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## April 2020

## Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	57.52	4.84	25.67	11.97

[illegible]

Material Aspects:

Jane Street Capital, LLC (JNST):  
Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Virtu Americas LLC (NITE):  
Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Citadel Securities LLC (CDRG):  
Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

UBS Securities LLC (UBSS):  
Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

The Nasdaq Stock Market (NSDQ):  
Firm qualified for (1) the rebate provided for adding over 0.60% of the total consolidated volume and removing over 0.80% of the total consolidated volume (\$0.0029 per share for adding displayed liquidity), (2) Closing Cross Tier B (a fee of \$0.0011 per share for orders participating in the Closing Cross), and (3) the cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders. The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <http://www.nasdaqtrader.com/Trader.aspx?id=PriceListTrading2>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

New York Stock Exchange LLC (NYSE):  
Firm qualified for Providing Tier 2 (a rebate of \$0.0020 per share for adding displayed liquidity in Tape A securities), Provide Tape C Tier 2 (a rebate of \$0.0023 per share for adding displayed liquidity in Tape C securities), MOC/LOC Tier 1 (a fee of \$0.0004 per share for Market-on-Close orders and a fee of \$0.0007 per share for Limit-on-Close orders), NYSE dQuote Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close (a reduced fee of \$0.0008 per share for d-Quotes last modified in the last 3 minutes before the scheduled close of trading), Remove Tier 1 for Tape A securities (a fee of \$0.00275 per share for removing liquidity) and Tape B and Tape C securities (a fee of \$0.00285 per share for removing liquidity), and Routing Tier 1 for adding average daily volume in Tapes A, B and C combined that is at least 0.20% of Tapes A, B and C consolidated average daily volume combined (a fee of \$0.0030 per share for orders routed). The venue provided a fee cap of \$30,000 for the month for opening executions. The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://www.nyse.com/markets/nyse/trading-info/fees>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

NYSE Arca, Inc. (ARCA):  
The Firm qualified for Tier 3 (a rebate of \$0.0025 for adding displayed liquidity in Tape A and Tape C securities and \$0.0022 for adding displayed liquidity in Tape B securities). The Firm achieved the aforementioned tier based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE\\_Arca\\_Marketplace\\_Fees.pdf](https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE_Arca_Marketplace_Fees.pdf). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe EDGX Exchange, Inc. (EDGX):  
The Firm qualified for Growth Tier 1 (an incremental rebate of \$0.0003 per share for (1) adding an ADV of at least 0.10% of the total consolidated volume; or (2) achieving a Step-Up Add total consolidated volume of at least 0.05% from March 2019) and the reduced internalization fees applicable when adding an ADV of at least 10,000,000 shares (a reduced fee of \$0.00040 per share). The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/equities/membership/fee\\_schedule/edgx/](https://www.cboe.com/us/equities/membership/fee_schedule/edgx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe BZX Exchange, Inc. (BATS):  
The Firm qualified for Step-Up Tier 1 (an incremental rebate of \$0.0010 per share for displayed orders in Tapes A and C securities and .0005 per share for displayed orders in Tape B securities for achieving a Step-Up Add total consolidated volume of at least 0.05% from April 2019 ). The Firm achieved the aforementioned tier based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/equities/membership/fee\\_schedule/bzx/](https://www.cboe.com/us/equities/membership/fee_schedule/bzx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Two Sigma Securities, LLC (SOHO):  
Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

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April 2020

Non-S&P 500 Stocks  
Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	52.17	6.70	28.48	12.65

Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
Virtu Americas LLC (NITE)	19.74	19.14	20.59	15.22	31.79	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jane Street Capital, LLC (JNST)	19.43	34.04	20.48	1.11	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities LLC (CDRG)	16.16	21.89	17.13	5.11	16.86	-0.1075	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
The Nasdaq Stock Market (NSDQ)	11.43	0.20	8.51	29.00	19.76	-333.9386	-10.9631	3,517.7082	13.4883	48,195.1054	19.7036	437.9726	0.7443
UBS Securities LLC (UBSS)	9.97	16.43	9.96	1.44	2.51	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New York Stock Exchange LLC (NYSE)	6.23	0.06	4.45	12.97	17.43	-77.0374	-3.7040	1,170.9093	8.8048	19,010.6422	15.0909	1,387.5362	2.1952
NYSE Arca, Inc. (ARCA)	5.92	0.01	5.09	15.17	9.94	-20.4050	-29.1583	711.0666	6.9793	14,829.8877	19.8778	-3,084.4425	-9.6956
Two Sigma Securities, LLC (SOHO)	4.84	8.23	6.68	0.34	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cboe EDGX Exchange, Inc. (EDGX)	3.35	0.00	3.86	10.85	0.02	0.0000	0.0000	910.0606	10.3411	11,953.7543	16.1959	-41.2128	-27.0000
Cboe BZX Exchange, Inc. (BATS)	2.93	0.00	3.25	8.79	1.69	0.0000	0.0000	839.5797	12.8034	12,755.5541	24.6043	-241.8245	-4.4706

