National Financial Services (NFS), our clearing firm, has prepared this report for UnionBanc Investment Services LLC (UBIS) pursuant to U.S Securities and Exchange Commission Rule 606 which requires broker-dealer firms to make publicly available quarterly reports on their routing practices. This report provides information on the routing of "non-directed orders," which are any orders that the customer has not specifically instructed to be routed to a particular venue for execution. For these non-directed orders, UBIS transmits all customer orders to NFS, and NFS selects the execution venue on behalf of UBIS' customers.

UBIS does not direct or Order Route any orders to any venues. UBIS does not receive payment for order flow. Furthermore, UBIS does not have any material relationships with any of the venues identified below.

The report is divided into the following four sections: (1) Securities listed on the New York Stock Exchanges; (2) Securities listed on the NASDAQ Stock Market; (3) Securities listed on NYSE, Amex or Regional Exchanges; and (4) Exchange listed options. For each section, this report identifies the venues most often selected by NFS and sets forth the percentage of various types of orders routed to the venues.

UNIONBANC INVESTMENT SERVICES - Held NMS Stocks and Options Order Routing Public Report

Generated on Mon Jan 09 2023 06:43:51 GMT-5 EST

Other Orders

4th Quarter, 2022

Limit Orders Total Other as % of Non-

Marketable

October 2022

S&P 500 Stocks Summary

Total Non-Directed Orders Orders as %

Market

Orders as %

of Non-

Total

Non-Directed Total Market

Marketable

Marketable as % of Non- Marketable

Limit Orders Total Non-

| Total Non-Directed Orders | of All Orders | Orders | Directed Orders | Limit Orders | Directed Orders | Limit Orders | as % of Non- Directed Orders | Orders | Directed Orders | | | | | | | | | |
|--|------------------------|----------------------------|--------------------|----------------------|----------------------------|-----------------------------------|------------------------------------|---|--------------------|---------------------|--|---|---|--|---|---|-------|------------------------------|
| 1,175 | 100.00 | 955 | 81.28 | 83 | 7.06 | 119 | 10.13 | 18 | 1.53 | | | | | | | | | |
| Venues Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders (%) | Market Orders | Market Orders (%) | Marketable Limit Orders | Marketable Limit Orders (%) | Non- Marketable Limit Orders | Non- Marketable Limit Orders (%) | Other 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) | | Paid/ | Received for Other Orders |
| Citadel Securities LLC(CDRG) | 441 | 30.35 | 360 | 37.74 | 54 | 63.53 | 22 | 5.71 | 5 | 17.24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas, LLC(NITE) | 285 | 19.61 | 239 | 25.05 | 26 | 30.59 | 8 | 2.08 | 12 | 41.38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G1 Execution Services, LLC(ETMM) | 221 | 15.21 | 210 | 22.01 | 2 | 2.35 | 9 | 2.34 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NASDAQ Execution Services, LLC(NSDQ) | 194 | 13.35 | 0 | 0.00 | 3 | 3.53 | 191 | 49.61 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jane Street Capital, LLC(JNST) | 142 | 9.77 | 134 | 14.05 | 0 | 0.00 | 8 | 2.08 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York Stock Exchange(NYSE) | 93 | 6.40 | 0 | 0.00 | 0 | 0.00 | 93 | 24.16 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cboe EDGX US Equities Exchange(EDGX) | 34 | 2.34 | 0 | 0.00 | 0 | 0.00 | 34 | 8.83 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Members Exchange(MEMX) | 18 | 1.24 | 0 | 0.00 | 0 | 0.00 | 18 | 4.68 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Instinet BlockCross(BLKX) | 11 | 0.76 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 11 | 37.93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Two Sigma Securities, LLC(SOHO) | 8 | 0.55 | 7 | 0.73 | 0 | 0.00 | 1 | 0.26 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

October 2022

Non-S&P 500 Stocks Summary

Two Sigma Securities,

LLC(SOHO)

