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

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
PURE Toronto Pure (NCP)	49,58 %	43,82 %	100,00 %	0,00 %	64,10 %
XNYS New York (NYSE) (NAY)	36,82 %	15,73 %	100,00 %	0,00 %	57,14 %
XETR XETRA (EDE)	8,01 %	26,97 %	100,00 %	0,00 %	37,50 %
XIDX Jakarta (FIJ)	2,73 %	2,25 %	100,00 %	0,00 %	100,00 %
XNMS New York (Nasdaq) (NAN)	1,81 %	1,12 %	100,00 %	0,00 %	0,00 %



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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
XNYS New York (NYSE) (NAY)	62,38 %	62,15 %	100,00 %	0,00 %	100,00 %
XAMS Amsterdam (ENA)	16,82 %	18,27 %	100,00 %	0,00 %	95,88 %
XETR XETRA (EDE)	6,94 %	9,21 %	100,00 %	0,00 %	18,84 %
XTKS Tokio (FJT)	4,48 %	2,49 %	100,00 %	0,00 %	98,60 %
XNGS New York - NASDAQ (NAD)	3,78 %	1,28 %	100,00 %	0,00 %	100,00 %



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

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
XETR XETRA (EDE)	51,98 %	52,78 %	100,00 %	0,00 %	31,95 %
XSWX Zürich (ESE)	36,63 %	40,79 %	100,00 %	0,00 %	100,00 %
XDUB Dublin (EYD)	2,88 %	1,39 %	100,00 %	0,00 %	72,00 %
XNYS New York (NYSE) (NAY)	1,77 %	0,59 %	100,00 %	0,00 %	100,00 %
XLON London (EUL)	1,69 %	0,79 %	100,00 %	0,00 %	100,00 %



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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
XETR XETRA (EDE)	42,07 %	40,88 %	100,00 %	0,00 %	67,65 %
XNYS New York (NYSE) (NAY)	18,83 %	20,83 %	100,00 %	0,00 %	100,00 %
XNGS New York - NASDAQ (NAD)	9,22 %	10,33 %	100,00 %	0,00 %	100,00 %
XLON London (EUL)	8,59 %	7,63 %	100,00 %	0,00 %	100,00 %
XPAR Paris (EFP)	7,31 %	7,43 %	100,00 %	0,00 %	87,41 %



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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	Proportion of orders executed as percentage of total in that class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
XNYS New York (NYSE) (NAY)	45,91 %	34,88 %	100,00 %	0,00 %	100,00 %
XNGS New York - NASDAQ (NAD)	18,23 %	6,98 %	100,00 %	0,00 %	100,00 %
XSTU Stuttgart (EDS)	14,33 %	9,30 %	100,00 %	0,00 %	100,00 %
XFRA Frankfurt (EDF)	10,13 %	39,53 %	100,00 %	0,00 %	35,29 %
PINX New York-PinkSh.-OTC (NUP)	9,73 %	4,65 %	100,00 %	0,00 %	100,00 %



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

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
XNYS New York (NYSE) (NAY)	43,44 %	24,80 %	100,00 %	0,00 %	100,00 %
XLON London (EUL)	34,39 %	45,00 %	100,00 %	0,00 %	100,00 %
XNGS New York - NASDAQ (NAD)	8,75 %	5,40 %	100,00 %	0,00 %	100,00 %
XETR XETRA (EDE)	8,42 %	14,20 %	100,00 %	0,00 %	23,94 %
XFRA Frankfurt (EDF)	4,51 %	9,80 %	100,00 %	0,00 %	61,22 %



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Class of Instrument AB99
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
XETR XETRA (EDE)	64,56 %	70,45 %	100,00 %	0,00 %	0,00 %
XFRA Frankfurt (EDF)	34,02 %	22,73 %	100,00 %	0,00 %	70,00 %
XBER Berlin-Bremen (EDB)	0,76 %	2,27 %	100,00 %	0,00 %	0,00 %
XLON London (EUL)	0,67 %	4,55 %	100,00 %	0,00 %	100,00 %



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

Class of Instrument AC99
Exchange traded products (ETPs)Exc

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
BRFQ BLOCKMATCH MTF RFQ (BRFQ)	52,22 %	51,12 %	100,00 %	0,00 %	100,00 %
XETR XETRA (EDE)	40,68 %	40,16 %	100,00 %	0,00 %	56,94 %
XLON London (EUL)	6,05 %	8,20 %	100,00 %	0,00 %	99,27 %
XSWX Zürich (ESE)	0,22 %	0,07 %	100,00 %	0,00 %	88,89 %
XFRA Frankfurt (EDF)	0,15 %	0,10 %	100,00 %	0,00 %	69,23 %



