Name of Broker - Held NMS Stocks and Options Order Routing Public Report

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2nd Quarter, 2020

April 2020

S&P 500 Stocks

Summary

| | Orders as % | Orders as % of | Limit Orders as % | Other Orders as % |
|------------------------|-------------|----------------|-------------------|-------------------|
| Non-Directed Orders as | of Non- | Non-Directed | of Non-Directed | of Non-Directed |
| % of All Orders | Directed | Orders | Orders | Orders |
| 100.00 | 85.96 | 1.80 | 10.93 | 1.32 |

| VCHUCS | | | | | | | | | | | | | |
|--|---------------------------|------------------|-------------------------------|-------|-------|----------------------------------|--|-------------|--------------------------------------|--|---|--|---|
| | Non-Directed Orders(%) | Market Orders(%) | Marketable Limit Orders(%) | | Other | Net Payment Paid/Received for | Paid/Received for Market Orders(cents | Net Payment | Marketable Limit Orders(cents per | Net Payment Paid/Received for Non-Marketable | 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) | 38.28 | 42.18 | 32.84 | 10.51 | 46.88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 29.17 | 41.79 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas LLC(NITE) | 13.10 | 13.76 | 13.43 | 5.93 | 40.63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G1 Execution Services, LLC(ETMM) | 6.18 | 6.97 | 1.49 | 1.62 | 3.13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NASDAQ Execution Services, | | | | | | | | | | | | | |
| LLC(NSDQ) | 5.61 | 0.00 | 0.00 | 47.44 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Two Sigma Securities, | | | | | | | | | | | | | |
|--------------------------------------|------|------|------|-------|------|---|---|---|---|---|---|---|---|
| LLC(SOHO) | 2.33 | 2.62 | 2.99 | 0.27 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New York Stock | | | | | | | | | | | | | |
| | 2.23 | 0.00 | 0.00 | 18.87 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UBS Securities, LLC(UBSS) | 2.14 | 2.21 | 2.99 | 1.35 | 3.13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JANE STREET CAPITAL, LLC(JNST) | 1.79 | 2.02 | 2.99 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cboe EDGX US Equities Exchange(EDGX) | | | | | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Non S&P 500 Stocks

Summary

| | Market | | | |
|------------------------|-------------|------------------|-------------------|-------------------|
| | Orders as % | Marketable Limit | Non-Marketable | |
| | of Non- | Orders as % of | Limit Orders as % | Other Orders as % |
| Non-Directed Orders as | Directed | Non-Directed | of Non-Directed | of Non-Directed |
| % of All Orders | Orders | Orders | Orders | Orders |
| 100.00 | 87.81 | 1.60 | 9.04 | 1.54 |

| venues | | | | | | | | | | | | | |
|---|---------------------------|------------------|-------|-------|-------|----------------------------------|--|--|-----------------------------------|--|---|--|---|
| | Non-Directed Orders(%) | Market Orders(%) | | | Other | Net Payment Paid/Received for | Paid/Received for Market Orders(cents | Net Payment Paid/Received for Marketable Limit | Marketable Limit Orders(cents per | Net Payment Paid/Received for Non-Marketable | 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) | 38.26 | 40.76 | 25.74 | 13.33 | 62.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| National Financial Services LLC(XSTM) | | 31.40 | 43.56 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas | | | | | | | | - | - | | - | _ | |
| LLC(NITE) | 12.46 | 13.06 | 9.90 | 4.69 | 32.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G1 Execution Services, LLC(ETMM) | 6.85 | 7.54 | 2.97 | 1.48 | 2.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Two Sigma Securities, LLC(SOHO) | 2.85 | 3.02 | 1.98 | 1.23 | 4.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NASDAQ Execution Services, | | | | | | | | | | | | | |
| LLC(NSDQ) | 2.66 | 0.00 | 0.00 | 30.37 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Cboe EDGX US | | | | | | | | | | | | | |
|-------------------------|------|------|------|-------|------|---|---|---|---|---|---|---|---|
| Equities | | | | | | | | | | | | | |
| Exchange(EDGX) | 2.48 | 0.00 | 0.00 | 28.40 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JANE STREET | | | | | | | | | | | | | |
| CAPITAL, | | | | | | | | | | | | | |
| LLC(JNST) | 1.81 | 1.92 | 1.98 | 0.99 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UBS Securities , | | | | | | | | | | | | | |
| LLC(UBSS) | 1.77 | 1.87 | 4.95 | 0.25 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| New York Stock | | | | | | | | | | | | | |
| Exchange(NYSE) | 0.99 | 0.00 | 0.99 | 11.11 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Option Contracts

