2021 Best Execution and Execution Quality Report Deutsche Bank Trust Company Americas

In accordance with the MiFID II best execution obligation, Deutsche Bank Wealth Management, U.S. ("DBWM US"), acting through the German-American Team operating out of Deutsche Bank Trust Company Americas ("DBTCA") takes all sufficient steps to obtain the best possible result when receiving and transmitting orders on behalf of our retail clients, taking into account the execution factors, which include price, costs, speed, likelihood of execution and settlement, size and nature or any other consideration relevant to the execution of the order.

To ensure that we constantly are able to deliver best execution to our clients, we monitor on an ongoing basis the quality of execution provided by brokers, and whether these continue to meet our standards.

This report provides a written summary of the analysis and conclusions drawn from our best execution monitoring, together with a list of the top five execution brokers used to execute retail client orders in each class of financial instrument, as per article 3(3) of Commission Delegated Regulation (EU) 2017/576 of 8 June 2016 supplementing Directive 2014/65/EU ("MiFID II").

DBWM US will not act as a broker when executing client orders, and will consequently not appear among top five brokers. DBWM US acts as receiver and transmitter of retail client orders to a broker in the following classes of financial instruments:

- Equities
- Debt Instruments (Bonds and Money Market instruments)

Contents

Best Execution Quality Summary Analysis – Equities	3
Top Five Brokers – Equities	5
Best Execution Quality Summary Analysis – Debt Instruments	6
Top Five Brokers – Debt Instruments	8

Best Execution Quality Summary Analysis – Equities

- Tick size liquidity bands 5 and 6 (from 2000 trades per day) Highly liquid shares
- Tick size liquidity banks 3 and 4 (from 80 to 1999 trades per day) Medium liquid shares
- Tick size liquidity banks 1 and 2 (from 0 to 79 trades per day) Less liquid shares

An explanation of the relative importance DBWM US 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.

DBWM US seeks to obtain the best possible results for its clients. DBWM US takes into account various execution factors in deciding how and where to execute client orders. Execution is primarily performed according to:

- Held or Not-Held
- NBBO quoted best bid/offer
- Depth of market
- Size of order
- Likelihood of execution
- Impact on execution

DBWM US uses its experience and judgment in addition to taking into account criteria relevant to best execution, such as the size and nature of the order. DBWM US in general regards price as the most important execution factor, but also adjusts the importance placed on the remaining execution factors, taking into account the nature of the order and market at the time of execution.

For a detailed description of how we carry out client orders, application of execution factors and how we prioritize the factors, please refer to our Order Execution Policy.

A description of any close link, conflicts of interests, and common ownerships with respect to any execution venues used to execute orders.

DBWM US does not have any close links, conflicts of interests, and common ownership with respect to any execution venues used to execute client orders in equities. Any dealing or relationship between units within DBWM US is conducted in accordance with DBWM's Conflict of Interest Policy. With regard to equity accommodation trades executed for DBTCA Custody accounts, DBWM US through its affiliate DBSI leverages the execution capabilities of Pershing, LLC with which it has a formal agreement in place. With regard to DPM equity trades, DBWM US routes trades to its affiliate (DWS) for execution with third party brokers.

A description of any specific arrangements with any execution venues regarding payments made or received discounts, rebates or non-monetary benefits received.

DBWM US does not have any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received. Any dealing or relationship between units within DBWM US is conducted in accordance with DBWM's Conflict of Interest Policy.

An explanation of the factors that led to a change in the list of execution venues used in our order execution policy, if such a changed occurred.

No changes have been made since publication of the brokers listed in our Order Execution Policy of 3 January 2018. If a change in execution quality is identified, the executing broker is notified of the occurrence and a request to address the execution quality is made and monitored.

An explanation of how order execution differs according to client categorization, where the firm treats categories of clients differently and where it may affect the order execution arrangements.

Not applicable as we transmit orders for retail clients only.

An explanation of whether other criteria were given precedence over immediate price and cost when executing retail client orders and how these criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.

Price is always the determining factor when executing orders for retail clients. In cases where trades are designated as accommodation trades for DBTCA Custody accounts that are executed through Pershing, instructions that may have accompanied the order request would supersede any normal order handling procedures.

An explanation of how DBWM US has used any data or tools relating to the quality of execution, including any data published under Commission Delegated Regulation (EU) 2017/575.

We monitor the quality of execution provided by brokers used to execute client orders in equity on a consistent basis using automatic monitoring tools. We use a variety of tools and metrics in order to assess the quality of execution provided to its clients. The metrics are used to assess the quality of client order handling and execution quality in real time as well as post-trade. This includes, but is not limited to, adherence to order instructions, the management and timeliness of order passing and execution, and reviewing available quotes and market prices. Our monitoring also includes exception-based controls, with results reviewed by our broker specialist team includes those within DBWM US. The tools and data used include but not limited to; published exception reports for all orders, Brokerage and DMA and Broker Scorecard available through Pershing and ITG Cost Analysis report for DMA orders executed by DWS.

