NATIONAL FINANCIAL SERVICES LLC - Held NMS Stocks and Options Order Routing Public Report Generated on Mon Jan 25 2021 11:30:15 GMT-0500 (Eastern Standard Time)

4th Quarter, 2020

October 2020

S&P 500 Stocks

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
9.60	26.76	3.26	0.98	69.00

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)
National Financial Services LLC (XSTM)	9.10	0.00	0.00	0.00	9.70	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Credit Suisse Securities (USA) LLC (FBCO)	8.11	0.00	27.23	19.75	8.12	0	0.0000	-21,625	-22.9226	-398	-22.9226	-798	-10.0000
EBX LLC (EBXL)	7.55	0.00	0.00	0.00	8.05	0	0.0000	0	0.0000	0	0.0000	-383	-6.6500
Goldman, Sachs & Co. (GSCO)	7.19	0.00	0.00	0.00	7.67	0	0.0000	0	0.0000	0	0.0000	-1,548	-10.0000
INTELLIGENT CROSS LLC (INCR)	7.16	0.00	0.00	0.00	7.63	0	0.0000	0	0.0000	0	0.0000	-1,543	-8.0000
UBS Securities LLC - ATS (UBSA)	7.08	0.00	0.00	0.00	7.55	0	0.0000	0	0.0000	0	0.0000	-1,508	-10.0000
Merrill Lynch, Pierce, Fenner & Smith Inc. (MLCO)	7.06	0.00	0.00	0.00	7.53	0	0.0000	0	0.0000	0	0.0000	-289	-10.0000
Morgan Stanley & Company LLC (MSCO)	6.88	0.00	8.83	5.32	7.17	0	0.0000	-5,420	-23.0450	-65	-23.0450	-4,042	-20.0000
JP Morgan Securities LLC (JPMS)	6.82	0.00	0.00	0.00	7.27	0	0.0000	0	0.0000	0	0.0000	-1,080	-12.0000
Investors Exchange (IEXG)	6.72	0.00	0.00	0.00	7.17	0	0.0000	0	0.0000	0	0.0000	-3,089	-9.0000
Barclays Capital, Inc. (LEHM)	3.55	0.00	0.00	0.00	3.79	0	0.0000	0	0.0000	0	0.0000	-525	-10.0000
VIRTU Americas LLC (KCGM)	3.25	0.00	24.23	15.02	3.01	0	0.0000	-16,442	-24.0504	-379	-24.0504	-95	-10.0000

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BIDS Trading LP (BIDS)	2.86	0.00	0.00	0.00	3.04	0	0.0000	0	0.0000	0	0.0000	-173	-14.1196
Deutsche Bank Securities Inc. (DBAB)	2.73	0.00	0.00	0.00	2.91	0	0.0000	0	0.0000	0	0.0000	-135	-15.0000
Instinet LLC (INCA)	2.68	0.00	0.00	0.00	2.86	0	0.0000	0	0.0000	0	0.0000	-51	-10.0000
Citadel Securities LLC (CDRG)	2.54	50.01	19.87	22.94	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

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."

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. Executions via these routers are charged additional fees under a cost-plus agreement.
- *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."

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,"

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."

Merrill Lynch, Pierce, Fenner & Smith Inc. (MLCO):

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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. Executions via these routers are charged additional fees under a cost-plus agreement.
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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."

Investors Exchange (IEXG):

- *NFS pays fees to and receives rebates from exchanges for executions and routing. These rates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds. Visit exchange websites for detailed pricing information.
- * 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."

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.
- * 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."

VIRTU Americas LLC (KCGM):

- * 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. Executions via these routers are charged additional fees under a cost-plus agreement.
- *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."

BIDS Trading LP (BIDS):

- * 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 is charged fees by BIDS Trading LP on a tiered price schedule based on volume thresholds.
- * 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."

Deutsche Bank Securities Inc. (DBAB):

- * 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."

Instinet LLC (INCA):

- * 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."

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."

