

# Annual Best Execution Disclosure

RTS 28 Report in Accordance with the European Market in Financial Instrument Directive 2014/65/EU (“MiFID II”)

Reporting period: 01 January 2020 to 31 December 2020

**ACA Mirabella** 



# Qualitative Report

| ESMA's questions*  | ACA Mirabella's answers   |
|--|---|
| <p>a) an explanation of the relative importance the firm gave to the execution factors of price, costs, speed, likelihood of execution or any other consideration including qualitative factors when assessing the quality of execution;</p> | <p>The importance of the execution factors is outlined in ACA Mirabella's Execution Policy. The key factors are the characteristics of financial instruments that are the subject of that order, price, cost, size and the ability of brokers to execute orders. ACA Mirabella's choice of brokers is mainly driven by ACA Mirabella's Portfolio Managers (PMs) who value the ability of execution at competitive prices given the desired volume</p> |
| <p>b) a description of any close links, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders;</p>   | <p>ACA Mirabella transmits orders to external entities for execution. No orders are directly executed by ACA Mirabella. ACA Mirabella does not have any affiliated brokers. ACA Mirabella trades with as many liquidity providers as possible to ensure the effective implementation of the clients' investment objectives.</p>   |
| <p>c) a description of any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received;</p>  | <p>ACA Mirabella is not engaged in such arrangements.</p>   |

# Qualitative Report

| ESMA's questions*   | ACA Mirabella's answers   |
|---|---|
| <p>d) an explanation of the factors that led to a change in the list of execution venues listed in the firm's execution policy, if such a change occurred;</p>  | <p>All ACA Mirabella's orders are sent to external entities for execution; no major changes have occurred. ACA Mirabella executes with over 220 brokers. The inclusion of brokers, to the approved list, is at the direction of the PMs and is subject to brokers meeting certain conditions. In this respect, all brokers are subject to ACA Mirabella's Counterparty Policy. ACA Mirabella continuously monitors the credit quality of the entities that ACA Mirabella executes with, as well as ensuring an oversight and understanding of the market sentiment in relation to these names. ACA Mirabella performs regular reviews of the performance and the ability of those brokers to trade effectively on behalf of ACA Mirabella to ensure high quality execution.</p> |
| <p>e) an explanation of how order execution differs according to client categorisation, where the firm treats categories of clients differently and where it may affect the order execution arrangements;</p>   | <p>ACA Mirabella executes all its orders through brokers as a professional counterparty. We do not execute orders on behalf of clients.</p>   |
| <p>f) an explanation of whether other criteria were given precedence over immediate price and cost when executing retail client orders and how these other criteria were instrumental in delivering the best possible result in terms of the total consideration to the client;</p> | <p>ACA Mirabella does not have retail clients.</p>  |

# Qualitative Report

| ESMA's questions*   | ACA Mirabella's answers   |
|---|---|
| <p>g) an explanation of how the investment firm has used any data or tools relating to the quality of execution, including any data published under Delegated Regulation (EU) 2017/575;</p> | <p>ACA Mirabella does have a module that monitors available market data to help assess relevant benchmarks. ACA Mirabella is satisfied that it has adhered to our own internal Best Execution Policy. Brokers used by ACA Mirabella provide their own Best Execution Policies and we utilise brokers' own quarterly analyses as another tool to help ACA Mirabella's PMs. We undertake due diligence to validate the adequacy of the broker's execution performance while ensuring confidentiality and execution instructions. Periodic reviews are also performed on brokers to ensure their compliance with ACA Mirabella's best execution obligations.</p> |
| <p>h) where applicable, an explanation of how the investment firm has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU.</p>                 | <p>ACA Mirabella does not utilise any output of a consolidated tape provider.</p>   |

\*this table directly responds to the information required and as detailed in Article 3(3)(a-h) of the Commission Delegated Regulation (EU) 2017/576. This Article requires firms to publish a summary of the analysis and conclusions drawn from monitoring of the quality of execution obtained on the execution venues where they executed all client orders in the previous year.