An explanation of how the DBWM US has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU.

Not applicable as DBWM US does not utilize a consolidated tape provider.

Summary of the best execution quality analysis and conclusions drawn from our monitoring of equities.

The analysis and conclusions drawn from our monitoring of the quality of execution in 2021 confirm that the brokers used to execute client orders in equities meet our standards in delivering best execution to our clients on a consistent basis.

A list of our top five brokers used to execute retail client orders can be found below together with detailed information on the volume and number of orders executed by each broker. A list of brokers used to execute client orders in equities can be found on our website: <u>https://deutschewealth.com/content/deutschewealth/en/articles/MiFID-II-Order-Execution.html</u>

Top Five Brokers – Equities

Equities Accommodation Trades: With regard to DBTCA Custody accounts, DBWM US engages its affiliate Deutsche Bank Securities Inc. ("DBSI") to execute sell accommodation equity trade orders which are transmitted to a third-party trading entity (Pershing LLC) for execution.

Equities DPM: With respect to DBTCA DPM accounts, DBWM US transmits all equity trade orders to its affiliate DWS for execution. In this function, DWS ensures best results for clients by choosing the most appropriate execution entity to execute the order.

Table 1 – Retail clients

Top five execution venues	Proportion of volume traded as percentage of total in that asset class	Proportion of orders executed as percentage of total in that asset class	Percentage of passive orders	0	
Class of Instrument	Equities Brokerage				
Notification if less than 1 average tr	ade per business day in	previous year: Yes			
Pershing LLC (LEI: ZI8Q1A8EI8LQFJNM0D94)	100%	100%	N/A	N/A	100%
Class of Instrument	Equities DPM				
Notification if less than 1 average tr	ade per business day in	previous year: No			
DWS (LEI: 549300K0BHJ9BX9J8J87)	100%	100%	N/A	N/A	0%

Best Execution Quality Summary Analysis – Debt Instruments

Bonds

• Money market instruments

An explanation of the relative importance the DBWM US 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.

DBWM US seeks to obtain the best possible results for its clients, DBWM US takes into account various execution factors in deciding how and where to execute client orders. Execution is primarily performed according to:

- Price
- Cost
- Speed
- Likelihood of Execution
- Size
- Impact on execution

DBWM US in general regards price as the most important execution factor. However, there may be instances when DBWM US may need to take into account other criteria relevant to best execution, such as the size and nature of the order and adjust importance on execution factors accordingly.

For a detailed description of how we carry out client orders, application of execution factors and how we prioritize the factors, please refer to our Order Execution Policy.

A description of any close link, conflicts of interests, and common ownerships with respect to any execution venues used to execute order.

DBWM US does not have any close links, conflicts of interests, and common ownership with respect to any execution venues used to execute client orders in equities. Any dealing or relationship between units within DBWM US is conducted in accordance with DBWM's Conflict of Interest Policy.

A description of any specific arrangements with any execution venues regarding payments made or received discounts, rebates or non-monetary benefits received.

DBWM US does not have any specific arrangements with any execution venues regarding payments made or received, discounts, rebates or non-monetary benefits received. Any dealing or relationship between units within DBWM US is conducted in accordance with DBWM's Conflict of Interest Policy.

An explanation of the factors that led to a change in the list of execution venues used in our order execution policy, if such a changed occurred.

No changes have been made since publication of the brokers listed in our Order Execution Policy of 3 January 2018. If a change in execution quality is identified, the executing broker is notified of the occurrence and a request to address the execution quality is made and monitored.

An explanation of how order execution differs according to client categorization, where the firm treats categories of clients differently and where it may affect the order execution arrangements.

Not applicable as we transmit orders for retail clients only.

An explanation of whether other criteria were given precedence over immediate price and cost when executing retail client orders and how these criteria were instrumental in delivering the best possible result in terms of the total consideration to the client.

Price is always the determining factor when executing orders for retail clients.

An explanation of how DBWM US has used any data or tools relating to the quality of execution, including any data published under Commission Delegated Regulation (EU) 2017/575.

We monitor the quality of execution provided by brokers used to execute client orders in debt instruments on a consistent basis using automatic monitoring tools. We use a variety of tools and metrics in order to assess the quality of execution provided to its clients. The metrics are used to assess the quality of client order handling and execution quality in real time as well as post-trade. This includes, but is not limited to, adherence to order instructions, the management and timeliness of order passing and execution, and reviewing available quotes and market prices.

An explanation of how the DBWM US has used output of a consolidated tape provider established under Article 65 of Directive 2014/65/EU.

Not applicable as DBWM US does not utilize a consolidated tape provider.

Summary of the best execution quality analysis and conclusions drawn from our monitoring of debt instruments.