October 2020

Non-S&P 500 Stocks

Summary

	Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
I	8.99	10.68	2.80	1.63	84.88

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)	8.61	0.00	0.00	0.00	8.83	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Credit Suisse Securities (USA) LLC (FBCO)	7.99	0.00	18.97	6.93	8.03	0	0.0000	-17,228	-22.9226	-143	-22.9226	-1,018	-10.0000
EBX LLC (EBXL)	7.75	0.00	0.00	0.00	7.95	0	0.0000	0	0.0000	0	0.0000	-744	-6.6300
INTELLIGENT CROSS LLC (INCR)	7.67	0.00	0.00	0.00	7.86	0	0.0000	0	0.0000	0	0.0000	-2,571	-8.0000
Morgan Stanley & Company LLC (MSCO)	7.35	0.00	7.39	2.60	7.47	0	0.0000	-6,286	-23.0450	-13	-23.0450	-6,189	-20.0000
JP Morgan Securities LLC (JPMS)	7.22	0.00	0.00	0.00	7.41	0	0.0000	0	0.0000	0	0.0000	-1,514	-12.0000
Merrill Lynch, Pierce, Fenner & Smith Inc. (MLCO)	7.19	0.00	0.00	0.00	7.37	0	0.0000	0	0.0000	0	0.0000	-497	-10.0000
UBS Securities LLC - ATS (UBSA)	7.07	0.00	0.00	0.00	7.25	0	0.0000	0	0.0000	0	0.0000	-2,418	-10.0000

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Goldman, Sachs & Co. (GSCO)	6.85	0.00	0.00	0.00	7.03	0	0.0000	0	0.0000	0	0.0000	-2,227	-10.0000
Barclays Capital, Inc. (LEHM)	5.47	0.00	0.00	0.00	5.61	0	0.0000	0	0.0000	0	0.0000	-1,454	-10.0000
Investors Exchange (IEXG)	5.37	0.00	0.00	0.00	5.50	0	0.0000	0	0.0000	0	0.0000	-3,028	-9.0000
VIRTU Americas LLC (KCGM)	3.23	0.00	19.75	7.24	3.13	0	0.0000	-16,193	-24.0504	-183	-24.0504	-186	-10.0000
BIDS Trading LP (BIDS)	3.08	0.00	0.00	0.00	3.16	0	0.0000	0	0.0000	0	0.0000	-306	-15.2231
Instinet LLC (INCA)	3.00	0.00	0.00	0.00	3.08	0	0.0000	0	0.0000	0	0.0000	-94	-10.0000
Deutsche Bank Securities Inc. (DBAB)	2.92	0.00	0.00	0.00	3.00	0	0.0000	0	0.0000	0	0.0000	-228	-15.0000

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October 2020

Options

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
90.21	0.00	0.00	0.12	99.88

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)
Morgan Stanley & Company LLC (MSCO)	22.11	0.00	0.00	0.00	19.40	0	0.0000	0	0.0000	0	0.0000	-863	-10.0000
NASDAQ Options Market (NSDQ)	21.56	0.00	0.00	0.00	18.92	0	0.0000	0	0.0000	0	0.0000	-109	-7.4230
NYSE Arca Options (ARCA)	21.16	0.00	0.00	0.00	18.57	0	0.0000	0	0.0000	0	0.0000	332	13.9480
Cboe BZX Options Exchange, Inc. (BATS)	20.76	0.00	0.00	0.00	18.22	0	0.0000	0	0.0000	0	0.0000	361	17.8600
Cboe Options Exchange (CBOE)	13.96	0.00	0.00	0.00	12.25	0	0.0000	0	0.0000	0	0.0000	-322	-26.8910

Material Aspects:

Morgan Stanley & Company LLC (MSCO):

* NFS may use broker Morgan Stanley & Co.LLC for additional options routing. Executions via this router is charged additional fees under a cost-plus agreement.

NASDAQ Options Market (NSDQ):

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

NYSE Arca Options (ARCA):

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

Cboe BZX Options Exchange, Inc. (BATS):

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

Cboe Options Exchange (CBOE):

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

November 2020

S&P 500 Stocks

Summary

	Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
I	10.16	34.71	57.16	8.04	0.09

