

July 2020

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 |
|---------------------------|--|---------------------|---|-------------------------------|
| 75 | 100.00 | 69 | 92.00 | 0 |

Venues

| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders(%) | Market Orders | Market Orders(%) |
|--------------------------------------|---------------------|------------------------|---------------|------------------|
| Citadel Securities LLC(CDRG) | 43 | 50.59 | 43 | 62.32 |
| VIRTU Americas LLC(NITE) | 15 | 17.65 | 15 | 21.74 |
| New York Stock Exchange(NYSE) | 9 | 10.59 | 0 | 0.00 |
| NASDAQ Execution Services, LLC(NSDQ) | 7 | 8.24 | 0 | 0.00 |
| G1 Execution Services, LLC(ETMM) | 5 | 5.88 | 5 | 7.25 |
| JANE STREET CAPITAL, LLC(JNST) | 3 | 3.53 | 3 | 4.35 |
| Two Sigma Securities, LLC(SOHO) | 2 | 2.35 | 2 | 2.90 |
| UBS Securities, LLC(UBSS) | 1 | 1.18 | 1 | 1.45 |

July 2020

**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 |
|--------------------------------------|---|----------------------------|--|--|
| 211 | 100.00 | 116 | 54.98 | 14 |

Venues

| Venue - Non- directed Order Flow | Non-Directed Orders | Non-Directed Orders(%) | Market Orders | Market Orders(%) |
|---|----------------------------|-----------------------------------|----------------------|-------------------------|
| Citadel Securities LLC(CDRG) | 104 | 45.61 | 60 | 51.72 |
| VIRTU Americas LLC(NITE) | 70 | 30.70 | 36 | 31.03 |
| G1 Execution Services, LLC(ETMM) | 11 | 4.82 | 11 | 9.48 |
| NASDAQ Execution Services, LLC(NSDQ) | 10 | 4.39 | 0 | 0.00 |
| Cboe EDGX US Equities Exchange(EDGX) | 8 | 3.51 | 0 | 0.00 |
| JANE STREET CAPITAL, LLC(JNST) | 7 | 3.07 | 6 | 5.17 |
| Instinet BlockCross(BLKX) | 5 | 2.19 | 0 | 0.00 |
| Two Sigma Securities, LLC(SOHO) | 5 | 2.19 | 3 | 2.59 |
| NYSE Arca(ARCA) | 4 | 1.75 | 0 | 0.00 |
| New York Stock Exchange(NYSE) | 2 | 0.88 | 0 | 0.00 |

July 2020

**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 |
|---------------------------|--|---------------------|---|-------------------------------|
| 0 | 0.00 | 0 | 0.00 | 0 |

Venues

| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders(%) | Market Orders | Market Orders(%) |
|---------------------------------|---------------------|------------------------|---------------|------------------|
|---------------------------------|---------------------|------------------------|---------------|------------------|

August 2020

**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 |
|---------------------------|--|---------------------|---|-------------------------------|
| 102 | 100.00 | 100 | 98.04 | 0 |

Venues

| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders(%) | Market Orders | Market Orders(%) |
|----------------------------------|---------------------|------------------------|---------------|------------------|
| Citadel Securities LLC(CDRG) | 51 | 48.57 | 50 | 50.00 |
| VIRTU Americas LLC(NITE) | 42 | 40.00 | 42 | 42.00 |
| G1 Execution Services, LLC(ETMM) | 3 | 2.86 | 3 | 3.00 |
| JANE STREET CAPITAL, LLC(JNST) | 3 | 2.86 | 3 | 3.00 |
| New York Stock Exchange(NYSE) | 3 | 2.86 | 0 | 0.00 |

| | | | | |
|--|---|------|---|------|
| Two Sigma Securities, LLC(SOHO) | 2 | 1.90 | 2 | 2.00 |
|--|---|------|---|------|

| | | | | |
|---|---|------|---|------|
| NASDAQ Execution Services, LLC(NSDQ) | 1 | 0.95 | 0 | 0.00 |
|---|---|------|---|------|

August 2020

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 |
|----------------------------------|---|----------------------------|--|--------------------------------------|
| 194 | 100.00 | 89 | 45.88 | 27 |