Summary

| | Market | | | |
|------------------------|-------------|------------------|-------------------|-------------------|
| | Orders as % | Marketable Limit | Non-Marketable | |
| | of Non- | Orders as % of | Limit Orders as % | Other Orders as % |
| Non-Directed Orders as | Directed | Non-Directed | of Non-Directed | of Non-Directed |
| % of All Orders | Orders | Orders | Orders | Orders |
| 100.00 | 15.15 | 0.00 | 66.67 | 18.18 |

Venues

| venues | | | | | | | | | | | | | |
|--|---------------------------|------------------|-------------------------------|-------|-------|-------------|---------------------|---|---|---|---|--|---|
| Venue - Non-directed Order Flow | Non-Directed Orders(%) | Market Orders(%) | Marketable Limit Orders(%) | | Other | Net Payment | Market Orders(cents | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
| Citadel Securities LLC(CDRG) | 54.55 | 20.00 | 0.00 | 59.09 | 66.67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Susquehanna Capital | | | | 0.00 | 16.67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Citigroup Global Markets, | | | | 9.09 | 16.67 | 0 | | | 0 | 0 | 0 | 0 | 0 |
| Morgan Stanley & Company | | | | | 0.00 | 0 | | | 0 | 0 | 0 | | |
| Wolverine Execution Services LLC(WEXX) | 9.09 | 0.00 | 0.00 | 13.64 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dash Financial Technologies | | | | | 0.00 | 0 | | | 0 | 0 | 0 | 0 | 0 |

S&P 500 Stocks

Summary

| | Orders as % | Orders as % of | Limit Orders as % | Other Orders as % |
|------------------------|-------------|----------------|-------------------|-------------------|
| Non-Directed Orders as | of Non- | Non-Directed | of Non-Directed | of Non-Directed |
| % of All Orders | Directed | Orders | Orders | Orders |
| 100.00 | 78.57 | 1.50 | 19.16 | 0.78 |

| venues | | | | | | | | | | | | | |
|--------------------------|---------------------------|------------------|-------|-------|-------|--|--|---|-----------------------------------|--|---|--|---|
| | Non-Directed Orders(%) | Market 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) | Marketable Limit Orders(cents per | Net Payment Paid/Received for Non-Marketable | 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 | 41.36 | 42.50 | 9.18 | 57.14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| National | | | | | | | | | | | | | |
| Financial Services | | | | | | | | | | | | | |
| | 22.66 | 28.55 | 37.50 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas | | | | | | | | | | | | | |
| LLC(NITE) | 14.33 | 17.07 | 7.50 | 3.79 | 42.86 | 0 | 0 | 0 | 0 | 0 | 0 | o | 0 |
| NASDAQ | | | | | | | | | | | | | |
| Execution | | | | | | | | | | | | | |
| Services, | | | | | | | | | | | | | |
| LLC(NSDQ) | 6.81 | 0.00 | 0.00 | 33.13 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| New York Stock | | | | | | | | | | | | | |
| Exchange(NYSE) | 5.34 | 0.00 | 5.00 | 25.55 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cboe EDGX US Equities | | | | | | | | | | | | | |
| Exchange(EDGX) | 4.72 | 0.00 | 0.00 | 22.95 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | o | 0 |

| G1 Execution | | | | | | | | | | | | | |
|-----------------|------|------|------|------|------|---|---|---|---|---|---|---|---|
| Services, | | | | | | | | | | | | | |
| LLC(ETMM) | 4.68 | 5.90 | 2.50 | 0.40 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Two Sigma | | | | | | | | | | | | | |
| Securities, | | | | | | | | | | | | | |
| LLC(SOHO) | 2.30 | 2.71 | 5.00 | 0.60 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JANE STREET | | | | | | | | | | | | | |
| CAPITAL, | | | | | | | | | | | | | |
| LLC(JNST) | 1.81 | 2.29 | 0.00 | 0.20 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UBS Securities, | | | | | | | | | | | | | |
| LLC(UBSS) | 1.52 | 1.70 | 0.00 | 1.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Non S&P 500 Stocks