## Equities – Tick Size Liquidity Bands 5 and 6

Notification if <1 average trade per business day 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. INTERNATIONAL PLC<br>LEI: 4PQUHN3JPFQFN3BB653              | 13.60%   | 18.38%   | N/A                          | N/A                             | N/A                           |
| GOLDMAN SACHS INTERNATIONAL<br>LEI: W22LROWP2IHZNBB6K528                        | 10.77%   | 2.86%  | N/A                          | N/A                             | N/A                           |
| MERRILL LYNCH INTERNATIONAL<br>LEI: GGDZP1UYGU9STUHRDP48                        | 10.18%   | 2.05%  | N/A                          | N/A                             | N/A                           |
| JEFFERIES INTERNATIONAL LIMITED<br>LEI: S5THZMDUJCTQZBTRVI98                    | 9.96%  | 2.66%  | N/A                          | N/A                             | N/A                           |
| J.P. MORGAN SECURITIES LLC<br>LEI: ZBUT11V806EZRVWT807                          | 7.82%  | 1.78%  | N/A                          | N/A                             | N/A                           |

## Equities – Tick Size Liquidity Bands 3 and 4

Notification if <1 average trade per business day 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. LLC<br>LEI: 9R7GPTSO7KV3UQJZQ078                           | 37.36%   | 27.29%   | N/A                          | N/A                             | N/A                           |
| MORGAN STANLEY & CO. INTERNATIONAL PLC<br>LEI: 4PQUHN3JPFQFN3BB653              | 25.38%   | 38.37%   | N/A                          | N/A                             | N/A                           |
| JPMORGAN CHASE BANK, NATIONAL ASSOCIATION<br>LEI: 7H6GLXDRUGQFU57RNE97          | 20.20%   | 18.21%   | N/A                          | N/A                             | N/A                           |
| BANK OF AMERICA, NATIONAL ASSOCIATION<br>LEI: B4TYDEB6GKMZO031MB27              | 16.53%   | 15.64%   | N/A                          | N/A                             | N/A                           |
| J.P. MORGAN SECURITIES LLC<br>LEI: ZBUT11V806EZRVWT807                          | 0.30%  | 0.05%  | N/A                          | N/A                             | N/A                           |

## Equities – Tick Size Liquidity Bands 1 and 2

Notification if <1 average trade per business day 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 INTERNATIONAL<br>LEI: W22LROWP2IHZNBB6K528                        | 66.06%   | 34.37%   | N/A                          | N/A                             | N/A                           |
| MORGAN STANLEY & CO. INTERNATIONAL PLC<br>LEI: 4PQUHN3JPFQFN3BB653              | 15.16%   | 11.82%   | N/A                          | N/A                             | N/A                           |
| J.P. MORGAN SECURITIES PLC<br>LEI: K6Q0W1PS1L1O4IQL9C32                         | 7.34%  | 9.26%  | N/A                          | N/A                             | N/A                           |
| MORGAN STANLEY & CO. LLC<br>LEI: 9R7GPTSO7KV3UQJZQ078                           | 2.27%  | 29.97%   | N/A                          | N/A                             | N/A                           |
| CREDIT SUISSE SECURITIES (EUROPE) LIMITED<br>LEI: DL6FFRRLF74S01HE2M14          | 1.88%  | 0.82%  | N/A                          | N/A                             | N/A                           |

