



M.M. WARBURG & CO

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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument AA99
Equity instruments- Shar

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
Morgan Stanley Co Int Ldn (4PQUHN3JPFQFNF3BB653)	89,79%	1,86%	100,00%	0,00%	100,00%
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	10,21%	98,14%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument AA99
Equity instruments- Shar

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 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
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	75,31%	84,86%	100,00%	0,00%	100,00%
Morgan Stanley Co Int Ldn (4PQUHN3JPF GFNF3BB653)	24,52%	15,00%	100,00%	0,00%	100,00%
UBS Ltd Ldn (5299007QVIQ7IO64NX37)	0,12%	0,06%	100,00%	0,00%	100,00%
J P Morgan SE FFM (549300ZK53CNGEEI6A29)	0,05%	0,08%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument AA99
Equity instruments- Shar

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 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
Morgan Stanley Co Int Ldn (4PQUHN3JPF GFNF3BB653)	51,12%	35,12%	100,00%	0,00%	100,00%
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	48,41%	64,49%	100,00%	0,00%	100,00%
UBS Ltd Ldn (5299007QVIQ7IO64NX37)	0,46%	0,39%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument	AA99				
	Equity instruments- Shar				
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	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
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	76,83%	79,27%	100,00%	0,00%	100,00%
Morgan Stanley Co Int Ldn (4PQUHN3JPF GFNF3BB653)	23,08%	20,57%	100,00%	0,00%	100,00%
UBS Ltd Ldn (5299007QVIQ7IO64NX37)	0,07%	0,13%	100,00%	0,00%	100,00%
Cantor Fitzgerald Euro Ldn (549300KM6VUHPKQLQX53)	0,02%	0,03%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument	AB99					
	Equity instruments- Shar					
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	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)	87,47%	68,84%	100,00%	0,00%	100,00%	
Morgan Stanley Co Int Ldn (4PQUHN3JPF GFNF3BB653)	12,53%	31,16%	100,00%	0,00%	100,00%	



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument	AB99				
	Equity instruments- Shar				
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	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)	90,99%	77,53%	100,00%	0,00%	100,00%
Morgan Stanley Co Int Ldn (4PQUHN3JPF GFNF3BB653)	9,01%	22,47%	100,00%	0,00%	100,00%



Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument AC99
Exchange traded product

Tick Size not used

Information on whether an average of < 1 trade per business day was executed 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
Donner & Reuschel AG (23ZYQ4KSBEDVYML8NC86)	33,11%	42,58%	100,00%	0,00%	100,00%
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	24,12%	41,31%	100,00%	0,00%	100,00%
Jane Street Financial Ltd. (549300ZHEHX8M31RP142)	14,96%	1,50%	100,00%	0,00%	100,00%
Flow Traders B V (549300CLJ9XDH12XV51)	12,99%	4,15%	100,00%	0,00%	100,00%
Optiver V.O.F. (7245009KRYSAYB2QCC29)	11,33%	6,03%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument	AD99				
	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	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
Morgan Stanley Co Int Ldn (4PQUHN3JPFQFNF3BB653)	73,96%	74,72%	100,00%	0,00%	100,00%
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	25,96%	25,20%	100,00%	0,00%	100,00%
J P Morgan Securities plc (K6Q0W1PS1L1O4IQL9C32)	0,08%	0,08%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

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 (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 Int Ldn (W22LROWP2IHZNBB6K528)	99,69%	73,13%	100,00%	0,00%	100,00%
Morgan Stanley Co Int Ldn (4PQUHN3JPF GFNF3BB653)	0,21%	14,80%	100,00%	0,00%	100,00%
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	0,10%	12,07%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

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	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)	95,01%	64,91%	100,00%	0,00%	100,00%
Morgan Stanley Co Int Ldn (4PQUHN3JPF GFNF3BB653)	4,99%	35,09%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument BA10
Debt instruments

Tick Size not used

Information on whether an average of < 1 trade per business day was executed 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
Citigroup Glob Mark Ltd Ldn (XKZZ2JZF41MRHTR1V493)	13,61%	13,01%	100,00%	0,00%	100,00%
Nomura Bk Int Ldn (WGII3666BEDR02O24131)	12,45%	12,13%	100,00%	0,00%	100,00%
NatWest Markets N.V. (X3CZP3CK64YBHON1LE12)	10,68%	9,31%	100,00%	0,00%	100,00%
Deutsche Bk Ffm (7LTFWZYICNSX8D621K86)	9,55%	9,29%	100,00%	0,00%	100,00%
Barclays Bk PLC Ldn (G5GSEF7VJP5I7OUK5573)	8,46%	8,26%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II
retail clients
financial year 2019

