

Class of Instrument AA99

Equity instruments- Shares and share certificates

Tick Size not used

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
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	72,39%	3,07%	100,00%	0,00%	100,00%
Wilsons Advis.& Stockbrok. (213800WHBEMCI8A1YX25)	21,89%	96,14%	100,00%	0,00%	100,00%
Robotti Securities, LLC (2549002YOBTNZ00I4L93)	4,03%	0,78%	100,00%	0,00%	100,00%
Goldman Sachs Bank Europe (8IBZUGJ7JPLH368JE346)	0,90%	0,01%	100,00%	0,00%	100,00%
UBS Europe SE (5299007QVIQ7IO64NX37)	0,78%	0,01%	100,00%	0,00%	100,00%



Class of Instrument **AA99** 

Equity instruments- Shares and share certificates

Tick Size liquidity band A and liquidity band B

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
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	87,35%	29,21%	100,00%	0,00%	100,00%
Jefferies GmbH (5493004I3LZM39BWHQ75)	3,39%	0,04%	100,00%	0,00%	100,00%
CAVENDISH CAPITAL MARKETS (213800DSWHX26RRA1N7	52,22%	21,25%	100,00%	0,00%	100,00%
Goldman Sachs Bank Europe (8IBZUGJ7JPLH368JE346)	1,92%	0,06%	100,00%	0,00%	100,00%
Optiver V.O.F. (7245009KRYSAYB2QCC29)	1,33%	0,06%	100,00%	0,00%	100,00%



Class of Instrument AA99

Equity instruments- Shares and share certificates

Tick Size liquidity band C and liquidity band D

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
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	68,61%	80,53%	100,00%	0,00%	100,00%
Jefferies GmbH (5493004I3LZM39BWHQ75)	12,89%	1,03%	100,00%	0,00%	100,00%
Baader Bank AG (529900JFOPPEDUR61H13)	6,77%	0,30%	100,00%	0,00%	100,00%
J P Morgan SE FFM (549300ZK53CNGEEI6A29)	4,61%	0,23%	100,00%	0,00%	100,00%
Optiver V.O.F. (7245009KRYSAYB2QCC29)	1,82%	2,19%	100,00%	0,00%	100,00%



Class of Instrument AA99

Equity instruments- Shares and share certificates

Tick Size liquidity band E and liquidity band F

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
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	78,61%	90,71%	100,00%	0,00%	100,00%
Jefferies GmbH (5493004I3LZM39BWHQ75)	14,64%	3,37%	100,00%	0,00%	100,00%
Baader Bank AG (529900JFOPPEDUR61H13)	3,19%	1,22%	100,00%	0,00%	100,00%
J P Morgan SE FFM (549300ZK53CNGEEI6A29)	1,08%	0,34%	100,00%	0,00%	100,00%
UBS Europe SE (5299007QVIQ7IO64NX37)	0,59%	1,41%	100,00%	0,00%	100,00%



Class of Instrument	AB99								
	Equity instruments- Shares and share cer	tificates							
Tick Size	not used								
Information on whether	Information on whether an average of < 1 trade per business day was executed in the previous year Y								
<b> </b>	enues 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			
Morgan Stanley Europe	SE (54930056FHWP7GIWYY08)	100,00%	100,00%	100,00%	0,00%	100,00%			



Class of Instrument AB99

Equity instruments- Shares and share certificates

Tick Size liquidity band A and liquidity band B

Top five execution venues ranked in terms of trading volumes (descending order)	Proportion of volume traded as a percentage of total in that class	1 -	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	82,50%	97,72%	100,00%	0,00%	100,00%
Jefferies GmbH (5493004I3LZM39BWHQ75)	15,05%	0,18%	100,00%	0,00%	100,00%
Robotti Securities, LLC (2549002YOBTNZ00I4L93)	1,31%	2,08%	100,00%	0,00%	100,00%
Soc Gen Paris (O2RNE8IBXP4R0TD8PU41)	0,70%	0,01%	100,00%	0,00%	100,00%
Oddo et Cie Paris (9695002I9DJHZ3449O66)	0,44%	0,01%	100,00%	0,00%	100,00%



Class of Instrument AB99

Equity instruments- Shares and share certificates

Tick Size

liquidity band C and liquidity band D

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
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	99,42%	99,58%	100,00%	0,00%	100,00%
Oddo et Cie Paris (9695002I9DJHZ3449O66)	0,58%	0,42%	100,00%	0,00%	100,00%



