

JP Morgan Securities LLC - Held NMS Stocks and Options Order Routing Public Report

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1st Quarter, 2023

January 2023

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	64.59	4.32	24.94	6.15

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)	30.21	39.94	37.64	7.19	15.74	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jane Street Capital, LLC (JNST)	16.80	20.16	24.07	6.99	16.22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas LLC (NITE)	15.12	17.76	20.37	7.08	16.20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Two Sigma Securities, LLC (SOHO)	15.03	22.06	17.70	0.08	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
The Nasdaq Stock Market (NSDQ)	11.32	0.00	0.07	38.18	29.47	-2.8150	-12.8951	-7.4914	-29.7278	7,645.4784	29.8934	437.1805	5.5209
New York Stock Exchange LLC (NYSE)	4.59	0.08	0.09	12.66	22.37	-69.7978	-6.0617	-12.3761	-16.2801	1,518.2768	19.2346	46.9072	0.5366
Cboe EDGX Exchange, Inc. (EDGX)	2.45	0.00	0.03	9.82	0.00	0.0000	0.0000	-4.0980	-30.0000	907.4298	15.7675	0.0000	0.0000
NYSE Arca, Inc. (ARCA)	1.60	0.00	0.02	6.43	0.00	0.0000	0.0000	-2.9880	-30.0000	1,060.8865	24.4794	0.0000	0.0000
MIAX Pearl Equities (EPRL)	1.53	0.00	0.00	6.14	0.00	0.0000	0.0000	-0.6293	-29.0000	401.0381	28.8693	0.0000	0.0000
Cboe BZX Exchange, Inc. (BATS)	1.35	0.00	0.01	5.43	0.00	0.0000	0.0000	-0.8730	-30.0000	740.4380	19.4996	0.0000	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):
Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0005 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's algorithms.

Jane Street Capital, LLC (JNST):
Firm not charged.

Virtu Americas LLC (NITE):
Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0010 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's algorithms.

Two Sigma Securities, LLC (SOHO):
Firm not charged.

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 and executing ADV of 350,000 or more shares through Midpoint Extended Life Orders during the month, (2) Closing Cross Tier B, (3) the rebate provided for adding over 0.03% of the total consolidated volume of non-displayed liquidity, including midpoint orders, for Tape A/B securities and Tape C securities, (4) the rebate provided for executing ADV of at least 3 million shares through midpoint and Midpoint Extended Life Orders and increasing the executed volume of such orders by 100% or more versus the volume of such executed orders in June 2021 , (5) the rebate for achieving QMM Tier 1 incentive, (6) the rebate provided for adding a minimum of 15 million shares of midpoint liquidity per day and increasing midpoint adding ADV by 30% or more versus May 2021 midpoint adding ADV and (7) a cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders for adding one million shares of liquidity, on average, during the month. 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: 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, MOC/LOC Tier 1, NYSE d-Order Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close, Remove Tier 1 for Tape A securities, Remove Tier for Tape B and Tape C securities, Midpoint Liquidity Tier 3 for adding at least .0075% of consolidated ADV through the midpoint for tapes A, B, and C securities combined, and Non-Displayed Step-up Tier 3 for adding at least 0.02% and less than 0.04% of ADV in non-displayed limit orders and mid-point liquidity orders in all securities consolidated ADV combined. The venue provided a fee cap of \$35,000 for the month for opening executions. 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 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.

Cboe EDGX Exchange, Inc. (EDGX):
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 markets.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.

NYSE Arca, Inc. (ARCA):
Firm qualified for Tier 4 for adding .20% of consolidated ADV, Mid-Point Liquidity Step-up Tier 2 for executing ADV of at least 1 million shares through midpoint versus the volume of such orders in May 2019, and Limit Non-Display Order Step Up Tier 4 for increasing ADV by .15% of limit non-displayed and mid-point liquidity orders combined over July 2020. 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 . Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

MIAX Pearl Equities (EPRL):
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 www.miaxglobal.com/markets/us-equities/pearl-equities/fees. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe BZX Exchange, Inc. (BATS):
Firm qualified for Add/Remove Volume Tier 1. 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 markets.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.