Class of Instrument	BA11				
	Debt 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 (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)	19,34%	18,62%	100,00%	0,00%	100,00%
DEKABK DGZ Ffm (0W2PZJM8XOY22M4GG883)	12,40%	11,77%	100,00%	0,00%	100,00%
Commerzbank AG Ffm (851WYG NLUQLFZBSYGB56)	9,07%	8,75%	100,00%	0,00%	100,00%
BNP Paribas Paris (R0MUWSFPU8MPRO8K5P83)	8,70%	11,67%	100,00%	0,00%	100,00%
Barclays Bank PLC Ireland (2G5BKIC2CB69PRJH1W31)	7,92%	7,55%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument	BA12				
	Debt 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 (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
Stifel Nicolas Europe Ltd (213800BVEFNZ8UYPKL03)	99,40%	99,83%	100,00%	0,00%	100,00%
UniCredit Bank AG Mün (2ZCNRR8UK83OBTEK2170)	0,60%	0,17%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument BA13
Debt 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 (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
NORD LB Hann (DSNHHQ2B9X5N6OUJ1236)	20,91%	26,52%	100,00%	0,00%	100,00%
J P Morgan Securities plc (K6Q0W1PS1L1O4IQL9C32)	16,03%	12,20%	100,00%	0,00%	100,00%
DZ Bank AG (529900HNOAA1KXQJUQ27)	10,36%	6,31%	100,00%	0,00%	100,00%
J P Morgan SE FFM (549300ZK53CNGEEI6A29)	8,00%	5,57%	100,00%	0,00%	100,00%
Banco Santander S A (5493006QMFDDMYWIAM13)	6,81%	5,04%	100,00%	0,00%	100,00%



Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument BA14
Debt instruments

Tick Size not used

Information on whether an average of < 1 trade per business day was executed 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
BofA Securities Europe SA (549300FH0WJAPEHTIQ77)	6,54%	6,53%	100,00%	0,00%	100,00%
DZ Bank AG (529900HNOAA1KXQJUQ27)	6,42%	6,42%	100,00%	0,00%	100,00%
Jane Street Financial Ltd. (549300ZHEHX8M31RP142)	6,10%	5,90%	100,00%	0,00%	100,00%
J P Morgan SE FFM (549300ZK53CNGEEI6A29)	5,34%	5,45%	100,00%	0,00%	100,00%
HSBC Trinkaus Dssd (JUNT405OW8OY5GN4DX16)	4,78%	4,83%	100,00%	0,00%	100,00%



Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument	BA15				
	Debt 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 (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
BayernLB Mue (VDYMYTQGZZ6DU0912C88)	18,30%	16,76%	100,00%	0,00%	100,00%
DZ Bank AG (529900HNOAA1KXQJUQ27)	12,92%	11,67%	100,00%	0,00%	100,00%
NORD LB Hann (DSNHHQ2B9X5N6OUJ1236)	5,81%	5,32%	100,00%	0,00%	100,00%
Jane Street Financial Ltd. (549300ZHEHX8M31RP142)	5,50%	4,92%	100,00%	0,00%	100,00%
Royal Bk of Can Europe Ldn (TXDSU46SXBWIGJ8G8E98)	5,32%	4,65%	100,00%	0,00%	100,00%



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Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument BD21
Equity derivatives

Tick Size not used

Information on whether an average of < 1 trade per business day was executed 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 SE FFM (549300ZK53CNGEEI6A29)	85,71%	85,92%	100,00%	0,00%	100,00%
J P Morgan Securities plc (K6Q0W1PS1L1O4IQL9C32)	14,29%	14,08%	100,00%	0,00%	100,00%



Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument BE23
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
UniCredit Bank AG Mün (2ZCNRR8UK83OBTEK2170)	100,00%	100,00%	100,00%	0,00%	100,00%



Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument BF99
 Exchange traded product

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
Morgan Stanley Europe SE (54930056FHWP7GIWYY08)	100,00%	100,00%	100,00%	0,00%	100,00%



Top 5 intermediaries reporting regarding MIFID II retail clients financial year 2019

Class of Instrument CA99
Debt 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 (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
Deutsche Bk Ffm (7LTFZYICNSX8D621K86)	100,00%	100,00%	100,00%	0,00%	100,00%