

NATIONAL FINANCIAL SERVICES LLC - Held NMS Stocks and Options Order Routing Public Report

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2nd Quarter, 2022

April 2022

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
8.80	96.05	3.40	0.44	0.10

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)	28.39	36.69	48.88	45.43	0.16	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	19.49	24.93	43.35	40.30	0.04	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	15.75	21.17	0.26	0.85	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	11.47	15.42	0.27	0.79	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	10.78	0.02	0.00	0.00	45.96	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Investors Exchange (IEXG)	1.58	0.00	0.00	0.00	6.75	0	0.0000	0	0.0000	0	0.0000	-58	-9.0000
Credit Suisse Securities (USA) LLC (FBCO)	1.05	0.00	4.38	4.12	4.06	0	0.0000	-1,044	-23.7628	-1	-15.6689	-27	-10.0512
Goldman, Sachs & Co. (GSCO)	1.04	0.00	0.00	0.00	4.42	0	0.0000	0	0.0000	0	0.0000	-120	-10.0000
Two Sigma Securities, LLC (SOHO)	0.95	1.28	0.00	0.11	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
INTELLIGENT CROSS LLC (INCR)	0.95	0.00	0.00	0.00	4.04	0	0.0000	0	0.0000	0	0.0000	-51	-8.0000

Material Aspects:

Citadel Securities LLC (CDRG):

Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market." NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

VIRTU Americas, LLC (NITE):
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market." NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

Jane Street Capital, LLC (JNST):
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market." NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

G1 Execution Services, LLC (ETMM):
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market." NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

National Financial Services LLC (XSTM):
Orders may be routed to NFS's Alternative Trading System, CrossStream. NFS is not charged an explicit fee for orders executed in CrossStream but may receive a trading commission from the contra-side party against which the order executed. Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market." NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

Investors Exchange (IEXG):
NFS may be charged fees or receive rebates for orders executed on specific equities exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, and are non-negotiable. Visit exchange websites directly for detailed price lists: <https://exchange.iex.io/resources/trading/fee-schedule/>
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Credit Suisse Securities (USA) LLC (FBCO):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems. NFS may route orders for additional routing to Credit Suisse Securities (USA) LLC, Morgan Stanley & Co. LLC, and VIRTU Americas LLC. Orders routed further by Credit Suisse Securities (USA) LLC are sent to exchanges which incur fees and rebates based on the exchange rules, subject to SEC approval, and are non-negotiable. Execution fees and rebates incurred by Credit Suisse Securities (USA) LLC for routing these orders are passed back to NFS plus an additional router fee. Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

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Two Sigma Securities, LLC (SOHO):
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INTELLIGENT CROSS LLC (INCR):
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April 2022

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
3.34	91.96	5.26	2.27	0.51

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)	20.44	37.10	45.54	30.92	0.02	0	0.0000	0	0.0000	0	0.0000	0	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)
National Financial Services LLC (XSTM)	15.57	0.02	0.03	0.00	34.43	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	13.67	24.34	41.53	28.63	0.01	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	11.18	21.32	0.68	0.16	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	8.07	15.39	0.48	0.23	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Investors Exchange (IEXG)	2.58	0.00	0.81	1.44	5.65	0	0.0000	-29	-24.9914	-9	-7.3828	-46	-9.0000
NASDAQ Execution Services, LLC (NSDQ)	2.33	0.05	0.66	4.02	5.02	-399	-13.5000	-169	-14.4911	429	26.1356	-53	-16.6555
Credit Suisse Securities (USA) LLC (FBCO)	2.26	0.00	4.00	3.44	4.80	0	0.0000	-1,068	-25.6691	-4	-27.5914	-20	-4.7163
Goldman, Sachs & Co. (GSCO)	2.24	0.00	0.01	0.00	4.95	0	0.0000	0	0.0000	0	0.0000	-148	-10.0000
INTELLIGENT CROSS LLC (INCR)	2.18	0.00	0.01	0.00	4.83	0	0.0000	0	0.0000	0	0.0000	-72	-8.0000
UBS Securities LLC - ATS (UBSA)	2.18	0.00	0.00	0.00	4.83	0	0.0000	0	0.0000	0	0.0000	-135	-10.0000
EBX LLC (EBXL)	2.05	0.00	0.01	0.00	4.53	0	0.0000	0	0.0000	0	0.0000	-18	-7.0000
JP Morgan Securities LLC (JPMS)	2.01	0.00	0.02	0.00	4.44	0	0.0000	0	0.0000	0	0.0000	-111	-12.0000
Merrill Lynch, Pierce, Fenner & Smith Inc. (MLCO)	1.67	0.00	0.00	0.00	3.70	0	0.0000	0	0.0000	0	0.0000	-3	-10.0000
Barclays Capital, Inc. (LEHM)	1.50	0.00	0.00	0.00	3.31	0	0.0000	0	0.0000	0	0.0000	-69	-10.0000
Morgan Stanley & Company LLC (MSCO)	0.96	0.00	0.77	0.74	2.09	0	0.0000	-125	-25.7515	-1	-30.9850	-238	-20.0000

