

Class of Instrument AA

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<br>traded as a percentage of<br>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)                                                  | 73,57 %                                                                  | 56,08 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XNAS     | New York - NASDAQ (NAD)                                                | 23,61 %                                                                  | 37,04 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XETR     | XETRA (EDE)                                                            | 1,04 %                                                                   | 1,59 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |
| XTSE     | Toronto Pure (NCP)                                                     | 0,92 %                                                                   | 1,59 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XASX     | Sydney (AAS)                                                           | 0,58 %                                                                   | 1,06 %                                                             | 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 |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| XSWX Zürich (ESE)                                                               | 69,29 %                                                            | 42,89 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XLON London (EUL)                                                               | 8,17 %                                                             | 5,03 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XETR XETRA (EDE)                                                                | 7,47 %                                                             | 7,45 %                                                             | 55,92 %                      | 44,08 %                         | 100,00 %                      |
| XNAS New York - NASDAQ (NAD)                                                    | 4,72 %                                                             | 1,79 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XNYS New York (NYSE) (NAY)                                                      | 3,67 %                                                             | 31,74 %                                                            | 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<br>executed as percentage of<br>total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| XLON London (EUL)                                                               | 59,25 %                                                            | 70,89 %                                                                  | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XETR XETRA (EDE)                                                                | 31,32 %                                                            | 19,73 %                                                                  | 49,78 %                      | 50,22 %                         | 100,00 %                      |
| XAMS Amsterdam (ENA)                                                            | 2,77 %                                                             | 1,46 %                                                                   | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XPAR Paris (EFP)                                                                | 1,49 %                                                             | 1,25 %                                                                   | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XOSL Oslo (SNO)                                                                 | 1,29 %                                                             | 1,73 %                                                                   | 100,00 %                     | 0,00 %                          | 100,00 %                      |
|                                                                                 |                                                                    |                                                                          |                              |                                 |                               |



Class of Instrument A

AA99

Equity instruments- Shares and share certificates

Tick Size

liquidity band E and liquidity band F

| Top five execution venues ranked in terms of to 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)                                                           | 35,48 %                                                            | 24,80 %                                                            | 53,25 %                      | 46,75 %                         | 100,00 %                      |
| XNYS New York (NYSE) (NAY)                                                 | 21,22 %                                                            | 38,71 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XNAS New York - NASDAQ (NAD)                                               | 10,58 %                                                            | 8,73 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XPAR Paris (EFP)                                                           | 9,30 %                                                             | 8,95 %                                                             | 100,00 %                     | 0,00 %                          | 99,99 %                       |
| XTKS Tokio (FJT)                                                           | 5,46 %                                                             | 2,22 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
|                                                                            |                                                                    |                                                                    |                              |                                 |                               |



Class of Instrument

AB99

Equity instruments- Shares and share certificates

Tick Size

not used

| Top five execution venues ranked in terms of tradin 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 |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| XNAS New York - NASDAQ (NAD)                                                   | 67,83 %                                                            | 75,00 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XNYS New York (NYSE) (NAY)                                                     | 29,77 %                                                            | 15,00 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| PINX New York-PinkShOTC (NUP)                                                  | 2,40 %                                                             | 10,00 %                                                            | 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<br>traded as a percentage of<br>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 |
|----------|------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| XNAS     | New York - NASDAQ (NAD)                                                | 54,78 %                                                                  | 29,92 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XNYS     | New York (NYSE) (NAY)                                                  | 15,89 %                                                                  | 37,69 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XLON     | London (EUL)                                                           | 15,34 %                                                                  | 12,56 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XFRA     | Frankfurt (EDF)                                                        | 7,27 %                                                                   | 6,28 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| PINX     | New York-PinkShOTC (NUP)                                               | 4,20 %                                                                   | 0,66 %                                                             | 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<br>traded as a percentage of<br>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 |
|----------|------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| XNAS     | New York - NASDAQ (NAD)                                                | 42,47 %                                                                  | 17,57 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XNYS     | New York (NYSE) (NAY)                                                  | 25,19 %                                                                  | 61,24 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XETR     | XETRA (EDE)                                                            | 20,56 %                                                                  | 12,78 %                                                            | 22,50 %                      | 77,50 %                         | 100,00 %                      |
| XFRA     | Frankfurt (EDF)                                                        | 6,95 %                                                                   | 4,47 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XLON     | London (EUL)                                                           | 2,64 %                                                                   | 1,92 %                                                             | 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

| 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)                                                                | 92,89 %                                                            | 94,59 %                                                            | 32,86 %                      | 67,14 %                         | 99,64 %                       |
| XNAS New York - NASDAQ (NAD)                                                    | 3,94 %                                                             | 4,05 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XFRA Frankfurt (EDF)                                                            | 2,85 %                                                             | 1,01 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XSTU Stuttgart (EDS)                                                            | 0,32 %                                                             | 0,34 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |
|                                                                                 |                                                                    |                                                                    |                              |                                 |                               |