#### Material Aspects:

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The Firm qualified for Step-Up Tier 1 (an incremental rebate of \$0.0010 per share for displayed orders in Tapes A and C securities and \$.0005 per share for displayed orders in Tape B securities for achieving a Step-Up Add total consolidated volume of at least 0.05% from April 2019 ). The Firm achieved the aforementioned tier based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/equities/membership/fee\\_schedule/bzx/](https://www.cboe.com/us/equities/membership/fee_schedule/bzx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

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April 2020

Options  
Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
78.60	5.96	19.96	48.15	25.92

Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	19.80	22.45	24.17	24.69	6.67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Global Execution Brokers, LP (GEBB)	18.74	21.46	23.73	24.04	4.42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citigroup Global Markets Inc. (SBSH)	16.19	17.78	16.91	15.92	15.76	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-7,039.6000	-11.4185
Matrix Executions, LLC (REDG)	15.79	22.19	20.73	20.06	2.57	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-607.0800	-3.3978
Dash Financial Technologies LLC (DFIN)	11.22	16.12	14.28	14.32	1.97	-684.3600	-6.0000	-2,511.3600	-6.0000	-3,654.4800	-6.0000	-527.5200	-11.0000
Nasdaq PHLX LLC (PHLX)	8.63	0.00	0.15	0.49	32.31	0.0000	0.0000	50.8000	25.7868	337.3000	22.0026	62,647.8800	22.8034

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
Cboe Exchange, Inc. (CBOE)	3.33	0.00	0.03	0.48	11.92	0.0000	0.0000	3.2400	27.0000	159.8400	30.7385	-11,424.3325	-3.1867
The Nasdaq Stock Market (Options) (XNAS)	2.58	0.00	0.00	0.00	9.98	0.0000	0.0000	-24.0000	-48.0000	-13.9200	-48.0000	-14,046.6400	-23.7583
NYSE Arca Options (ARCO)	1.95	0.00	0.00	0.00	7.55	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	14,579.3200	17.9526
Cboe BZX Exchange, Inc. (BATO)	1.77	0.00	0.00	0.00	6.85	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-34,025.5500	-52.0778

### Material Aspects:

Citadel Securities LLC (CDRG):

Firm not charged. Citadel Securities LLC's recent reports pursuant to SEC Rule 606(a) are available at <https://www.citadelsecurities.com/rule-605-606-statements/>

Global Execution Brokers, LP (GEBB):

Firm not charged.

Citigroup Global Markets Inc. (SBSH):

Firm not charged commission except for orders in products that typically execute in the open outcry auction (e.g., SPX, OEX, DJX) or during VIX Extended Trading Hours. Firm charged applicable exchange fees. Firm qualified for rebate applicable when volume is 5,000 contracts/month or more, except for contracts that received price improvement, with higher rebate paid for option classes that do not participate in the Penny Pilot Program than for option classes that participate in the Penny Pilot Program. Citigroup Global Markets Inc.'s recent reports pursuant to SEC Rule 606(a) are available at: <http://public.s3.com/rule606/citi>

Matrix Executions, LLC (REDG):

Firm not charged for orders routed by the Asset and Wealth Management division or Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms. Matrix Executions, LLC's recent reports pursuant to SEC Rule 606(a) are available at: <https://www.matrixexecutions.com/606>

Dash Financial Technologies LLC (DFIN):

Firm not charged for orders routed by the Asset and Wealth Management division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms and for orders routed by the Corporate and Investment Bank. Firm is charged \$.05/contract for 0-500,000 contracts, \$.04/contract for 500,001-1 million contracts, and \$.03/contract for greater than 1 million contracts. Firm did not qualify for a discounted tier. Dash Financial Technologies LLC's most recent report pursuant to SEC Rule 606(a) is available at: <https://www.dashfinancial.com/>