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)	8.88	0.00	0.00	0.00	9.64	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Credit Suisse Securities (USA) LLC (FBCO)	7.72	0.00	29.52	28.21	7.75	0	0.0000	-20,592	-23.3304	-220	-23.3304	-658	-10.0000
EBX LLC (EBXL)	7.23	0.00	0.00	0.00	7.85	0	0.0000	0	0.0000	0	0.0000	-422	-6.4500
Merrill Lynch, Pierce, Fenner & Smith Inc. (MLCO)	7.13	0.00	0.00	0.00	7.73	0	0.0000	0	0.0000	0	0.0000	-285	-10.0000
Investors Exchange (IEXG)	6.84	0.00	0.03	0.05	7.42	0	0.0000	-8	-15.4889	0	0.0000	-2,472	-9.0000
Morgan Stanley & Company LLC (MSCO)	6.77	0.00	10.30	7.36	7.14	0	0.0000	-7,107	-23.9616	-14	-23.9616	-4,035	-20.0000
INTELLIGENT CROSS LLC (INCR)	6.69	0.00	0.00	0.00	7.25	0	0.0000	0	0.0000	0	0.0000	-1,100	-8.0000
JP Morgan Securities LLC (JPMS)	6.60	0.00	0.00	0.00	7.17	0	0.0000	0	0.0000	0	0.0000	-1,125	-12.0000
UBS Securities LLC - ATS (UBSA)	6.58	0.00	0.00	0.00	7.14	0	0.0000	0	0.0000	0	0.0000	-1,628	-10.0000
Goldman, Sachs & Co. (GSCO)	6.52	0.00	0.00	0.00	7.08	0	0.0000	0	0.0000	0	0.0000	-1,377	-10.0000
Barclays Capital, Inc. (LEHM)	4.83	0.00	0.00	0.00	5.25	0	0.0000	0	0.0000	0	0.0000	-763	-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)
Citadel Securities LLC (CDRG)	3.39	51.52	18.12	19.94	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas LLC (KCGM)	3.10	0.00	23.77	18.04	2.89	0	0.0000	-13,150	-24.0404	-147	-24.0404	-99	-10.0000
BIDS Trading LP (BIDS)	2.72	0.00	0.00	0.00	2.95	0	0.0000	0	0.0000	0	0.0000	-191	-15.2231
Deutsche Bank Securities Inc. (DBAB)	2.71	0.00	0.00	0.00	2.94	0	0.0000	0	0.0000	0	0.0000	-133	-15.0000
Instinet LLC (INCA)	2.46	0.00	0.00	0.00	2.67	0	0.0000	0	0.0000	0	0.0000	-48	-10.0000

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."

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, Executions via these routers are charged additional fees under a cost-plus agreement.
- * 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."

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.
- * 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."

Investors Exchange (IEXG):

- *NFS pays fees to and receives rebates from exchanges for executions and routing. These rates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds. Visit exchange websites for detailed pricing information.
- * 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 & Co.LLC, and VIRTU Americas LLC. Executions via these routers are charged additional fees under a cost-plus agreement.
- * 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."

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."

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."

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.
- * 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."

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."

VIRTU Americas LLC (KCGM):

- * 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. Executions via these routers are charged additional fees under a cost-plus agreement.
- *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."

BIDS Trading LP (BIDS)

- * 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 is charged fees by BIDS Trading LP on a tiered price schedule based on volume thresholds.
- * 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."

Deutsche Bank Securities Inc. (DBAB):

- * NFS may be charged fees for order's 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."

Instinet LLC (INCA)

- * 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."

November 2020

Non-S&P 500 Stocks

Summary

	Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
I	10.86	13.47	68.45	17.96	0.11

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)	8.45	0.00	0.00	0.00	8.70	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Credit Suisse Securities (USA) LLC (FBCO)	7.79	0.00	26.56	12.07	7.73	0	0.0000	-23,476	-23.3304	-299	-23.3304	-1,123	-10.0000
EBX LLC (EBXL)	7.57	0.00	0.00	0.00	7.79	0	0.0000	0	0.0000	0	0.0000	-727	-6.7300
Morgan Stanley & Company LLC (MSCO)	7.49	0.00	7.29	2.19	7.64	0	0.0000	-8,373	-23.9616	-57	-23.9616	-5,923	-20.0000
INTELLIGENT CROSS LLC (INCR)	7.42	0.00	0.00	0.00	7.63	0	0.0000	0	0.0000	0	0.0000	-1,929	-8.0000
Merrill Lynch, Pierce, Fenner & Smith Inc. (MLCO)	7.39	0.00	0.00	0.00	7.61	0	0.0000	0	0.0000	0	0.0000	-596	-10.0000
JP Morgan Securities LLC (JPMS)	7.26	0.00	0.00	0.00	7.47	0	0.0000	0	0.0000	0	0.0000	-1,589	-12.0000
UBS Securities LLC - ATS (UBSA)	6.76	0.00	0.00	0.00	6.96	0	0.0000	0	0.0000	0	0.0000	-3,408	-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)
Goldman, Sachs & Co. (GSCO)	6.56	0.00	0.00	0.00	6.76	0	0.0000	0	0.0000	0	0.0000	-2,004	-10.0000
Barclays Capital, Inc. (LEHM)	6.00	0.00	0.00	0.00	6.18	0	0.0000	0	0.0000	0	0.0000	-1,666	-10.0000
Investors Exchange (IEXG)	5.31	0.00	0.01	0.01	5.46	0	0.0000	-41	-15.4889	0	0.0000	-2,561	-9.0000
VIRTU Americas LLC (KCGM)	3.18	0.00	16.36	5.15	3.11	0	0.0000	-17,156	-24.0404	-340	-24.0404	-205	-10.0000
BIDS Trading LP (BIDS)	3.03	0.00	0.00	0.00	3.12	0	0.0000	0	0.0000	0	0.0000	-322	-15.2231
Deutsche Bank Securities Inc. (DBAB)	3.03	0.00	0.00	0.00	3.12	0	0.0000	0	0.0000	0	0.0000	-238	-15.0000
Instinet LLC (INCA)	2.93	0.00	0.00	0.00	3.02	0	0.0000	0	0.0000	0	0.0000	-104	-10.0000