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     | BIOCKMATCH MTF RFQ (BRFQ)                                              | 65,11 %                                                            | 54,30 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XETR     | XETRA (EDE)                                                            | 22,19 %                                                            | 19,45 %                                                            | 31,06 %                      | 68,94 %                         | 99,98 %                       |
| XLON     | London (EUL)                                                           | 8,02 %                                                             | 18,31 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XAMS     | Amsterdam (ENA)                                                        | 2,71 %                                                             | 5,59 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XSWX     | Zürich (ESE)                                                           | 0,63 %                                                             | 0,80 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |



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 |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| XSWX Zürich (ESE)                                                               | 90,27 %                                                            | 89,15 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XSWX Zurich - Swiss Blue (ESZ)                                                  | 7,25 %                                                             | 10,38 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XFRA Frankfurt (EDF)                                                            | 2,26 %                                                             | 0,44 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XEUR EUREX (EDT)                                                                | 0,22 %                                                             | 0,03 %                                                             | 100,00 %                     | 0,00 %                          | 0,00 %                        |
|                                                                                 |                                                                    |                                                                    |                              |                                 |                               |



Class of Instrument

AE99

other instruments

Tick Size

not used

| Top five execution venues ranked in terms of tradin volumes (descending order) | g Proportion of volume<br>traded as a percentage of<br>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)                                                               | 78,75 %                                                                    | 83,43 %                                                            | 31,59 %                      | 68,41 %                         | 11,50 %                       |
| XSWX Zürich (ESE)                                                              | 10,15 %                                                                    | 0,58 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XFRA Frankfurt (EDF)                                                           | 4,86 %                                                                     | 2,33 %                                                             | 100,00 %                     | 0,00 %                          | 41,67 %                       |
| XSTU Stuttgart (EDS)                                                           | 3,48 %                                                                     | 0,68 %                                                             | 0,00 %                       | 100,00 %                        | 42,86 %                       |
| XPAR Paris (EFP)                                                               | 1,62 %                                                                     | 2,13 %                                                             | 100,00 %                     | 0,00 %                          | 95,45 %                       |



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)                                                           | 89,79 %                                                            | 74,91 %                                                            | 100,00 %                     | 0,00 %                          | 99,75 %                       |
| XFRA Frankfurt (EDF)                                                            | 9,97 %                                                             | 24,74 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XSTU Stuttgart (EDS)                                                            | 0,17 %                                                             | 0,23 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |
| XBER Berlin-Bremen (EDB)                                                        | 0,07 %                                                             | 0,12 %                                                             | 0,00 %                       | 100,00 %                        | 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 |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| BMTF Bloomberg (BLOM)                                                           | 97,92 %                                                            | 89,00 %                                                            | 100,00 %                     | 0,00 %                          | 96,63 %                       |
| XFRA Frankfurt (EDF)                                                            | 1,81 %                                                             | 9,00 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XSTU Stuttgart (EDS)                                                            | 0,27 %                                                             | 2,00 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |



Class of Instrument

BA12

Debt instruments

Tick Size

not used

| Top five execution venues ranked in terms of tradin 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)                                                          | 53,96 %                                                            | 44,44 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XFRA Frankfurt (EDF)                                                           | 36,55 %                                                            | 44,44 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XMUN München (EDM)                                                             | 9,49 %                                                             | 11,11 %                                                            | 0,00 %                       | 100,00 %                        | 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 |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| BMTF Bloomberg (BLOM)                                                           | 88,72 %                                                            | 87,50 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XFRA Frankfurt (EDF)                                                            | 11,28 %                                                            | 12,50 %                                                            | 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 |
|----------|------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| BMTF     | Bloomberg (BLOM)                                                       | 87,94 %                                                            | 70,89 %                                                            | 100,00 %                     | 0,00 %                          | 99,83 %                       |
| XFRA     | Frankfurt (EDF)                                                        | 10,47 %                                                            | 27,33 %                                                            | 100,00 %                     | 0,00 %                          | 99,93 %                       |
| XSTU     | Stuttgart (EDS)                                                        | 1,25 %                                                             | 1,33 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |
| XDUS     | Düsseldorf (EDD)                                                       | 0,12 %                                                             | 0,18 %                                                             | 6,67 %                       | 93,33 %                         | 100,00 %                      |
| XBER     | Berlin-Bremen (EDB)                                                    | 0,08 %                                                             | 0,14 %                                                             | 16,67 %                      | 83,33 %                         | 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<br>traded as a percentage of<br>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)                                                       | 76,29 %                                                                  | 53,94 %                                                            | 100,00 %                     | 0,00 %                          | 99,59 %                       |
| XFRA     | Frankfurt (EDF)                                                        | 22,15 %                                                                  | 44,48 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XSTU     | Stuttgart (EDS)                                                        | 0,79 %                                                                   | 0,74 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |
| XHAN     | Hannover (EDI)                                                         | 0,54 %                                                                   | 0,57 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |
| XMUN     | München (EDM)                                                          | 0,18 %                                                                   | 0,09 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |



Class of Instrument

**BB99** 

Structured financial products

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 |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| DMTE Discombana (DLOM)                                                          | 100 00 0/                                                          | 100 00 0/                                                          | 100.00.0/                    | 0.00.0/                         | 100 00 0/                     |