The analysis and conclusions drawn from our monitoring of the quality of execution in 2021 confirm that the brokers used to execute client orders in debt instruments meet our standards in delivering best execution to our clients on a consistent basis.

A list of our top five brokers used to execute retail client orders can be found below together with detailed information on the volume and number of orders executed by each broker. A list of brokers used to execute client orders in debt instruments can be found on our website: <u>https://deutschewealth.com/en/articles/MiFID-II-Order-Execution.html</u>

Top Five Brokers – Debt Instruments

Debt Instruments: DBWM US transmits all fixed income trade orders managed in the Discretionary Portfolio Management (DPM) portfolio to selected Execution Venues. DBWM US ensures best results for clients by choosing the most appropriate execution entity to execute the order.

Table 1 – Retail clients

Class of Instrument Taxables Notification if less than 1 average trade per business day in previous year: No TD SECURITIES (USA) LLC N/A N/A N/A TD SECURITIES (USA) LLC 17.32% 13.51% N/A N/A N/A PIPER SANDLER & CO 16.71% 3.83% N/A N/A N/A GOLDMAN SACHS & CO. LLC 9.31% 7.94% N/A N/A GOLDMAN SACHS & CO. LLC 9.31% 7.94% N/A N/A MARKETAXESS CORPORATION 9.31% 7.94% N/A N/A MARKETAXESS CORPORATION 9.31% 7.94% N/A N/A UEI: CYGOGONHMERSES CORPORATION 6.82% 8.77% N/A N/A Class of Instrument Agency VIEI: S49300GRQCWQ3XGHOH10) 72.43% 60.68% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A ILEI: S49300GRQCWQ3XGHOH10) 72.43% 60.68% N/A N/A	Top five execution venues	Proportion of volume traded as percentage of total in that asset class	Proportion of orders executed as percentage of total in that asset class	Percentage of passive orders	Percentage of aggressive orders	Percentage of directed orders
TD SECURITIES (USA) LLC 17.32% 13.51% N/A N/A N/A IPIER SANDLER & CO 16.71% 3.83% N/A N/A N/A GOLDMAN SACH5 & CO. LLC 9.31% 7.94% N/A N/A N/A GOLDMAN SACH5 & CO. LLC 9.31% 7.94% N/A N/A N/A GOLDMAN SACH5 & CO. LLC 9.31% 7.94% N/A N/A N/A GUE: FOREVIEW SUBSCOPPORATION 9.14% 18.03% N/A N/A N/A HSBC SECURITIES (USA) INC. 6.82% 8.77% N/A N/A N/A Class of Instrument Agency 18.26% 20.51% N/A N/A NVMELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A RAYMOND JAMES & ASOCIATES, INC. 1.47% 2.56% N/A N/A N/A ILE: U40NQX15J3R08XCKE979) 1.47% 2.56% N/A N/A N/A ILE: U40NQX15J3R08XCKE979) 1.47% 2.56% N/A N/A N/A<	Class of Instrument	Taxables				
ILE: SUVUFHICNZMP2WKHG940) 17.32% 13.51% N/A N/A N/A PIPER SANDLER & CO 16.71% 3.83% N/A N/A N/A N/A GDLDMAN SACHS & CO. LLC 9.31% 7.94% N/A N/A N/A GDLDMAN SACHS & CO. LLC 9.31% 7.94% N/A N/A N/A MARKETAXESS CORPORDATION 9.14% 18.03% N/A N/A N/A HSBC SECURITIES (USA) INC. 6.82% 8.77% N/A N/A N/A KLEI: CYGQCGNHMHPSMRL3R97) 6.82% 8.77% N/A N/A N/A VICEI: CYGQCGNHMPSMRL3R97) 6.82% 8.77% N/A N/A N/A VICEI: TASSIA 60.68% N/A N/A N/A PIPER SANDLER & CO 18.26% 20.51% N/A N/A ILE: VASSIAUCA 5.92% 5.98% N/A N/A IMIZUHO SECURTITES USA LLC 14.7% 2.56% N/A N/A	Notification if less than 1 average trade per busine	ss day in previous year: N	lo			
ILE: SUVUFHICNZMP2WKHG340) ILM ILM <thile< th=""> <thilm< th=""> ILM</thilm<></thile<>	TD SECURITIES (USA) LLC	17 200	/ 12510/	NI/A	N1/A	NL/A
LLEI: 549300GRQCWQ3XGH0H10) 16.71% 3.83% N/A N/A N/A GOLDMAN SACHS & CO. LLC 9.31% 7.94% N/A N/A N/A MARKETAXESS CORPORATION 9.14% 18.03% N/A N/A N/A MARKETAXESS CORPORATION 9.14% 18.03% N/A N/A N/A MARKETAXESS CORPORATION 9.14% 18.03% N/A N/A N/A HSBC SECUTITES (USA) INC. 6.82% 8.77% N/A N/A N/A Class of Instrument Agency N/A N/A N/A NIGUEI: STANDLER & CO 16.82% 8.77% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A MIZUHO SECURTIES USA LLC 5.92% 5.98% N/A N/A N/A Class of Instrument Corporates N/A N/A N/A LLCI (LEI: TSKSRUZCASKE979) 1.47% 23.69% N/A N/A <td>(LEI: SUVUFHICNZMP2WKHG940)</td> <td>17.527</td> <td>0 15.5170</td> <td>N/A</td> <td>N/A</td> <td>N/A</td>	(LEI: SUVUFHICNZMP2WKHG940)	17.527	0 15.5170	N/A	N/A	N/A
