

# CAMBRIDGE INVESTMENT RESEARCH - Held NMS Stocks and Options Order Routing Public Report

Generated on Thu Oct 14 2021 04:05:59 GMT-0500 (Central Daylight Time)

3rd Quarter, 2021

July 2021

## 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 |
|--|---|---|---|--|
| 100.00                                 | 89.29                                     | 1.14  | 8.00  | 1.56                                     |

### Venues

| Venue - Non-directed Order Flow        | Non-Directed Orders (%) | Market Orders (%) | Marketable Limit Orders (%) | Non-Marketable Limit Orders (%) | Other Orders (%) | Net Payment Paid/Received for Market Orders(USD) | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
|--|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Citadel Securities LLC (CDRG)          | 35.38                   | 50.06             | 31.05                       | 10.72                           | 2.52             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| VIRTU Americas, LLC (NITE)             | 20.21                   | 27.58             | 23.16                       | 6.87                            | 4.45             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| National Financial Services LLC (XSTM) | 14.24                   | 0.00              | 0.00                        | 0.00                            | 90.91            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| JANE STREET CAPITAL, LLC (JNST)        | 9.96                    | 14.07             | 11.05                       | 3.58                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| NASDAQ Execution Services, LLC (NSDQ)  | 7.52                    | 0.00              | 20.00                       | 40.88                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| New York Stock Exchange (NYSE)         | 6.11                    | 0.00              | 6.84                        | 33.78                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Two Sigma Securities, LLC (SOHO)       | 2.44                    | 3.43              | 4.21                        | 0.78                            | 0.04             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| G1 Execution Services, LLC (ETMM)      | 1.84                    | 2.57              | 3.16                        | 0.68                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| UBS Securities, LLC (UBSS)             | 1.66                    | 2.29              | 0.53                        | 0.52                            | 0.45             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

| 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) |
|---------------------------------------|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Cboe EDGX US Equities Exchange (EDGX) | 0.39                    | 0.00              | 0.00                        | 2.18                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

### Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

National Financial Services LLC (XSTM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

JANE STREET CAPITAL, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Cboe EDGX US Equities Exchange (EDGX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

---

## July 2021

### 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 |
|--|---|---|---|--|
| 100.00                                 | 93.12                                     | 1.30  | 4.47  | 1.10                                     |

#### Venues

| Venue - Non-directed Order Flow | Non-Directed Orders (%) | Market Orders (%) | Marketable Limit Orders (%) | Non-Marketable Limit Orders (%) | Other Orders (%) | Net Payment Paid/Received for Market Orders(USD) | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
|---------------------------------|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Citadel Securities LLC (CDRG)   | 34.21                   | 49.50             | 48.65                       | 8.99                            | 0.99             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

| 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) |
|--|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| National Financial Services LLC (XSTM) | 24.18                   | 0.00              | 0.00                        | 0.00                            | 94.73            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| VIRTU Americas, LLC (NITE)             | 19.14                   | 26.87             | 27.25                       | 7.95                            | 1.86             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| JANE STREET CAPITAL, LLC (JNST)        | 9.86                    | 14.46             | 9.68                        | 2.42                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Two Sigma Securities, LLC (SOHO)       | 2.45                    | 3.55              | 4.28                        | 0.68                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| NASDAQ Execution Services, LLC (NSDQ)  | 2.44                    | 0.00              | 1.80                        | 33.94                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| UBS Securities, LLC (UBSS)             | 2.16                    | 3.07              | 2.25                        | 0.52                            | 0.25             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| G1 Execution Services, LLC (ETMM)      | 1.75                    | 2.55              | 2.03                        | 0.55                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| New York Stock Exchange (NYSE)         | 1.27                    | 0.00              | 3.15                        | 17.28                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| NYSE Arca (ARCA)                       | 1.17                    | 0.00              | 0.90                        | 16.20                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

**Material Aspects:**

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

National Financial Services LLC (XSTM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

JANE STREET CAPITAL, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NYSE Arca (ARCA):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

## July 2021

### 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 |
|--|---|---|---|--|
| 100.00                                 | 84.31                                     | 2.71  | 11.87   | 1.12                                     |

#### Venues

| Venue - Non-directed Order Flow         | Non-Directed Orders (%) | Market Orders (%) | Marketable Limit Orders (%) | Non-Marketable Limit Orders (%) | Other Orders (%) | Net Payment Paid/Received for Market Orders(USD) | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
|---|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Citadel Securities LLC (CDRG)           | 48.22                   | 47.43             | 60.29                       | 48.82                           | 67.86            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Susquehanna Capital Group (SUSQ)        | 34.30                   | 38.92             | 26.47                       | 17.06                           | 17.86            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Dash Financial Technologies LLC (DASH)  | 7.64                    | 6.66              | 5.88                        | 11.57                           | 14.29            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Wolverine Execution Services LLC (WEXX) | 5.25                    | 1.98              | 0.00                        | 19.80                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Morgan Stanley & Company LLC (MSCO)     | 4.59                    | 5.01              | 7.35                        | 2.75                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

#### Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Susquehanna Capital Group (SUSQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Dash Financial Technologies LLC (DASH):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Wolverine Execution Services LLC (WEXX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Morgan Stanley & Company LLC (MSCO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

## August 2021

## 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 |
|--|---|---|---|--|
| 100.00                                 | 91.48                                     | 0.97  | 6.33  | 1.21                                     |

### Venues

| Venue - Non-directed Order Flow        | Non-Directed Orders (%) | Market Orders (%) | Marketable Limit Orders (%) | Non-Marketable Limit Orders (%) | Other Orders (%) | Net Payment Paid/Received for Market Orders(USD) | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
|--|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Citadel Securities LLC (CDRG)          | 34.85                   | 49.24             | 46.15                       | 8.77                            | 1.77             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| VIRTU Americas, LLC (NITE)             | 19.40                   | 26.90             | 27.69                       | 4.42                            | 3.53             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| National Financial Services LLC (XSTM) | 14.81                   | 0.00              | 0.00                        | 0.00                            | 92.98            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| JANE STREET CAPITAL, LLC (JNST)        | 10.90                   | 15.76             | 10.00                       | 2.09                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| New York Stock Exchange (NYSE)         | 7.89                    | 0.00              | 7.69                        | 46.56                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| NASDAQ Execution Services, LLC (NSDQ)  | 5.75                    | 0.00              | 6.15                        | 33.86                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Two Sigma Securities, LLC (SOHO)       | 2.21                    | 3.17              | 1.54                        | 0.52                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| G1 Execution Services, LLC (ETMM)      | 1.82                    | 2.65              | 0.77                        | 0.31                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| UBS Securities, LLC (UBSS)             | 1.62                    | 2.27              | 0.00                        | 0.31                            | 0.37             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Cboe EDGX US Equities Exchange (EDGX)  | 0.53                    | 0.00              | 0.00                        | 3.17                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

### Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

National Financial Services LLC (XSTM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

JANE STREET CAPITAL, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Cboe EDGX US Equities Exchange (EDGX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

## August 2021

### 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 |
|--|---|---|---|--|
| 100.00                                 | 94.29                                     | 1.05  | 3.69  | 0.98                                     |

#### Venues

| Venue - Non-directed Order Flow        | Non-Directed Orders (%) | Market Orders (%) | Marketable Limit Orders (%) | Non-Marketable Limit Orders (%) | Other Orders (%) | Net Payment Paid/Received for Market Orders(USD) | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
|--|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Citadel Securities LLC (CDRG)          | 33.98                   | 49.61             | 49.16                       | 7.06                            | 0.97             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| National Financial Services LLC (XSTM) | 24.76                   | 0.00              | 0.00                        | 0.00                            | 95.09            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| VIRTU Americas, LLC (NITE)             | 18.55                   | 26.79             | 23.46                       | 4.94                            | 1.08             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| JANE STREET CAPITAL, LLC (JNST)        | 10.35                   | 15.27             | 12.29                       | 1.94                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| NASDAQ Execution Services, LLC (NSDQ)  | 2.21                    | 0.00              | 2.51                        | 31.48                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Two Sigma Securities, LLC (SOHO)       | 2.14                    | 3.13              | 3.07                        | 0.65                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| G1 Execution Services, LLC (ETMM)      | 1.97                    | 2.89              | 3.91                        | 0.41                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

| 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) |
|---------------------------------|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| UBS Securities, LLC (UBSS)      | 1.69                    | 2.30              | 0.84                        | 0.21                            | 0.57             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| New York Stock Exchange (NYSE)  | 1.42                    | 0.00              | 1.68                        | 20.18                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| NYSE Arca (ARCA)                | 1.41                    | 0.00              | 2.79                        | 20.04                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

**Material Aspects:**

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

National Financial Services LLC (XSTM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

JANE STREET CAPITAL, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NYSE Arca (ARCA):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

-----

**August 2021**

---

**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 |
|--|---|---|---|--|
| 100.00                                 | 80.18                                     | 2.61  | 15.61   | 1.60                                     |

**Venues**

| Venue - Non-directed Order Flow         | Non-Directed Orders (%) | Market Orders (%) | Marketable Limit Orders (%) | Non-Marketable Limit Orders (%) | Other Orders (%) | Net Payment Paid/Received for Market Orders(USD) | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
|---|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Citadel Securities LLC (CDRG)           | 45.41                   | 45.51             | 49.21                       | 42.52                           | 81.58            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Susquehanna Capital Group (SUSQ)        | 34.62                   | 39.27             | 39.68                       | 21.02                           | 18.42            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Dash Financial Technologies LLC (DASH)  | 8.12                    | 6.51              | 3.17                        | 14.01                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Morgan Stanley & Company LLC (MSCO)     | 6.07                    | 6.88              | 6.35                        | 3.98                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Wolverine Execution Services LLC (WEXX) | 5.77                    | 1.84              | 1.59                        | 18.47                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

#### Material Aspects:

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Susquehanna Capital Group (SUSQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Dash Financial Technologies LLC (DASH):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Morgan Stanley & Company LLC (MSCO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Wolverine Execution Services LLC (WEXX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

## September 2021

### 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 |
|--|---|---|---|--|
| 100.00                                 | 92.75                                     | 0.87  | 4.66  | 1.72                                     |

#### Venues

| Venue - Non-directed Order Flow | Non-Directed Orders (%) | Market Orders (%) | Marketable Limit Orders (%) | Non-Marketable Limit Orders (%) | Other Orders (%) | Net Payment Paid/Received for Market Orders(USD) | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
|---------------------------------|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Citadel Securities LLC (CDRG)   | 35.50                   | 48.92             | 43.10                       | 8.73                            | 3.52             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |



| 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) |
|--|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| VIRTU Americas, LLC (NITE)             | 19.89                   | 27.28             | 18.10                       | 4.74                            | 3.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| National Financial Services LLC (XSTM) | 13.36                   | 0.00              | 0.00                        | 0.00                            | 90.33            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| JANE STREET CAPITAL, LLC (JNST)        | 11.69                   | 16.42             | 12.07                       | 2.74                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| New York Stock Exchange (NYSE)         | 7.01                    | 0.00              | 16.38                       | 41.56                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| NASDAQ Execution Services, LLC (NSDQ)  | 6.40                    | 0.01              | 2.59                        | 38.46                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Two Sigma Securities, LLC (SOHO)       | 2.22                    | 3.13              | 4.31                        | 0.39                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| G1 Execution Services, LLC (ETMM)      | 1.91                    | 2.73              | 0.86                        | 0.28                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| UBS Securities, LLC (UBSS)             | 1.42                    | 1.51              | 2.59                        | 0.32                            | 2.16             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Cboe EDGX US Equities Exchange (EDGX)  | 0.46                    | 0.00              | 0.00                        | 2.78                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

**Material Aspects:**

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

National Financial Services LLC (XSTM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