January 2023

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	57.98	6.58	28.66	6.78

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)
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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)	26.07	35.60	35.97	6.39	17.81	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities LLC (CDRG)	25.82	35.34	34.54	6.39	18.06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
The Nasdaq Stock Market (NSDQ)	11.99	0.20	0.28	36.30	21.58	-499.0012	-11.5846	-73.5368	-11.6522	36,105.5109	17.4008	1,148.4441	2.7605
Virtu Americas LLC (NITE)	11.52	12.76	16.57	6.26	18.29	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS Securities LLC (UBSS)	7.88	12.61	8.48	0.05	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
New York Stock Exchange LLC (NYSE)	5.46	0.05	0.12	15.31	15.21	-122.8588	-7.6690	-6.1028	-2.5001	9,618.5533	16.1028	656.7118	3.7919
NYSE Arca, Inc. (ARCA)	3.77	0.02	0.05	10.95	9.05	-19.5414	-29.0708	-12.6645	-25.8038	5,725.0503	19.7898	-626.0143	-9.9054
Cboe EDGX Exchange, Inc. (EDGX)	3.18	0.00	0.01	11.12	0.00	-6.5444	-29.9927	-13.9400	-29.0417	4,192.6113	12.8087	0.0000	0.0000
Two Sigma Securities, LLC (SOHO)	2.25	3.42	3.98	0.02	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MIAX Pearl Equities (EPRL)	2.06	0.00	0.00	7.21	0.00	0.0000	0.0000	0.0000	0.0000	2,227.7958	26.9350	0.0000	0.0000

Material Aspects:

Jane Street Capital, LLC (JNST):
Firm not charged.

Citadel Securities LLC (CDRG):

Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0005 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's 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 and executing ADV of 350,000 or more shares through Midpoint Extended Life Orders during the month, (2) Closing Cross Tier B, (3) the rebate provided for adding over 0.03% of the total consolidated volume of non-displayed liquidity, including midpoint orders, for Tape A/B securities and Tape C securities, (4) the rebate provided for executing ADV of at least 3 million shares through midpoint and Midpoint Extended Life Orders and increasing the executed volume of such orders by 100% or more versus the volume of such executed orders in June 2021, (5) the rebate for achieving QMM Tier 1 incentive, (6) the rebate provided for adding a minimum of 15 million shares of midpoint liquidity per day and increasing midpoint adding ADV by 30% or more versus May 2021 midpoint adding ADV and (7) a cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders for adding one million shares of liquidity, on average, during the month. 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: 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 Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0010 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's algorithms.

UBS Securities LLC (UBSS):

Firm not charged.

New York Stock Exchange LLC (NYSE):

Firm qualified for Providing Tier 2, MOC/LOC Tier 1, NYSE d-Order Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close, Remove Tier 1 for Tape A securities, Remove Tier for Tape B and Tape C securities, Midpoint Liquidity Tier 3 for adding at least .0075% of consolidated ADV through the midpoint for tapes A, B, and C securities combined, and Non-Displayed Step-up Tier 3 for adding at least 0.02% and less than 0.04% of ADV in non-displayed limit orders and mid-point liquidity orders in all securities consolidated ADV combined. The venue provided a fee cap of \$35,000 for the month for opening executions. 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 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):
Firm qualified for Tier 4 for adding .20% of consolidated ADV, Mid-Point Liquidity Step-up Tier 2 for executing ADV of at least 1 million shares through midpoint versus the volume of such orders in May 2019, and Limit Non-Display Order Step Up Tier 4 for increasing ADV by .15% of limit non-displayed and mid-point liquidity orders combined over July 2020. 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 . Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe EDGX Exchange, Inc. (EDGX):
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 markets.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.