ILLE: 544300 GRQC WQ3XGH0H10 MAX MAX MAX MAX GOLDMAN SACHS & CO. LLC 9.31% 7.94% N/A N/A N/A MARKETAXESS CORPORATION 9.14% 18.03% N/A N/A N/A MARKETAXESS CORPORATION 9.14% 18.03% N/A N/A N/A HSBC SECURITIES (USA) INC. 6.82% 8.77% N/A N/A N/A Class of Instrument Agency N/A N/A N/A Notification if less than 1 average trade per business day in previous year: Yes N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC 5.92% 5.98% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. 1.47% 2.56% N/A N/A N/A LIE: U4DONX15JJSRORXCKE979) 1.47% 2.56% N/A N/A N/A ULEI: U4DONX15JJSRORXCKE979) 1.47%		16 719	6 3.83%	NI/A	NI/A	NI/A
L(LEI: FOR8UP27PHTHYVLBNG30) 9.31% 7.94% N/A N/A N/A MARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972) 9.14% 18.03% N/A N/A N/A HSBC SECURITIES (USA) INC. (LEI: CYYGQCGNHMHPSMRL3R97) 6.82% 8.77% N/A N/A N/A Class of Instrument Agency N/A N/A N/A Notification if less than 1 average trade per business day in previous year: Yes N/A N/A N/A PIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10) 72.43% 60.68% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC (LEI: VJW2DOOHGDT6PR0ZR063) 18.26% 20.51% N/A N/A N/A MIZUHO SECURTITES USA LLC (LEI: VJW2DOOHGDT6PR0ZR063) 18.26% 20.51% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. (LEI: TVSRJIZDFR0ZCA6XF66) 1.47% 2.56% N/A N/A N/A MARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972) 0.90% 3.42% N/A N/A Ottrication if less than 1 average trade per business d		10.717	0 0.0070	N/A	IN/A	IN/A
ILLE: IDARA INA INA INA MARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972) 9.14% 18.03% N/A N/A N/A HSBC SECURITIES (USA) INC. (LEI: CYGQCGNHMHPSMRL3R97) 6.82% 8.77% N/A N/A N/A Class of Instrument Agency N/A N/A N/A Notification if less than 1 average trade per business day in previous year: Yes N/A N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC 5.92% 5.98% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. 1.47% 2.56% N/A N/A N/A (LEI: UA0NQX15J3R08XCKE979) 1.47% 2.66% N/A N/A N/A SUVUFHICXMP2WCMKG940) 0.90% 3.42% N/A N/A N/A SUVUFHICXMP2WCMKG940) 28.15% 17.75% N/A N/A N/A		9.319	6 7 94%	NI/A	N/A	N/A
ILE: GPSMMRI21JE7ZCVYF972) 9.14% 18.03% N/A N/A N/A HSBC SECURTIES (USA) INC. 6.82% 8.77% N/A N/A N/A Class of Instrument Agency Notification if less than 1 average trade per business day in previous year: Yes PIPER SANDLER & CO IEE: 549300GRQCWQ3XGH0H10) 72.43% 60.68% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC 5.92% 5.98% N/A N/A N/A CLEI: TYSRJIZDFROZCASKF66) 1.47% 2.56% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. 1.47% 2.56% N/A N/A N/A Class of Instrument Corporates To SECURITIES (USA) LLC (LEI: To SECURITIES (USA) LLC (LEI: SUVJEFHICNZMP2WKHG940) 28.15% 17.75% N/A N/A N/A VLHE: GPSMMRI21JE7ZCVYF972) 14.71% 23.69% N/A N/A N/A SUVJUFHICNZMP2WKHG940) 28.15% 17.75%				10// (
ILEI: GPSMMRI21JE/2CVYF972) HSBC SECURITIES (USA) INC. 6.82% 8.77% N/A N/A ISBC SECURITIES (USA) INC. Agency Notification if less than 1 average trade per business day in previous year: Yes PIPER SANDLER & CO N/A N/A N/A PIPER SANDLER & CO 72.43% 60.68% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC 5.92% 5.98% N/A N/A N/A LIE: 7KSRJIZDFROZCA6XF66) 5.92% 5.98% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. 1.47% 2.56% N/A N/A N/A Class of Instrument Corporates Corporates Corporates Corporates Corporates Notification if less than 1 average trade per business day in previous year: No TD SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940) 28.15% 17.75% N/A N/A Outification if less than 1 average trade per business day in previous year: No TD SECURITIES (USA) L		9.149	6 18.03%	N/A	N/A	N/A
LEI: CYYGQCGNHMHPSMRL3R97) 6.82% 8.77% N/A N/A N/A Class of Instrument Agency Notification if less than 1 average trade per business day in previous year: Yes PIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10) 72.43% 60.68% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC 5.92% 5.98% N/A N/A N/A MIZUHO SECURITIES USA LLC 1.47% 2.56% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. 1.47% 2.56% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. 1.47% 2.56% N/A N/A N/A MARKETAXESS CORPORATION 0.90% 3.42% N/A N/A N/A Class of Instrument Corporates T T T SUUFHICNZMP2WKH6940) N/A N/A MARKETAXESS CORPORATION (LEI: 10.45% 2.37% N/A N/A N/A						