17

0.87

15

1.00

1

4.00

1

0.28

0

0.00

0

0

0

0

0

0

0

0

| Total Non-Directed Orders | Non-Directed Orders as % of All Orders | Total Market Orders | Market Orders as % of Non- Directed Orders | Total Marketable Limit Orders | Marketable Limit Orders as % of Non- Directed Orders | Total Non- Marketable Limit Orders | Non- Marketable Limit Orders as % of Non- Directed Orders | Total Other Orders | Other Orders as % of Non- Directed Orders | | | | | | | | | |
|---|--|----------------------------|--|-------------------------------------|--|--|--|---|--|---------------------|--------------|---|---|--|---|--------------------|---|--|
| 1,728 | 100.00 | 1,506 | 87.15 | 26 | 1.50 | 163 | 9.43 | 33 | 1.91 | | | | | | | | | |
| Venues | | | | | | | | | | | | | | | | Nat Daymant | | |
| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders (%) | Market Orders | Market Orders (%) | Marketable Limit Orders | Marketable Limit Orders (%) | Non- Marketable Limit Orders | Non- Marketable Limit Orders (%) | Other Orders | Other Orders (%) | Received for | 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) | Non- Marketable | Net Payment Paid/ Received for Other Orders (USD) | Net Payment Paid/ Received for Other Orders (cents per hundred shares) |
| Citadel Securities LLC(CDRG) | 573 | 29.22 | 526 | 34.90 | 7 | 28.00 | 24 | 6.80 | 16 | 21.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G1 Execution Services, LLC(ETMM) | 406 | 20.70 | 384 | 25.48 | 4 | 16.00 | 18 | 5.10 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas, LLC(NITE) | 383 | 19.53 | 347 | 23.03 | 8 | 32.00 | 11 | 3.12 | 17 | 22.37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jane Street Capital, LLC(JNST) | 235 | 11.98 | 225 | 14.93 | 4 | 16.00 | 6 | 1.70 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NASDAQ Execution Services, LLC(NSDQ) | 107 | 5.46 | 0 | 0.00 | 0 | 0.00 | 107 | 30.31 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cboe EDGX US Equities Exchange(EDGX) | 66 | 3.37 | 0 | 0.00 | 0 | 0.00 | 66 | 18.70 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NYSE Arca(ARCA) | 54 | 2.75 | 0 | 0.00 | 0 | 0.00 | 54 | 15.30 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York Stock Exchange(NYSE) | 48 | 2.45 | 0 | 0.00 | 1 | 4.00 | 47 | 13.31 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Instinet BlockCross(BLKX) | 43 | 2.19 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 43 | 56.58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

October 2022

Option Contracts Summary

| Total Non-Directed Orders | Non-Directed Orders as % of All Orders | Total Market Orders | Market Orders as % of Non- Directed Orders | Total Marketable Limit Orders | Marketable Limit Orders as % of Non- Directed Orders | Total Non- Marketable Limit Orders | Non- Marketable Limit Orders as % of Non- Directed Orders | Total Other Orders | Other Orders as % of Non- Directed Orders | | | | | | | | | |
|---|--|----------------------------|--|-------------------------------------|--|--|--|---|--|---------------------|--------------------------------------|---|--------------------------------------|--|--|--------------------|---|--|
| 102 | 100.00 | 9 | 8.82 | 10 | 9.80 | 83 | 81.37 | 0 | 0.00 | | | | | | | | | |
| Venues | | | | | | | | | | | | | | | | | | |
| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders (%) | Market Orders | Market Orders (%) | Marketable Limit Orders | Marketable Limit Orders (%) | Non- Marketable Limit Orders | Non- Marketable Limit Orders (%) | Other Orders | Other Orders (%) | Net Payment Paid/ Received for | Net Payment Paid/ Received for Market Orders (cents per hundred shares) | Net Payment Paid/ Received for | Net Payment Paid/ Received for Marketable Limit Orders (cents per hundred shares) | Net Payment Paid/ Received for Non- | Non- Marketable | Net Payment Paid/ Received for Other Orders (USD) | Net Payment Paid/ Received for Other Orders (cents per hundred shares) |
| Citadel Securities LLC(CDRG) | 46 | 42.20 | 7 | 77.78 | 5 | 50.00 | 34 | 37.78 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wolverine Execution Services LLC(WEXX) | 40 | 36.70 | 0 | 0.00 | 1 | 10.00 | 39 | 43.33 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dash Financial Technologies LLC(DASH) | 17 | 15.60 | 2 | 22.22 | 1 | 10.00 | 14 | 15.56 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Morgan Stanley & Company LLC(MSCO) | 3 | 2.75 | 0 | 0.00 | 1 | 10.00 | 2 | 2.22 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Susquehanna Capital Group(SUSQ) | 3 | 2.75 | 0 | 0.00 | 2 | 20.00 | 1 | 1.11 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