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

Class of Instrument AD99
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
XVTX Zurich - Swiss Blue (ESZ)	88,70 %	90,52 %	100,00 %	0,00 %	100,00 %
XSWX Zürich (ESE)	3,49 %	5,06 %	100,00 %	0,00 %	100,00 %
XFRA Frankfurt (EDF)	2,96 %	1,53 %	100,00 %	0,00 %	5,26 %
XETR XETRA (EDE)	2,87 %	1,89 %	100,00 %	0,00 %	2,13 %
XSTU Stuttgart (EDS)	1,15 %	0,36 %	100,00 %	0,00 %	100,00 %



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

Class of Instrument AE99
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
XSWX Zürich (ESE)	58,84 %	19,23 %	100,00 %	0,00 %	100,00 %
XFRA Frankfurt (EDF)	23,94 %	29,81 %	100,00 %	0,00 %	12,90 %
XSTU Stuttgart (EDS)	14,73 %	3,85 %	100,00 %	0,00 %	100,00 %
BMTF Bloomberg (BLOM)	1,91 %	0,96 %	100,00 %	0,00 %	100,00 %
XDPA Madrid (EEM)	0,35 %	34,62 %	100,00 %	0,00 %	66,67 %



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

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
BMTF Bloomberg (BLOM)	95,56 %	91,83 %	100,00 %	0,00 %	99,96 %
XFRA Frankfurt (EDF)	4,14 %	7,79 %	100,00 %	0,00 %	37,78 %
XSTU Stuttgart (EDS)	0,22 %	0,28 %	100,00 %	0,00 %	84,91 %
XHAN Hannover (EDI)	0,05 %	0,05 %	100,00 %	0,00 %	100,00 %
XHAM Hamburg (EDH)	0,02 %	0,03 %	100,00 %	0,00 %	80,00 %



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

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
BMTF Bloomberg (BLOM)	97,55 %	82,98 %	100,00 %	0,00 %	94,87 %
XFRA Frankfurt (EDF)	1,89 %	13,30 %	100,00 %	0,00 %	52,00 %
XSTU Stuttgart (EDS)	0,52 %	3,19 %	100,00 %	0,00 %	100,00 %
XHAN Hannover (EDI)	0,04 %	0,53 %	100,00 %	0,00 %	100,00 %



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

Class of Instrument 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
BMTF Bloomberg (BLOM)	50,51 %	40,00 %	100,00 %	0,00 %	100,00 %
XSTU Stuttgart (EDS)	36,21 %	20,00 %	100,00 %	0,00 %	100,00 %
XFRA Frankfurt (EDF)	13,29 %	40,00 %	100,00 %	0,00 %	50,00 %



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

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
BMTF Bloomberg (BLOM)	96,76 %	89,86 %	100,00 %	0,00 %	98,50 %
XFRA Frankfurt (EDF)	3,00 %	8,11 %	100,00 %	0,00 %	33,33 %
XSTU Stuttgart (EDS)	0,24 %	2,03 %	100,00 %	0,00 %	100,00 %



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

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
BMTF Bloomberg (BLOM)	90,69 %	84,97 %	100,00 %	0,00 %	99,98 %
XFRA Frankfurt (EDF)	7,84 %	13,67 %	100,00 %	0,00 %	41,68 %
XSTU Stuttgart (EDS)	1,16 %	1,06 %	100,00 %	0,00 %	84,71 %
XBER Berlin-Bremen (EDB)	0,12 %	0,12 %	100,00 %	0,00 %	100,00 %
XMUN München (EDM)	0,08 %	0,02 %	100,00 %	0,00 %	100,00 %



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

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
BMTF Bloomberg (BLOM)	76,96 %	48,74 %	100,00 %	0,00 %	99,52 %
XFRA Frankfurt (EDF)	16,65 %	38,12 %	100,00 %	0,00 %	43,40 %
XHAN Hannover (EDI)	3,77 %	10,11 %	100,00 %	0,00 %	86,64 %
XSTU Stuttgart (EDS)	2,33 %	2,19 %	100,00 %	0,00 %	100,00 %
XMUN München (EDM)	0,22 %	0,75 %	100,00 %	0,00 %	100,00 %



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

Class of Instrument BD10
 other derivatives

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
XEUR EUREX (EDT)	100,00 %	100,00 %	100,00 %	0,00 %	0,00 %