Material Aspects:

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Jane Street Capital, LLC (JNST):

Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
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Investors Exchange (IEXG):
NFS may be charged fees or receive rebates for orders executed on specific equities exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, and are non-negotiable.
Visit exchange websites directly for detailed price lists: <https://exchange.iex.io/resources/trading/fee-schedule/>
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NASDAQ Execution Services, LLC (NSDQ):
NFS may be charged fees or receive rebates for orders executed on specific equities exchanges
Rebates are generally for limit orders required to be displayed on exchange per the SEC Limit Order Display Rule but may also include marketable orders executed on certain exchanges.
Economics associated with Market orders, Marketable Limit orders and Other orders may represent a variety of different interaction types on the exchange, including but not limited to: participating in the exchange's opening or closing auction; displaying limit orders on the exchange; and removing liquidity on the exchange. The per-share economics described on this report represent a mix of interactions on the exchange.
Fees and rebates are set by exchange rules, subject to SEC approval, and are non-negotiable. Visit exchange websites directly for detailed price lists: <https://nasdaqtrader.com/Trader.aspx?id=PriceListTrading2>
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

Credit Suisse Securities (USA) LLC (FBCO):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
NFS may route orders for additional routing to Credit Suisse Securities (USA) LLC, Morgan Stanley & Co. LLC, and VIRTU Americas LLC.
Orders routed further by Credit Suisse Securities (USA) LLC are sent to exchanges which incur fees and rebates based on the exchange rules, subject to SEC approval, and are non-negotiable.
Execution fees and rebates incurred by Credit Suisse Securities (USA) LLC for routing these orders are passed back to NFS plus an additional router fee.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

Goldman, Sachs & Co. (GSCO):
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INTELLIGENT CROSS LLC (INCR):
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UBS Securities LLC - ATS (UBSA):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

EBX LLC (EBXL):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
Orders may be routed through EBX LLC in which NFS or its affiliates have an interest.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

JP Morgan Securities LLC (JPMS):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

Merrill Lynch, Pierce, Fenner & Smith Inc. (MLCO):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
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Barclays Capital, Inc. (LEHM):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
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Morgan Stanley & Company LLC (MSCO):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
NFS may route orders for additional routing to Credit Suisse Securities (USA) LLC, Morgan Stanley & Co. LLC, and VIRTU Americas LLC.
Orders routed further by Morgan Stanley & Co. LLC are sent to exchanges which incur fees and rebates based on the exchange rules, subject to SEC approval, and are non-negotiable.
Execution fees and rebates incurred by Morgan Stanley & Co. LLC for routing these orders are passed back to NFS plus an additional router fee.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

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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
99.97	0.00	0.00	0.00	100.00

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)
NYSE Arca Options (ARCA)	44.38	0.00	0.00	0.00	44.38	0	0.0000	0	0.0000	0	0.0000	6,387	24.5500
NASDAQ Options Market (NSDQ)	23.16	0.00	0.00	0.00	23.16	0	0.0000	0	0.0000	0	0.0000	-350	-3.6100
Cboe Options Exchange (CBOE)	16.01	0.00	0.00	0.00	16.01	0	0.0000	0	0.0000	0	0.0000	-2,564	-26.5100
Cboe BZX Options Exchange, Inc. (BATS)	15.52	0.00	0.00	0.00	15.52	0	0.0000	0	0.0000	0	0.0000	6,061	41.5000

Material Aspects:

NYSE Arca Options (ARCA):
NFS may be charged fees or receive rebates for orders executed on specific options exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds.
Visit exchange websites directly for detailed price lists: https://www.nyse.com/publicdocs/nyse/markets/arca-options/NYSE_Arca_Options_Fee_Schedule.pdf

NASDAQ Options Market (NSDQ):
NFS may be charged fees or receive rebates for orders executed on specific options exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds.
Visit exchange websites directly for detailed price lists: <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/nasdaq-options-7>

Cboe Options Exchange (CBOE):
NFS may be charged fees or receive rebates for orders executed on specific options exchanges.
NFS does not negotiate, set rates for, or solicit payment for order flow on options orders. However, NFS may generate rebates (e.g. Marketing Fees) associated with the routing of orders to CBOE options exchange.
Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds.
Visit exchange websites directly for detailed price lists: https://www.cboe.com/us/options/membership/fee_schedule/

Cboe BZX Options Exchange, Inc. (BATS):
NFS may be charged fees or receive rebates for orders executed on specific options exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds.
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May 2022

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
10.09	97.99	1.45	0.28	0.29

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)	31.83	36.85	44.44	44.22	1.16	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	22.68	25.79	53.79	45.58	0.35	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	15.58	18.70	0.22	1.56	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	14.34	17.21	0.16	1.66	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	11.93	0.00	0.00	0.00	82.14	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.82	0.99	0.00	0.05	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	0.40	0.45	0.00	0.00	0.15	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities LLC - ATS (UBSA)	0.32	0.00	0.00	0.00	2.24	0	0.0000	0	0.0000	0	0.0000	-49	-10.0000
INTELLIGENT CROSS LLC (INCR)	0.30	0.00	0.00	0.00	2.06	0	0.0000	0	0.0000	0	0.0000	-29	-8.0000
Credit Suisse Securities (USA) LLC (FBCO)	0.30	0.00	0.58	0.00	1.98	0	0.0000	-8	-17.8261	0	0.0000	-13	-10.0048

Material Aspects:

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UBS Securities, LLC (UBSS):

Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

UBS Securities LLC - ATS (UBSA):

NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems. Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

INTELLIGENT CROSS LLC (INCR):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems. Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

Credit Suisse Securities (USA) LLC (FBCO):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems. NFS may route orders for additional routing to Credit Suisse Securities (USA) LLC, Morgan Stanley & Co. LLC, and VIRTU Americas LLC. Orders routed further by Credit Suisse Securities (USA) LLC are sent to exchanges which incur fees and rebates based on the exchange rules, subject to SEC approval, and are non-negotiable. Execution fees and rebates incurred by Credit Suisse Securities (USA) LLC for routing these orders are passed back to NFS plus an additional router fee. Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

May 2022

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
4.36	97.24	1.81	0.79	0.16

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)	28.64	37.54	42.08	20.90	0.24	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	19.76	25.38	50.44	22.00	0.12	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	18.98	0.00	0.00	0.00	79.92	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	13.84	18.70	0.72	0.25	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	12.50	16.89	0.60	0.25	0.01	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.74	1.00	0.02	0.07	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Goldman, Sachs & Co. (GSCO)	0.62	0.00	0.00	0.00	2.62	0	0.0000	0	0.0000	0	0.0000	-179	-10.0000
UBS Securities LLC - ATS (UBSA)	0.57	0.00	0.00	0.00	2.42	0	0.0000	0	0.0000	0	0.0000	-176	-10.0000
INTELLIGENT CROSS LLC (INCR)	0.55	0.00	0.00	0.00	2.34	0	0.0000	0	0.0000	0	0.0000	-63	-8.0000
Credit Suisse Securities (USA) LLC (FBCO)	0.54	0.00	0.70	0.20	2.21	0	0.0000	-182	-20.2490	0	0.0000	-30	-4.2888

Material Aspects:

Citadel Securities LLC (CDRG):
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

VIRTU Americas, LLC (NITE):
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

National Financial Services LLC (XSTM):
Orders may be routed to NFS's Alternative Trading System, CrossStream. NFS is not charged an explicit fee for orders executed in CrossStream but may receive a trading commission from the contra-side party against which the order executed.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

G1 Execution Services, LLC (ETMM):
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