November 2022

S&P 500 Stocks Summary

| Summary | | | | | | | | | | | | | | | | | | |
|---|--|----------------------------|--|-------------------------------------|--|--|--|---|--|---------------------|--|---|---|--|---|--------------------|---|--|
| Total Non-Directed Orders | Non-Directed Orders as % of All Orders | Total Market Orders | Market Orders as % of Non- Directed Orders | Total Marketable Limit Orders | Marketable Limit Orders as % of Non- Directed Orders | Total Non- Marketable Limit Orders | Non- Marketable Limit Orders as % of Non- Directed Orders | Total Other Orders | Other Orders as % of Non- Directed Orders | | | | | | | | | |
| 911 | 100.00 | 756 | 82.99 | 42 | 4.61 | 103 | 11.31 | 10 | 1.10 | | | | | | | | | |
| Venues | | | | | | | | | | | | | | | | | | |
| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders (%) | Market Orders | Market Orders (%) | Marketable Limit Orders | Marketable Limit Orders (%) | Non- Marketable Limit Orders | Non- Marketable Limit Orders (%) | Other 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) | Non- Marketable | Net Payment Paid/ Received for Other Orders (USD) | Net Payment Paid/ Received for Other Orders (cents per hundred shares) |
| Citadel Securities LLC(CDRG) | 318 | 30.72 | 285 | 37.75 | 10 | 23.81 | 22 | 9.82 | 1 | 7.14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas, LLC(NITE) | 230 | 22.22 | 185 | 24.50 | 21 | 50.00 | 15 | 6.70 | 9 | 64.29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G1 Execution Services, LLC(ETMM) | 171 | 16.52 | 158 | 20.93 | 6 | 14.29 | 7 | 3.13 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jane Street Capital, LLC(JNST) | 115 | 11.11 | 104 | 13.77 | 4 | 9.52 | 7 | 3.13 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NASDAQ Execution Services, LLC(NSDQ) | 90 | 8.70 | 0 | 0.00 | 1 | 2.38 | 89 | 39.73 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York Stock Exchange(NYSE) | 46 | 4.44 | 0 | 0.00 | 0 | 0.00 | 46 | 20.54 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cboe EDGX US Equities Exchange(EDGX) | 27 | 2.61 | 0 | 0.00 | 0 | 0.00 | 27 | 12.05 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Two Sigma Securities, LLC(SOHO) | 16 | 1.55 | 16 | 2.12 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Members Exchange(MEMX) | 10 | 0.97 | 0 | 0.00 | 0 | 0.00 | 10 | 4.46 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UBS Securities, LLC(UBSS) | 7 | 0.68 | 6 | 0.79 | 0 | 0.00 | 1 | 0.45 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

November 2022

Non-S&P 500 Stocks Summary

| Total Non-Directed Orders | Non-Directed Orders as % of All Orders | Total Market Orders | Market Orders as % of Non- Directed Orders | Total Marketable Limit Orders | Marketable Limit Orders as % of Non- Directed Orders | Total Non- Marketable Limit Orders | Non- Marketable Limit Orders as % of Non- Directed Orders | Total Other Orders | Other Orders as % of Non- Directed Orders | | | | | | | | | |
|---|--|----------------------------|--|-------------------------------------|--|--|--|---|--|---------------------|--|---|---|--|---|---|-------|--|
| 1,708 | 100.00 | 1,474 | 86.30 | 42 | 2.46 | 166 | 9.72 | 26 | 1.52 | | | | | | | | | |
| Venues | | | | | | | | | | | | | | | | | | |
| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders (%) | Market Orders | Market Orders (%) | Marketable Limit Orders | Marketable Limit Orders (%) | Non- Marketable Limit Orders | Non- Marketable Limit Orders (%) | Other 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) | | Paid/ | Net Payment Paid/ Received for Other Orders (cents per hundred shares) |
| Citadel Securities LLC(CDRG) | 569 | 28.25 | 541 | 36.70 | 8 | 19.05 | 8 | 1.82 | 12 | 20.69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas, LLC(NITE) | 444 | 22.05 | 399 | 27.07 | 19 | 45.24 | 14 | 3.18 | 12 | 20.69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G1 Execution Services, LLC(ETMM) | 351 | 17.43 | 337 | 22.86 | 7 | 16.67 | 7 | 1.59 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jane Street Capital, LLC(JNST) | 189 | 9.38 | 176 | 11.94 | 7 | 16.67 | 6 | 1.36 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NASDAQ Execution Services, LLC(NSDQ) | 126 | 6.26 | 0 | 0.00 | 0 | 0.00 | 126 | 28.64 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York Stock Exchange(NYSE) | 100 | 4.97 | 0 | 0.00 | 0 | 0.00 | 100 | 22.73 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NYSE Arca(ARCA) | 84 | 4.17 | 0 | 0.00 | 0 | 0.00 | 84 | 19.09 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cboe EDGX US Equities Exchange(EDGX) | 70 | 3.48 | 0 | 0.00 | 0 | 0.00 | 70 | 15.91 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Instinet BlockCross(BLKX) | 32 | 1.59 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 32 | 55.17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Members Exchange(MEMX) | 23 | 1.14 | 0 | 0.00 | 0 | 0.00 | 23 | 5.23 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