Class of Instrument Agency Notification if less than 1 average trade per business day in previous year: Yes PIPER SANDLER & CO 72.43% 60.68% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A ILE: 549300GRQCWQ3XGH0H10) 72.43% 60.68% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC 5.92% 5.98% N/A N/A N/A MARKETAXESS CORPORATEOS LAGES 1.47% 2.56% N/A N/A N/A MARKETAXESS CORPORATION 0.90% 3.42% N/A N/A N/A Class of Instrument Corporates TO SECURITIES (USA) LLC (LEI: 28.15% 17.75% N/A N/A N/A SUVUFHICNZMP2WKHG940) 28.15% 17.75% N/A N/A N/A PIPER SANDLER & CO (LEI: 10.45% 2.37% N/A N/A N/A PIPER SANDLER & CO (LEI: 8.44% <td></td> <td>6.82%</td> <td>6 8.77%</td> <td>N/A</td> <td>N/A</td> <td>N/A</td>		6.82%	6 8.77%	N/A	N/A	N/A
District District PIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10) 72.43% 60.68% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC (LEI: VJW2DOOHGDT6PR0ZR063) 18.26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC (LEI: TX5RJIZDFR0ZCA6XF66) 5.92% 5.98% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. (LEI: TX5RJIZDFR0ZCA6XF66) 1.47% 2.56% N/A N/A N/A MARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972) 0.90% 3.42% N/A N/A N/A Class of Instrument Corporates Corporates TO SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940) 28.15% 17.75% N/A N/A N/A MARKETAXESS CORPORATION (LEI: SUVUFHICNZMP2WKHG940) 10.45% 2.37% N/A N/A N/A PIPER SANDLER & CO (LEI: S49300GRQCWQ3XGH0H10) 10.45% 2.37% N/A N/A N/A VA N/A N/A N/A N/A N/A N/A REYBANC CAPITAL MARKETS INC. (LEI: EQWV0180Z211YVAD813) 8.44% 4.15% </td <td>(LEI: CYYGQCGNHMHPSMRL3R97)</td> <td></td> <td></td> <td></td> <td></td> <td></td>	(LEI: CYYGQCGNHMHPSMRL3R97)					
PIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10) 72.43% 60.68% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC (LEI: VJW2DOOHGDT6PR0ZR063) 18.26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC (LEI: VJW2DOOHGDT6PR0ZR063) 5.92% 5.98% N/A N/A N/A MIZUHO SECURITIES USA LLC (LEI: TKSRJIZDFR0ZCA6566) 5.92% 5.98% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. (LEI: U40NQX15J3R08XCKE979) 1.47% 2.56% N/A N/A N/A MARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972) 0.90% 3.42% N/A N/A N/A Class of Instrument Corporates Notification if less than 1 average trade per business day in previous year: No SUVUHILICNZMP2WKH6940) 28.15% 17.75% N/A N/A N/A PIPER SANDLER & CO (LEI: 14.71% 23.69% N/A N/A N/A GPSMMR121JE7ZCVYF972) 14.71% 2.37% <	Class of Instrument	Agency				
(LE: 549300GRQCWQ3XGH0H10) 72.43% 60.68% N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC (LE: VJW2DOOHGDT6PR0ZR063) 18.26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC (LE: 7K5RJIZDFR0ZCA6XF66) 5.92% 5.98% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. (LE: U40NQX15J3R08XCKE979) 1.47% 2.56% N/A N/A N/A MARKETAXESS CORPORATION (LE: GPSMMRI21JE7ZCVYF972) 0.90% 3.42% N/A N/A N/A Class of Instrument Corporates	Notification if less than 1 average trade per busine	ss day in previous year: Y	es			
CLE: 549300GRQCVVQ3xGH0H10) N/A N/A N/A BNY MELLON CAPITAL MARKETS, LLC 18.26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC 5.92% 5.98% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. 1.47% 2.56% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. 1.47% 2.56% N/A N/A N/A MARKETAXESS CORPORATION 0.90% 3.42% N/A N/A N/A Class of Instrument Corporates Corporates N/A N/A N/A Notification if less than 1 average trade per business day in previous year: No T T T SUVUFHICNZMP2WKH6940) N/A N/A N/A MARKETAXESS CORPORATION (LEI: 14.71% 23.69% N/A N/A N/A GPSMMRI21JE7ZCVYF972) 14.71% 23.69% N/A N/A N/A PIPER SANDLER & CO (LEI: 10.45% 2.37% N/A N/A N/A 549300GRQCW3XGH0H10) <td< td=""><td>PIPER SANDLER & CO</td><td>70.400</td><td></td><td></td><td></td><td></td></td<>	PIPER SANDLER & CO	70.400				