Summary

| | Market | | | |
|------------------------|-------------|------------------|-------------------|-------------------|
| | Orders as % | Marketable Limit | Non-Marketable | |
| | of Non- | Orders as % of | Limit Orders as % | Other Orders as % |
| Non-Directed Orders as | Directed | Non-Directed | of Non-Directed | of Non-Directed |
| % of All Orders | Orders | Orders | Orders | Orders |
| 100.00 | 87.11 | 1.62 | 10.01 | 1.25 |

| Venue - Non-directed | Non-Directed | | Marketable Limit | Non Marketable | Other | Net Payment | Paid/Received for | Net Payment Paid/Received for | Marketable Limit | Net Payment Paid/Received for | Net Payment Paid/Received for Non-Marketable Limit Orders(cents | Net Payment Paid/Received for Other | Net Payment Paid/Received for Other Orders(cents per hundred |
|---------------------------------|--------------|------------------|------------------|----------------|-------|-------------|-------------------|----------------------------------|------------------|----------------------------------|--|---|--|
| | | Market Orders(%) | | | | | | | | | per hundred shares) | | shares) |
| Citadel Securities LLC(CDRG) | 37.96 | 41.08 | 28.00 | 10.22 | 58.82 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| National Financial Services | | | | | | | | | | | | | |
| LLC(XSTM) | 25.33 | 28.04 | 42.67 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas LLC(NITE) | 16.33 | 17.57 | 13.33 | 4.70 | 29.41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G1 Execution Services, | 6 00 | 6 72 | 4.00 | 0.55 | 0.00 | | | | | | | | |
| LLC(ETMM) | 6.00 | 6.72 | 4.00 | 0.55 | 0.00 | 0 | 0 | <u> </u> | 0 | 0 | 0 | 0 | 0 |
| Cboe EDGX US Equities | | | | | | | | | | | | | |
| Exchange(EDGX) | 3.33 | 0.00 | 0.00 | 33.98 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| NASDAQ | | | | | | | | | | | | | |
|-------------------------|------|------|------|-------|------|---|---|---|---|---|---|---|---|
| Execution | | | | | | | | | | | | | |
| Services, | | | | | | | | | | | | | |
| LLC(NSDQ) | 2.89 | 0.00 | 4.00 | 28.73 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Two Sigma | | | | | | | | | | | | | |
| Securities, | | | | | | | | | | | | | |
| LLC(SOHO) | 2.62 | 2.76 | 1.33 | 1.66 | 2.94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JANE STREET | | | | | | | | | | | | | |
| CAPITAL, | | | | | | | | | | | | | |
| LLC(JNST) | 1.84 | 2.04 | 0.00 | 0.55 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UBS Securities , | | | | | | | | | | | | | |
| LLC(UBSS) | 1.49 | 1.55 | 1.33 | 0.28 | 8.82 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| New York Stock | | | | | | | | | | | | | |
| Exchange(NYSE) | 1.22 | 0.00 | 0.00 | 12.43 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

May 2020

Option Contracts

Summary

| | Market | | | |
|------------------------|-------------|------------------|-------------------|-------------------|
| | Orders as % | Marketable Limit | Non-Marketable | |
| | of Non- | Orders as % of | Limit Orders as % | Other Orders as % |
| Non-Directed Orders as | Directed | Non-Directed | of Non-Directed | of Non-Directed |
| % of All Orders | Orders | Orders | Orders | Orders |
| 100.00 | 15.38 | 7.69 | 76.92 | 0.00 |

