NATIONAL FINANCIAL SERVICES LLC - Held NMS Stocks and Options Order Routing Public Report Generated on Thu Oct 20 2022 06:36:51 GMT-0400 (Eastern Daylight Time)

3rd Quarter, 2022

July 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
9.86	98.99	0.65	0.13	0.24

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)	29.46	34.14	40.47	39.54	0.89	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	21.29	24.41	57.61	48.80	0.26	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	19.40	22.90	0.62	0.11	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	14.47	17.08	0.29	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	13.41	0.00	0.00	0.00	93.99	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.83	0.98	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	0.42	0.48	0.00	0.00	0.12	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Goldman, Sachs & Co. (GSCO)	0.09	0.00	0.00	0.00	0.66	0	0.0000	0	0.0000	0	0.0000	-18	-10.0000
UBS Securities LLC - ATS (UBSA)	0.08	0.00	0.00	0.00	0.56	0	0.0000	0	0.0000	0	0.0000	-15	-10.0000

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)
JP Morgan Securities LLC (JPMS)	0.08	0.00	0.00	0.00	0.55	0	0.0000	0	0.0000	0	0.0000	-9	-12.0000

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):

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Jane Street Capital, LLC (JNST)

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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."

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."

JP Morgan Securities LLC (JPMS):

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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.

July 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
4.01	96.79	1.55	1.29	0.37

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)	25.44	34.58	36.41	7.47	0.17	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	19.56	0.00	0.00	0.00	76.19	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	17.02	23.53	0.69	0.25	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	16.95	22.74	47.94	8.18	0.06	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	12.72	17.59	0.48	0.13	0.01	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Goldman, Sachs & Co. (GSCO)	0.77	0.00	0.00	0.00	3.00	0	0.0000	0	0.0000	0	0.0000	-117	-10.0000
Cboe BZX U.S. Equities Exchange (BATS)	0.75	0.00	0.98	61.25	0.01	0	0.0000	-167	-29.6164	449	13.6542	-12	-5.1802
Credit Suisse Securities (USA) LLC (FBCO)	0.74	0.00	0.21	0.13	2.87	0	0.0000	-171	-18.5839	,	-31.0000	-41	-6.5504
Two Sigma Securities, LLC (SOHO)	0.73	1.00	0.02	0.03	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
JP Morgan Securities LLC (JPMS)	0.73	0.00	0.00	0.00	2.83	0	0.0000	0	0.0000	0	0.0000	-117	-12.0000

Material Aspects:

Citadel Securities LLC (CDRG):

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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.

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VIRTU Americas, LLC (NITE):

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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." 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."

Choe BZX U.S. Equities Exchange (BATS):

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://www.cboe.com/us/equities/membership/fee_schedule/bzx/

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 & Dr. 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."

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.

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.

July 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
99.82	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)
NYSE Arca Options (ARCA)	33.41	0.00	0.00	0.00	33.41	0	0.0000	0	0.0000	0	0.0000	8,857	36.0800
NASDAQ Options Market (NSDQ)	25.51	0.00	0.00	0.00	25.51	0	0.0000	0	0.0000	0	0.0000	-2,382	-21.3200
Cboe BZX Options Exchange, Inc. (BATS)	21.12	0.00	0.00	0.00	21.12	0	0.0000	0	0.0000	0	0.0000	-416	-7.0700

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 Options Exchange (CBOE)	17.83	0.00	0.00	0.00	17.83	0	0.0000	0	0.0000	0	0.0000	-1,874	-24.7200

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

Choe 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

August 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
9.30	99.31	0.44	0.12	0.13

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)	30.56	35.09	49.03	38.38	0.44	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	22.57	25.84	49.38	37.19	0.19	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	21.62	25.14	0.53	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

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National Financial Services LLC (XSTM)	12.57	0.00	0.00	0.00	94.47	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	10.63	12.36	0.40	0.24	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.91	1.06	0.00	0.48	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	0.43	0.49	0.00	0.00	0.05	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Goldman, Sachs & Co. (GSCO)	0.08	0.00	0.00	0.00	0.61	0	0.0000	0	0.0000	0	0.0000	-15	-10.0000
INTELLIGENT CROSS LLC (INCR)	0.08	0.00	0.00	0.00	0.60	0	0.0000	0	0.0000	0	0.0000	-10	-8.0000
JP Morgan Securities LLC (JPMS)	0.08	0.00	0.00	0.00	0.59	0	0.0000	0	0.0000	0	0.0000	-21	-12.0000

Citadel Securities LLC (CDRG):

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VIRTU Americas, LLC (NITE)

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G1 Execution Services, LLC (ETMM):

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UBS Securities, LLC (UBSS):

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Goldman, Sachs & Co. (GSCO):

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INTELLIGENT CROSS LLC (INCR):

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JP Morgan Securities LLC (JPMS):

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August 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
3.85	96.15	1.91	1.41	0.53

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)	25.27	35.27	47.81	9.58	0.16	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	18.39	0.00	0.00	0.00	65.95	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	18.17	25.24	45.26	9.45	0.06	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	17.90	25.43	1.52	0.39	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	8.86	12.59	0.69	0.08	0.01	0	0.0000	0	0.0000	0	0.0000	0	0.0000
INTELLIGENT CROSS LLC (INCR)	1.11	0.00	0.00	0.00	3.99	0	0.0000	0	0.0000	0	0.0000	-52	-8.0000
Credit Suisse Securities (USA) LLC (FBCO)	1.10	0.00	0.11	0.10	3.92	0	0.0000	0	0.0000	0	0.0000	-9	-1.9871
JP Morgan Securities LLC (JPMS)	1.08	0.00	0.00	0.00	3.86	0	0.0000	0	0.0000	0	0.0000	-69	-12.0000
EBX LLC (EBXL)	1.07	0.00	0.00	0.00	3.84	0	0.0000	0	0.0000	0	0.0000	-13	-6.0466
Morgan Stanley & Company LLC (MSCO)	1.06	0.00	0.00	0.00	3.80	0	0.0000	0	0.0000	0	0.0000	-289	-20.0000

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.

