

Top five execution venues for professional clients

Reporting period 01.01.2019 – 31.12.2019

| Class of Instrument | Equities | | | | |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| Notification if <1 average trade per business day in the previous year | No | | | | |
| Top five 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 a percentage of total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
| SIX Swiss Exchange - Blue Chips Segment (XSWX) | 39.11% | 33.60% | 24.01% | 75.99% | 0.00% |
| SIX Swiss Exchange (XSWX) | 29.87% | 29.60% | 46.32% | 53.68% | 0.04% |
| Xetra (XTER) | 9.28% | 9.55% | 26.17% | 73.83% | 2.77% |
| NYSE (XNYS) | 5.49% | 7.00% | 12.32% | 87.68% | 0.10% |
| NASDAQ OMX (XNAS) | 4.76% | 4.82% | 14.82% | 85.18% | 0.00% |

| Class of Instrument | Funds | | | | |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| Notification if <1 average trade per business day in the previous year | No | | | | |
| Top five 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 a percentage of total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
| Broker Swisscanto (SFCL) | 67.66% | 74.61% | 0.00% | 100.00% | 0.00% |
| Off-Exchange Switzerland (BMTF) | 8.45% | 0.37% | 31.47% | 68.53% | 0.00% |
| Deutsche Boersen-Indices & Xetra-ETF (XFRA) | 6.83% | 4.34% | 51.27% | 48.73% | 31.75% |
| SIX Swiss Exchange (XSWX) | 5.64% | 10.09% | 24.69% | 75.31% | 34.37% |
| Off-Exchange Abroad (BMTF) | 2.72% | 1.38% | 38.87% | 61.13% | 0.00% |

| Class of Instrument | Bonds | | | | |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| Notification if <1 average trade per business day in the previous year | No | | | | |
| Top five 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 a percentage of total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
| Off-Exchange Abroad (BMTF) | 47.40% | 37.63% | 33.01% | 66.99% | 0.00% |
| Off-Exchange SWX (XSWX) | 20.20% | 9.54% | 19.95% | 80.05% | 100.00% |
| SIX Swiss Exchange (XSWX) | 18.66% | 44.19% | 61.44% | 38.56% | 0.49% |
| Off-Exchange Switzerland (BMTF) | 13.64% | 8.37% | 13.64% | 86.36% | 0.00% |
| Boerse Stuttgart GmbH (XSTU) | 0.06% | 0.13% | 0.00% | 100.00% | 50.00% |

| Class of Instrument | Structured Products / Certificates | | | | |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| Notification if <1 average trade per business day in the previous year | No | | | | |
| Top five 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 a percentage of total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
| Off-Exchange Switzerland (BMTF) | 49.34% | 44.10% | 42.50% | 57.50% | 0.00% |
| Off-Exchange Abroad (BMTF) | 18.56% | 17.17% | 56.78% | 43.22% | 0.00% |
| SIX Swiss Exchange, Structured Products (XSWX) | 13.76% | 18.27% | 67.23% | 32.77% | 0.00% |
| Euwx (XSTU) | 12.07% | 15.71% | 58.39% | 41.61% | 0.00% |
| Xetra (XTER) | 3.53% | 2.79% | 57.19% | 42.81% | 6.47% |

| Class of Instrument | Options | | | | |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| Notification if <1 average trade per business day in the previous year | No | | | | |
| Top five 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 a percentage of total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
| Eurex Deutschland (XEUR) | 69.69% | 89.58% | 38.97% | 61.03% | 0.00% |
| OTCEX (VATE) | 20.63% | 1.73% | 0.60% | 99.40% | 100.00% |
| Options Price Reporting Authority (OPRA) | 7.45% | 6.36% | 2.59% | 97.41% | 0.16% |
| ICE Futures Europe - Liffe, Equity Products (IFEU) | 1.99% | 1.82% | 2.82% | 97.18% | 1.13% |
| Italian Derivatives Market (XDML) | 0.05% | 0.03% | 0.00% | 100.00% | 0.00% |

| Class of Instrument | Ansprüche | | | | |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| Notification if <1 average trade per business day in the previous year | No | | | | |
| Top five 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 a percentage of total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
| Swiss Fund Data AG | 76.28% | 25.49% | 0.00% | 100.00% | 6.84% |
| Off-Exchange Switzerland (BMTF) | 23.72% | 74.51% | 0.00% | 100.00% | 0.00% |

| Class of Instrument | Warrants | | | | |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| Notification if <1 average trade per business day in the previous year | No | | | | |
| Top five 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 a percentage of total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
| SIX Swiss Exchange, Structured Products (XSWX) | 81.31% | 76.89% | 83.21% | 16.79% | 0.00% |
| Off-Exchange Abroad (BMTF) | 8.33% | 6.11% | 55.68% | 44.32% | 0.00% |
| Euwax (XSTU) | 7.18% | 10.90% | 49.04% | 50.96% | 0.64% |
| Off-Exchange Switzerland (BMTF) | 2.11% | 3.33% | 29.17% | 70.83% | 0.00% |
| Boerse Frankfurt Zertifikate AG (XSCO) | 0.95% | 1.94% | 89.29% | 10.71% | 10.71% |

| Class of Instrument | Precious Metal | | | | |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| Notification if <1 average trade per business day in the previous year | Yes | | | | |
| Top five 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 a percentage of total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
| Off-Exchange Switzerland (BMTF) | 99.01% | 95.96% | 1.87% | 98.13% | 0.00% |
| Off-Exchange Abroad (BMTF) | 0.99% | 4.04% | 0.00% | 100.00% | 0.00% |

| Class of Instrument | Rights | | | | |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| Notification if <1 average trade per business day in the previous year | Yes | | | | |
| Top five 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 a percentage of total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
| SIX Swiss Exchange (XSWX) | 80.41% | 55.88% | 7.37% | 92.63% | 0.00% |
| Off-Exchange Switzerland (BMTF) | 16.08% | 20.00% | 0.00% | 100.00% | 0.00% |
| NYSE (XNYS) | 1.60% | 1.76% | 33.33% | 66.67% | 0.00% |
| BME Bolsas y Mercados Espanoles (BMEX) | 0.89% | 10.59% | 0.00% | 100.00% | 0.00% |
| Deutsche Boerse AG (XFRA) | 0.48% | 2.94% | 0.00% | 100.00% | 60.00% |

| Class of Instrument | Futures | | | | |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| Notification if <1 average trade per business day in the previous year | Yes | | | | |
| Top five 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 a percentage of total in that class | Percentage of passive orders | Percentage of aggressive orders | Percentage of directed orders |
| Eurex Deutschland (XEUR) | 98.49% | 93.40% | 21.21% | 78.79% | 0.00% |
| CBOE Futures Exchange (XCBO) | 1.51% | 6.60% | 71.43% | 28.57% | 0.00% |