Venues

| venues | | | | | | | | | | | | | |
|------------------------------------|---------------------------|------------------|-------|-------|-------|----------------------------------|--|-------------|---|--|---|--|--|
| Venue - Non-directed Order Flow | Non-Directed Orders(%) | Market Orders(%) | | | Other | Net Payment Paid/Received for | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable | 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) | 53.85 | 0.00 | 50.00 | 65.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| Wolverine | | | | | | | | | | | | | |
| Execution | | | | | | | | | | | | | |
| Services | | | | | | | | | | | | | |
| LLC(WEXX) | 23.08 | 0.00 | 0.00 | 30.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| Susquehanna Capital | | | | | | | | | | | | | |
| Group(SUSQ) | 11.54 | 50.00 | 50.00 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| Morgan Stanley | | | | | | | | | | | | | |
| & Company | | | | | | | | | | | | | |
| LLC(MSCO) | 7.69 | 50.00 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | O | 0 |
| Dash Financial | | | | | | | | | | | | | |
| Technologies | | | | | | | | | | | | | |
| LLC(DASH) | 3.85 | 0.00 | 0.00 | 5.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |

S&P 500 Stocks

Summary

| | Orders as % | Orders as % of | Limit Orders as % | Other Orders as % |
|------------------------|-------------|----------------|-------------------|-------------------|
| Non-Directed Orders as | of Non- | Non-Directed | of Non-Directed | of Non-Directed |
| % of All Orders | Directed | Orders | Orders | Orders |
| 100.00 | 77.16 | 1.04 | 19.57 | 2.23 |

| venues | | | | | | | | | | | | | |
|------------------------|---------------------------|------------------|-------------------------------|-------|-------|----------------------------------|--|---|---|--|---|--|---|
| | Non-Directed Orders(%) | Market Orders(%) | Marketable Limit Orders(%) | | Other | Net Payment Paid/Received for | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment Paid/Received for Marketable Limit Orders(USD) | Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares) | Net Payment Paid/Received for Non-Marketable | 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) | 30.26 | 34.94 | 36.11 | 7.77 | 57.78 | 0 | 0 | 0 | 0 | 0 | C | C | 0 |
| | | | | | | | | | | | | | |
| National | | | | | | | | | | | | | |
| Financial Services | | | | | | | | | | | | | |
| LLC(XSTM) | 25.09 | 30.86 | 44.44 | 0.59 | 0.00 | 0 | 0 | 0 | 0 | 0 | C | o c | 0 |
| VIRTU Americas | | | | | | | | | | | | | |
| LLC(NITE) | 20.24 | 23.15 | 13.89 | 7.62 | 24.44 | 0 | 0 | 0 | 0 | 0 | C | o c | 0 |
| NASDAQ | | | | | | | | | | | | | |
| Execution | | | | | | | | | | | | | |
| Services, | | | | | | | | | | | | | |
| LLC(NSDQ) | 8.15 | 0.00 | 0.00 | 44.57 | 0.00 | 0 | 0 | 0 | 0 | 0 | C | 0 | 0 |
| New York Stock | 2.04 | 0.00 | 0.00 | 24.55 | 0.00 | | | | | | | | |
| Exchange(NYSE) | 3.94 | 0.00 | 0.00 | 21.55 | 0.00 | 0 | 0 | 0 | 0 | 0 | | C | 0 |
| Cboe EDGX US Equities | 2.52 | | 0.00 | 44.22 | | | _ | | | | | | |
| Exchange(EDGX) | 2.60 | 0.00 | 0.00 | 14.22 | 0.00 | 0 | 0 | 0 | 0 | 0 | C | C | 0 |
| G1 Execution Services, | | | | | | | | | | | | | |
| LLC(ETMM) | 2.55 | 2.96 | 2.78 | 0.88 | 0.00 | 0 | 0 | 0 | 0 | 0 | C | 0 | 0 |

| Two Sigma | | | | | | | | | | | | | |
|-----------------|------|------|------|------|-------|---|---|---|---|---|---|---|---|
| Securities, | | | | | | | | | | | | | |
| LLC(SOHO) | 2.39 | 2.66 | 0.00 | 0.44 | 15.56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JANE STREET | | | | | | | | | | | | | |
| CAPITAL, | | | | | | | | | | | | | |
| LLC(JNST) | 2.14 | 2.59 | 0.00 | 0.44 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UBS Securities, | | | | | | | | | | | | | |
| LLC(UBSS) | 1.90 | 2.22 | 2.78 | 0.44 | 2.22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Non S&P 500 Stocks

Summary

| | Market | | | |
|------------------------|-------------|------------------|-------------------|-------------------|
| | Orders as % | Marketable Limit | Non-Marketable | |
| | of Non- | Orders as % of | Limit Orders as % | Other Orders as % |
| Non-Directed Orders as | Directed | Non-Directed | of Non-Directed | of Non-Directed |
| % of All Orders | Orders | Orders | Orders | Orders |
| 100.00 | 84.71 | 1.99 | 11.16 | 2.14 |

| venues | | | | | | | | | | | | | |
|---|---------------------------|------------------|-------|-------|-------|----------------------------------|--|---|-----------------------------------|--|---|--|---|
| | Non-Directed Orders(%) | Market Orders(%) | | | Other | Net Payment Paid/Received for | Paid/Received for Market Orders(cents | Net Payment Paid/Received for Marketable Limit Orders(USD) | Marketable Limit Orders(cents per | Net Payment Paid/Received for Non-Marketable | 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) | 37.05 | 40.68 | 27.54 | 13.31 | 61.97 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| National Financial Services LLC(XSTM) | 21.48 | 24.15 | 36.23 | 3.84 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VIRTU Americas | | | 00.20 | | 0.00 | | | | | | | | |
| LLC(NITE) | 21.41 | 23.87 | 13.04 | 6.47 | 28.17 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| Cboe EDGX US Equities Exchange(EDGX) | 4.22 | 0.00 | 0.00 | 32.25 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| G1 Execution Services, LLC(ETMM) | 2.95 | 3.32 | 1.45 | 0.96 | 1.41 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| Two Sigma Securities, LLC(SOHO) | 2.62 | 2.89 | 0.72 | 0.72 | 8.45 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |

| NASDAQ | | | | | | | | | | | | | |
|-------------------------|------|------|------|-------|------|---|---|---|---|---|---|---|---|
| Execution | | | | | | | | | | | | | |
| Services, | | | | | | | | | | | | | |
| LLC(NSDQ) | 2.59 | 0.00 | 0.72 | 19.66 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| JANE STREET | | | | | | | | | | | | | |
| CAPITAL, | | | | | | | | | | | | | |
| LLC(JNST) | 2.26 | 2.57 | 1.45 | 0.60 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | |
| New York Stock | | | | | | | | | | | | | |
| Exchange(NYSE) | 2.12 | 0.00 | 1.45 | 15.95 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UBS Securities , | | | | | | | | | | | | | |
| LLC(UBSS) | 1.84 | 2.06 | 1.45 | 0.60 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

June 2020

Option Contracts

Summary

| | Market | | | |
|------------------------|-------------|------------------|-------------------|-------------------|
| | Orders as % | Marketable Limit | Non-Marketable | |
| | of Non- | Orders as % of | Limit Orders as % | Other Orders as % |
| Non-Directed Orders as | Directed | Non-Directed | of Non-Directed | of Non-Directed |
| % of All Orders | Orders | Orders | Orders | Orders |
| 100.00 | 38.30 | 0.00 | 61.70 | 0.00 |

Venues

| Venue - Non-directed Order Flow | Non-Directed Orders(%) | Market Orders(%) | | | Other | Net Payment Paid/Received for | Net Payment Paid/Received for Market Orders(cents per hundred shares) | Net Payment | Marketable Limit Orders(cents per | Net Payment Paid/Received for Non-Marketable | 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) | 50.75 | 30.77 | 0.00 | 63.41 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| Susquehanna | | | | | | | | | | | | | |
| Capital | | | | | | | | | | | | | |
| Group(SUSQ) | 17.91 | 46.15 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| Citigroup Global Markets, Inc.(KEXP) | 13.43 | 15.38 | 0.00 | 12.20 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 0 |
| Wolverine | | | | | | | | | | | | | |
| Execution | | | | | | | | | | | | | |
| Services | | | | | | | | | | | | | |
| LLC(WEXX) | 11.94 | 0.00 | 0.00 | 19.51 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |
| Dash Financial Technologies | | | | | | | | | | | | | |
| LLC(DASH) | 5.97 | 7.69 | 0.00 | 4.88 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | C | 0 |