Venues

| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders(%) | Market Orders | Market Orders(%) |
|---|----------------------------|-------------------------------|----------------------|-------------------------|
| Citadel Securities LLC(CDRG) | 91 | 40.81 | 40 | 45.45 |
| VIRTU Americas LLC(NITE) | 63 | 28.25 | 36 | 40.91 |
| Cboe EDGX US Equities Exchange(EDGX) | 21 | 9.42 | 0 | 0.00 |
| New York Stock Exchange(NYSE) | 12 | 5.38 | 0 | 0.00 |
| Instinet BlockCross(BLKX) | 8 | 3.59 | 0 | 0.00 |
| JANE STREET CAPITAL, LLC(JNST) | 7 | 3.14 | 5 | 5.68 |
| NASDAQ Execution Services, LLC(NSDQ) | 7 | 3.14 | 0 | 0.00 |

| | | | | |
|--|---|------|---|------|
| Two Sigma Securities, LLC(SOHO) | 7 | 3.14 | 3 | 3.41 |
| G1 Execution Services, LLC(ETMM) | 5 | 2.24 | 3 | 3.41 |
| Cboe BZX U.S. Equities Exchange(BATS) | 1 | 0.45 | 0 | 0.00 |

August 2020

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 |
|----------------------------------|---|----------------------------|--|--------------------------------------|
| 0 | 0.00 | 0 | 0.00 | 0 |

Venues

| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders(%) | Market Orders | Market Orders(%) |
|--|----------------------------|-------------------------------|----------------------|-------------------------|
|--|----------------------------|-------------------------------|----------------------|-------------------------|

September 2020

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 |
|----------------------------------|---|----------------------------|--|--------------------------------------|
| 52 | 100.00 | 51 | 98.08 | 1 |

Venues

| Venue - Non-directed Order Flow | Non-Directed Orders | Non-Directed Orders(%) | Market Orders | Market Orders(%) |
|--|----------------------------|-------------------------------|----------------------|-------------------------|
|--|----------------------------|-------------------------------|----------------------|-------------------------|

| | | | | |
|--|----|-------|----|-------|
| Citadel Securities LLC(CDRG) | 27 | 52.94 | 26 | 52.00 |
| VIRTU Americas LLC(NITE) | 19 | 37.25 | 19 | 38.00 |
| G1 Execution Services, LLC(ETMM) | 3 | 5.88 | 3 | 6.00 |
| JANE STREET CAPITAL, LLC(JNST) | 1 | 1.96 | 1 | 2.00 |
| Two Sigma Securities, LLC(SOHO) | 1 | 1.96 | 1 | 2.00 |

September 2020

**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 |
|--------------------------------------|---|----------------------------|--|--|
| 174 | 100.00 | 82 | 47.13 | 29 |

Venues

| Venue - Non- directed Order Flow | Non-Directed Orders | Non-Directed Orders(%) | Market Orders | Market Orders(%) |
|---|----------------------------|-----------------------------------|----------------------|-------------------------|
| Citadel Securities LLC(CDRG) | 78 | 45.88 | 48 | 63.16 |
| VIRTU Americas LLC(NITE) | 51 | 30.00 | 22 | 28.95 |
| New York Stock Exchange(NYSE) | 13 | 7.65 | 0 | 0.00 |
| Cboe EDGX US Equities Exchange(EDGX) | 10 | 5.88 | 0 | 0.00 |
| UBS Securities, LLC(UBSS) | 6 | 3.53 | 0 | 0.00 |
| G1 Execution Services, LLC(ETMM) | 4 | 2.35 | 4 | 5.26 |

| | | | | |
|---|---|------|---|------|
| JANE STREET CAPITAL, LLC(JNST) | 3 | 1.76 | 2 | 2.63 |
| NASDAQ Execution Services, LLC(NSDQ) | 3 | 1.76 | 0 | 0.00 |
| Instinet BlockCross(BLKX) | 2 | 1.18 | 0 | 0.00 |

September 2020

**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 |
|--------------------------------------|---|----------------------------|--|--|
| 0 | 0.00 | 0 | 0.00 | 0 |

