

TOP 5 Execution Venue

Execution Mode

Tick Size liquidity band 5 and 6

Class of Instrument	1- Equities - Shares & Depository Receipts					
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)	Rank	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 SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	1	86.59%	57.30%	58.72%	31.45%	0.00%
DEUTSCHE BANK AKTIENGESELLSCHAFT (7LTWFZYICNSX8D621K86)	2	13.41%	42.70%	40.13%	54.93%	0.00%

Tick Size liquidity band 3 and 4

Class of Instrument	1- Equities - Shares & Depository Receipts					
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)	Rank	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 SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	1	100.00%	100.00%	0.00%	100.00%	0.00%

Class of Instrument	2- 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)	Rank	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
CITIGROUP GLOBAL MARKETS LIMITED (XKZZ2JZF41MRHTR1V493)	1	28.83%	27.94%	0.00%	0.00%	15.79%
GOLDMAN SACHS INTERNATIONAL (W22LROWP2IHZNBB6K528)	2	26.63%	15.44%	0.00%	0.00%	23.81%
J.P. MORGAN SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	3	22.33%	16.18%	0.00%	0.00%	4.55%
Bloomberg Multilateral Trading Facility(BMTF)	4	12.12%	22.79%	0.00%	0.00%	48.39%
DEUTSCHE BANK AKTIENGESELLSCHAFT (7LWTFZYICNSX8D621K86)	5	9.59%	15.44%	0.00%	0.00%	0.00%

Class of Instrument	6- Currency derivatives - OTC
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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)	Rank	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
FXALL Multilateral Trading Facility(TRAL)	1	98.88%	94.51%	0.00%	0.00%	0.00%
BNY MELLON CAPITAL MARKETS, LLC (VJW2DOOHGDT6PR0ZRO63)	2	0.81%	1.10%	0.00%	0.00%	0.00%
GOLDMAN SACHS INTERNATIONAL (W22LROWP2IHZNBB6K528)	3	0.26%	2.20%	0.00%	0.00%	0.00%
J.P. MORGAN SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	4	0.05%	2.20%	0.00%	0.00%	50.00%

Class of Instrument	9- Exchange traded products
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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)	Rank	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
ITG - RFQHub	1	100.00%	100.00%	0.00%	0.00%	0.00%

TOP 5 Execution Venue

RTO Mode

Tick Size liquidity band 5 and 6

Class of Instrument		1- Equities - Shares & Depository Receipts				
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)	Rank	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
DEUTSCHE BANK AKTIENGESELLSCHAFT (7LWTFZYICNSX8D621K86)	1	28.58%	16.25%	32.14%	30.81%	0.00%
J.P. MORGAN SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	2	24.58%	29.79%	10.98%	19.91%	0.00%
GOLDMAN SACHS INTERNATIONAL (W22LROWP2IHZNBB6K528)	3	19.61%	22.98%	60.35%	30.58%	0.00%
CITIGROUP GLOBAL MARKETS LIMITED (XKZZ2JZF41MRHTR1V493)	4	15.98%	21.31%	34.43%	14.57%	0.00%
SOCIETE GENERALE (O2RNE8IBXP4R0TD8PU41)	5	8.05%	7.47%	41.02%	53.97%	0.00%

Tick Size liquidity band 3 and 4

Class of Instrument		1- Equities - Shares & Depository Receipts				
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)	Rank	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
CITIGROUP GLOBAL MARKETS LIMITED (XKZZ2JZF41MRHTR1V493)	1	45.21%	43.48%	63.36%	14.36%	0.00%
J.P. MORGAN SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	2	23.13%	23.86%	43.93%	49.42%	0.00%
DEUTSCHE BANK AKTIENGESELLSCHAFT (7LWTFZYICNSX8D621K86)	3	20.09%	20.75%	6.28%	6.34%	0.00%
COWEN AND COMPANY, LLC (549300WR155U7DVMIW58)	4	10.91%	10.74%	16.39%	7.90%	0.00%
GOLDMAN SACHS INTERNATIONAL (W22LROWP2IHZNBB6K528)	5	0.62%	1.15%	61.48%	31.11%	0.00%