## Debt Instruments - Bonds

Notification if <1 average trade per business day 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 SECURITIES PLC<br>LEI: K6Q0W1PS1L1O4IQL9C32                         | 9.33%  | 4.34%  | N/A                          | N/A                             | N/A                           |
| CITIGROUP GLOBAL MARKETS LIMITED<br>LEI: XKZZ2JZF41MRHTR1V493                   | 5.36%  | 4.10%  | N/A                          | N/A                             | N/A                           |
| MORGAN STANLEY CAPITAL SERVICES LLC<br>LEI: I7331LVCZKQKX5T7XV54                | 3.10%  | 1.17%  | N/A                          | N/A                             | N/A                           |
| GOLDMAN SACHS INTERNATIONAL<br>LEI: W22LROWP2IHZNBB6K528                        | 3.08%  | 3.31%  | N/A                          | N/A                             | N/A                           |
| BNP PARIBAS<br>LEI: R0MUWSFPU8MPRO8K5P83  | 2.98%  | 3.51%  | N/A                          | N/A                             | N/A                           |

## Interest Rate Derivatives – Futures and Options Admitted to Trading on a Trading Venue

Notification if <1 average trade per business day 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 GLOBAL MARKETS LIMITED<br>LEI: XKZZ2JZF41MRHTR1V493                   | 65.27%   | 76.69%   | N/A                          | N/A                             | N/A                           |
| MORGAN STANLEY & CO. INTERNATIONAL PLC<br>LEI: 4PQUHN3JPFQFN3BB653              | 18.10%   | 5.33%  | N/A                          | N/A                             | N/A                           |
| CREDIT SUISSE SECURITIES (EUROPE) LIMITED<br>LEI: DL6FFRRLF74S01HE2M14          | 5.91%  | 4.09%  | N/A                          | N/A                             | N/A                           |
| BGC BROKERS L.P.<br>LEI: ZWNFQ48RUL8VJZ2AIC12                                   | 5.74%  | 2.65%  | N/A                          | N/A                             | N/A                           |
| J.P. MORGAN SECURITIES PLC<br>LEI: K6Q0W1PS1L1O4IQL9C32                         | 0.84%  | 0.33%  | N/A                          | N/A                             | N/A                           |

## Interest Rate Derivatives – Swaps, Forwards and Other Interest Rate Derivatives

Notification if <1 average trade per business day 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 SECURITIES PLC<br>LEI: K6Q0W1PS1L1O4IQL9C32                         | 22.24%   | 16.67%   | N/A                          | N/A                             | N/A                           |
| GOLDMAN SACHS INTERNATIONAL<br>LEI: W22LROWP2IHZNBB6K528                        | 11.20%   | 11.42%   | N/A                          | N/A                             | N/A                           |
| JB DRAX HONORE (UK) LIMITED<br>LEI: 549300WYFIFDMB6POR04                        | 10.67%   | 3.72%  | N/A                          | N/A                             | N/A                           |
| MORGAN STANLEY CAPITAL SERVICES LLC<br>LEI: I7331LVCZKQKX5T7XV54                | 10.66%   | 3.30%  | N/A                          | N/A                             | N/A                           |
| MERRILL LYNCH INTERNATIONAL<br>LEI: GGDZP1UYGU9STUHRDP48                        | 9.24%  | 6.43%  | N/A                          | N/A                             | N/A                           |



## Credit Derivatives – Futures and Options Admitted to Trading on a Trading Venue

Notification if <1 average trade per business day 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 |
|---|--|--|------------------------------|---------------------------------|-------------------------------|
| BNP PARIBAS<br>LEI: R0MUWSFPU8MPRO8K5P83  | 34.13%   | 31.82%   | N/A                          | N/A                             | N/A                           |
| CREDIT SUISSE INTERNATIONAL<br>LEI: E58DKGMJYYYYJLN8C3868                       | 16.33%   | 18.18%   | N/A                          | N/A                             | N/A                           |
| BARCLAYS BANK PLC<br>LEI: G5GSEF7VJP5I7OUK5573                                  | 10.06%   | 9.09%  | N/A                          | N/A                             | N/A                           |
| MERRILL LYNCH INTERNATIONAL<br>LEI: GGDZP1UYGU9STUHRDP48                        | 10.04%   | 6.06%  | N/A                          | N/A                             | N/A                           |
| DEUTSCHE BANK AKTIENGESELLSCHAFT<br>LEI: 7LWTFZYICNSX8D621K86                   | 8.85%  | 13.64%   | N/A                          | N/A                             | N/A                           |