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."

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. Executions via these routers are charged additional fees under a cost-plus agreement.
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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.
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Morgan Stanley & Company LLC (MSCO):

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- * NFS may route orders for additional routing to Credit Suisse Securities (USA) LLC, Morgan Stanley & Co.LLC, and VIRTU Americas LLC. Executions via these routers are charged additional fees under a cost-plus agreement.
- * 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."

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.
- * 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."

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."

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.
- * 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."

Investors Exchange (IEXG):

- *NFS pays fees to and receives rebates from exchanges for executions and routing. These rates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds. Visit exchange websites for detailed pricing information.
- *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."

VIRTU Americas LLC (KCGM):

- * 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. Executions via these routers are charged additional fees under a cost-plus agreement.
- *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."

BIDS Trading LP (BIDS):

- * 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 is charged fees by BIDS Trading LP on a tiered price schedule based on volume thresholds.
- * 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."

Deutsche Bank Securities Inc. (DBAB):

- * 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."

Instinet LLC (INCA

- * 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."

November 2020

Options

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
86.64	0.00	1.73	1.07	97.20

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)
Morgan Stanley & Company LLC (MSCO)	29.67	0.00	0.00	0.00	29.67	0	0.0000	0	0.0000	0	0.0000	-2,051	-10.0000
NYSE Arca Options (ARCA)	19.10	0.00	0.00	0.00	19.10	0	0.0000	0	0.0000	0	0.0000	1,165	30.7500
Cboe BZX Options Exchange, Inc. (BATS)	18.64	0.00	0.00	0.00	18.64	0	0.0000	0	0.0000	0	0.0000	561	20.6200
NASDAQ Options Market (NSDQ)	18.64	0.00	0.00	0.00	18.64	0	0.0000	0	0.0000	0	0.0000	-587	-29.4200
Cboe Options Exchange (CBOE)	13.11	0.00	0.00	0.00	13.11	0	0.0000	0	0.0000	0	0.0000	-253	-13.5450

Material Aspects:

Morgan Stanley & Company LLC (MSCO):

* NFS may use broker Morgan Stanley & Co.LLC for additional options routing. Executions via this router is charged additional fees under a cost-plus agreement.

NYSE Arca Options (ARCA):

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

Choe BZX Options Exchange, Inc. (BATS):

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

NASDAQ Options Market (NSDQ):

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

Cboe Options Exchange (CBOE):

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

December 2020

S&P 500 Stocks

Summary

	Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
1	8.76	42.08	50.94	6.03	0.95