Nasdaq PHLX LLC (PHLX):

Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://listingcenter.nasdaq.com/rulebook/phlx/rules/phlx-options-7>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe Exchange, Inc. (CBOE):

Firm did not qualify for tiered pricing with respect to customer order flow. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://cdn.cboe.com/resources/membership/Cboe\\_FeeSchedule.pdf](https://cdn.cboe.com/resources/membership/Cboe_FeeSchedule.pdf). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

The Nasdaq Stock Market (Options) (XNAS):

Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/nasdaq-options-7>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

NYSE Arca Options (ARCO):

Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.nyse.com/publicdocs/nyse/markets/arca-options/NYSE\\_Arca\\_Options\\_Fee\\_Schedule.pdf](https://www.nyse.com/publicdocs/nyse/markets/arca-options/NYSE_Arca_Options_Fee_Schedule.pdf). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe BZX Exchange, Inc. (BATO):

Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/options/membership/fee\\_schedule/bzx/](https://www.cboe.com/us/options/membership/fee_schedule/bzx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

## May 2020

### S&P 500 Stocks

## Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Other Orders as % of Non-Directed Orders
100.00	57.28	5.30	25.97	11.46

## Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
Jane Street Capital, LLC (JNST)	23.83	38.62	23.27	1.68	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas LLC (NITE)	16.35	20.40	16.40	7.40	16.43	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities LLC (CDRG)	15.06	18.04	14.57	7.28	18.03	-5.9268	-0.0029	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS Securities LLC (UBSS)	14.68	17.90	13.92	7.11	16.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
The Nasdaq Stock Market (NSDQ)	8.40	0.00	8.54	23.28	16.78	-3.3840	-30.0000	1,981.6847	24.7101	18,688.0295	28.5397	441.0768	2.7148
New York Stock Exchange LLC (NYSE)	7.33	0.00	5.58	12.72	32.59	-61.6660	-18.6083	944.5401	15.1495	8,474.5009	17.7176	1,283.9074	2.3216
NYSE Arca, Inc. (ARCA)	4.45	0.00	5.50	16.00	0.09	0.0000	0.0000	1,121.3768	20.4320	12,061.0602	28.3673	-19.9677	-14.7330
Cboe EDGX Exchange, Inc. (EDGX)	4.00	0.00	5.43	14.29	0.02	0.0000	0.0000	923.3992	15.9402	8,181.6420	18.5792	-7.0119	-27.0000
Two Sigma Securities, LLC (SOHO)	3.16	5.04	3.72	0.31	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cboe BZX Exchange, Inc. (BATS)	2.74	0.00	3.07	9.93	0.00	-29.8000	-29.8000	611.6430	23.5495	9,426.8130	29.4746	-0.3520	-22.8571

## Material Aspects:

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Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Virtu Americas LLC (NITE):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Citadel Securities LLC (CDRG):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

UBS Securities LLC (UBSS):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

The Nasdaq Stock Market (NSDQ):

Firm qualified for (1) the rebate provided for adding over 0.60% of the total consolidated volume and removing over 0.80% of the total consolidated volume (\$0.0029 per share for adding displayed liquidity),(2) Closing Cross Tier B (a fee of \$0.0011 per share for orders participating in the Closing Cross), and (3) the cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders. The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <http://www.nasdaqtrader.com/Trader.aspx?id=PriceListTrading2>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

New York Stock Exchange LLC (NYSE):  
Firm qualified for Providing Tier 3 (a rebate of \$0.0018 per share for adding displayed liquidity in Tape A securities), MOC/LOC Tier 1 (a fee of \$0.0004 per share for Market-on-Close orders and a fee of \$0.0007 per share for Limit-on-Close orders), and NYSE dQuote Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close (a reduced fee of \$0.0008 per share for d-Quotes last modified in the last 3 minutes before the scheduled close of trading), Remove Tier 1 for Tape A securities (a fee of \$0.00275 per share for removing liquidity) and Tape B and Tape C securities (a fee of \$0.00285 per share for removing liquidity), and Routing Tier 1 for adding average daily volume in Tapes A, B and C combined that is at least 0.20% of Tapes A, B and C consolidated average daily volume combined (a fee of \$0.0030 per share for orders routed). The venue provided a fee cap of \$30,000 for the month for opening executions. The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://www.nyse.com/markets/nyse/trading-info/fees>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

NYSE Arca, Inc. (ARCA):  
The Firm qualified for Tier 2 (a rebate of \$0.0029 for adding displayed liquidity in Tapes A and C securities and \$0.0022 for adding displayed liquidity in Tape B securities). The Firm achieved the aforementioned tier based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE\\_Arca\\_Marketplace\\_Fees.pdf](https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE_Arca_Marketplace_Fees.pdf). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe EDGX Exchange, Inc. (EDGX):  
The Firm qualified for Growth Tier 1 (an incremental rebate of \$0.0003 per share for (1) adding an ADV of at least 0.10% of the total consolidated volume; or (2) achieving a Step-Up Add total consolidated volume of at least 0.05% from March 2019) and the reduced internalization fees applicable when adding an ADV of at least 10,000,000 shares (a reduced fee of \$0.00040 per share). The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/equities/membership/fee\\_schedule/edgx/](https://www.cboe.com/us/equities/membership/fee_schedule/edgx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Two Sigma Securities, LLC (SOHO):  
Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Cboe BZX Exchange, Inc. (BATS):  
The Firm qualified for Step-Up Tier 1 (an incremental rebate of \$0.0010 per share for [fee codes V and Y] and .0005 per share for [fee code B] ) for achieving a Step-Up Add total consolidated volume of at least 0.05% from April 2019). The Firm achieved the aforementioned tier based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/equities/membership/fee\\_schedule/bzx/](https://www.cboe.com/us/equities/membership/fee_schedule/bzx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

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## May 2020

### Non-S&P 500 Stocks Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	50.05	7.30	29.62	13.03

### Venues

Venue - Non-directed Order Flow	Non- Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non- Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/ Received for Market Orders(cents per hundred shares)	Net Payment Paid/ Received for Marketable Limit Orders(USD)	Net Payment Paid/ Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/ Received for Non- Marketable Limit Orders(USD)	Net Payment Paid/ Received for Non- Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/ Received for Other Orders(cents per hundred shares)
Jane Street Capital, LLC (JNST)	21.74	39.00	24.35	1.43	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas LLC (NITE)	15.77	20.59	17.00	6.71	17.10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities LLC (CDRG)	14.63	17.71	16.24	7.07	19.05	-32.0811	-0.0038	-26.7255	-0.0048	0.0000	0.0000	0.0000	0.0000
The Nasdaq Stock Market (NSDQ)	13.10	0.12	8.99	32.19	22.05	-554.8812	-12.9441	6,467.1906	18.0043	71,850.8532	20.8157	2,006.6043	2.2564

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
UBS Securities LLC (UBSS)	12.46	14.73	12.65	6.66	16.85	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New York Stock Exchange LLC (NYSE)	6.08	0.09	3.70	12.17	16.56	-39.4700	-0.7746	1,500.8292	10.0555	19,217.5763	14.7131	1,875.8609	2.3931
NYSE Arca, Inc. (ARCA)	5.68	0.01	4.45	14.99	6.96	-19.6159	-29.0305	1,201.5123	10.7075	21,035.8523	24.0512	-2,057.9682	-10.5856
TWO SIGMA SECURITIES, LLC (SOHO)	4.46	7.75	6.58	0.34	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cboe EDGX Exchange, Inc. (EDGX)	3.41	0.00	3.51	10.66	0.01	0.0000	0.0000	940.7122	10.0854	13,179.7655	16.1397	-12.9438	-27.0000
Cboe BZX Exchange, Inc. (BATS)	2.67	0.00	2.53	7.78	1.42	0.0000	0.0000	1,012.7131	14.9939	14,323.0121	26.0229	-317.7605	-4.9366

#### Material Aspects:

Jane Street Capital, LLC (JNST):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Virtu Americas LLC (NITE):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Citadel Securities LLC (CDRG):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

The Nasdaq Stock Market (NSDQ):

Firm qualified for (1) the rebate provided for adding over 0.60% of the total consolidated volume and removing over 0.80% of the total consolidated volume (\$0.0029 per share for adding displayed liquidity), (2) Closing Cross Tier B (a fee of \$0.0011 per share for orders participating in the Closing Cross), and (3) the cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders. The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <http://www.nasdaqtrader.com/Trader.aspx?id=PriceListTrading2>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

UBS Securities LLC (UBSS):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

New York Stock Exchange LLC (NYSE):

Firm qualified for Providing Tier 3 (a rebate of \$0.0018 per share for adding displayed liquidity in Tape A securities), MOC/LOC Tier 1 (a fee of \$0.0004 per share for Market-on-Close orders and a fee of \$0.0007 per share for Limit-on-Close orders), NYSE dQuote Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close (a reduced fee of \$0.0008 per share for d-Quotes last modified in the last 3 minutes before the scheduled close of trading), Remove Tier 1 for Tape A securities (a fee of \$0.00275 per share for removing liquidity) and Tape B and Tape C securities (a fee of \$0.00285 per share for removing liquidity), and Routing Tier 1 for adding average daily volume in Tapes A, B and C combined that is at least 0.20% of Tapes A, B and C consolidated average daily volume combined (a fee of \$0.0030 per share for orders routed). The venue provided a fee cap of \$30,000 for the month for opening executions. The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://www.nyse.com/markets/nyse/trading-info/fees>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

NYSE Arca, Inc. (ARCA):

The Firm qualified for Tier 2 (a rebate of \$0.0029 for adding displayed liquidity in Tapes A and C securities and \$0.0022 for adding displayed liquidity in Tape B securities). The Firm achieved the aforementioned tier based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE\\_Arca\\_Marketplace\\_Fees.pdf](https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE_Arca_Marketplace_Fees.pdf). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

TWO SIGMA SECURITIES, LLC (SOHO):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Cboe EDGX Exchange, Inc. (EDGX):



Cboe BZX Exchange, Inc. (BATS):  
The Firm qualified for Step-Up Tier 1 (an incremental rebate of \$0.0010 per share for displayed orders in Tapes A and C securities and .0005 per share for displayed orders in Tape B securities for achieving a Step-Up Add total consolidated volume of at least 0.05% from April 2019 ). The Firm achieved the aforementioned tier based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/equities/membership/fee\\_schedule/bzx/](https://www.cboe.com/us/equities/membership/fee_schedule/bzx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

## Options Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
72.23	6.34	18.94	45.35	29.37

[illegible]

Citadel Securities LLC (CDRG):  
Firm not charged. Citadel Securities LLC's recent reports pursuant to SEC Rule 606(a) are available at <https://www.citadelsecurities.com/rule-605-606-statements/>

Citigroup Global Markets Inc. (SBSH):  
Firm not charged commission except for orders in products that typically execute in the open outcry auction (e.g., SPX, OEX, DJX) or during VIX Extended Trading Hours, Firm charged applicable exchange fees. Firm qualified for rebate applicable when volume is 5,000 contracts/month or more, except for contracts that received price improvement, with higher rebate paid for option classes that do not participate in the Penny Pilot Program than for option classes that participate in the Penny Pilot Program. Citigroup Global Markets Inc's recent reports pursuant to SEC Rule 606(a) are available at: <http://public.s3.com/rule606/citi>

Matrix Executions, LLC (REDG):  
Firm not charged for orders routed by the Asset and Wealth Management division or Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms. Matrix Executions, LLC's recent reports pursuant to SEC Rule 606(a) are available at: <https://www.matrixexecutions.com/rule-606>

Nasdaq PHLX LLC (PHLX):  
Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://listingcenter.nasdaq.com/rulebook/phlx/rules/phlx-options-7>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe Exchange, Inc. (CBOE):  
Firm did not qualify for pricing with respect to customer order flow. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://cdn.cboe.com/resources/membership/Cboe\\_FeeSchedule.pdf](https://cdn.cboe.com/resources/membership/Cboe_FeeSchedule.pdf). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

The Nasdaq Stock Market (Options) (XNAS):  
Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/nasdaq-options-7>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe BZX Exchange, Inc. (BATO):  
Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/options/membership/fee\\_schedule/bzx/](https://www.cboe.com/us/options/membership/fee_schedule/bzx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

NYSE Arca Options (ARCO):  
Firm did not qualify for tiered pricing. A description of the fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.nyse.com/publicdocs/nyse/markets/arca-options/NYSE\\_Arca\\_Options\\_Fee\\_Schedule.pdf](https://www.nyse.com/publicdocs/nyse/markets/arca-options/NYSE_Arca_Options_Fee_Schedule.pdf). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Nasdaq ISE, LLC (XISX):  
Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://listingcenter.nasdaq.com/rulebook/ise/rules/ise-options-7>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