## Other Credit Derivatives

Notification if <1 average trade per business day 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 |
|---|--|--|------------------------------|---------------------------------|-------------------------------|
| BNP PARIBAS<br>LEI: R0MUWSFPU8MPRO8K5P83  | 16.59%   | 11.78%   | N/A                          | N/A                             | N/A                           |
| DEUTSCHE BANK AKTIENGESELLSCHAFT<br>LEI: 7LWTFZYICNSX8D621K86                   | 14.17%   | 11.97%   | N/A                          | N/A                             | N/A                           |
| CITIGROUP GLOBAL MARKETS LIMITED<br>LEI: XKZZ2JZF41MRHTR1V493                   | 12.49%   | 11.20%   | N/A                          | N/A                             | N/A                           |
| MORGAN STANLEY & CO. INTERNATIONAL PLC<br>LEI: 4PQUHN3JPFQFN3BB653              | 10.39%   | 9.87%  | N/A                          | N/A                             | N/A                           |
| CREDIT SUISSE INTERNATIONAL<br>LEI: E58DKGMJYYYYJLN8C3868                       | 9.98%  | 11.52%   | N/A                          | N/A                             | N/A                           |



## Currency Derivatives – Futures and Options Admitted to Trading on a Trading Venue

Notification if <1 average trade per business day 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 |
|---|--|--|------------------------------|---------------------------------|-------------------------------|
| CITIGROUP GLOBAL MARKETS LIMITED<br>LEI: XKZZ2JZF41MRHTR1V493                   | 22.75%   | 2.10%  | N/A                          | N/A                             | N/A                           |
| J.P. MORGAN SECURITIES PLC<br>LEI: K6Q0W1PS1L1O4IQL9C32                         | 13.23%   | 0.81%  | N/A                          | N/A                             | N/A                           |
| BARCLAYS BANK PLC<br>LEI: G5GSEF7VJP5I7OUK5573                                  | 11.64%   | 0.65%  | N/A                          | N/A                             | N/A                           |
| BANK OF AMERICA, NATIONAL ASSOCIATION<br>LEI: B4TYDEB6GKMZO031MB27              | 11.36%   | 1.13%  | N/A                          | N/A                             | N/A                           |
| UBS AG<br>LEI: BFM8T61CT2L1QCCEMIK50  | 9.36%  | 0.97%  | N/A                          | N/A                             | N/A                           |

## Currency Derivatives – Swaps, Forwards and Other Currency Derivatives

Notification if <1 average trade per business day 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 GLOBAL MARKETS LIMITED<br>LEI: XKZZ2JZF41MRHTR1V493                   | 18.88%   | 27.19%   | N/A                          | N/A                             | N/A                           |
| J.P. MORGAN SECURITIES PLC<br>LEI: K6Q0W1PS1L1O4IQL9C32                         | 16.73%   | 12.18%   | N/A                          | N/A                             | N/A                           |
| CITIGROUP GLOBAL MARKETS INC.<br>LEI: MBNUM2BPBDO7JBLYG310                      | 8.06%  | 10.69%   | N/A                          | N/A                             | N/A                           |
| CREDIT SUISSE SECURITIES (USA) LLC<br>LEI: 1V8Y6QCX6YMJ2OELI46                  | 7.48%  | 3.23%  | N/A                          | N/A                             | N/A                           |
| STATE STREET GLOBAL MARKETS INTERNATIONAL LIMITED<br>LEI: 549300SQM0MRIF4HE647  | 6.38%  | 7.33%  | N/A                          | N/A                             | N/A                           |