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)	8.08	0.00	0.00	0.00	8.76	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Investors Exchange (IEXG)	7.10	0.00	0.00	0.00	7.70	0	0.0000	0	0.0000	0	0.0000	-1,411	-9.0000
Credit Suisse Securities (USA) LLC (FBCO)	6.92	0.00	28.87	19.70	7.10	0	0.0000	-11,539	-23.9060	-61	-23.9060	-389	-10.0000
EBX LLC (EBXL)	6.56	0.00	0.00	0.00	7.11	0	0.0000	0	0.0000	0	0.0000	-229	-6.7800
Merrill Lynch, Pierce, Fenner & Smith Inc. (MLCO)	6.41	0.00	0.00	0.00	6.94	0	0.0000	0	0.0000	0	0.0000	-172	-10.0000
INTELLIGENT CROSS LLC (INCR)	6.39	0.00	0.00	0.00	6.93	0	0.0000	0	0.0000	0	0.0000	-647	-8.0000
Goldman, Sachs & Co. (GSCO)	6.27	0.00	0.00	0.00	6.80	0	0.0000	0	0.0000	0	0.0000	-885	-10.0000
Morgan Stanley & Company LLC (MSCO)	6.20	0.00	9.28	5.29	6.60	0	0.0000	-3,331	-24.3129	-3	-24.3129	-2,537	-20.0000
JP Morgan Securities LLC (JPMS)	6.09	0.00	0.00	0.00	6.60	0	0.0000	0	0.0000	0	0.0000	-540	-12.0000
UBS Securities LLC - ATS (UBSA)	5.77	0.00	0.00	0.00	6.26	0	0.0000	0	0.0000	0	0.0000	-881	-10.0000
Barclays Capital, Inc. (LEHM)	4.99	0.00	0.00	0.00	5.42	0	0.0000	0	0.0000	0	0.0000	-385	-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)
NASDAQ Execution Services, LLC (NSDQ)	4.22	0.00	0.02	4.85	4.56	0	0.0000	0	0.0000	983	26.7100	-187	-5.9320
Citadel Securities LLC (CDRG)	3.60	51.89	20.45	23.97	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000
VIRTU Americas LLC (KCGM)	2.78	0.00	20.65	12.90	2.73	0	0.0000	-7,067	-24.7661	-53	-24.7661	-60	-10.0000
Deutsche Bank Securities Inc. (DBAB)	2.57	0.00	0.00	0.00	2.79	0	0.0000	0	0.0000	0	0.0000	-63	-15.0000
BIDS Trading LP (BIDS)	2.54	0.00	0.00	0.00	2.75	0	0.0000	0	0.0000	0	0.0000	-114	-19.2041
Instinet LLC (INCA)	2.36	0.00	0.00	0.00	2.56	0	0.0000	0	0.0000	0	0.0000	-23	-10.0000
VIRTU Americas LLC (NITE)	2.29	31.26	20.35	23.89	0.00	0	0.0000	0	0.0000	0	0.0000	0	0.0000

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."

Investors Exchange (IEXG):

- * NFS pays fees to and receives rebates from exchanges for executions and routing. These rates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds. Visit exchange websites for detailed pricing information.
- * 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. Executions via these routers are charged additional fees under a cost-plus agreement.
- * 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."

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.
- * 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."

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."

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. Executions via these routers are charged additional fees under a cost-plus agreement.
- * 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."

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."

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.
- *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."

NASDAQ Execution Services, LLC (NSDQ):

- * NFS pays fees to and receives rebates from exchanges for executions and routing. These rates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds. Visit exchange websites for detailed pricing information.
- * 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."

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."

VIRTU Americas LLC (KCGM):

- * 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. Executions via these routers are charged additional fees under a cost-plus agreement.
- * 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."

Deutsche Bank Securities Inc. (DBAB):

- * 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."

RIDS Trading LP (RIDS)

- * 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 is charged fees by BIDS Trading LP on a tiered price schedule based on volume thresholds.
- * 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."

Instinet LLC (INCA):

- * 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."

VIRTU Americas LLC (NITF):

* 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."

December 2020

Non-S&P 500 Stocks

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
10.60	13.10	68.69	16.23	1.97

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)	7.69	0.00	0.00	0.00	7.86	0	0.0000	0	0.0000	0	0.0000	0	0.0000
Credit Suisse Securities (USA) LLC (FBCO)	7.16	0.00	19.89	6.00	7.18	0	0.0000	-18,140	-23.9060	-153	-23.9060	-1,283	-10.0000
EBX LLC (EBXL)	6.97	0.00	0.00	0.00	7.12	0	0.0000	0	0.0000	0	0.0000	-637	-6.6600
Morgan Stanley & Company LLC (MSCO)	6.89	0.00	7.19	2.05	6.99	0	0.0000	-6,176	-24.3129	-4	-24.3129	-5,953	-20.0000