## S&P 500 Stocks

### Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
100.00	57.32	5.45	25.19	12.04

## Venues

[illegible]

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
UBS Securities LLC (UBSS)	12.48	14.21	11.99	7.04	15.81	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities LLC (CDRG)	12.34	14.30	12.59	6.61	14.83	-5.2439	-0.0030	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New York Stock Exchange LLC (NYSE)	7.75	0.02	5.37	12.90	34.91	-1.4563	-0.5959	709.4231	13.2999	5,887.3272	17.4837	1,396.2103	2.6202
The Nasdaq Stock Market (NSDQ)	7.57	0.00	7.15	19.91	18.04	-42.9530	-19.0682	1,596.5614	22.6080	14,267.5880	27.2171	271.6680	1.5438
NYSE Arca, Inc. (ARCA)	4.68	0.00	5.50	17.37	0.01	0.0000	0.0000	455.2296	6.8513	11,010.6865	28.5495	6.6555	29.0000
Cboe EDGX Exchange, Inc. (EDGX)	4.06	0.00	5.99	14.82	0.00	0.0000	0.0000	603.2147	12.1399	5,917.1558	15.8023	-0.8640	-27.0000
Two Sigma Securities, LLC (SOHO)	3.95	6.31	4.58	0.32	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cboe BZX Exchange, Inc. (BATS)	3.16	0.00	3.56	11.79	0.00	0.0000	0.0000	537.7110	21.5986	7,139.2626	24.7074	-1.7990	-28.8301

#### Material Aspects:

Jane Street Capital, LLC (JNST):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Virtu Americas LLC (NITE):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

UBS Securities LLC (UBSS):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Citadel Securities LLC (CDRG):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

New York Stock Exchange LLC (NYSE):

Firm qualified for Providing Tier 3 (a rebate of \$0.0018 per share for adding displayed liquidity in Tape A securities), MOC/LOC Tier 1 (a fee of \$0.0004 per share for Market-on-Close orders and a fee of \$0.0007 per share for Limit-on-Close orders), NYSE dQuote Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close (a reduced fee of \$0.0008 per share for d-Quotes last modified in the last 3 minutes before the scheduled close of trading), Remove Tier 1 for Tape A securities (a fee of \$0.00275 per share for removing liquidity) and Tape B and Tape C securities (a fee of \$0.00285 per share for removing liquidity), and Routing Tier 1 for adding average daily volume in Tapes A, B and C combined that is at least 0.20% of Tapes A, B and C consolidated average daily volume combined (a fee of \$0.0030 per share for orders routed). The venue provided a fee cap of \$30,000 for the month for opening executions. The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://www.nyse.com/markets/nyse/trading-info/fees>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

The Nasdaq Stock Market (NSDQ):

Firm qualified for (1) the rebate provided for adding over 0.35% of the total consolidated volume and removing over 0.75% of the total consolidated volume (\$0.0028 per share for adding displayed liquidity), (2) Closing Cross Tier B (a fee of \$0.0011 per share for orders participating in the Closing Cross)(3) the rebate provided for executing ADV of at least 1 million shares through midpoint and Midpoint Extended Life Orders and increasing the volume of such orders by 10% or more versus the volume of such orders in April 2019 (\$0.0019 per share for adding midpoint liquidity in Tape A and B securities and \$0.0013 for adding midpoint liquidity in Tape C securities), and (4) the cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders. The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <http://www.nasdaqtrader.com/Trader.aspx?id=PriceListTrading2>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

NYSE Arca, Inc. (ARCA):

Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/equities/membership/fee\\_schedule/bzx/](https://www.cboe.com/us/equities/membership/fee_schedule/bzx/). Please note the exchange's publicly available Fees Schedule URL, link and applicable rates may change without notice.