Jane Street Capital, LLC (JNST):
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

Two Sigma Securities, LLC (SOHO):
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

Goldman, Sachs & Co. (GSCO):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

UBS Securities LLC - ATS (UBSA):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

INTELLIGENT CROSS LLC (INCR):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

Credit Suisse Securities (USA) LLC (FBCO):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
NFS may route orders for additional routing to Credit Suisse Securities (USA) LLC, Morgan Stanley & Co. LLC, and VIRTU Americas LLC.
Orders routed further by Credit Suisse Securities (USA) LLC are sent to exchanges which incur fees and rebates based on the exchange rules, subject to SEC approval, and are non-negotiable.
Execution fees and rebates incurred by Credit Suisse Securities (USA) LLC for routing these orders are passed back to NFS plus an additional router fee.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

May 2022

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
99.98	0.00	0.00	0.00	100.00

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)
NYSE Arca Options (ARCA)	41.54	0.00	0.00	0.00	41.54	0	0.0000	0	0.0000	0	0.0000	9,256	23.8800
NASDAQ Options Market (NSDQ)	21.52	0.00	0.00	0.00	21.52	0	0.0000	0	0.0000	0	0.0000	835	5.5100
Cboe BZX Options Exchange, Inc. (BATS)	18.41	0.00	0.00	0.00	18.41	0	0.0000	0	0.0000	0	0.0000	3,731	22.7600
Cboe Options Exchange (CBOE)	18.03	0.00	0.00	0.00	18.03	0	0.0000	0	0.0000	0	0.0000	-3,108	-27.6300

Material Aspects:

NYSE Arca Options (ARCA):

NFS may be charged fees or receive rebates for orders executed on specific options exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds. Visit exchange websites directly for detailed price lists: https://www.nyse.com/publicdocs/nyse/markets/arca-options/NYSE_Arca_Options_Fee_Schedule.pdf

NASDAQ Options Market (NSDQ):

NFS may be charged fees or receive rebates for orders executed on specific options exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds. Visit exchange websites directly for detailed price lists: <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/nasdaq-options-7>

Cboe BZX Options Exchange, Inc. (BATS):

NFS may be charged fees or receive rebates for orders executed on specific options exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds. Visit exchange websites directly for detailed price lists: https://www.cboe.com/us/options/membership/fee_schedule/bzx/

Cboe Options Exchange (CBOE):

NFS may be charged fees or receive rebates for orders executed on specific options exchanges.

NFS does not negotiate, set rates for, or solicit payment for order flow on options orders. However, NFS may generate rebates (e.g. Marketing Fees) associated with the routing of orders to CBOE options exchange.

Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds.

Visit exchange websites directly for detailed price lists: https://www.cboe.com/us/options/membership/fee_schedule

June 2022

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
10.34	98.95	0.67	0.11	0.27

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)	29.00	33.72	41.32	39.73	1.03	0	0.0000	0	0.0000	0	0.0000	0	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)
VIRTU Americas, LLC (NITE)	20.38	23.51	54.27	46.86	0.30	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	18.88	22.33	2.17	1.11	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	16.02	18.96	1.55	0.98	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	13.43	0.00	0.00	0.00	91.71	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.84	1.00	0.10	0.37	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	0.42	0.47	0.05	0.37	0.12	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities LLC - ATS (UBSA)	0.13	0.00	0.00	0.00	0.92	0	0.0000	0	0.0000	0	0.0000	-40	-10.0000
Goldman, Sachs & Co. (GSCO)	0.12	0.00	0.00	0.00	0.84	0	0.0000	0	0.0000	0	0.0000	-42	-10.0000
INTELLIGENT CROSS LLC (INCR)	0.12	0.00	0.00	0.00	0.83	0	0.0000	0	0.0000	0	0.0000	-22	-8.0000

Material Aspects:

Citadel Securities LLC (CDRG):

Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

VIRTU Americas, LLC (NITE):

Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

G1 Execution Services, LLC (ETMM):

Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

Jane Street Capital, LLC (JNST):

Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

National Financial Services LLC (XSTM):

Orders may be routed to NFS's Alternative Trading System, CrossStream. NFS is not charged an explicit fee for orders executed in CrossStream but may receive a trading commission from the contra-side party against which the order executed.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