IB:26% 20.51% N/A N/A N/A MIZUHO SECURITIES USA LLC (LEI: 7TK5RJIZDFROZCA6XF66) 5.92% 5.98% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. (LEI: U40NQX15J3R08XCKE979) 1.47% 2.56% N/A N/A N/A MARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972) 0.90% 3.42% N/A N/A N/A Class of Instrument Corporates V/A N/A N/A N/A MARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972) 28.15% 17.75% N/A N/A N/A Class of Instrument Corporates V/A N/A N/A N/A MARKETAXESS CORPORATION (LEI: SUVUFHICNZMP2WKHG940) 28.15% 17.75% N/A N/A N/A MARKETAXESS CORPORATION (LEI: SUVUFHICNZMP2WKHG940) 10.45% 2.37% N/A N/A N/A PIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10) 10.45% 2.37% N/A N/A N/A KEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV01802211YVAD813) 8.44% 4.15% N/A N/A N/A<	(LEI: 549300GRQCWQ3XGH0H10)	/2.43%	% 60.68%	N/A	N/A	N/A
Cleh: VUV2DOOHGD 16PR02R063) NA NA NA MIZUHO SECURITIES USA LLC 5.92% 5.98% N/A N/A N/A RAYMOND JAMES & ASSOCIATES, INC. 1.47% 2.56% N/A N/A N/A MARKETAXESS CORPORATION 0.90% 3.42% N/A N/A N/A MARKETAXESS CORPORATION 0.90% 3.42% N/A N/A N/A Class of Instrument Corporates Notification if less than 1 average trade per business day in previous year: No SUVUFHICNZMP2WKHG940 28.15% 17.75% N/A N/A N/A MARKETAXESS CORPORATION (LEI: 14.71% 23.69% N/A N/A N/A GPSMMRI21JE7ZCVYF972) 14.71% 23.69% N/A N/A N/A PIPER SANDLER & CO (LEI: 10.45% 2.37% N/A N/A N/A S49300GRQCWQ3XGH0H10) 10.45% 2.37% N/A N/A<	BNY MELLON CAPITAL MARKETS, LLC	10.060	/ 20 510/	N1/A	NI (A	NI (A
(LEI: 7TKSRJIZDFROZCA6XF66)5.92%5.98%N/AN/AN/ARAYMOND JAMES & ASSOCIATES, INC. (LEI: U40NQX15J3R08XCKE979)1.47%2.56%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)0.90%3.42%N/AN/AN/AClass of InstrumentCorporatesNotification if less than 1 average trade per business day in previous year: NoTTD SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940)28.15%17.75%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)14.71%23.69%N/AN/AN/APIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10)10.45%2.37%N/AN/AN/AKEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV01802211YVAD813)8.44%4.15%N/AN/AN/A	(LEI: VJW2DOOHGDT6PR0ZRO63)	10.207	/0 20.51%	N/A	N/A	N/A
(LEI: / IKSRJIZDFROZCA6XF66)IAAAIAAAIAAARAYMOND JAMES & ASSOCIATES, INC. (LEI: U40NQX15J3R08XCKE979)1.47%2.56%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)0.90%3.42%N/AN/AN/AClass of InstrumentCorporatesNotification if less than 1 average trade per business day in previous year: NoTD SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940)28.15%17.75%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)14.71%23.69%N/AN/AN/APIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10)10.45%2.37%N/AN/AN/AKEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV01802211YVAD813)8.44%4.15%N/AN/AN/AMORGAN STANLEY & CO LLC (LEI: 5 06%5.06%8.11%N/AN/AN/A	MIZUHO SECURITIES USA LLC	5 92%	6 5 98%	NI/A	NI/A	NI/A
(LEI: U4ONQX15J3R08XCKE979)1.47%2.56%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)0.90%3.42%N/AN/AN/AClass of InstrumentCorporatesNotification if less than 1 average trade per business day in previous year: NoTD SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940)28.15%17.75%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)14.71%23.69%N/AN/AN/APIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10)10.45%2.37%N/AN/AN/AKEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV0180Z211YVAD813)8.44%4.15%N/AN/AN/AMORGAN STANLEY & CO LLC (LEI: 5 06%5.06%8.11%N/AN/AN/A	(LEI: 7TK5RJIZDFROZCA6XF66)	0.027	0 0.5070	IVA	N/A	N/A
(LEI: U4ONQX15J3R08XCKE979)NANANAMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)0.90%3.42%N/AN/AN/AClass of InstrumentCorporatesNotification if less than 1 average trade per business day in previous year: NoTD SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940)28.15%17.75%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)14.71%23.69%N/AN/AN/APIPER SANDLER & CO (LEI: 549300GRQCWQ3XGHOH10)10.45%2.37%N/AN/AN/AKEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV0180Z211YVAD813)8.44%4.15%N/AN/AN/AMORGAN STANLEY & CO LLC (LEI: 5 06%5.06%8.11%N/AN/AN/A		1.479	% 2.56%	N/A	N/A	N/A