Class of Instrument AB99

Equity instruments- Shares and share certificates

Tick Size liquidity band E and liquidity band F

Information on whether an average of < 1 trade per business day was executed in the previous year Y

(descending order) traded as		ntage of Percentage of Percentage of aggressive orders directed orders
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Morgan Stanley Europe SE (54930056FHWP7GIWYY08) 100,00% 100,00% 100,00% 0,00% 100,00%



Class of Instrument AC99

Exchange traded products (ETPs)Exc

Tick Size not used

of total in that class	executed as percentage of total in that class	passive orders	aggressive orders	directed orders
37,61%	41,84%	100,00%	0,00%	100,00%
28,22%	30,93%	100,00%	0,00%	100,00%
9,31%	6,10%	100,00%	0,00%	100,00%
9,02%	10,28%	100,00%	0,00%	100,00%
9,00%	4,94%	100,00%	0,00%	100,00%
	28,22% 9,31% 9,02%	28,22% 30,93% 9,31% 6,10% 9,02% 10,28%	28,22% 30,93% 100,00% 9,31% 6,10% 100,00% 9,02% 10,28% 100,00%	28,22% 30,93% 100,00% 0,00% 9,31% 6,10% 100,00% 0,00% 9,02% 10,28% 100,00% 0,00%



Class of Instrument AC99

Exchange traded products (ETPs)Exc

Tick Size liquidity band A and liquidity band B

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	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
Flow Traders B V (549300CLJI9XDH12XV51)	99,05%	99,24%	100,00%	0,00%	100,00%
Jefferies GmbH (5493004I3LZM39BWHQ75)	0,95%	0,76%	100,00%	0,00%	100,00%



Class of Instrument AD99

other instruments

Tick Size

liquidity band A and liquidity band B

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
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	98,30%	98,20%	100,00%	0,00%	100,00%
Oddo et Cie Paris (9695002I9DJHZ3449O66)	1,34%	1,39%	100,00%	0,00%	100,00%
Kepler Cheuvreux S.A. (9695005EOZG9X8IRJD84)	0,35%	0,41%	100,00%	0,00%	100,00%



Class of Instrument AE99 other instruments Tick Size not used Information on whether an average of < 1 trade per business day was executed in the previous year Y Top five execution venues ranked in terms of trading volumes Proportion of volume Proportion of orders Percentage of Percentage of Percentage of (descending order) traded as a percentage executed as percentage passive orders aggressive orders directed orders of total in that class of total in that class Morgan Stanley Europe SE (54930056FHWP7GIWYY08) 0.00% 100,00% 100,00% 100,00% 100,00%



Class of Instrument AE99

other instruments

Tick Size liquidity band A and liquidity band B

Information on whether an average of < 1 trade per business day was executed 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		Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
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Morgan Stanley Europe SE (54930056FHWP7GIWYY08)

100,00%

100,00%

100,00%

0,00%

100,00%



Class of Instrument AE99

other instruments

Tick Size liquidity band C and liquidity band D

Information on whether an average of < 1 trade per business day was executed 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	_ <u> </u>	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
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Morgan Stanley Europe SE (54930056FHWP7GIWYY08)

100,00%

100,00%

100,00%

0.00%

100,00%



Class of Instrument

BA10

Debt instruments

Tick Size

not used

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 SE FFM (549300ZK53CNGEEI6A29)	11,19%	7,09%	100,00%	0,00%	100,00%
Citigroup Global Markets EU (6TJCK1B7E7UTXP528Y04)	10,67%	26,12%	100,00%	0,00%	100,00%
Barclays Bank PLC Ireland (2G5BKIC2CB69PRJH1W31)	8,51%	4,56%	100,00%	0,00%	100,00%
BNP Paribas Paris (R0MUWSFPU8MPRO8K5P83)	7,25%	4,18%	100,00%	0,00%	100,00%
Deutsche Bk Ffm (7LTWFZYICNSX8D621K86)	6,56%	4,22%	100,00%	0,00%	100,00%