Venues

| Venue - Non- directed Order Flow | Non-Directed Orders | Non-Directed Orders(%) | Market Orders | Market Orders(%) |
|---|----------------------------|-----------------------------------|----------------------|-------------------------|
|---|----------------------------|-----------------------------------|----------------------|-------------------------|

**HIGHTOWER SECURITIES, LLC - Held NMS
 Stocks and Options Order Routing Public
 Report
 Generated on Tue Oct 13 2020 10:58:10 GMT-4
 EDT**

3rd Quarter, 2020

| Marketable Limit Orders as % of Non- Directed Orders | Total Non-Marketable Limit Orders | Non-Marketable Limit Orders as % of Non-Directed Orders |
|---|--|--|
| 0.00 | | 6 8.00 |

| Marketable Limit Orders | Marketable Limit Orders(%) | Non-Marketable Limit Orders |
|------------------------------------|-----------------------------------|--|
| 0 | | 0.00 0 |
| 0 | | 0.00 0 |
| 0 | | 0.00 9 |
| 0 | | 0.00 7 |
| 0 | | 0.00 0 |
| 0 | | 0.00 0 |
| 0 | | 0.00 0 |
| 0 | | 0.00 0 |

| | | |
|--|--|--|
| Marketable Limit Orders as % of Non-Directed Orders | Total Non-Marketable Limit Orders | Non-Marketable Limit Orders as % of Non-Directed Orders |
| 6.64 | 15 | 7.11 |

| Marketable Limit Orders | Marketable Limit Orders(%) | Non-Marketable Limit Orders | |
|--------------------------------|-----------------------------------|------------------------------------|----|
| 5 | | 35.71 | 2 |
| 8 | | 57.14 | 0 |
| 0 | | 0.00 | 0 |
| 0 | | 0.00 | 10 |
| 0 | | 0.00 | 8 |
| 1 | | 7.14 | 0 |
| 0 | | 0.00 | 0 |
| 0 | | 0.00 | 0 |
| 0 | | 0.00 | 4 |
| 0 | | 0.00 | 2 |

| | | |
|---|--|--|
| Marketable Limit Orders as % of Non- Directed Orders | Total Non-Marketable Limit Orders | Non-Marketable Limit Orders as % of Non-Directed Orders |
| 0.00 | | 0 0.00 |

| | | |
|------------------------------------|-----------------------------------|--|
| Marketable Limit Orders | Marketable Limit Orders(%) | Non-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 |
| 0.00 | | 2 1.96 |

| | | |
|------------------------------------|-----------------------------------|--|
| Marketable Limit Orders | Marketable Limit Orders(%) | Non-Marketable Limit Orders |
| 0 | | 0.00 1 |
| 0 | | 0.00 0 |
| 0 | | 0.00 0 |
| 0 | | 0.00 0 |
| 0 | | 0.00 3 |

| | | |
|---|------|---|
| 0 | 0.00 | 0 |
|---|------|---|

| | | |
|---|------|---|
| 0 | 0.00 | 1 |
|---|------|---|

| | |
|---|--|
| Marketable Limit Orders as % of Non- Directed Orders | Total Non-Marketable Limit Orders |
| 13.92 | |

| |
|--|
| Non-Marketable Limit Orders as % of Non-Directed Orders |
| 21 10.82 |

| | |
|------------------------------------|-----------------------------------|
| Marketable Limit Orders | Marketable Limit Orders(%) |
|------------------------------------|-----------------------------------|

| |
|--|
| Non-Marketable Limit Orders |
|--|

| | | |
|----|-------|---|
| 12 | 44.44 | 1 |
|----|-------|---|

| | | |
|---|-------|---|
| 9 | 33.33 | 1 |
|---|-------|---|

| | | |
|---|------|----|
| 0 | 0.00 | 21 |
|---|------|----|

| | | |
|---|------|----|
| 0 | 0.00 | 12 |
|---|------|----|

| | | |
|---|------|---|
| 0 | 0.00 | 0 |
|---|------|---|

| | | |
|---|------|---|
| 2 | 7.41 | 0 |
|---|------|---|

| | | |
|---|------|---|
| 0 | 0.00 | 7 |
|---|------|---|

| | | |
|---|------|---|
| 2 | 7.41 | 0 |
| 2 | 7.41 | 0 |
| 0 | 0.00 | 1 |

Marketable Limit Orders as % of Non-Directed Orders
 0.00
Total Non-Marketable Limit Orders