November 2022

Option Contracts Summary

| Total Non-Directed Orders | Non-Directed Orders as % of All Orders | Total Market Orders | Market Orders as % of Non- Directed Orders | Total Marketable Limit Orders | Marketable Limit Orders as % of Non- Directed Orders | Total Non- Marketable Limit Orders | Non- Marketable Limit Orders as % of Non- Directed Orders | Total Other Orders | Other Orders as % of Non- Directed Orders | | | | | | | | | |
|---|--|----------------------------|--|-------------------------------------|--|--|--|---|--|---------------------|--|---|----------------------|--|---|---|---|--|
| 52 | 100.00 | 7 | 13.46 | 8 | 15.38 | 37 | 71.15 | 0 | 0.00 | | | | | | | | | |
| Venues | | | | | | | | | | | | | | | | | | |
| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders (%) | Market Orders | Market Orders (%) | Marketable Limit Orders | Marketable Limit Orders (%) | Non- Marketable Limit Orders | Non- Marketable Limit Orders (%) | Other Orders | Other Orders (%) | Net Payment Paid/ Received for Market Orders (USD) | Received for Market Orders (cents | Net Payment Paid/ | 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 Other Orders (USD) | Net Payment Paid/ Received for Other Orders (cents per hundred shares) |
| Citadel Securities LLC(CDRG) | 25 | 48.08 | 4 | 57.14 | 2 | 40.00 | 19 | 47.50 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wolverine Execution Services LLC(WEXX) | 15 | 28.85 | 0 | 0.00 | 0 | 0.00 | 15 | 37.50 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dash Financial Technologies LLC(DASH) | 7 | 13.46 | 0 | 0.00 | 2 | 40.00 | 5 | 12.50 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Susquehanna Capital Group(SUSQ) | 5 | 9.62 | 3 | 42.86 | 1 | 20.00 | 1 | 2.50 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

December 2022

S&P 500 Stocks Summary

| Total Non-Directed Orders | Non-Directed Orders as % of All Orders | Total Market Orders | Market Orders as % of Non- Directed Orders | Total Marketable Limit Orders | Marketable Limit Orders as % of Non- Directed Orders | Total Non- Marketable Limit Orders | Non- Marketable Limit Orders as % of Non- Directed Orders | Total Other Orders | Other Orders as % of Non- Directed Orders | | | | | | | | | |
|---|--|----------------------------|--|-------------------------------------|--|--|--|---|--|---------------------|--|---|---|--|---|--------------------|---|--|
| 1,263 | 100.00 | 1,076 | 85.19 | 48 | 3.80 | 132 | 10.45 | 7 | 0.55 | | | | | | | | | |
| Venues | | | | | | | | | | | | | | | | | | |
| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders (%) | Market Orders | Market Orders (%) | Marketable Limit Orders | Marketable Limit Orders (%) | Non- Marketable Limit Orders | Non- Marketable Limit Orders (%) | | Other Orders (%) | Net Payment Paid/ Received for Market Orders (USD) | Received for Market Orders (cents | 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) | Non- Marketable | Net Payment Paid/ Received for Other Orders (USD) | Net Payment Paid/ Received for Other Orders (cents per hundred shares) |
| Citadel Securities LLC(CDRG) | 449 | 28.35 | 412 | 38.29 | 12 | 24.49 | 22 | 4.89 | 3 | 33.33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas, LLC(NITE) | 318 | 20.08 | 282 | 26.21 | 22 | 44.90 | 10 | 2.22 | 4 | 44.44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G1 Execution Services, LLC(ETMM) | 265 | 16.73 | 246 | 22.86 | 5 | 10.20 | 14 | 3.11 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NASDAQ Execution Services, LLC(NSDQ) | 256 | 16.16 | 0 | 0.00 | 4 | 8.16 | 252 | 56.00 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jane Street Capital, LLC(JNST) | 127 | 8.02 | 114 | 10.59 | 6 | 12.24 | 7 | 1.56 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York Stock Exchange(NYSE) | 86 | 5.43 | 0 | 0.00 | 0 | 0.00 | 86 | 19.11 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cboe EDGX US Equities Exchange(EDGX) | 45 | 2.84 | 0 | 0.00 | 0 | 0.00 | 45 | 10.00 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Members Exchange(MEMX) | 12 | 0.76 | 0 | 0.00 | 0 | 0.00 | 12 | 2.67 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Two Sigma Securities, LLC(SOHO) | 11 | 0.69 | 10 | 0.93 | 0 | 0.00 | 1 | 0.22 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UBS Securities, LLC(UBSS) | 9 | 0.57 | 8 | 0.74 | 0 | 0.00 | 1 | 0.22 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