JANE STREET CAPITAL, LLC (JNST):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Cboe EDGX US Equities Exchange (EDGX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

## September 2021

### 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 |
|--|---|---|---|--|
| 100.00                                 | 93.93                                     | 1.16  | 3.50  | 1.41                                     |

### Venues

| Venue - Non-directed Order Flow        | Non-Directed Orders (%) | Market Orders (%) | Marketable Limit Orders (%) | Non-Marketable Limit Orders (%) | Other Orders (%) | Net Payment Paid/Received for Market Orders(USD) | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
|--|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Citadel Securities LLC (CDRG)          | 33.14                   | 49.45             | 40.59                       | 6.50                            | 1.23             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| National Financial Services LLC (XSTM) | 24.03                   | 0.00              | 0.00                        | 0.00                            | 94.19            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| VIRTU Americas, LLC (NITE)             | 18.47                   | 26.99             | 23.76                       | 4.59                            | 1.77             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| JANE STREET CAPITAL, LLC (JNST)        | 10.63                   | 15.91             | 21.78                       | 2.27                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| NYSE Arca (ARCA)                       | 3.21                    | 0.00              | 1.65                        | 34.77                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| NASDAQ Execution Services, LLC (NSDQ)  | 2.15                    | 0.00              | 3.30                        | 23.07                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Two Sigma Securities, LLC (SOHO)       | 1.97                    | 2.99              | 2.64                        | 0.26                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| G1 Execution Services, LLC (ETMM)      | 1.77                    | 2.65              | 2.64                        | 0.40                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| UBS Securities, LLC (UBSS)             | 1.56                    | 2.02              | 2.64                        | 0.23                            | 0.85             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| New York Stock Exchange (NYSE)         | 1.07                    | 0.00              | 0.99                        | 11.51                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

Material Aspects:

Citadel Securities LLC (CDRG):  
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

National Financial Services LLC (XSTM):  
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

VIRTU Americas, LLC (NITE):  
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

JANE STREET CAPITAL, LLC (JNST):  
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NYSE Arca (ARCA):  
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

NASDAQ Execution Services, LLC (NSDQ):  
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Two Sigma Securities, LLC (SOHO):  
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

G1 Execution Services, LLC (ETMM):  
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

UBS Securities, LLC (UBSS):  
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

New York Stock Exchange (NYSE):  
[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

## September 2021

### 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 |
|--|---|---|---|--|
| 100.00                                 | 79.51                                     | 2.58  | 14.88   | 3.03                                     |

### Venues

| Venue - Non-directed Order Flow         | Non-Directed Orders (%) | Market Orders (%) | Marketable Limit Orders (%) | Non-Marketable Limit Orders (%) | Other Orders (%) | Net Payment Paid/Received for Market Orders(USD) | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
|---|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Citadel Securities LLC (CDRG)           | 46.13                   | 45.73             | 39.66                       | 44.54                           | 76.12            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Susquehanna Capital Group (SUSQ)        | 34.87                   | 39.48             | 53.45                       | 20.67                           | 23.88            | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Dash Financial Technologies LLC (DASH)  | 6.70                    | 6.31              | 3.45                        | 8.91                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |
| Wolverine Execution Services LLC (WEXX) | 6.26                    | 1.76              | 1.72                        | 20.67                           | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

| 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) |
|-------------------------------------|-------------------------|-------------------|-----------------------------|---------------------------------|------------------|--|---|--|---|--|---|---|--|
| Morgan Stanley & Company LLC (MSCO) | 6.05                    | 6.71              | 1.72                        | 5.21                            | 0.00             | 0  | 0.0000  | 0  | 0.0000  | 0  | 0.0000  | 0   | 0.0000   |

**Material Aspects:**

Citadel Securities LLC (CDRG):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Susquehanna Capital Group (SUSQ):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Dash Financial Technologies LLC (DASH):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Wolverine Execution Services LLC (WEXX):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]

Morgan Stanley & Company LLC (MSCO):

[Insert discussion of the material aspects of the relationship with this venue pursuant to rule 606(a)(1)(iv).]