MIAX Pearl Equities (EPRL):
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 www.miaxglobal.com/markets/us-equities/pearl-equities/fees. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

January 2023

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
98.30	12.88	15.33	39.40	32.38

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)
Dash Financial Technologies LLC (DFIN)	24.54	24.30	21.60	22.96	27.76	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-6,994.9700	-1.6091
Citadel Securities LLC (CDRG)	19.68	27.42	27.43	27.46	3.49	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Global Execution Brokers, LP (GEBB)	19.06	24.23	25.89	27.94	3.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Wolverine Execution Services, LLC (WEXX)	16.06	24.05	25.08	21.64	1.82	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Nasdaq PHLX LLC (XPHO)	15.26	0.00	0.00	0.00	47.18	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-137,083.9516	-27.8813
NYSE Arca Options (ARCO)	1.32	0.00	0.00	0.00	4.10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-24,330.5900	-22.5959
Cboe Exchange, Inc. (CBOE)	1.28	0.00	0.00	0.00	3.96	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-40,666.6100	-22.3861
Nasdaq Options Market (XNDQ)	1.24	0.00	0.00	0.00	3.83	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-63,048.0744	-41.6310

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 BZX Exchange, Inc. (BATO)	0.91	0.00	0.00	0.00	2.84	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-45,331.2000	-55.3495
MIAX Pearl, LLC (MPRL)	0.65	0.00	0.00	0.00	2.02	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-61,106.7306	-54.3079

Material Aspects:

Dash Financial Technologies LLC (DFIN):
Firm not charged for orders routed by the Wealth Management or Corporate and Investment Bank division and cleared by Dash Financial Technologies LLC. However, Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Corporate and Investment Bank and cleared by the Firm following execution, 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 qualified for the \$.03/contract discounted tier. Dash Financial Technologies LLC's most recent report pursuant to SEC Rule 606(a) is available at dash-website-static.s3-website-us-east-1.amazonaws.com/static/606.html

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

Global Execution Brokers, LP (GEBB):
Firm not charged.

Wolverine Execution Services, LLC (WEXX):
Firm not charged. Wolverine Execution Services, LLC's recent reports pursuant to SEC Rule 606(a) are available at www.tradewex.com/Home/Rule606.

Nasdaq PHLX LLC (XPHO):
Firm did not qualify for tiered pricing. Firm received marketing fees from preferenced market makers pursuant to marketing fee program sponsored by exchange. 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 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.

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 www.nyse.com/markets/arca-options/trading-info#fees. 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. Firm received marketing fees from preferenced market makers pursuant to marketing fee program sponsored by exchange. 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 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.

Nasdaq Options Market (XNDQ):
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 [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 markets.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.

MIAX Pearl, LLC (MPRL):
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 www.miaxglobal.com/markets/us-options/miax-options/fees. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

February 2023

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	65.30	4.68	23.67	6.35

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)	27.62	35.17	34.54	8.18	16.72	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jane Street Capital, LLC (JNST)	18.74	22.34	25.08	8.16	16.58	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Two Sigma Securities, LLC (SOHO)	17.28	25.01	19.91	0.08	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas LLC (NITE)	15.30	17.44	20.39	8.04	16.61	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
The Nasdaq Stock Market (NSDQ)	10.09	0.00	0.02	34.73	29.65	0.0000	0.0000	-4.6288	-29.8440	6,232.4152	30.0319	343.9789	4.2114
New York Stock Exchange LLC (NYSE)	5.76	0.04	0.06	18.72	20.44	-13.1897	-5.3331	-0.9305	-7.6964	2,112.0392	19.6447	67.8257	1.0252
NYSE Arca, Inc. (ARCA)	1.69	0.00	0.00	7.14	0.00	-0.3480	-30.0000	-0.4140	-30.0000	1,499.1250	24.7705	0.0000	0.0000
Cboe EDGX Exchange, Inc. (EDGX)	1.40	0.00	0.00	5.94	0.00	0.0000	0.0000	-0.6030	-30.0000	812.5140	15.9313	0.0000	0.0000
Cboe BZX Exchange, Inc. (BATS)	1.20	0.00	0.00	5.10	0.00	0.0000	0.0000	0.0000	0.0000	743.3430	19.7402	0.0000	0.0000
Investors Exchange LLC (IEXG)	0.92	0.00	0.00	3.91	0.00	-0.0029	-29.0000	-0.1000	-10.0000	-2.2283	-0.0698	0.0000	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):

Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0005 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's algorithms.

Jane Street Capital, LLC (JNST):

Firm not charged.

Two Sigma Securities, LLC (SOHO):

Firm not charged.

Virtu Americas LLC (NITE):

Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0010 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's 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 and executing ADV of 350,000 or more shares through Midpoint Extended Life Orders during the month, (2) Closing Cross Tier B, (3) the rebate provided for adding over 0.03% of the total consolidated volume of non-displayed liquidity, including midpoint orders, for Tape A/B securities and Tape C securities, (4) the rebate provided for executing ADV of at least 3 million shares through midpoint and Midpoint Extended Life Orders and increasing the executed volume of such orders by 100% or more versus the volume of such executed orders in June 2021, (5) the rebate for achieving QMM Tier 1 incentive, (6) the rebate provided for adding a minimum of 15 million shares of midpoint liquidity per day and increasing midpoint adding ADV by 30% or more versus May 2021 midpoint adding ADV, and (7) a cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders for adding one million shares of liquidity, on average, during the month. 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 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, MOC/LOC Tier 1, NYSE d-Order Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close, Remove Tier 1 for Tape A securities, Remove Tier for Tape B and Tape C securities, Midpoint Liquidity Tier 3 for adding at least .0075% of consolidated ADV through the midpoint for tapes A, B, and C securities combined, and Non-Displayed Step-up Tier 3 for adding at least 0.02% and less than 0.04% of ADV in non-displayed limit orders and mid-point liquidity orders in all securities consolidated ADV combined. The venue provided a fee cap of \$35,000 for the month for opening executions. 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 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):
Firm qualified for Tier 4 for adding .20% of consolidated ADV, Mid-Point Liquidity Step-up Tier 2 for executing ADV of at least 1 million shares through midpoint versus the volume of such orders in May 2019, and Limit Non-Display Order Step Up Tier 4 for increasing ADV by .15% of limit non-displayed and mid-point liquidity orders combined over July 2020. 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 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):
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 markets.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 qualified for Add/Remove Volume Tier 1. 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 markets.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.

Investors Exchange LLC (IEXG):
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 www.iexexchange.io/resources/trading/fee-schedule. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

February 2023

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	60.62	7.46	24.38	7.55

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)	29.28	38.00	37.37	8.49	17.89	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities LLC (CDRG)	23.81	29.77	31.23	8.52	18.25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas LLC (NITE)	11.70	11.72	15.53	8.42	18.35	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS Securities LLC (UBSS)	11.12	16.90	11.46	0.09	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
The Nasdaq Stock Market (NSDQ)	9.84	0.11	0.27	33.64	20.76	-195.0439	-11.4520	-232.5867	-22.1801	31,371.6201	20.5045	1,397.4352	3.9253
New York Stock Exchange LLC (NYSE)	5.39	0.05	0.11	17.37	14.76	-81.0580	-6.8065	-15.3069	-3.7188	11,439.4939	18.0213	1,064.9105	5.4239
NYSE Arca, Inc. (ARCA)	3.35	0.02	0.05	10.88	9.05	-25.3934	-28.9879	-38.3755	-10.2504	8,837.3257	17.4451	-481.2498	-5.8350

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)
Two Sigma Securities, LLC (SOHO)	2.38	3.43	3.94	0.02	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cboe BZX Exchange, Inc. (BATS)	1.58	0.00	0.01	6.21	0.94	-1.7287	-29.0050	-2.3910	-30.0000	5,056.8442	15.4692	-33.4148	-2.7861
Cboe EDGX Exchange, Inc. (EDGX)	1.55	0.00	0.03	6.36	0.00	-0.3555	-12.7419	-21.3489	-29.9886	4,733.7474	12.0582	0.0000	0.0000

Material Aspects:

Jane Street Capital, LLC (JNST):
Firm not charged.

Citadel Securities LLC (CDRG):
Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0005 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's algorithms.

Virtu Americas LLC (NITE):
Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0010 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's algorithms.

UBS Securities LLC (UBSS):
Firm not charged.

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 and executing ADV of 350,000 or more shares through Midpoint Extended Life Orders during the month, (2) Closing Cross Tier B, (3) the rebate provided for adding over 0.03% of the total consolidated volume of non-displayed liquidity, including midpoint orders, for Tape A/B securities and Tape C securities, (4) the rebate provided for executing ADV of at least 3 million shares through midpoint and Midpoint Extended Life Orders and increasing the executed volume of such orders by 100% or more versus the volume of such executed orders in June 2021, (5) the rebate for achieving QMM Tier 1 incentive, (6) the rebate provided for adding a minimum of 15 million shares of midpoint liquidity per day and increasing midpoint adding ADV by 30% or more versus May 2021 midpoint adding ADV, and (7) a cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders for adding one million shares of liquidity, on average, during the month. 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 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, MOC/LOC Tier 1, NYSE d-Order Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close, Remove Tier 1 for Tape A securities, Remove Tier for Tape B and Tape C securities, Midpoint Liquidity Tier 3 for adding at least .0075% of consolidated ADV through the midpoint for tapes A, B, and C securities combined, and Non-Displayed Step-up Tier 3 for adding at least 0.02% and less than 0.04% of ADV in non-displayed limit orders and mid-point liquidity orders in all securities consolidated ADV combined. The venue provided a fee cap of \$35,000 for the month for opening executions. 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 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):
Firm qualified for Tier 4 for adding .20% of consolidated ADV, Mid-Point Liquidity Step-up Tier 2 for executing ADV of at least 1 million shares through midpoint versus the volume of such orders in May 2019, and Limit Non-Display Order Step Up Tier 4 for increasing ADV by .15% of limit non-displayed and mid-point liquidity orders combined over July 2020. 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. 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.

Cboe BZX Exchange, Inc. (BATS):
Firm qualified for Add/Remove Volume Tier 1. 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 markets.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.

Cboe EDGX Exchange, Inc. (EDGX):
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 markets.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.

February 2023

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
98.58	11.79	13.88	36.72	37.61

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)	20.62	31.18	31.26	30.94	3.20	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Global Execution Brokers, LP (GEBB)	20.17	28.41	29.40	31.79	2.85	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Nasdaq PHLX LLC (XPHO)	19.66	0.00	0.00	0.00	52.30	0.0000	0.0000	-7.0976	-50.6971	0.0000	0.0000	-127,184.5992	-26.7806
Dash Financial Technologies LLC (DFIN)	17.57	12.25	10.68	11.95	27.27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-6,229.4800	-1.6721
Wolverine Execution Services, LLC (WEXX)	17.27	28.16	28.66	25.32	1.80	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cboe Exchange, Inc. (CBOE)	1.21	0.00	0.00	0.00	3.22	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-28,016.7225	-19.3313
Nasdaq Options Market (XNDQ)	1.02	0.00	0.00	0.00	2.73	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-59,444.9788	-38.9980
NYSE Arca Options (ARCO)	0.95	0.00	0.00	0.00	2.54	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-19,149.0525	-23.6648
MIAX Pearl, LLC (MPRL)	0.77	0.00	0.00	0.00	2.05	0.0000	0.0000	-2.4090	-48.1800	0.0000	0.0000	-53,979.8996	-53.6132
Cboe BZX Exchange, Inc. (BATO)	0.76	0.00	0.00	0.00	2.04	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-41,187.1800	-50.2301

Material Aspects:

Citadel Securities LLC (CDRG):

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

Global Execution Brokers, LP (GEBB):

Firm not charged.

Nasdaq PHLX LLC (XPHO):

Firm did not qualify for tiered pricing. Firm received marketing fees from preferred market makers pursuant to marketing fee program sponsored by exchange. 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 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 Wealth Management or Corporate and Investment Bank division and cleared by Dash Financial Technologies LLC. However, Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Corporate and Investment Bank and cleared by the Firm following execution, 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 qualified for the \$.03/contract discounted tier. Dash Financial Technologies LLC's most recent report pursuant to SEC Rule 606(a) is available at dash-website-static.s3-website-us-east-1.amazonaws.com/static/606.html

Wolverine Execution Services, LLC (WEXX):

Firm not charged. Wolverine Execution Services, LLC's recent reports pursuant to SEC Rule 606(a) are available at www.tradewex.com/Home/Rule606.

Cboe Exchange, Inc. (CBOE):
Firm did not qualify for tiered pricing with respect to customer order flow. Firm received marketing fees from preferenced market makers pursuant to marketing fee program sponsored by exchange. 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 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.

Nasdaq Options Market (XNDQ):
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 . 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 www.nyse.com/markets/arca-options/trading-info#fees. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

MIAX Pearl, LLC (MPRL):
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 www.miaxglobal.com/markets/us-options/miax-options/fees. 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 markets.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.

March 2023

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	64.89	5.03	23.82	6.26

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)	27.46	34.96	34.20	8.28	16.57	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Jane Street Capital, LLC (JNST)	18.84	22.49	24.92	8.17	16.77	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Two Sigma Securities, LLC (SOHO)	16.97	24.61	19.51	0.09	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas LLC (NITE)	15.26	17.49	19.91	7.82	16.78	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
The Nasdaq Stock Market (NSDQ)	8.60	0.04	0.15	29.92	23.23	-9.0320	-11.5028	-0.7413	-18.8147	6,301.0303	30.1431	14.7504	0.3035
New York Stock Exchange LLC (NYSE)	7.72	0.41	1.31	24.01	26.65	-111.4951	-3.4903	99.1678	5.4386	4,631.6110	19.5123	270.3286	3.2111
NYSE Arca, Inc. (ARCA)	1.61	0.00	0.00	6.79	0.00	-0.3600	-30.0000	0.0000	0.0000	1,450.3780	24.6135	0.0000	0.0000

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)	1.37	0.00	0.00	5.77	0.00	-0.0480	-30.0000	-6.6000	-30.0000	915.1162	15.8770	0.0000	0.0000
Cboe BZX Exchange, Inc. (BATS)	1.20	0.00	0.00	5.05	0.00	0.0000	0.0000	-0.4620	-30.0000	1,639.1634	22.8562	0.0000	0.0000
Investors Exchange LLC (IEXG)	0.97	0.00	0.00	4.10	0.00	-0.0232	-29.0000	-0.6354	-8.4382	-2.9719	-0.0669	0.0000	0.0000

Material Aspects:

Citadel Securities LLC (CDRG):
Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0005 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's algorithms.

Jane Street Capital, LLC (JNST):
Firm not charged.

Two Sigma Securities, LLC (SOHO):
Firm not charged.

Virtu Americas LLC (NITE):
Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0010 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's 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 .80% of the total consolidated volume and executing ADV of 350,000 or more shares through Midpoint Extended Life Orders during the month , (2) Closing Cross Tier B, (3) the rebate provided for adding over 0.03% of the total consolidated volume of non-displayed liquidity, including midpoint orders, for Tape A/B securities and Tape C securities, (4) the rebate provided for executing ADV of at least 3 million shares through midpoint and Midpoint Extended Life Orders and increasing the executed volume of such orders by 100% or more versus the volume of such executed orders in June 2021, (5) the rebate for achieving QMM Tier 1 incentive, (6) the rebate provided for adding a minimum of 15 million shares of midpoint liquidity per day and increasing midpoint adding ADV by 30% or more versus May 2021 midpoint adding ADV , and (7) a cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders for adding one million shares of liquidity, on average, during the month. 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 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, MOC/LOC Tier 1, NYSE d-Order Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close, Remove Tier 1 for Tape A securities, Remove Tier for Tape B and Tape C securities, Midpoint Liquidity Tier 3 for adding at least .0075% of consolidated ADV through the midpoint for tapes A, B, and C securities combined, and Non-Displayed Step-up Tier 3 for adding at least 0.02% and less than 0.04% of ADV in non-displayed limit orders and mid-point liquidity orders in all securities consolidated ADV combined. The venue provided a fee cap of \$35,000 for the month for opening executions. 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 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):
Firm qualified for Tier 4 for adding .20% of consolidated ADV, Mid-Point Liquidity Step-up Tier 2 for executing ADV of at least 1 million shares through midpoint versus the volume of such orders in May 2019 and Limit Non-Display Order Step Up Tier 4 for increasing ADV by .15% of limit non-displayed and mid-point liquidity orders combined over July 2020. 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. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

Cboe EDGX Exchange, Inc. (EDGX):
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 markets.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 qualified for Add/Remove Volume Tier 2. 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 markets.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.

Investors Exchange LLC (IEXG):
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 www.iexexchange.io/resources/trading/fee-schedule. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.

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	61.10	7.62	23.76	7.52

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)	29.69	38.26	37.70	8.75	17.95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Citadel Securities LLC (CDRG)	23.87	29.58	31.21	8.64	18.13	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Virtu Americas LLC (NITE)	11.90	12.13	15.78	8.24	17.62	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
UBS Securities LLC (UBSS)	10.84	16.36	10.84	0.09	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
The Nasdaq Stock Market (NSDQ)	9.40	0.07	0.14	32.76	20.90	-308.8773	-15.3313	-99.5374	-24.4318	29,408.4266	19.3185	1,055.0597	2.5127
New York Stock Exchange LLC (NYSE)	5.41	0.05	0.15	17.78	15.21	-50.4551	-5.8929	-56.3805	-6.8544	10,631.1333	16.8247	567.9183	2.2291
NYSE Arca, Inc. (ARCA)	3.35	0.02	0.07	11.12	9.21	-26.2105	-24.6919	-159.8618	-28.5009	9,013.1734	18.0532	-500.4857	-7.9723
Two Sigma Securities, LLC (SOHO)	2.47	3.53	4.07	0.03	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cboe BZX Exchange, Inc. (BATS)	1.56	0.00	0.02	6.24	0.98	-13.9936	-29.7610	-76.3358	-29.9968	5,200.7190	15.7974	-46.9675	-6.1278
Cboe EDGX Exchange, Inc. (EDGX)	1.51	0.00	0.02	6.35	0.00	-5.3770	-25.4593	-24.9199	-29.9842	4,148.0804	10.7801	0.0000	0.0000

Material Aspects:

Jane Street Capital, LLC (JNST):
Firm not charged.

Citadel Securities LLC (CDRG):
Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0005 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's algorithms.

Virtu Americas LLC (NITE):
Firm not charged for orders routed by the Wealth Management division or the Corporate and Investment Bank division, except as noted below. Firm charged a fee of \$0.0010 per share executed for any orders routed by the Wealth Management division on behalf of its clients for handling by the broker's algorithms.

UBS Securities LLC (UBSS):
Firm not charged.

Form qualified for (1) the rebate provided for adding over 0.60% of the total consolidated volume and removing over .80% of the total consolidated volume and Orders during the month, (2) Closing Cross Tier B, (3) the rebate provided for adding over 0.03% of the total consolidated volume of non-displayed liquidity, including midpoint orders, for Tape A/B securities and Tape C securities, (4) the rebate provided for executing ADV of at least 3 million shares through midpoint and Midpoint Extended Life Orders and increasing the executed volume of such orders by 100% or more versus the volume of such executed orders in June 2021, (5) the rebate for achieving QMM Tier 1 incentive, (6) the rebate provided for adding a minimum of 15 million shares of midpoint liquidity per day and increasing midpoint adding ADV by 30% or more versus May 2021 midpoint adding ADV, and (7) a cap of \$35,000 for opening cross charges from Market-On-Open and Limit-On-Open orders for adding one million shares of liquidity, on average, during the month. 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 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. executing ADV of 350,000 or more shares through Midpoint Extended Life