(LEI: GPSMMRI21JE7ZCVYF972)0.90%3.42%N/AN/AN/AClass of InstrumentCorporatesNotification if less than 1 average trade per business day in previous year: NoTD SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940)28.15%17.75%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)14.71%23.69%N/AN/AN/APIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10)10.45%2.37%N/AN/AN/AKEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV0180Z211YVAD813)8.44%4.15%N/AN/AN/AMORGAN STANLEY & CO LLC (LEI:5.06%8.11%N/AN/AN/A		,				
Class of InstrumentCorporatesNotification if less than 1 average trade per business day in previous year: NoTD SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940)28.15%17.75%MARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)14.71%23.69%PIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10)KEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV0180Z211YVAD813)MORGAN STANLEY & CO LLC (LEI:506%811%N/A <td></td> <td>0.90%</td> <td>6 3.42%</td> <td>N/A</td> <td>N/A</td> <td>N/A</td>		0.90%	6 3.42%	N/A	N/A	N/A
Notification if less than 1 average trade per business day in previous year: NoTD SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940)28.15%17.75%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)14.71%23.69%N/AN/AN/APIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10)10.45%2.37%N/AN/AN/AKEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV0180Z211YVAD813)8.44%4.15%N/AN/AN/AMORGAN STANLEY & CO LLC (LEI:5.06%8.11%N/AN/AN/A	(LEI: GPSMMRI21JE/ZCVYF9/2)					
TD SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940)28.15%17.75%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)14.71%23.69%N/AN/AN/APIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10)10.45%2.37%N/AN/AN/AKEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV0180Z211YVAD813)8.44%4.15%N/AN/AN/AMORGAN STANLEY & CO LLC (LEI:5.06%8.11%N/AN/AN/A	Class of Instrument	Corporates				
TD SECURITIES (USA) LLC (LEI: SUVUFHICNZMP2WKHG940)28.15%17.75%N/AN/AN/AMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)14.71%23.69%N/AN/AN/APIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10)10.45%2.37%N/AN/AN/AKEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV0180Z211YVAD813)8.44%4.15%N/AN/AN/AMORGAN STANLEY & CO LLC (LEI:5.06%8.11%N/AN/AN/A	Notification if less than 1 average trade per busine	ss day in previous year: N	lo			
SUVUFHICN2MP2WKHG940)NAANAAMARKETAXESS CORPORATION (LEI: GPSMMRI21JE7ZCVYF972)14.71%23.69%N/AN/AN/APIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10)10.45%2.37%N/AN/AN/AKEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV0180Z211YVAD813)8.44%4.15%N/AN/AN/AMORGAN STANLEY & CO LLC (LEI:5.06%8.11%N/AN/AN/A	TD SECURITIES (USA) LLC (LEI:	00450	/ 1770/		N1/ A	NI/A
GPSMMRI21JE7ZCVYF972) 14./1% 23.69% N/A N/A N/A PIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10) 10.45% 2.37% N/A N/A N/A KEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV0180Z211YVAD813) 8.44% 4.15% N/A N/A N/A MORGAN STANLEY & CO LLC (LEI: 5.06% 8.11% N/A N/A N/A	SUVUFHICNZMP2WKHG940)	28.15%	^r o 17.75%	N/A	N/A	N/A
GPSMMRI21JE/ZCVYF9/2) N/A N/A N/A PIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10) 10.45% 2.37% N/A N/A KEYBANC CAPITAL MARKETS INC. (LEI: 2EQWV0180Z211YVAD813) 8.44% 4.15% N/A N/A MORGAN STANLEY & CO LLC (LEI: 5.06% 8.11% N/A N/A	MARKETAXESS CORPORATION (LEI:	1/1 710	/ 23.60%	NI/A	NI/A	NI/A
549300GRQCWQ3XGHOH10) 10.45% 2.37% N/A N/A N/A KEYBANC CAPITAL MARKETS INC. (LEI: 8.44% 4.15% N/A N/A N/A ZEQWV0180Z211YVAD813) 8.44% 4.15% N/A N/A N/A MORGAN STANLEY & CO LLC (LEI: 5.06% 8.11% N/A N/A N/A	GPSMMRI21JE7ZCVYF972)	14./17	20.0970	IN/A	IN/A	IN/A
549300GRQCWQ3XGH0H10) N/A N/A N/A KEYBANC CAPITAL MARKETS INC. (LEI: 8.44% 4.15% N/A N/A 2EQWV0180Z211YVAD813) 8.44% 4.15% N/A N/A	Υ.	10.45%	6 2.37%	NI/A	NI/A	NI/A
2EQWV0180Z211YVAD813) 8.44% 4.15% N/A N/A MORGAN STANLEY & CO LLC (LEI: 5.06% 8.11% N/A N/A		20.107			11/71	11/73
MORGAN STANLEY & CO LLC (LEI: 5.06% 8.11% N/A N/A		8.44%	6 4.15%	N/A	N/A	N/A
	9R7GPTSO7KV3UQJZQ078)	5.06%	6 8.11%	N/A	N/A	N/A

