# SANTANDER INVESTMENT SERVICES - Held NMS Stocks and Options Order Routing Public Report Generated on Tue Jul 11 2023 07:07:52 GMT-0400 (Eastern Daylight Time)

2nd Quarter, 2023

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### S&P 500 Stocks

#### Summary

| Non-Directed Orders<br>as % of All Orders | Market Orders as % of<br>Non-Directed Orders | Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Non-Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Other Orders as % of<br>Non-Directed Orders |
|---|--|--|--|---|
| 100.00                                    | 99.22  | 0.44   | 0.28   | 0.06  |

| Venue -<br>Non-directed<br>Order Flow           | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|---|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
| Citadel<br>Securities LLC<br>(CDRG)             | 32.58                          | 34.37                   | 62.50                             | 3.57                                      | 1.20                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| VIRTU<br>Americas, LLC<br>(NITE)                | 27.46                          | 29.30                   | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| G1 Execution<br>Services, LLC<br>(ETMM)         | 23.23                          | 24.62                   | 37.50                             | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Jane Street<br>Capital, LLC<br>(JNST)           | 8.87                           | 9.46                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| National<br>Financial<br>Services LLC<br>(XSTM) | 4.33                           | 0.00                    | 0.00                              | 0.00                                      | 98.80                  | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Two Sigma<br>Securities, LLC<br>(SOHO)          | 1.32                           | 1.41                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| New York<br>Stock<br>Exchange<br>(NYSE)         | 0.79                           | 0.00                    | 0.00                              | 53.57                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| NASDAQ<br>Execution<br>Services, LLC<br>(NSDQ)  | 0.53                           | 0.00                    | 0.00                              | 35.71                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |

| Venue -<br>Non-directed<br>Order Flow | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|---------------------------------------|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
| StoneX<br>Financial INC.<br>(INTL)    | 0.42                           | 0.45                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| UBS<br>Securities, LLC<br>(UBSS)      | 0.37                           | 0.39                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |

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# April 2023

# Non-S&P 500 Stocks

### Summary

| Non-Directed Orders<br>as % of All Orders | Market Orders as % of<br>Non-Directed Orders | Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Non-Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Other Orders as % of<br>Non-Directed Orders |
|---|--|--|--|---|
| 100.00                                    | 99.38  | 0.42   | 0.14   | 0.06  |

| Venue -<br>Non-directed<br>Order Flow           | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|---|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
| Citadel<br>Securities LLC<br>(CDRG)             | 27.93                          | 35.31                   | 21.43                             | 6.67                                      | 0.22                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| VIRTU<br>Americas, LLC<br>(NITE)                | 24.69                          | 31.20                   | 35.71                             | 6.67                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| National<br>Financial<br>Services LLC<br>(XSTM) | 20.20                          | 0.00                    | 0.00                              | 0.00                                      | 97.82                  | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| G1 Execution<br>Services, LLC<br>(ETMM)         | 17.07                          | 21.55                   | 35.71                             | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Jane Street<br>Capital, LLC<br>(JNST)           | 7.46                           | 9.45                    | 7.14                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Two Sigma<br>Securities, LLC<br>(SOHO)          | 0.99                           | 1.26                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| UBS Securities,<br>LLC (UBSS)                   | 0.52                           | 0.66                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| StoneX<br>Financial INC.<br>(INTL)              | 0.45                           | 0.57                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Instinet<br>BlockCross<br>(BLKX)                | 0.40                           | 0.00                    | 0.00                              | 0.00                                      | 1.96                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| New York<br>Stock<br>Exchange<br>(NYSE)         | 0.20                           | 0.00                    | 0.00                              | 60.00                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |

# April 2023

# **Options**

### Summary

| Non-Directed Orders as % of All Orders | Market Orders as % of<br>Non-Directed Orders | Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Non-Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Other Orders as % of<br>Non-Directed Orders |
|--|--|--|--|---|
| 0.00                                   | 0.00   | 0.00   | 0.00   | 0.00  |

### Venues

| Venue -<br>Non-<br>directed<br>Order<br>Flow | Non-<br>Directed Orders<br>Orders (%) (%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |  |
|--|---|-----------------------------------|---|------------------------|---|---|--|--|---|---|---|--|--|
|--|---|-----------------------------------|---|------------------------|---|---|--|--|---|---|---|--|--|

# May 2023

### S&P 500 Stocks

### Summary

| Non-Directed Orders<br>as % of All Orders | Market Orders as % of<br>Non-Directed Orders | Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Non-Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Other Orders as % of<br>Non-Directed Orders |
|---|--|--|--|---|
| 100.00                                    | 99.77  | 0.03   | 0.20   | 0.00  |

| Venue -<br>Non-directed<br>Order Flow   | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|---|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
| Citadel<br>Securities LLC<br>(CDRG)     | 35.94                          | 37.47                   | 0.00                              | 6.90                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| VIRTU<br>Americas, LLC<br>(NITE)        | 26.76                          | 27.89                   | 100.00                            | 3.45                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| G1 Execution<br>Services, LLC<br>(ETMM) | 19.20                          | 20.05                   | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |

| Venue -<br>Non-directed<br>Order Flow           | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|---|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
| Jane Street<br>Capital, LLC<br>(JNST)           | 12.15                          | 12.69                   | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| National<br>Financial<br>Services LLC<br>(XSTM) | 3.41                           | 0.00                    | 0.00                              | 0.00                                      | 100.00                 | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Two Sigma<br>Securities, LLC<br>(SOHO)          | 0.98                           | 1.02                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| UBS<br>Securities, LLC<br>(UBSS)                | 0.84                           | 0.88                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| New York<br>Stock<br>Exchange<br>(NYSE)         | 0.48                           | 0.00                    | 0.00                              | 58.62                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| NASDAQ<br>Execution<br>Services, LLC<br>(NSDQ)  | 0.14                           | 0.00                    | 0.00                              | 17.24                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Members<br>Exchange<br>(MEMX)                   | 0.08                           | 0.00                    | 0.00                              | 10.34                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |

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# May 2023

# Non-S&P 500 Stocks

### Summary

|   | Non-Directed Orders<br>as % of All Orders | Market Orders as % of<br>Non-Directed Orders | Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Non-Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Other Orders as % of<br>Non-Directed Orders |
|---|---|--|--|--|---|
| I | 100.00                                    | 99.77  | 0.15   | 0.05   | 0.03  |

### Venues

| Venue -<br>Non-directed<br>Order Flow           | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|---|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
| Citadel<br>Securities LLC<br>(CDRG)             | 31.66                          | 37.91                   | 33.33                             | 0.00                                      | 0.13                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| VIRTU<br>Americas, LLC<br>(NITE)                | 23.94                          | 28.65                   | 50.00                             | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| G1 Execution<br>Services, LLC<br>(ETMM)         | 16.38                          | 19.65                   | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| National<br>Financial<br>Services LLC<br>(XSTM) | 15.98                          | 0.00                    | 0.00                              | 0.00                                      | 98.44                  | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Jane Street<br>Capital, LLC<br>(JNST)           | 10.04                          | 12.04                   | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Two Sigma<br>Securities, LLC<br>(SOHO)          | 1.10                           | 1.32                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| UBS Securities,<br>LLC (UBSS)                   | 0.36                           | 0.43                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Instinet<br>BlockCross<br>(BLKX)                | 0.23                           | 0.00                    | 0.00                              | 0.00                                      | 1.43                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| New York<br>Stock<br>Exchange<br>(NYSE)         | 0.17                           | 0.00                    | 16.67                             | 50.00                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| NASDAQ<br>Execution<br>Services, LLC<br>(NSDQ)  | 0.11                           | 0.00                    | 0.00                              | 35.71                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |

# May 2023

# **Options**

### Summary

|   | Non-Directed Orders<br>as % of All Orders | Market Orders as % of<br>Non-Directed Orders | Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Non-Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Other Orders as % of<br>Non-Directed Orders |
|---|---|--|--|--|---|
| I | 0.00                                      | 0.00   | 0.00   | 0.00   | 0.00  |

### Venues

| Venue -<br>Non-<br>directed<br>Order<br>Flow | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|--|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
|--|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|

# June 2023

# S&P 500 Stocks

### Summary

| Non-Directed Orders<br>as % of All Orders | Market Orders as % of<br>Non-Directed Orders | Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Non-Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Other Orders as % of<br>Non-Directed Orders |
|---|--|--|--|---|
| 100.00                                    | 96.71  | 0.15   | 2.74   | 0.41  |

### Venues

| Venue -<br>Non-directed<br>Order Flow           | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|---|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
| Citadel<br>Securities LLC<br>(CDRG)             | 29.79                          | 38.06                   | 0.00                              | 0.52                                      | 1.37                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| VIRTU<br>Americas, LLC<br>(NITE)                | 20.11                          | 25.67                   | 0.00                              | 0.26                                      | 1.37                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| G1 Execution<br>Services, LLC<br>(ETMM)         | 14.05                          | 17.95                   | 0.00                              | 0.52                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Jane Street<br>Capital, LLC<br>(JNST)           | 12.73                          | 16.20                   | 50.00                             | 0.26                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| NASDAQ<br>Execution<br>Services, LLC<br>(NSDQ)  | 7.33                           | 0.00                    | 50.00                             | 45.36                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| New York<br>Stock<br>Exchange<br>(NYSE)         | 6.67                           | 0.00                    | 0.00                              | 41.75                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| National<br>Financial<br>Services LLC<br>(XSTM) | 5.69                           | 0.00                    | 0.00                              | 0.00                                      | 94.52                  | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Cboe EDGX US<br>Equities<br>Exchange<br>(EDGX)  | 1.28                           | 0.00                    | 0.00                              | 7.99                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Two Sigma<br>Securities, LLC<br>(SOHO)          | 1.24                           | 1.59                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| UBS<br>Securities, LLC<br>(UBSS)                | 0.58                           | 0.53                    | 0.00                              | 0.00                                      | 2.74                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |

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# June 2023

# Non-S&P 500 Stocks

### Summary

| Non-Directed Orders<br>as % of All Orders | Market Orders as % of<br>Non-Directed Orders | Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Non-Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Other Orders as % of<br>Non-Directed Orders |
|---|--|--|--|---|
| 100.00                                    | 99.09  | 0.20   | 0.64   | 0.07  |

| Venue -<br>Non-directed<br>Order Flow           | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|---|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
| Citadel<br>Securities LLC<br>(CDRG)             | 32.97                          | 40.58                   | 40.00                             | 0.00                                      | 0.18                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| VIRTU<br>Americas, LLC<br>(NITE)                | 21.29                          | 26.17                   | 40.00                             | 0.00                                      | 0.18                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| National<br>Financial<br>Services LLC<br>(XSTM) | 15.27                          | 0.00                    | 0.00                              | 0.00                                      | 98.22                  | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| G1 Execution<br>Services, LLC<br>(ETMM)         | 14.49                          | 17.85                   | 20.00                             | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Jane Street<br>Capital, LLC<br>(JNST)           | 11.07                          | 13.66                   | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| New York<br>Stock<br>Exchange<br>(NYSE)         | 2.79                           | 0.00                    | 0.00                              | 84.87                                     | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Two Sigma<br>Securities, LLC<br>(SOHO)          | 1.10                           | 1.36                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| UBS Securities,<br>LLC (UBSS)                   | 0.30                           | 0.37                    | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |

| Venue -<br>Non-directed<br>Order Flow          | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|--|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
| NASDAQ<br>Execution<br>Services, LLC<br>(NSDQ) | 0.28                           | 0.00                    | 0.00                              | 8.40                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Instinet<br>BlockCross<br>(BLKX)               | 0.22                           | 0.00                    | 0.00                              | 0.00                                      | 1.42                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |

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# June 2023

# **Options**

### Summary

| Non-Directed Orders<br>as % of All Orders | Market Orders as % of<br>Non-Directed Orders | Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Non-Marketable Limit<br>Orders as % of Non-<br>Directed Orders | Other Orders as % of<br>Non-Directed Orders |
|---|--|--|--|---|
| 100.00                                    | 100.00                                       | 0.00   | 0.00   | 0.00  |

| Venue -<br>Non-directed<br>Order Flow  | Non-<br>Directed<br>Orders (%) | Market<br>Orders<br>(%) | Marketable<br>Limit Orders<br>(%) | Non-<br>Marketable<br>Limit Orders<br>(%) | Other<br>Orders<br>(%) | Net Payment<br>Paid/Received for<br>Market<br>Orders(USD) | Net Payment Paid/<br>Received for Market<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(USD) | Net Payment Paid/<br>Received for Non-<br>Marketable Limit<br>Orders(cents per<br>hundred shares) | Net Payment<br>Paid/Received for<br>Other<br>Orders(USD) | Net Payment Paid/<br>Received for Other<br>Orders(cents per<br>hundred shares) |
|--|--------------------------------|-------------------------|-----------------------------------|---|------------------------|---|---|--|--|---|---|--|--|
| Citadel<br>Securities LLC<br>(CDRG)    | 66.67                          | 66.67                   | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |
| Susquehanna<br>Capital Group<br>(SUSQ) | 33.33                          | 33.33                   | 0.00                              | 0.00                                      | 0.00                   | 0   | 0.0000  | 0  | 0.0000   | 0   | 0.0000  | 0  | 0.0000   |