621K86)	0.3%	13.0%	N/A	N/A	0
Wells Fargo Bank, National Association (KB1H1DSPRFMYMCFXT09)	0.0%	3.5%	N/A	N/A	0
Securitized Derivatives - Other securitized derivatives					
Class of Instrument					
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 orders executed as percentage of total in that class	Proportion of volume traded as a percentage of total in that class	Percentage of passive orders <sup>(1)</sup>	Percentage of aggressive orders <sup>(1)</sup>	Percentage of directed orders
Stormharbour Securities LLP (213800VQWC8RFWYS2W46)	100.0%	100.0%	N/A	N/A	0
<b>Class of Instrument</b>	<b>Commodities derivatives and emission allowances Derivatives - Options and Futures admitted to trading on a trading venue</b>				
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 <sup>(1)</sup>	Percentage of aggressive orders <sup>(1)</sup>	Percentage of directed orders
Bank of America Merrill Lynch International Limited (EYKN6V0ZCB8VD9IULB80)	78.2%	83.3%	N/A	N/A	0
Citigroup Global Markets Limited (XKZZ2JZF41MRHTR1V493)	21.8%	16.7%	N/A	N/A	0
<b>Class of Instrument</b>	<b>Other instruments</b>				
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 <sup>(1)</sup>	Percentage of aggressive orders <sup>(1)</sup>	Percentage of directed orders
Credit Suisse Securities (Europe) Limited (DL6FFRRLF74S01HE2M14)	93.7%	88.7%	N/A	N/A	0
Deutsche Bank AG (7LTWFZYICNSX8D621K86)	6.3%	11.3%	N/A	N/A	0

<sup>(1)</sup> Data in passive and aggressive orders are not relevant for:  
- trades in fixed income and derivative instruments where there is no active order book and prices are typically obtained through Request For Quotes or bilateral negotiations; and  
- trades in equities instruments that were sent to brokers for execution.