[illegible]

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
Cboe EDGX Exchange, Inc. (EDGX)	3.42	0.03	4.09	10.60	0.00	-7.0200	-27.0000	660.3400	5.7143	11,952.2489	14.2396	-8.1600	-28.1379
Cboe BZX Exchange, Inc. (BATS)	2.89	0.03	2.61	8.56	1.32	-9.3000	-30.0000	833.0017	13.3828	10,988.2442	22.5222	-317.6395	-4.9864

## Material Aspects:

Jane Street Capital, LLC (JNST):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

The Nasdaq Stock Market (NSDQ):

Firm qualified for (1) the rebate provided for adding over 0.35% of the total consolidated volume and removing over 0.75% of the total consolidated volume (\$0.0028 per share for adding displayed liquidity), (2) Closing Cross Tier C (a fee of \$0.0012 per share for orders participating in the Closing Cross), (3) the rebate provided for executing ADV of at least 1 million shares through midpoint and Midpoint. Extended Life Orders and increasing the volume of such orders by 10% or more versus the volume of such orders in April 2019 (\$0.0019 per share for adding midpoint liquidity in Tape A and B securities and \$0.0013 for adding midpoint liquidity in Tape C securities), and (4) the cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders. The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <http://www.nasdaqtrader.com/Trader.aspx?id=PriceListTrading2>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Virtu Americas LLC (NITE):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Citadel Securities LLC (CDRG):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

UBS Securities LLC (UBSS):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

New York Stock Exchange LLC (NYSE):

Firm qualified for Providing Tier 3 (a rebate of \$0.0018 per share for adding displayed liquidity in Tape A securities), MOC/LOC Tier 1 (a fee of \$0.0004 per share for Market-on-Close orders and a fee of \$0.0007 per share for Limit-on-Close orders), NYSE dQuote Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close (a reduced fee of \$0.0008 per share for d-Quotes last modified in the last 3 minutes before the scheduled close of trading), Remove Tier 1 for Tape A securities (a fee of \$0.00275 per share for removing liquidity) and Tape B and Tape C securities (a fee of \$0.00285 per share for removing liquidity), and Routing Tier 1 for adding average daily volume in Tapes A, B and C combined that is at least 0.20% of Tapes A, B and C consolidated average daily volume combined (a fee of \$0.0030 per share for orders routed). The venue provided a fee cap of \$30,000 for the month for opening executions. The Firm achieved the aforementioned tiers based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://www.nyse.com/markets/nyse/trading-info/fees>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

NYSE Arca, Inc. (ARCA):

The Firm qualified for Tier 2 (a rebate of \$0.0029 for adding displayed liquidity in Tapes A and C securities and \$0.0022 for adding displayed liquidity in Tape B securities). The Firm achieved the aforementioned tier based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE\\_Arca\\_Marketplace\\_Fees.pdf](https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/NYSE_Arca_Marketplace_Fees.pdf). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Two Sigma Securities, LLC (SOHO):

Firm not charged for orders routed by the Asset and Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms.

Cboe EDGX Exchange, Inc. (EDGX):

The Firm qualified for the reduced internalization fees applicable when adding an ADV of at least 10,000,000 shares (a reduced fee of \$0.00040 per share). The Firm achieved the aforementioned tier based on its aggregated order flow for the month, i.e., not limited to the held, non-directed order flow that is the subject of this report. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/equities/membership/fee\\_schedule/edgx/](https://www.cboe.com/us/equities/membership/fee_schedule/edgx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe BZX Exchange, Inc. (BATS):

Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/equities/membership/fee\\_schedule/bzx/](https://www.cboe.com/us/equities/membership/fee_schedule/bzx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

June 2020

## Options Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non-Directed Orders	Non-Marketable Limit Orders as % of Non-Directed Orders	Other Orders as % of Non-Directed Orders
73.29	8.57	19.68	45.88	25.87