Non-Marketable Limit Orders as % of Non-Directed Orders
 0 0.00

Marketable Limit Orders
Marketable Limit Orders(%)

Non-Marketable Limit Orders

Marketable Limit Orders as % of Non-Directed Orders
 1.92
Total Non-Marketable Limit Orders

Non-Marketable Limit Orders as % of Non-Directed Orders
 0 0.00

Marketable Limit Orders
Marketable Limit Orders(%)

Non-Marketable Limit Orders

| | | |
|---|--------|---|
| 1 | 100.00 | 0 |
| 0 | 0.00 | 0 |
| 0 | 0.00 | 0 |
| 0 | 0.00 | 0 |
| 0 | 0.00 | 0 |

**Marketable Limit
Orders as % of Non-
Directed Orders**

16.67

Total Non-Marketable Limit Orders

**Non-Marketable
Limit Orders as % of
Non-Directed Orders**

15

8.62

**Marketable Limit
Orders**

Marketable Limit Orders(%)

**Non-Marketable
Limit Orders**

| | | |
|----|-------|----|
| 8 | 27.59 | 0 |
| 8 | 27.59 | 1 |
| 12 | 41.38 | 1 |
| 0 | 0.00 | 10 |
| 0 | 0.00 | 0 |
| 0 | 0.00 | 0 |

| | | |
|---|------|---|
| 1 | 3.45 | 0 |
| 0 | 0.00 | 3 |
| 0 | 0.00 | 0 |

Marketable Limit Orders as % of Non-Directed Orders
 0.00
Total Non-Marketable Limit Orders

Non-Marketable Limit Orders as % of Non-Directed Orders
 0
 0.00

Marketable Limit Orders
Marketable Limit Orders(%)

Non-Marketable Limit Orders

| | |
|---------------------------|-----------------------------|
| | Other Orders as % of |
| Total Other Orders | Non-Directed Orders |
| 0 | 0.00 |

| 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) |
|---|---------------------|------------------------|---|--|
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 56.25 | 0 | 0.00 | 0 | 0 |
| 43.75 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |

| | | |
|---------------------------|-----------------------------|-------|
| | Other Orders as % of | |
| Total Other Orders | Non-Directed Orders | |
| | 66 | 31.28 |

| 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) |
|---|---------------------|------------------------|---|--|
| 7.41 | 37 | 52.11 | 0 | 0 |
| 0.00 | 26 | 36.62 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 37.04 | 0 | 0.00 | 0 | 0 |
| 29.63 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 5 | 7.04 | 0 | 0 |
| 0.00 | 2 | 2.82 | 0 | 0 |
| 14.81 | 0 | 0.00 | 0 | 0 |
| 7.41 | 0 | 0.00 | 0 | 0 |

| | | |
|---------------------------|-----------------------------|--|
| | Other Orders as % of | |
| Total Other Orders | Non-Directed Orders | |
| 0 | 0.00 | |

| | | | | |
|---|---------------------|------------------------|---|--|
| 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) |
|---|---------------------|------------------------|---|--|

| | | |
|---------------------------|-----------------------------|--|
| | Other Orders as % of | |
| Total Other Orders | Non-Directed Orders | |
| 0 | 0.00 | |

| | | | | |
|---|---------------------|------------------------|---|--|
| 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) |
|---|---------------------|------------------------|---|--|

| | | | | |
|-------|---|------|---|---|
| 20.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 60.00 | 0 | 0.00 | 0 | 0 |

| | | | | |
|------|---|------|---|---|
| 0.00 | 0 | 0.00 | 0 | 0 |
|------|---|------|---|---|

| | | | | |
|-------|---|------|---|---|
| 20.00 | 0 | 0.00 | 0 | 0 |
|-------|---|------|---|---|