Class of Instrument

BA11

Debt instruments

Tick Size

not used

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
DEKABK DGZ Ffm (0W2PZJM8XOY22M4GG883)	25,99%	25,06%	100,00%	0,00%	100,00%
J P Morgan SE FFM (549300ZK53CNGEEI6A29)	15,02%	14,57%	100,00%	0,00%	100,00%
Commerzbank AG Ffm (851WYGNLUQLFZBSYGB56)	9,80%	9,39%	100,00%	0,00%	100,00%
Deutsche Bk Ffm (7LTWFZYICNSX8D621K86)	8,12%	7,67%	100,00%	0,00%	100,00%
Erste Group Bank AG Wien (PQOH26KWDF7CG10L6792)	8,05%	7,67%	100,00%	0,00%	100,00%



Class of Instrument H

BA12

Debt instruments

Tick Size

not used

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
Goldman Sachs Bk Europe SE (8IBZUGJ7JPLH368JE346)	50,35%	50,00%	100,00%	0,00%	100,00%
BofA Securities Europe SA (549300FH0WJAPEHTIQ77)	49,65%	50,00%	100,00%	0,00%	100,00%



Class of Instrument

BA13

Debt instruments

Tick Size

not used

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 SE FFM (549300ZK53CNGEEI6A29)	21,58%	21,51%	100,00%	0,00%	100,00%
Commerzbank AG Ffm (851WYGNLUQLFZBSYGB56)	14,79%	14,58%	100,00%	0,00%	100,00%
Goldman Sachs Bk Europe SE (8IBZUGJ7JPLH368JE346)	9,67%	9,69%	100,00%	0,00%	100,00%
Metzler AG (529900IOG1ENLW4SUU53)	8,57%	8,58%	100,00%	0,00%	100,00%
BayernLB Mue (VDYMYTQGZZ6DU0912C88)	5,64%	5,57%	100,00%	0,00%	100,00%



Class of Instrument

BA14

Debt instruments

Tick Size

not used

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
BNP Paribas Paris (R0MUWSFPU8MPRO8K5P83)	9,45%	10,00%	100,00%	0,00%	100,00%
HSBC Continental Europe SA (F0HUI1NY1AZMJMD8LP67)	7,89%	7,86%	100,00%	0,00%	100,00%
BofA Securities Europe SA (549300FH0WJAPEHTIQ77)	7,76%	7,63%	100,00%	0,00%	100,00%
Toronto Dominion Bk Ldn (PT3QB789TSUIDF371261)	5,90%	4,48%	100,00%	0,00%	100,00%
J P Morgan SE FFM (549300ZK53CNGEEI6A29)	5,15%	4,68%	100,00%	0,00%	100,00%



Class of Instrument

BA15

Debt instruments

Tick Size

not used

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
BofA Securities Europe SA (549300FH0WJAPEHTIQ77)	24,72%	21,37%	100,00%	0,00%	100,00%
Citigroup Global Markets EU (6TJCK1B7E7UTXP528Y04)	23,87%	20,16%	100,00%	0,00%	100,00%
J P Morgan SE FFM (549300ZK53CNGEEI6A29)	7,72%	12,94%	100,00%	0,00%	100,00%
Soc Gen Paris (O2RNE8IBXP4R0TD8PU41)	4,94%	4,30%	100,00%	0,00%	100,00%
CIBC Capital Markets (5493004H6N0F0BB9H184)	4,34%	3,54%	100,00%	0,00%	100,00%



Class of Instrument	BD10							
	other derivatives							
Tick Size	not used							
Information on whether	Information on whether an average of < 1 trade per business day was executed in the previous year Y							
Top five execution vo	enues 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 SE FFM (54	9300ZK53CNGEEI6A29)	100,00%	100,00%	100,00%	0,00%	100,00%		



Class of Instrument	BD21							
	Equity derivatives							
Tick Size	not used							
Information on whether	Information on whether an average of < 1 trade per business day was executed in the previous year N							
1 *	enues 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 SE FFM (54)	9300ZK53CNGEEI6A29)	100,00%	100,00%	100,00%	0,00%	100,00%		



Class of Instrument	BD24					
	Currency derivatives					
Tick Size	not used					
Information on whether	an average of < 1 trade per business day wa	s executed in the previous	s year N			
1 -	enues 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 SE FFM (54	9300ZK53CNGEEI6A29)	100,00%	100,00%	100,00%	0,00%	100,00%



Class of Instrument	BD99					
	other derivatives					
Tick Size	not used					
Information on whether	an average of < 1 trade per business day wa	s executed in the previous	s year N			
Top five execution v	enues 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 SE FFM (54	19300ZK53CNGEEI6A29)	100,00%	100,00%	100,00%	0,00%	100,00%



Class of Instrument BE21 securitized derivatives Tick Size not used Information on whether an average of < 1 trade per business day was executed in the previous year Y Top five execution venues ranked in terms of trading volumes Proportion of volume Proportion of orders Percentage of Percentage of Percentage of (descending order) traded as a percentage executed as percentage passive orders aggressive orders directed orders of total in that class of total in that class Morgan Stanley Europe SE (54930056FHWP7GIWYY08) 0.00% 100,00% 100,00% 100,00% 100,00%



Class of Instrument BE21

securitized derivatives

Tick Size

liquidity band A and liquidity band B

Information on whether an average of < 1 trade per business day was executed 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	_ <u> </u>	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
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Morgan Stanley Europe SE (54930056FHWP7GIWYY08)

100,00%

100,00%

100,00%

0.00%

100,00%



Class of Instrument

**BE99** 

securitized derivatives

Tick Size

not used

Information on whether an average of < 1 trade per business day was executed 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	
Erste Group Bank AG Wien (PQOH26KWDF7CG10L6792)	96,09%	96,64%	100,00%	0,00%	100,00%	
UBS Europe SE (5299007QVIQ7IO64NX37)	3,91%	3,36%	100,00%	0,00%	100,00%	



Class of Instrument BF99 Exchange traded products (ETPs) Tick Size not used Information on whether an average of < 1 trade per business day was executed in the previous year Y Top five execution venues ranked in terms of trading volumes Proportion of volume Proportion of orders Percentage of Percentage of Percentage of (descending order) traded as a percentage executed as percentage passive orders aggressive orders directed orders of total in that class of total in that class Morgan Stanley Europe SE (54930056FHWP7GIWYY08) 100,00% 100,00% 100,00% 100,00% 0.00%



Class of Instrument	C999					
	no specific classification					
Tick Size	not used					
Information on whether an average of < 1 trade per business day was executed in the previous year Y						
1	enues 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
Vestima CBL (5493000	L514RA0SXJJ44)	100,00%	100,00%	100,00%	0,00%	100,00%



Class of Instrument C999

no specific classification

Tick Size

liquidity band A and liquidity band B

Top five execution venues ranked in terms of trading volumes   Proportion of volume   Proportion of orders   Percentage of   Percentage   Perc						
(descending order)	traded as a percentage of total in that class	executed as percentage of total in that class	_	aggressive orders	directed orders	
	or total in that class	or total in that class				
Wilsons Advis.& Stockbrok. (213800WHBEMCI8A1YX25)	79,28%	97,66%	100,00%	0,00%	100,00%	
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	20,72%	2,34%	100,00%	0,00%	100,00%	



Class of Instrument C999 no specific classification liquidity band C and liquidity band D Tick Size Information on whether an average of < 1 trade per business day was executed in the previous year Y Top five execution venues ranked in terms of trading volumes Proportion of volume Proportion of orders Percentage of Percentage of Percentage of (descending order) traded as a percentage executed as percentage passive orders aggressive orders directed orders of total in that class of total in that class Morgan Stanley Europe SE (54930056FHWP7GIWYY08) 0.00% 100,00% 100,00% 100,00% 100,00%



Class of Instrument CA

CA99

Debt instruments

Tick Size

not used

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
Barclays Bank PLC Ireland (2G5BKIC2CB69PRJH1W31)	16,86%	18,15%	100,00%	0,00%	100,00%
Wells Fargo Secur Intl Ltd. (BWS7DNS2Z4NPKPNYKL75)	15,41%	11,35%	100,00%	0,00%	100,00%
Deutsche Bk Ffm (7LTWFZYICNSX8D621K86)	14,68%	14,39%	100,00%	0,00%	100,00%
Citigroup Global Markets EU (6TJCK1B7E7UTXP528Y04)	13,77%	14,48%	100,00%	0,00%	100,00%
Soc Gen Paris (O2RNE8IBXP4R0TD8PU41)	11,10%	12,16%	100,00%	0,00%	100,00%



Class of Instrument CB99

Other instruments

Tick Size

not used

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
Vestima CBL (549300OL514RA0SXJJ44)	99,89%	99,95%	100,00%	0,00%	100,00%
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	0,11%	0,05%	100,00%	0,00%	100,00%