BMTF Bloomberg (BLOM)

100,00 %

100,00 %

100,00 %

0,00 %

100,00 %



Class of Instrument

BD10

other 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 |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|

XEUR EUREX (EDT)

100,00 %

100,00 %

42,86 %

57,14 %

100,00 %



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)                                                                | 91,69 %                                                            | 94,30 %                                                            | 95,06 %                      | 4,94 %                          | 100,00 %                      |
| XCBO Chicago (CBOE) (NAV)                                                       | 7,06 %                                                             | 1,05 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XEUE Amsterdam D. (ENEXT) (ENH)                                                 | 0,74 %                                                             | 4,07 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| IFLO London - ICE Fut. Eu (EUL1)                                                | 0,51 %                                                             | 0,58 %                                                             | 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 was executed in the previous year: Y

|  | centage of Percentage of Percentage of directed orders |
|--|--------------------------------------------------------|
|--|--------------------------------------------------------|

XEUR EUREX (EDT)

100,00 %

100,00 %

45,45 %

54,55 %

100,00 %



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)                                                            | 69,72 %                                                            | 59,43 %                                                            | 100,00 %                     | 0,00 %                          | 99,96 %                       |
| XSTU Stuttgart (EDS)                                                            | 30,27 %                                                            | 40,30 %                                                            | 15,00 %                      | 85,00 %                         | 100,00 %                      |
| XSWX Zürich (ESE)                                                               | 0,00 %                                                             | 0,09 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XHAM Hamburg (EDH)                                                              | 0,00 %                                                             | 0,02 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |
| XNYS New York (NYSE) (NAY)                                                      | 0,00 %                                                             | 0,04 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |



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<br>traded as a percentage of<br>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)                                                            | 82,61 %                                                                  | 51,17 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XSTU Stuttgart (EDS)                                                            | 17,39 %                                                                  | 48,83 %                                                            | 0,00 %                       | 100,00 %                        | 100,00 %                      |



Class of Instrument

BE24

securitized derivatives

Tick Size

not used

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

|  | centage of Percentage of Percentage of directed orders |
|--|--------------------------------------------------------|
|--|--------------------------------------------------------|

XFRA Frankfurt (EDF)

100,00 %

100,00 %

100,00 %

0,00 %

100,00 %



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)                                                            | 71,26 %                                                            | 50,74 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| BMTF Bloomberg (BLOM)                                                           | 17,31 %                                                            | 34,07 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XETR XETRA (EDE)                                                                | 4,68 %                                                             | 7,35 %                                                             | 13,33 %                      | 86,67 %                         | 100,00 %                      |
| XSTU Stuttgart (EDS)                                                            | 3,99 %                                                             | 5,88 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |
| XDUS Düsseldorf (EDD)                                                           | 2,29 %                                                             | 0,74 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |



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 |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| BRFQ BIOCKMATCH MTF RFQ (BRFQ)                                                  | 81,23 %                                                            | 84,18 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XETR XETRA (EDE)                                                                | 12,73 %                                                            | 5,66 %                                                             | 9,76 %                       | 90,24 %                         | 100,00 %                      |
| XLON London (EUL)                                                               | 5,20 %                                                             | 9,43 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XSTU Stuttgart (EDS)                                                            | 0,83 %                                                             | 0,69 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |
| XAMS Amsterdam (ENA)                                                            | 0,00 %                                                             | 0,05 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |



Class of Instrument

BG99

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 (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  Proportion of orders executed as percentage of total in that class  Percentage of passive orders  passive orders  aggressive orders  directed orders |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

XETR XETRA (EDE)

100,00 %

100,00 %

7,69 %

92,31 %

100,00 %



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 |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| XSTU Stuttgart (EDS)                                                            | 58,74 %                                                            | 20,65 %                                                            | 0,00 %                       | 100,00 %                        | 100,00 %                      |
| XHAM Hamburg (EDH)                                                              | 18,49 %                                                            | 46,96 %                                                            | 0,86 %                       | 99,14 %                         | 100,00 %                      |
| XFRA Frankfurt (EDF)                                                            | 13,22 %                                                            | 13,77 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XSWX Zürich (ESE)                                                               | 7,78 %                                                             | 17,81 %                                                            | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XMUN München (EDM)                                                              | 1,36 %                                                             | 0,40 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |



Class of Instrument

CB99

Other instruments

Tick Size

not used

| volumes (descending order)    | g 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 |
|-------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------|---------------------------------|-------------------------------|
| WIAX Warburg Invest AG (WIAG) | 98,09 %                                                              | 98,81 %                                                            | 100,00 %                     | 0,00 %                          | 99,98 %                       |
| XFRA Frankfurt (EDF)          | 1,37 %                                                               | 0,92 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XAMS Amsterdam (ENA)          | 0,31 %                                                               | 0,02 %                                                             | 100,00 %                     | 0,00 %                          | 100,00 %                      |
| XSTU Stuttgart (EDS)          | 0,08 %                                                               | 0,07 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |
| XHAM Hamburg (EDH)            | 0,07 %                                                               | 0,11 %                                                             | 0,00 %                       | 100,00 %                        | 100,00 %                      |