| | |
|---------------------------|-----------------------------|
| | Other Orders as % of |
| Total Other Orders | Non-Directed Orders |
| 57 | 29.38 |

| 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) |
|---|---------------------|------------------------|---|--|
| 2.33 | 38 | 58.46 | 0 | 0 |
| 2.33 | 17 | 26.15 | 0 | 0 |
| 48.84 | 0 | 0.00 | 0 | 0 |
| 27.91 | 0 | 0.00 | 0 | 0 |
| 0.00 | 8 | 12.31 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 16.28 | 0 | 0.00 | 0 | 0 |

| | | | | |
|------|---|------|---|---|
| 0.00 | 2 | 3.08 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 2.33 | 0 | 0.00 | 0 | 0 |

| | | |
|---------------------------|-----------------------------|--|
| | Other Orders as % of | |
| Total Other Orders | Non-Directed Orders | |
| 0 | 0.00 | |

| | | | | |
|------------------------|---------------------|------------------------|---------------------------|----------------------------|
| | | | Net Payment | Net Payment |
| Non-Marketable | | | Paid/Received for | Paid/Received for |
| Limit Orders(%) | Other Orders | Other Orders(%) | Market Orders(USD) | Market Orders(cents |
| | | | | per hundred shares) |

| | | |
|---------------------------|-----------------------------|--|
| | Other Orders as % of | |
| Total Other Orders | Non-Directed Orders | |
| 0 | 0.00 | |

| | | | | |
|------------------------|---------------------|------------------------|---------------------------|----------------------------|
| | | | Net Payment | Net Payment |
| Non-Marketable | | | Paid/Received for | Paid/Received for |
| Limit Orders(%) | Other Orders | Other Orders(%) | Market Orders(USD) | Market Orders(cents |
| | | | | per hundred shares) |

| | | | | |
|------|---|------|---|---|
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |

| | | |
|---------------------------|-----------------------------|--|
| | Other Orders as % of | |
| Total Other Orders | Non-Directed Orders | |
| 48 | 27.59 | |

| 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) |
|---|---------------------|------------------------|---|--|
| 0.00 | 22 | 44.00 | 0 | 0 |
| 6.67 | 20 | 40.00 | 0 | 0 |
| 6.67 | 0 | 0.00 | 0 | 0 |
| 66.67 | 0 | 0.00 | 0 | 0 |
| 0.00 | 6 | 12.00 | 0 | 0 |
| 0.00 | 0 | 0.00 | 0 | 0 |

| | | | | |
|-------|---|------|---|---|
| 0.00 | 0 | 0.00 | 0 | 0 |
| 20.00 | 0 | 0.00 | 0 | 0 |
| 0.00 | 2 | 4.00 | 0 | 0 |

| | | |
|---------------------------|-----------------------------|--|
| | Other Orders as % of | |
| Total Other Orders | Non-Directed Orders | |
| 0 | 0.00 | |

| | | | | |
|------------------------|---------------------|------------------------|----------------------------|----------------------------|
| | | | Net Payment | Net Payment |
| Non-Marketable | | | Paid/Received for | Paid/Received for |
| Limit Orders(%) | Other Orders | Other Orders(%) | Market Orders(USD) | 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 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) |
|---|--|---|--|--|
|---|--|---|--|--|

| | | | | |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|

0 0 0 0 0

0 0 0 0 0

| 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) |
|---|--|---|--|--|
|---|--|---|--|--|

0 0 0 0 0

0 0 0 0 0

0 0 0 0 0

0 0 0 0 0

0 0 0 0 0

0 0 0 0 0

0 0 0 0 0

| | | | | |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

| | | | | |
|---|--|---|--|--|
| 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 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) |
|---|--|---|--|--|

| | | | | |
|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |

| 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)**

0

0

0

0

0

0

0

0

**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

0

0

0

0

0

0

0

0

0

0

**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

0

0

0

0

0

0

0

**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

0

0

0

0

0

0

0

0

0

0

**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

0

0

0

0

0

**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**

0

0

0

0

0

0

0

0

0

**Net Payment
Paid/Received for
Other Orders(cents
per hundred shares)**