## Equity Derivatives – Options and Futures Admitted to Trading on a Trading Venue

Notification if <1 average trade per business day 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. INTERNATIONAL PLC<br>LEI: 4PQUHN3JPFQFN3BB653              | 28.76%   | 35.23%   | N/A                          | N/A                             | N/A                           |
| BOFA SECURITIES, INC.<br>LEI: 549300HN4UKV1E2R3U73                              | 22.12%   | 6.19%  | N/A                          | N/A                             | N/A                           |
| CITIGROUP GLOBAL MARKETS LIMITED<br>LEI: XKZZ2JZF41MRHTR1V493                   | 11.61%   | 6.95%  | N/A                          | N/A                             | N/A                           |
| GOLDMAN SACHS INTERNATIONAL<br>LEI: W22LROWP2IHZNBB6K528                        | 10.60%   | 7.27%  | N/A                          | N/A                             | N/A                           |
| ABN AMRO CLEARING BANK N.V.<br>LEI: G8ZTNESVKNW4NN761W05                        | 9.01%  | 7.91%  | N/A                          | N/A                             | N/A                           |

## Structured Finance Instruments

Notification if <1 average trade per business day 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 |
|--|--|--|------------------------------|---------------------------------|-------------------------------|
| BNP PARIBAS SECURITIES CORP.<br>LEI: 2J5703FH5U5M97R1I237                        | 19.81%   | 13.79%   | N/A                          | N/A                             | N/A                           |
| BANCO SANTANDER, S.A.<br>LEI: 5493006QMFDDMYWIAM13                               | 13.47%   | 6.90%  | N/A                          | N/A                             | N/A                           |
| BANK OF AMERICA MERRILL LYNCH INTERNATIONAL LIMITED<br>LEI: EYKN6V0ZCB8VD9IULB80 | 10.31%   | 13.79%   | N/A                          | N/A                             | N/A                           |
| BANCA POPOLARE DI SONDRIO<br>LEI: J48C8PCSJVUBR8KCW529                           | 9.50%  | 6.90%  | N/A                          | N/A                             | N/A                           |
| RBC EUROPE LIMITED<br>LEI: TXDSU46SXBWIGJ8G8E98                                  | 8.48%  | 6.90%  | N/A                          | N/A                             | N/A                           |



# Commodities Derivatives – Options and Futures Admitted to Trading on a Trading Venue

Notification if <1 average trade per business day 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 |
|---|--|--|------------------------------|---------------------------------|-------------------------------|
| MIZUHO SECURITIES USA LLC<br>LEI: 7TK5RJZDFROZCA6XF66                           | 90.99%   | 90.54%   | N/A                          | N/A                             | N/A                           |
| UBS SECURITIES LLC<br>LEI: T6FIZBDPKLYJKFCRVK44                                 | 6.49%  | 8.80%  | N/A                          | N/A                             | N/A                           |
| CITIGROUP GLOBAL MARKETS LIMITED<br>LEI: XKZZ2JZF41MRHTR1V493                   | 1.29%  | 0.18%  | N/A                          | N/A                             | N/A                           |
| GOLDMAN SACHS INTERNATIONAL<br>LEI: W22LROWP2IHZNBB6K528                        | 0.57%  | 0.10%  | N/A                          | N/A                             | N/A                           |
| TULLETT PREBON (EUROPE) LIMITED<br>LEI: 549300MU2MYJLOY6IJ51                    | 0.38%  | 0.34%  | N/A                          | N/A                             | N/A                           |

## Emission Allowances

Notification if <1 average trade per business day 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 |
|---|--|--|------------------------------|---------------------------------|-------------------------------|
| MIZUHO SECURITIES USA LLC<br>LEI: 7TK5RJZDFROZCA6XF66                           | 100%   | 100%   | N/A                          | N/A                             | N/A                           |

## Contracts For Difference

Notification if <1 average trade per business day 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. INTERNATIONAL PLC<br>LEI: 4PQUHN3JPFQFN3BB653              | 55.07%   | 60.56%   | N/A                          | N/A                             | N/A                           |
| GOLDMAN SACHS INTERNATIONAL<br>LEI: W22LROWP2IHZNBB6K528                        | 9.36%  | 5.58%  | N/A                          | N/A                             | N/A                           |
| MERRILL LYNCH INTERNATIONAL<br>LEI: GGDZP1UYGU9STUHRDP48                        | 4.67%  | 3.63%  | N/A                          | N/A                             | N/A                           |
| EXANE LIMITED<br>LEI: 213800SH9MTNZQJKP526                                      | 4.58%  | 11.33%   | N/A                          | N/A                             | N/A                           |
| J.P. MORGAN SECURITIES PLC<br>LEI: K6Q0W1PS1L1O4IQL9C32                         | 3.69%  | 3.74%  | N/A                          | N/A                             | N/A                           |

## Exchange Traded Products

Notification if <1 average trade per business day 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. LLC<br>LEI: 9R7GPTSO7KV3UQJZQ078                           | 25.93%   | 39.69%   | N/A                          | N/A                             | N/A                           |
| JPMORGAN CHASE BANK, NATIONAL ASSOCIATION<br>LEI: 7H6GLXDRUGQFU57RNE97          | 16.34%   | 15.26%   | N/A                          | N/A                             | N/A                           |
| MORGAN STANLEY & CO. INTERNATIONAL PLC<br>LEI: 4PQUHN3JPFQFN3BB653              | 13.82%   | 9.50%  | N/A                          | N/A                             | N/A                           |
| GOLDMAN SACHS INTERNATIONAL<br>LEI: W22LROWP2IHZNBB6K528                        | 11.70%   | 8.53%  | N/A                          | N/A                             | N/A                           |
| BANK OF AMERICA, NATIONAL ASSOCIATION<br>LEI: B4TYDEB6GKMZO031MB27              | 11.60%   | 11.58%   | N/A                          | N/A                             | N/A                           |



## Other Instruments

Notification if <1 average trade per business day 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 SECURITIES PLC<br>LEI: K6Q0W1PS1L1O4IQL9C32                         | 22.61%   | 7.39%  | N/A                          | N/A                             | N/A                           |
| HSBC PRIVATE BANK (SUISSE) SA<br>LEI: 549300LM7URE8RZR5X06                      | 3.98%  | 0.06%  | N/A                          | N/A                             | N/A                           |
| MORGAN STANLEY & CO. INTERNATIONAL PLC<br>LEI: 4PQUHN3JPF6FN3BB653              | 3.90%  | 9.66%  | N/A                          | N/A                             | N/A                           |
| MERRILL LYNCH INTERNATIONAL<br>LEI: GGDZP1UYGU9STUHRDP48                        | 3.45%  | 0.57%  | N/A                          | N/A                             | N/A                           |
| BANQUE PICTET & CIE S.A.<br>LEI: 4LCYDN74UCFU5VPM4774                           | 3.08%  | 0.07%  | N/A                          | N/A                             | N/A                           |

## Securities Financing Transactions

Notification if <1 average trade per business day 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 |
|---|--|--|
| J.P. MORGAN SECURITIES PLC<br>LEI: K6Q0W1PS1L1O4IQL9C32                         | 37.66%   | 34.28%   |
| BARCLAYS BANK PLC<br>LEI: G5GSEF7VJP5I7OUK5573                                  | 16.54%   | 15.00%   |
| NOMURA INTERNATIONAL PLC<br>LEI: DGQCSV2PHVF7I2743539                           | 10.89%   | 15.24%   |
| MERRILL LYNCH INTERNATIONAL<br>LEI: GGDZP1UYGU9STUHRDP48                        | 8.91%  | 9.06%  |
| UBS AG<br>LEI: BFM8T61CT2L1QCEMIK50   | 7.62%  | 5.55%  |