Tick Size liquidity band 1 and 2

Class of Instrument	1- Equities - Shares & Depository Receipts
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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)	Rank	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
CITIGROUP GLOBAL MARKETS LIMITED (XKZZ2JZF41MRHTR1V493)	1	39.84%	33.05%	54.45%	24.74%	0.00%
J.P. MORGAN SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	2	29.25%	36.87%	41.53%	27.18%	0.00%
DEUTSCHE BANK AKTIENGESELLSCHAFT (7LTWFZYICNSX8D621K86)	3	16.49%	10.54%	7.50%	7.22%	0.00%
COWEN AND COMPANY, LLC (549300WR155U7DVMIW58)	4	10.15%	10.05%	15.81%	9.44%	0.00%
GOLDMAN SACHS INTERNATIONAL (W22LROWP2IHZNBB6K528)	5	2.49%	5.96%	35.54%	42.75%	0.00%

Class of Instrument	4- Interest rates Derivatives - Listed
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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)	Rank	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 SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	1	30.06%	0.85%	0.00%	0.00%	0.00%
CITIGROUP GLOBAL MARKETS LIMITED (XKZZ2JZF41MRHTR1V493)	2	29.51%	47.77%	0.00%	0.00%	0.00%
DEUTSCHE BANK AKTIENGESELLSCHAFT (7LTWFZYICNSX8D621K86)	3	27.03%	46.43%	0.00%	0.00%	0.00%
MORGAN STANLEY & CO. INTERNATIONAL PLC (4PQUHN3JPFGFNF3BB653)	4	13.39%	4.88%	0.00%	0.00%	0.00%
GOLDMAN SACHS INTERNATIONAL (W22LROWP2IHZNBB6K528)	5	0.00%	0.07%	0.00%	0.00%	0.00%

Class of Instrument	8- Equity derivatives - Listed
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Notification if <1 average trade per business day in the previous year	N
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Top five execution venues ranked in terms of trading volumes (descending order)	Rank	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
CITIGROUP GLOBAL MARKETS LIMITED (XKZZ2JZF41MRHTR1V493)	1	26.75%	20.72%	29.57%	8.82%	0.00%
DEUTSCHE BANK AKTIENGESELLSCHAFT (7LTWFZYICNSX8D621K86)	2	23.12%	14.57%	0.00%	0.00%	0.00%
MORGAN STANLEY & CO. INTERNATIONAL PLC (4PQUHN3JPF GFNF3BB653)	3	22.81%	12.34%	17.26%	11.84%	0.00%
GOLDMAN SACHS INTERNATIONAL (W22LROWP2IHZNBB6K528)	4	13.83%	1.50%	72.73%	8.64%	0.00%
J.P. MORGAN SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	5	13.49%	50.87%	19.86%	2.63%	0.00%

Class of Instrument	9 Exchange traded products					
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)	Rank	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
CITIGROUP GLOBAL MARKETS LIMITED (XKZZ2JZF41MRHTR1V493)	1	100.00%	100.00%	72.09%	26.77%	0.00%

TOP 5 Platform

Execution Mode

Class of Instrument

2- Debt Instruments - Bonds

Bloomberg Multilateral Trading Facility (BMTF)

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)	Rank	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class
DEUTSCHE BANK AKTIENGESELLSCHAFT (7LWTFZYICNSX8D621K86)	1	6.20%	6.62%
CITIGROUP GLOBAL MARKETS LIMITED (XKZZ2JZF41MRHTR1V493)	2	3.63%	13.97%
LLOYDS BANK CORPORATE MARKETS PLC (213800MBWEIJDM5CU638)	3	2.09%	1.47%
J.P. MORGAN SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	4	0.19%	0.74%

Class of Instrument

6- Currency derivatives - OTC

FXALL Multilateral Trading Facility (TRAL)

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)	Rank	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class
CITIGROUP GLOBAL MARKETS LIMITED (XKZZ2JZF41MRHTR1V493)	1	29.64%	28.57%
GOLDMAN SACHS INTERNATIONAL (W22LROWP2IHZNBB6K528)	2	28.79%	25.27%
BNY MELLON CAPITAL MARKETS, LLC (VJW2DOOHGDT6PR0ZRO63)	3	16.88%	18.60%
J.P. MORGAN SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	4	14.49%	12.09%
BNP PARIBAS (R0MUWSFPU8MPRO8K5P83)	5	9.08%	10.99%

Class of Instrument	9- Exchange traded products
ITG RFQHUB	

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)	Rank	Proportion of volume traded as a percentage of total in that class	Proportion of orders executed as percentage of total in that class
GOLDMAN SACHS INTERNATIONAL (W22LROWP2IHZNBB6K528)	1	37.46%	33.33%
CITIGROUP GLOBAL MARKETS LIMITED (XKZZ2JZF41MRHTR1V493)	2	31.31%	33.33%
J.P. MORGAN SECURITIES PLC (K6Q0W1PS1L1O4IQL9C32)	3	31.23%	33.33%