December 2022

Non-S&P 500 Stocks Summary

Cboe EDGX US Equities

Exchange(EDGX)

Instinet BlockCross(BLKX)

Members

Exchange(MEMX)

71

40

29

3.45

1.94

1.41

0

0

0

0.00

0.00

0.00

0

0

0

0.00

0.00

0.00

71

0

29

13.89

0.00

5.68

0

40

0

0.00

72.73

0.00

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

| | Non-Directed Orders as % of All Orders | Total Market Orders | Market Orders as % of Non- Directed Orders | Total Marketable Limit Orders | Marketable Limit Orders as % of Non- Directed Orders | Total Non- Marketable Limit Orders | Non- Marketable Limit Orders as % of Non- Directed Orders | Total Other Orders | Other Orders as % of Non- Directed Orders | | | | | | | | | |
|---|--|----------------------------|--|-------------------------------------|--|--|--|---|--|---------------------|--|---|---|--|---|---|---|--|
| 1,666 | 100.00 | 1,464 | 87.88 | 33 | 1.98 | 154 | 9.24 | 15 | 0.90 | | | | | | | | | |
| Venues | | | | | | | | | | | | | | | | | | |
| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders (%) | Market Orders | Market Orders (%) | Marketable Limit Orders | Marketable Limit Orders (%) | Non- Marketable Limit Orders | Non- Marketable Limit Orders (%) | Other 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 Other Orders (USD) | Net Payment Paid/ Received for Other Orders (cents per hundred shares) |
| Citadel Securities LLC(CDRG) | 538 | 26.12 | 500 | 34.18 | 10 | 32.26 | 18 | 3.52 | 10 | 18.18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas, LLC(NITE) | 415 | 20.15 | 397 | 27.14 | 11 | 35.48 | 2 | 0.39 | 5 | 9.09 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G1 Execution Services, LLC(ETMM) | 386 | 18.74 | 376 | 25.70 | 5 | 16.13 | 5 | 0.98 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jane Street Capital, LLC(JNST) | 171 | 8.30 | 156 | 10.66 | 5 | 16.13 | 10 | 1.96 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NASDAQ Execution Services, LLC(NSDQ) | 144 | 6.99 | 0 | 0.00 | 0 | 0.00 | 144 | 28.18 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York Stock Exchange(NYSE) | 142 | 6.89 | 0 | 0.00 | 0 | 0.00 | 142 | 27.79 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NYSE Arca(ARCA) | 79 | 3.83 | 0 | 0.00 | 0 | 0.00 | 79 | 15.46 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Non-

December 2022

Option Contracts Summary

| Total Non-Directed Orders | Non-Directed Orders as % of All Orders | Total Market Orders | Market Orders as % of Non- Directed Orders | Total Marketable Limit Orders | Marketable Limit Orders as % of Non- Directed Orders | Total Non- Marketable Limit Orders | Non- Marketable Limit Orders as % of Non- Directed Orders | Total Other Orders | Other Orders as % of Non- Directed Orders | |
|---------------------------|--|------------------------|--|-------------------------------------|--|--|--|-----------------------|--|--|
| 25 | 100.00 | 3 | 12.00 | 3 | 12.00 | 19 | 76.00 | 0 | 0.00 | |

Venues

| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders (%) | Market Orders | Market Orders (%) | Marketable Limit Orders | Marketable Limit Orders (%) | Non- Marketable Limit Orders | Non- Marketable Limit Orders (%) | Other Orders | Other Orders (%) | Net Payment Paid/ Received for Market Orders (USD) | Paid/ Received for Market Orders (cents | 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) | Paid/ | Received for Other Orders |
|---|------------------------|----------------------------|------------------|----------------------|----------------------------|-----------------------------------|------------------------------------|---|--------------|---------------------|--|--|---|--|---|--|-------|------------------------------|
| Citadel Securities LLC(CDRG) | 11 | 44.00 | 2 | 66.67 | 1 | 100.00 | 8 | 38.10 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wolverine Execution Services LLC(WEXX) | 6 | 24.00 | 0 | 0.00 | 0 | 0.00 | 6 | 28.57 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dash Financial Technologies LLC(DASH) | 5 | 20.00 | 1 | 33.33 | 0 | 0.00 | 4 | 19.05 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Susquehanna Capital Group(SUSQ) | 3 | 12.00 | 0 | 0.00 | 0 | 0.00 | 3 | 14.29 | 0 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |