





|                                      |    |       |    |       |   |       |   |       |   |        |   |   |   |   |   |   |   |   |   |
|--------------------------------------|----|-------|----|-------|---|-------|---|-------|---|--------|---|---|---|---|---|---|---|---|---|
| G1 Execution Services, LLC(ETMM)     | 46 | 15.23 | 45 | 17.24 | 1 | 14.29 | 0 | 0.00  | 0 | 0.00   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Jane Street Capital, LLC(JNST)       | 31 | 10.26 | 31 | 11.88 | 0 | 0.00  | 0 | 0.00  | 0 | 0.00   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NASDAQ Execution Services, LLC(NSDQ) | 8  | 2.65  | 1  | 0.38  | 0 | 0.00  | 7 | 25.93 | 0 | 0.00   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Instinet                             |    |       |    |       |   |       |   |       |   |        |   |   |   |   |   |   |   |   |   |
| BlockCross(BLKX)                     | 7  | 2.32  | 0  | 0.00  | 0 | 0.00  | 0 | 0.00  | 7 | 100.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York Stock Exchange(NYSE)        | 7  | 2.32  | 0  | 0.00  | 0 | 0.00  | 7 | 25.93 | 0 | 0.00   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cboe EDGX US Equities Exchange(EDGX) | 3  | 0.99  | 0  | 0.00  | 0 | 0.00  | 3 | 11.11 | 0 | 0.00   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Members Exchange(MEMX)               | 3  | 0.99  | 0  | 0.00  | 0 | 0.00  | 3 | 11.11 | 0 | 0.00   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Two Sigma Securities, LLC(SOHO)      | 2  | 0.66  | 2  | 0.77  | 0 | 0.00  | 0 | 0.00  | 0 | 0.00   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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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 |
|---------------------------|--|---------------------|---|-------------------------------|---|-----------------------------------|---|--------------------|--|
| 381                       | 100.00                                 | 355                 | 93.18                                     | 11                            | 2.89  | 15                                | 3.94  | 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) | 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)         | 160                 | 39.31                  | 154           | 43.50            | 6                       | 54.55                      | 0                           | 0.00                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| VIRTU Americas, LLC(NITE)            | 86                  | 21.13                  | 86            | 24.29            | 0                       | 0.00                       | 0                           | 0.00                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| G1 Execution Services, LLC(ETMM)     | 75                  | 18.43                  | 72            | 20.34            | 3                       | 27.27                      | 0                           | 0.00                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Jane Street Capital, LLC(JNST)       | 39                  | 9.58                   | 37            | 10.45            | 2                       | 18.18                      | 0                           | 0.00                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| New York Stock Exchange(NYSE)        | 14                  | 3.44                   | 0             | 0.00             | 0                       | 0.00                       | 14                          | 46.67                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Instinet                             |                     |                        |               |                  |                         |                            |                             |                                |              |                 |  |   |  |   |  |   |   |  |
| BlockCross(BLKX)                     | 12                  | 2.95                   | 0             | 0.00             | 0                       | 0.00                       | 0                           | 0.00                           | 12           | 100.00          | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Cboe EDGX US Equities Exchange(EDGX) | 7                   | 1.72                   | 0             | 0.00             | 0                       | 0.00                       | 7                           | 23.33                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| NASDAQ Execution Services, LLC(NSDQ) | 5                   | 1.23                   | 0             | 0.00             | 0                       | 0.00                       | 5                           | 16.67                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Members Exchange(MEMX)               | 4                   | 0.98                   | 0             | 0.00             | 0                       | 0.00                       | 4                           | 13.33                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Two Sigma Securities, LLC(SOHO)      | 3                   | 0.74                   | 3             | 0.85             | 0                       | 0.00                       | 0                           | 0.00                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |

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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 |
|---------------------------|--|---------------------|---|-------------------------------|---|-----------------------------------|---|--------------------|--|
| 110                       | 100.00                                 | 29                  | 26.36                                     | 12                            | 10.91   | 69                                | 62.73   | 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) | 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) |
|--|---------------------|------------------------|---------------|------------------|-------------------------|----------------------------|-----------------------------|--------------------------------|--------------|-----------------|--|---|--|---|--|---|---|--|
| Wolverine Execution Services LLC(WEXX) | 48                  | 34.04                  | 1             | 3.45             | 0                       | 0.00                       | 47                          | 43.12                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Citadel Securities LLC(CDRG)           | 41                  | 29.08                  | 11            | 37.93            | 2                       | 66.67                      | 28                          | 25.69                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Dash Financial Technologies LLC(DASH)  | 24                  | 17.02                  | 8             | 27.59            | 0                       | 0.00                       | 16                          | 14.68                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Susquehanna Capital Group(SUSQ)        | 20                  | 14.18                  | 8             | 27.59            | 1                       | 33.33                      | 11                          | 10.09                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Interactive Brokers LLC(IBKR)          | 5                   | 3.55                   | 0             | 0.00             | 0                       | 0.00                       | 5                           | 4.59                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Morgan Stanley & Company LLC(MSCO)     | 3                   | 2.13                   | 1             | 3.45             | 0                       | 0.00                       | 2                           | 1.83                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |

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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 |
|---------------------------|--|---------------------|---|-------------------------------|---|-----------------------------------|---|--------------------|--|
| 343                       | 100.00                                 | 316                 | 92.13                                     | 4                             | 1.17  | 21                                | 6.12  | 2                  | 0.58                                     |

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 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)         | 115                 | 31.42                  | 112           | 35.44            | 0                       | 0.00                       | 1                           | 2.56                           | 2            | 28.57           | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| G1 Execution Services, LLC(ETMM)     | 88                  | 24.04                  | 85            | 26.90            | 2                       | 50.00                      | 1                           | 2.56                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| VIRTU Americas, LLC(NITE)            | 76                  | 20.77                  | 72            | 22.78            | 1                       | 25.00                      | 3                           | 7.69                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Jane Street Capital, LLC(JNST)       | 44                  | 12.02                  | 43            | 13.61            | 1                       | 25.00                      | 0                           | 0.00                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| New York Stock Exchange(NYSE)        | 16                  | 4.37                   | 0             | 0.00             | 0                       | 0.00                       | 16                          | 41.03                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Cboe EDGX US Equities Exchange(EDGX) | 11                  | 3.01                   | 0             | 0.00             | 0                       | 0.00                       | 11                          | 28.21                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Instinet BlockCross(BLXX)            | 5                   | 1.37                   | 0             | 0.00             | 0                       | 0.00                       | 0                           | 0.00                           | 5            | 71.43           | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| NASDAQ Execution Services, LLC(NSDQ) | 5                   | 1.37                   | 0             | 0.00             | 0                       | 0.00                       | 5                           | 12.82                          | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| UBS Securities, LLC(UBSS)            | 3                   | 0.82                   | 2             | 0.63             | 0                       | 0.00                       | 1                           | 2.56                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |
| Two Sigma Securities, LLC(SOHO)      | 2                   | 0.55                   | 2             | 0.63             | 0                       | 0.00                       | 0                           | 0.00                           | 0            | 0.00            | 0  | 0   | 0  | 0   | 0  | 0   | 0   | 0  |

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Non-S&P 500 Stocks Summary