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)
INTELLIGENT CROSS LLC (INCR)	6.78	0.00	0.00	0.00	6.93	0	0.0000	0	0.0000	0	0.0000	-1,745	-8.0000
JP Morgan Securities LLC (JPMS)	6.66	0.00	0.00	0.00	6.80	0	0.0000	0	0.0000	0	0.0000	-1,597	-12.0000
Goldman, Sachs & Co. (GSCO)	6.64	0.00	0.00	0.00	6.78	0	0.0000	0	0.0000	0	0.0000	-2,234	-10.0000
Merrill Lynch, Pierce, Fenner & Smith Inc. (MLCO)	6.50	0.00	0.00	0.00	6.64	0	0.0000	0	0.0000	0	0.0000	-426	-10.0000
Investors Exchange (IEXG)	6.30	0.00	0.01	0.00	6.44	0	0.0000	0	0.0000	0	0.0000	-3,195	-9.0000
Barclays Capital, Inc. (LEHM)	6.17	0.00	0.00	0.00	6.30	0	0.0000	0	0.0000	0	0.0000	-1,640	-10.0000
UBS Securities LLC - ATS (UBSA)	5.58	0.00	0.00	0.00	5.70	0	0.0000	0	0.0000	0	0.0000	-2,819	-10.0000
NASDAQ Execution Services, LLC (NSDQ)	4.80	0.00	0.00	8.57	4.87	0	0.0000	0	0.0000	952	12.1700	-954	-9.7983
Deutsche Bank Securities Inc. (DBAB)	3.04	0.00	0.00	0.00	3.10	0	0.0000	0	0.0000	0	0.0000	-242	-15.0000
VIRTU Americas LLC (KCGM)	2.93	0.00	15.52	4.28	2.89	0	0.0000	-11,339	-24.7661	-119	-24.7661	-266	-10.0000
BIDS Trading LP (BIDS)	2.83	0.00	0.00	0.00	2.89	0	0.0000	0	0.0000	0	0.0000	-383	-19.2041
Instinet LLC (INCA)	2.75	0.00	0.00	0.00	2.81	0	0.0000	0	0.0000	0	0.0000	-103	-10.0000
ITG, Inc. (ITGI)	2.43	0.00	0.00	0.00	2.48	0	0.0000	0	0.0000	0	0.0000	-206	-10.0000

National Financial Services LLC (XSTM):

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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."

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. Executions via these routers are charged additional fees under a cost-plus agreement.
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BY LLC (EBYL).

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Morgan Stanley & Company LLC (MSCO):

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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."

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.
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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."

Goldman, Sachs & Co. (GSCO):

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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."

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.
- * 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."

Investors Exchange (IEXG):

- * NFS pays fees to and receives rebates from exchanges for executions and routing. These rates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds. Visit exchange websites for detailed pricing information.
- *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."

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.
- * 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."

NASDAQ Execution Services, LLC (NSDQ):

- * NFS pays fees to and receives rebates from exchanges for executions and routing. These rates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds. Visit exchange websites for detailed pricing information.
- * 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."

Deutsche Bank Securities Inc. (DBAB):

- * 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,"

VIRTU Americas LLC (KCGM):

- * 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. Executions via these routers are charged additional fees under a cost-plus agreement.
- * 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."

BIDS Trading LP (BIDS):

- * 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 is charged fees by BIDS Trading LP on a tiered price schedule based on volume thresholds.
- * 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."

Instinet LLC (INCA):

- * 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."

ITG, Inc. (ITGI):

- * 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."

December 2020

Options

Summary

Non-Directed Orders as % of All Orders	Market Orders as % of Non-Directed Orders	Marketable Limit Orders as % of Non- Directed Orders	Non-Marketable Limit Orders as % of Non- Directed Orders	Other Orders as % of Non-Directed Orders
86.06	0.12	0.00	0.00	99.88

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)	25.45	0.00	0.00	0.00	25.45	0	0.0000	0	0.0000	0	0.0000	-1,613	-10.0000
NYSE Arca Options (ARCA)	21.33	0.00	0.00	0.00	21.33	0	0.0000	0	0.0000	0	0.0000	2,072	36.7800
NASDAQ Options Market (NSDQ)	20.41	0.00	0.00	0.00	20.41	0	0.0000	0	0.0000	0	0.0000	-670	-25.4600
Cboe BZX Options Exchange, Inc. (BATS)	19.77	0.00	0.00	0.00	19.77	0	0.0000	0	0.0000	0	0.0000	804	23.8700
Cboe Options Exchange (CBOE)	12.34	0.00	0.00	0.00	12.34	0	0.0000	0	0.0000	0	0.0000	-211	-10.7910

Morgan Stanley & Company LLC (MSCO):

* NFS may use broker Morgan Stanley & Co.LLC for additional options routing. Executions via this router is charged additional fees under a cost-plus agreement.

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

NASDAQ Options Market (NSDQ):
* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

Choe BZX Options Exchange, Inc. (BATS):

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.

Cboe Options Exchange (CBOE):

* NFS pays fees to and receives rebates from options exchanges. These fees and rebates are subject to non-negotiable prices set by exchange rules and may include tiers based on volume thresholds.