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.

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.

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 & D. 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."

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."

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."

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 & Dr. LLC, and VIRTU Americas LLC.

Orders routed further by Morgan Stanley & D. 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 & D. 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.

August 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
99.91	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)
NYSE Arca Options (ARCA)	39.02	0.00	0.00	0.00	39.02	0	0.0000	0	0.0000	0	0.0000	6,440	27.6800
NASDAQ Options Market (NSDQ)	25.22	0.00	0.00	0.00	25.22	0	0.0000	0	0.0000	0	0.0000	-681	-7.9900
Cboe BZX Options Exchange, Inc. (BATS)	19.18	0.00	0.00	0.00	19.18	0	0.0000	0	0.0000	0	0.0000	-299	-3.6700
Cboe Options Exchange (CBOE)	15.74	0.00	0.00	0.00	15.74	0	0.0000	0	0.0000	0	0.0000	-2,020	-27.0400

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.nasdag.com/rulebook/nasdag/rules/nasdag-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/

Choe 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

September 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
10.80	99.19	0.48	0.10	0.23

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)
Citadel Securities LLC (CDRG)	29.63	34.72	62.53	38.44	0.74	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	23.16	27.27	34.41	29.50	0.28	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	21.26	25.29	0.92	0.26	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	14.06	0.00	0.00	0.00	91.55	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	9.45	11.24	0.35	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Two Sigma Securities, LLC (SOHO)	0.84	1.00	0.00	0.00	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities, LLC (UBSS)	0.41	0.47	0.00	0.00	0.09	0	0.0000	0	0.0000	0	0.0000	0	0.0000
UBS Securities LLC - ATS (UBSA)	0.14	0.00	0.00	0.00	0.92	0	0.0000	0	0.0000	0	0.0000	-34	-10.0000
Goldman, Sachs & Co. (GSCO)	0.14	0.00	0.00	0.00	0.92	0	0.0000	0	0.0000	0	0.0000	-30	-10.0000
JP Morgan Securities LLC (JPMS)	0.14	0.00	0.00	0.00	0.91	0	0.0000	0	0.0000	0	0.0000	-27	-12.0000

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.

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.

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.

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."

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."

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.

September 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
4.91	96.19	1.95	1.44	0.42

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)	24.94	34.91	51.98	7.54	0.25	0	0.0000	0	0.0000	0	0.0000	0	0.0000
National Financial Services LLC (XSTM)	19.29	0.00	0.00	0.00	68.65	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas, LLC (NITE)	19.05	26.74	33.31	6.76	0.10	0	0.0000	0	0.0000	0	0.0000	0	0.0000
G1 Execution Services, LLC (ETMM)	17.87	25.46	2.12	0.05	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Jane Street Capital, LLC (JNST)	7.99	11.38	0.85	0.04	0.01	0	0.0000	0	0.0000	0	0.0000	0	0.0000
INTELLIGENT CROSS LLC (INCR)	1.08	0.00	0.00	0.00	3.83	0	0.0000	0	0.0000	0	0.0000	-23	-7.9435
JP Morgan Securities LLC (JPMS)	1.07	0.00	0.00	0.00	3.81	0	0.0000	0	0.0000	0	0.0000	-92	-12.0000
Credit Suisse Securities (USA) LLC (FBCO)	1.07	0.00	0.19	0.12	3.78	0	0.0000	-70	-13.7074	-1	-15.5491	-4	-0.9855

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)
Morgan Stanley & Company LLC (MSCO)	1.05	0.00	0.13	0.04	3.73	0	0.0000	-37	-16.4844	0	0.0000	-160	-20.0000
EBX LLC (EBXL)	1.03	0.00	0.00	0.00	3.68	0	0.0000	0	0.0000	0	0.0000	-3	-6.3767

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.

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.

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.

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."

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."

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 & D. 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."

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 & D. LLC, and VIRTU Americas LLC.

Orders routed further by Morgan Stanley & D. 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 & Dr. 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."

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.

September 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
99.87	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)	31.84	0.00	0.00	0.00	31.84	0	0.0000	0	0.0000	0	0.0000	4,567	23.4000
Cboe Options Exchange (CBOE)	24.05	0.00	0.00	0.00	24.05	0	0.0000	0	0.0000	0	0.0000	-1,869	-26.7400
NASDAQ Options Market (NSDQ)	22.24	0.00	0.00	0.00	22.24	0	0.0000	0	0.0000	0	0.0000	-707	-7.9900
Cboe BZX Options Exchange, Inc. (BATS)	20.72	0.00	0.00	0.00	20.72	0	0.0000	0	0.0000	0	0.0000	-664	-12.0200

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

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/

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