## Venues

Venue - Non-directed Order Flow	Non-Directed Orders (%)	Market Orders (%)	Marketable Limit Orders (%)	Non-Marketable Limit Orders (%)	Other Orders (%)	Net Payment Paid/Received for Market Orders(USD)	Net Payment Paid/Received for Market Orders(cents per hundred shares)	Net Payment Paid/Received for Marketable Limit Orders(USD)	Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Non-Marketable Limit Orders(USD)	Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)	Net Payment Paid/Received for Other Orders(USD)	Net Payment Paid/Received for Other Orders(cents per hundred shares)
Citadel Securities LLC (CDRG)	20.63	23.64	25.24	25.42	7.46	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Global Execution Brokers, LP (GEBB)	19.99	23.48	24.84	25.75	4.96	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citigroup Global Markets Inc. (SBSH)	19.31	23.29	21.71	21.09	13.02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-13,039.7000	-11.7109
Matrix Executions, LLC (REDG)	16.84	23.89	22.20	21.30	2.53	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-847.2000	-3.3757
Nasdaq PHLX LLC (PHLX)	8.78	0.00	0.04	0.19	33.65	0.0000	0.0000	21.2500	22.3684	155.0000	24.4866	94,014.4000	25.5433
Dash Financial Technologies LLC (DFIN)	4.51	5.70	5.86	5.78	0.83	-511.4400	-6.0000	-1,576.4400	-6.0000	-2,179.0800	-6.0000	-450.7400	-11.0000
Cboe Exchange, Inc. (CBOE)	2.93	0.00	0.11	0.47	10.42	0.0000	0.0000	118.0550	29.9632	441.4775	25.1268	-38,234.3050	-6.4944
The Nasdaq Stock Market (Options) (XNAS)	2.70	0.00	0.00	0.00	10.45	0.0000	0.0000	-24.0000	-48.0000	18.4000	80.0000	-29,039.5300	-25.9270
Cboe BZX Exchange, Inc. (BATO)	2.20	0.00	0.00	0.00	8.51	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-64,722.9000	-52.2110
NYSE Arca Options (ARCO)	2.11	0.00	0.00	0.00	8.17	0.0000	0.0000	0.0000	0.0000	-9.8000	-49.0000	29,422.8200	19.0134

## Material Aspects:

Citadel Securities LLC (CDRG):

Firm not charged. Citadel Securities LLC's recent reports pursuant to SEC Rule 606(a) are available at <https://www.citadelsecurities.com/rule-605-606-statements/>

Global Execution Brokers, LP (GEBB):

Firm not charged.

Citigroup Global Markets Inc. (SBSH):

Firm not charged commission except for orders in products that typically execute in the open outcry auction (e.g., SPX, OEX, DJX) or during VIX Extended Trading Hours. Firm charged applicable exchange fees. Firm qualified for rebate applicable when volume is 5,000 contracts/month or more, except for contracts that received price improvement, with higher rebate paid for option classes that do not participate in the Penny Pilot Program than for option classes that participate in the Penny Pilot Program. Citigroup Global Markets Inc's recent reports pursuant to SEC Rule 606(a) are available at: <http://public.s3.com/rule606/citi>

Matrix Executions, LLC (REDG):

Firm not charged for orders routed by the Asset and Wealth Management division or Corporate and Investment Bank division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms. Matrix Executions, LLC's recent reports pursuant to SEC Rule 606(a) are available at: <https://www.matrixexecutions.com/rule-606>

Nasdaq PHLX LLC (PHLX):

Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://listingcenter.nasdaq.com/rulebook/phlx/rules/phlx-options-7>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Dash Financial Technologies LLC (DFIN):

Firm not charged for orders routed by the Asset and Wealth Management division, except as noted below. Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Asset and Wealth Management division on behalf of its institutional clients for handling by the brokers algorithms and for orders routed by the Corporate and Investment Bank. Firm is charged \$.05/contract for 0-500,000 contracts, \$.04/contract for 500,001-1 million contracts, and \$.03/contract for greater than 1 million contracts. Firm did not qualify for a discounted tier. Dash Financial Technologies LLC's most recent report pursuant to SEC Rule 606(a) is available at: <https://www.dashfinancial.com/>

Cboe Exchange, Inc. (CBOE):

Firm did not qualify for tiered pricing with respect to customer order flow. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://cdn.cboe.com/resources/membership/Cboe\\_FeeSchedule.pdf](https://cdn.cboe.com/resources/membership/Cboe_FeeSchedule.pdf). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

The Nasdaq Stock Market (Options) (XNAS):

Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/nasdaq-options-7>. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe BZX Exchange, Inc. (BATO):

Firm did not qualify for tiered pricing. A description of the current fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.cboe.com/us/options/membership/fee\\_schedule/bzx/](https://www.cboe.com/us/options/membership/fee_schedule/bzx/). Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

NYSE Arca Options (ARCO):

Firm did not qualify for tiered pricing. A description of the fees and rebates offered by this venue, including the pricing tiers offered and the pricing for each tier, is available at: [https://www.nyse.com/publicdocs/nyse/markets/arca-options/NYSE\\_Arca\\_Options\\_Fee\\_Schedule.pdf](https://www.nyse.com/publicdocs/nyse/markets/arca-options/NYSE_Arca_Options_Fee_Schedule.pdf) Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.