Top five execution venues	Proportion of volume traded as percentage of total in that asset class	Proportion of orders executed as percentage of total in that asset class		Percentage of aggressive orders	Percentage of directed orders
Class of Instrument	Governments				
Notification if less than 1 average trade per business day in previous year: No					
GOLDMAN SACHS & CO. LLC (LEI: FOR8UP27PHTHYVLBNG30)	27.51%	24.08%	N/A	N/A	N/A
HSBC SECURITIES (USA) INC. (LEI: CYYGQCGNHMHPSMRL3R97)	26.03%	37.50%	N/A	N/A	N/A
WELLS FARGO SECURITIES, LLC (LEI: VYVVCKR63DVZZN70PB21)	18.47%	13.88%	N/A	N/A	N/A
CITIGROUP GLOBAL MARKETS INC. (LEI: MBNUM2BPBD07JBLYG310)	14.51%	12.04%	N/A	N/A	N/A
BOFA SECURITIES, INC. (LEI: 549300HN4UKV1E2R3U73)	7.93%	9.52%	N/A	N/A	N/A
Class of Instrument	Municipals				
Notification if less than 1 average trade per business	day in previous year: N	0			
MORGAN STANLEY & CO LLC (LEI: 9R7GPTSO7KV3UQJZQ078)	15.86%		N/A	N/A	N/A
WELLS FARGO SECURITIES, LLC (LEI: VYVVCKR63DVZZN70PB21)	9.03%	5 15.17%	N/A	N/A	N/A
J.P. MORGAN SECURITIES LLC (LEI: ZBUT11V806EZRVTWT807)	7.87%	2.78%	N/A	N/A	N/A
TD SECURITIES AUTOMATED TRADING LLC (LEI: 549300KWRNDIITFG5S11)	7.70%	23.60%	N/A	N/A	N/A
BOFA SECURITIES, INC. (LEI: 549300HN4UKV1E2R3U73)	6.24%	1.24%	N/A	N/A	N/A
Class of Instrument	Treasury Bills				
Notification if less than 1 average trade per business	day in previous year: N	0			
GOLDMAN SACHS & CO. LLC					
(LEI: FOR8UP27PHTHYVLBNG30)	31.94%	21.13%	N/A	A N/A	N/A
WELLS FARGO SECURITIES, LLC (LEI: VYVVCKR63DVZZN70PB21)	23.86%	28.43%	N/A	A N/A	N/A
CITIGROUP GLOBAL MARKETS INC. (LEI: MBNUM2BPBD07JBLYG310)	18.62%	24.25%	N/A	A N/A	N/A
BOFA SECURITIES, INC. (LEI: 549300HN4UKV1E2R3U73)	11.77%	20.72%	N/A	A N/A	N/A
PIPER SANDLER & CO (LEI: 549300GRQCWQ3XGH0H10)	10.32%	1.53%	N/A	A N/A	N/A
Class of Instrument	Variable Rate Dema	nd Notes (VRDN)			
Notification if less than 1 average trade per business		· · · · · ·			
J.P. MORGAN SECURITIES LLC	, , ,				
(LEI: ZBUT11V806EZRVTWT807)	31.85%	32.08%	N/A	A N/A	N/A
CITIGROUP GLOBAL MARKETS INC. (LEI: MBNUM2BPBDO7JBLYG310)	15.42%	5 15.33%	N/A	A N/A	N/A
WELLS FARGO SECURITIES, LLC (LEI: VYVVCKR63DVZZN70PB21)	14.18%	10.61%	N/A	A N/A	N/A
U.S. BANCORP INVESTMENTS, INC. (LEI: H85Z6XZP8B10ES0M2G89)	12.65%	14.86%	N/A	A N/A	N/A
BARCLAYS CAPITAL INC. (LEI: AC28XWWI3WIBK2824319)	11.83%	10.97%	N/A	A N/A	N/A