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

Class of Instrument BD21
Equity derivatives

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
XEUR EUREX (EDT)	89,48 %	88,33 %	100,00 %	0,00 %	8,46 %
XEUE Amsterdam D. (ENEXT) (ENH)	9,84 %	9,85 %	100,00 %	0,00 %	3,49 %
XCBO Chicago (CBOE) (NAV)	0,37 %	0,84 %	100,00 %	0,00 %	25,93 %
IFLO London - ICE Fut. Eu (EUL1)	0,31 %	0,91 %	100,00 %	0,00 %	20,69 %
XOSL Oslo-Derivatives (SNF)	0,00 %	0,06 %	100,00 %	0,00 %	0,00 %



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

Class of Instrument BD99
 other derivatives

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
XEUR EUREX (EDT)	100,00 %	100,00 %	100,00 %	0,00 %	5,81 %



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

Class of Instrument BE21
securitized derivatives

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
XFRA Frankfurt (EDF)	59,93 %	60,75 %	100,00 %	0,00 %	17,20 %
XSTU Stuttgart (EDS)	40,03 %	39,13 %	100,00 %	0,00 %	94,55 %
XHAM Hamburg (EDH)	0,04 %	0,12 %	100,00 %	0,00 %	0,00 %



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

Class of Instrument BE22
securitized derivatives

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
XSTU Stuttgart (EDS)	85,18 %	87,10 %	100,00 %	0,00 %	59,26 %
XFRA Frankfurt (EDF)	14,82 %	12,90 %	100,00 %	0,00 %	25,00 %



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

Class of Instrument BE23
securitized derivatives

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
XFRA Frankfurt (EDF)	89,24 %	84,62 %	100,00 %	0,00 %	0,00 %
XSTU Stuttgart (EDS)	5,87 %	7,69 %	100,00 %	0,00 %	100,00 %
BMTF Bloomberg (BLOM)	4,89 %	7,69 %	100,00 %	0,00 %	100,00 %



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

Class of Instrument BE24
securitized derivatives

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
XFRA Frankfurt (EDF)	63,73 %	60,00 %	100,00 %	0,00 %	0,00 %
XSTU Stuttgart (EDS)	36,27 %	40,00 %	100,00 %	0,00 %	100,00 %



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

Class of Instrument BE99
securitized derivatives

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
XFRA Frankfurt (EDF)	92,38 %	97,50 %	100,00 %	0,00 %	7,69 %
XSTU Stuttgart (EDS)	7,62 %	2,50 %	100,00 %	0,00 %	100,00 %



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

Class of Instrument BF99
Exchange traded products (ETPs)

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
XETR XETRA (EDE)	61,56 %	72,90 %	100,00 %	0,00 %	21,24 %
XSTU Stuttgart (EDS)	37,32 %	25,16 %	100,00 %	0,00 %	64,10 %
XLON London (EUL)	0,87 %	0,65 %	100,00 %	0,00 %	100,00 %
XHAM Hamburg (EDH)	0,25 %	1,29 %	100,00 %	0,00 %	100,00 %



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

Class of Instrument BG99
 Exchange traded products (ETPs)

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
XETR XETRA (EDE)	100,00 %	100,00 %	100,00 %	0,00 %	20,00 %



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

Class of Instrument C999
no specific classification

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
XHAM Hamburg (EDH)	47,74 %	65,41 %	100,00 %	0,00 %	100,00 %
XSTU Stuttgart (EDS)	32,93 %	17,96 %	100,00 %	0,00 %	98,77 %
XFRA Frankfurt (EDF)	14,26 %	13,08 %	100,00 %	0,00 %	100,00 %
XMUN München (EDM)	4,76 %	2,00 %	100,00 %	0,00 %	100,00 %
XDUS Düsseldorf (EDD)	0,24 %	1,33 %	100,00 %	0,00 %	100,00 %



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

Class of Instrument 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
BMTF Bloomberg (BLOM)	100,00 %	100,00 %	100,00 %	0,00 %	100,00 %



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

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
XHAM Hamburg (EDH)	38,12 %	39,66 %	100,00 %	0,00 %	56,52 %
XFRA Frankfurt (EDF)	35,59 %	41,38 %	100,00 %	0,00 %	100,00 %
XSTU Stuttgart (EDS)	17,90 %	12,07 %	100,00 %	0,00 %	100,00 %
XDUS Düsseldorf (EDD)	5,03 %	5,17 %	100,00 %	0,00 %	100,00 %
XMUN München (EDM)	3,36 %	1,72 %	100,00 %	0,00 %	100,00 %