Two Sigma Securities, LLC (SOHO):

Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

UBS Securities, LLC (UBSS):

Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

UBS Securities LLC - ATS (UBSA):

NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

Goldman, Sachs & Co. (GSCO):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

INTELLIGENT CROSS LLC (INCR):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

June 2022

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
4.90	97.15	1.29	1.21	0.35

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)	25.49	33.83	35.04	7.18	0.22	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	19.06	0.00	0.00	0.00	79.73	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	17.61	23.05	46.25	8.07	0.11	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	16.77	22.67	0.90	0.20	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	14.03	18.97	0.95	0.20	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.71	0.96	0.03	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Choe BZX U.S. Equities Exchange (BATS)	0.68	0.00	0.61	55.89	0.00	0	0.0000	-12	-17.3155	595	13.0395	-41	-10.0000
Goldman, Sachs & Co. (GSCO)	0.61	0.00	0.00	0.00	2.55	0	0.0000	0	0.0000	0	0.0000	-91	-10.0000
Credit Suisse Securities (USA) LLC (FBCO)	0.56	0.00	0.27	0.25	2.30	0	0.0000	-244	-21.2175	-3	-17.8829	-12	-1.9102
INTELLIGENT CROSS LLC (INCR)	0.55	0.00	0.00	0.00	2.30	0	0.0000	0	0.0000	0	0.0000	-33	-8.0000

Material Aspects:

Citadel Securities LLC (CDRG):

National Financial Services LLC (XSTM):
Orders may be routed to NFS's Alternative Trading System, CrossStream. NFS is not charged an explicit fee for orders executed in CrossStream but may receive a trading commission from the contra-side party against which the order executed. Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market." NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

G1 Execution Services, LLC (ETMM):
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."
NFS does not accept payment for order flow, rebates, or other remuneration from this venue.

Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

Goldman, Sachs & Co. (GSCO):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems.
Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

INTELLIGENT CROSS LLC (INCR):
NFS may be charged fees for orders executed in Alternative Trading Systems. These fees are agreed upon between NFS and the Alternative Trading Systems or directly set by the Alternative Trading Systems. Orders to each venue are classified according to the parameters of the child order routed to the venue, not the parent order. For example, a customer market order routed to an ATS as a mid-point peg order will be classified as "Other," not as "Market."

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
99.97	0.00	0.00	0.00	100.00

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)
NYSE Arca Options (ARCA)	43.14	0.00	0.00	0.00	43.14	0	0.0000	0	0.0000	0	0.0000	8,839	23.8800
NASDAQ Options Market (NSDQ)	23.51	0.00	0.00	0.00	23.51	0	0.0000	0	0.0000	0	0.0000	-1,777	-13.1800
Cboe BZX Options Exchange, Inc. (BATS)	17.11	0.00	0.00	0.00	17.11	0	0.0000	0	0.0000	0	0.0000	481	6.7900
Cboe Options Exchange (CBOE)	15.69	0.00	0.00	0.00	15.69	0	0.0000	0	0.0000	0	0.0000	-2,614	-28.1200

Material Aspects:

NYSE Arca Options (ARCA):

NFS may be charged fees or receive rebates for orders executed on specific options exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds. Visit exchange websites directly for detailed price lists: https://www.nyse.com/publicdocs/nyse/markets/arca-options/NYSE_Arca_Options_Fee_Schedule.pdf

NASDAQ Options Market (NSDQ):

NFS may be charged fees or receive rebates for orders executed on specific options exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds. Visit exchange websites directly for detailed price lists: <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/nasdaq-options-7>

Cboe BZX Options Exchange, Inc. (BATS):

NFS may be charged fees or receive rebates for orders executed on specific options exchanges. Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds. Visit exchange websites directly for detailed price lists: https://www.cboe.com/us/options/membership/fee_schedule/bzx/

Cboe Options Exchange (CBOE):

NFS may be charged fees or receive rebates for orders executed on specific options exchanges.

NFS does not negotiate, set rates for, or solicit payment for order flow on options orders. However, NFS may generate rebates (e.g. Marketing Fees) associated with the routing of orders to CBOE options exchange.

Fees and rebates are set by exchange rules, subject to SEC approval, are non-negotiable, and may include tiers based on volume thresholds