firm qualified for Providing Tier 2, MOC/LOC Tier 1, NYSE d-Order Tier 1 charges applicable for Executions at the Close after the first 750,000 ADV of aggregate executions at the close, Remove Tier 1 for Tape A securities, Remove Tier for Tape B and Tape C securities, Midpoint Liquidity Tier 3 for adding at least .0075% of consolidated ADV through the midpoint for tapes A, B, and C securities combined, and Non-Displayed Step-up Tier 3 for adding at least 0.02% and less than 0.04% of ADV in non-displayed limit orders and mid-point liquidity orders in all securities consolidated ADV combined. The venue provided a fee cap of \$35,000 for the month for opening executions. 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 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.

Firm qualified for Tier 4 for adding .20% of consolidated ADV, Mid-Point Liquidity Step-up Tier 2 for executing ADV of at least 1 million shares through midpoint versus the volume of such orders in May 2019 and Limit Non-Display Order Step Up Tier 4 for increasing ADV by .15% of limit non-display and mid-point liquidity orders combined over July 2020. 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. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice

Firm not charged.

Firm qualified for Add/Remove Volume Tier 2. 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 markets.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.

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 markets.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.

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
98.48	11.90	14.84	40.32	32.94

[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)
Nasdaq PHLX LLC (XPHO)	15.48	0.00	0.00	0.00	47.07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-139,094.0400	-24.5588
Cboe Exchange, Inc. (CBOE)	1.19	0.00	0.00	0.00	3.61	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-43,069.7450	-23.7506
Nasdaq Options Market (XNDQ)	1.15	0.00	0.00	0.00	3.50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-60,074.9180	-39.8806
NYSE Arca Options (ARCO)	1.03	0.00	0.00	0.00	3.14	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-15,614.9420	-15.7337
Cboe BZX Exchange, Inc. (BATO)	0.74	0.00	0.00	0.00	2.27	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-37,986.5200	-53.6449
MIAX Pearl, LLC (MPRL)	0.68	0.00	0.00	0.00	2.07	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-60,618.6922	-54.6562

Material Aspects:

Dash Financial Technologies LLC (DFIN):

Firm not charged for orders routed by the Wealth Management or Corporate and Investment Bank division and cleared by Dash Financial Technologies LLC. However, Firm charged commission plus exchange, regulatory, market data, and clearing fees, less exchange rebates where applicable, for orders routed by the Corporate and Investment Bank and cleared by the Firm following execution, 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 qualified for the \$.03/contract discounted tier. Dash Financial Technologies LLC's most recent report pursuant to SEC Rule 606(a) is available at dash-website-static.s3-website-us-east-1.amazonaws.com/static/606.html

Citadel Securities LLC (CDRG):

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

Global Execution Brokers, LP (GEBB):

Firm not charged.

Wolverine Execution Services, LLC (WEXX):

Firm not charged. Wolverine Execution Services, LLC's recent reports pursuant to SEC Rule 606(a) are available at www.tradewex.com/Home/Rule606.

Nasdaq PHLX LLC (XPHO):

Firm did not qualify for tiered pricing. Firm received marketing fees from preferenced market makers pursuant to marketing fee program sponsored by exchange. 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 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. Firm received marketing fees from preferenced market makers pursuant to marketing fee program sponsored by exchange. 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 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.

Nasdaq Options Market (XNDQ):

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 . 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 www.nyse.com/markets/arca-options/trading-info#fees. 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 markets.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.

MIAX Pearl, LLC (MPRL):

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 www.miaxglobal.com/markets/us-options/miax-options/fees. Please note the exchange's publicly available Fees Schedule URL link and applicable rates may change without notice.