Charles Schwab - Held NMS Stocks and Options Order Routing Public Report
Generated on Fri Jul 21 2023 10:22:07 GMT-0400 (Eastern Daylight Time)

2nd Quarter, 2023

April 2023

S&P 500 Stocks

Summary

<table>
<thead>
<tr>
<th></th>
<th>Non-Directed Orders as % of All Orders</th>
<th>Market Orders as % of Non-Directed Orders</th>
<th>Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Non-Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Other Orders as % of Non-Directed Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>99.62</td>
<td>57.95</td>
<td>5.05</td>
<td>26.58</td>
<td>10.41</td>
</tr>
</tbody>
</table>

Venues

<table>
<thead>
<tr>
<th>Venue - Non-Directed Order Flow</th>
<th>Non-Directed Orders (%)</th>
<th>Market Orders (%)</th>
<th>Marketable Limit Orders (%)</th>
<th>Non-Marketable Limit Orders (%)</th>
<th>Other Orders (%)</th>
<th>Net Payment Paid/Received for Market Orders(USD)</th>
<th>Net Payment Paid/Received for Market Orders(cents per hundred shares)</th>
<th>Net Payment Paid/Received for Marketable Limit Orders(USD)</th>
<th>Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)</th>
<th>Net Payment Paid/Received for Non-Marketable Limit Orders(USD)</th>
<th>Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITADEL SECURITIES LLC</td>
<td>29.35</td>
<td>27.70</td>
<td>27.58</td>
<td>28.69</td>
<td>41.06</td>
<td>225,750.92</td>
<td>10.0008</td>
<td>36,698.40</td>
<td>10.0028</td>
<td>190,388.60</td>
<td>32.4681</td>
</tr>
<tr>
<td>Virtu Americas, LLC</td>
<td>22.22</td>
<td>22.18</td>
<td>22.49</td>
<td>17.70</td>
<td>33.87</td>
<td>190,032.32</td>
<td>9.9893</td>
<td>25,825.84</td>
<td>10.0000</td>
<td>83,677.35</td>
<td>32.8784</td>
</tr>
<tr>
<td>JANEST</td>
<td>15.32</td>
<td>21.56</td>
<td>20.78</td>
<td>4.85</td>
<td>4.73</td>
<td>189,569.20</td>
<td>9.9691</td>
<td>33,251.10</td>
<td>9.9315</td>
<td>49,426.81</td>
<td>31.7188</td>
</tr>
<tr>
<td>UBS Securities, LLC</td>
<td>6.78</td>
<td>4.25</td>
<td>4.80</td>
<td>13.03</td>
<td>5.90</td>
<td>36,327.21</td>
<td>9.9997</td>
<td>10,597.48</td>
<td>10.1159</td>
<td>84,094.22</td>
<td>31.5611</td>
</tr>
</tbody>
</table>

Material Aspects:

CITADEL SECURITIES LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

Virtu Americas, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

G1 Execution Services, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

JANEST:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.
UBS Securities, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

April 2023

Non-S&P 500 Stocks

Summary

<table>
<thead>
<tr>
<th>Non-Directed Orders as % of All Orders</th>
<th>Market Orders as % of Non-Directed Orders</th>
<th>Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Other Orders as % of Non-Directed Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.40</td>
<td>56.38</td>
<td>7.73</td>
<td>26.15</td>
</tr>
<tr>
<td>9.74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Venues

<table>
<thead>
<tr>
<th>Venue - Non-directed Order Flow</th>
<th>Non-Directed Orders (%)</th>
<th>Market Orders (%)</th>
<th>Marketable Limit Orders (%)</th>
<th>Other Orders (%)</th>
<th>Net Payment Paid/Received for Market Orders(USD)</th>
<th>Net Payment Paid/Received for Marketable Limit Orders(USD)</th>
<th>Net Payment Paid/Received for Non-Marketable Limit Orders(USD)</th>
<th>Net Payment Paid/Received for Other Orders(USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITADEL SEcurities LLC</td>
<td>29.41</td>
<td>27.49</td>
<td>27.21</td>
<td>28.89</td>
<td>94.00</td>
<td>706,173.96</td>
<td>209,958.60</td>
<td>519,326.39</td>
</tr>
<tr>
<td>Virtu Americas, LLC</td>
<td>22.35</td>
<td>22.02</td>
<td>22.30</td>
<td>17.96</td>
<td>36.09</td>
<td>582,963.12</td>
<td>164,176.60</td>
<td>264,890.34</td>
</tr>
<tr>
<td>JANEST</td>
<td>15.34</td>
<td>21.69</td>
<td>21.03</td>
<td>4.24</td>
<td>2.62</td>
<td>642,888.64</td>
<td>172,912.93</td>
<td>120,646.52</td>
</tr>
<tr>
<td>UBS Securities, LLC</td>
<td>6.75</td>
<td>4.36</td>
<td>4.60</td>
<td>12.94</td>
<td>5.72</td>
<td>131,614.80</td>
<td>62,256.03</td>
<td>238,766.98</td>
</tr>
</tbody>
</table>

Material Aspects:

CITADEL SEcurities LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

Virtu Americas, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

G1 Execution Services, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

JANEST:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

UBS Securities, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.
April 2023

Options

Summary

<table>
<thead>
<tr>
<th></th>
<th>Non-Directed Orders as % of All Orders</th>
<th>Market Orders as % of Non-Directed Orders</th>
<th>Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Non-Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Other Orders as % of Non-Directed Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.00</td>
<td>11.34</td>
<td>6.17</td>
<td>42.49</td>
<td>40.00</td>
</tr>
</tbody>
</table>

Venues

<table>
<thead>
<tr>
<th>Venue - Non-directed Order Flow</th>
<th>Non-Directed Orders (%)</th>
<th>Market Orders (%)</th>
<th>Marketable Limit Orders (%)</th>
<th>Non-Marketable Limit Orders (%)</th>
<th>Other Orders (%)</th>
<th>Net Payment Paid/Received for Market Orders(USD)</th>
<th>Net Payment Paid/Received for Market Orders(cents per hundred shares)</th>
<th>Net Payment Paid/Received for Non-Marketable Limit Orders(USD)</th>
<th>Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)</th>
<th>Net Payment Paid/Received for Other Orders(USD)</th>
<th>Net Payment Paid/Received for Other Orders(cents per hundred shares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITADEL SECURITIES LLC</td>
<td>34.41</td>
<td>35.43</td>
<td>35.76</td>
<td>34.57</td>
<td>33.74</td>
<td>1,216,725.68</td>
<td>49.1619</td>
<td>1,316,073.20</td>
<td>52.5070</td>
<td>1,083,449.65</td>
<td>46.5204</td>
</tr>
<tr>
<td>Wolverine Execution Services, LLC</td>
<td>25.89</td>
<td>25.13</td>
<td>24.92</td>
<td>24.77</td>
<td>24.20</td>
<td>982,123.32</td>
<td>53.0354</td>
<td>917,287.21</td>
<td>57.0092</td>
<td>1,216,761.86</td>
<td>985,891.09</td>
</tr>
<tr>
<td>Global Execution LP</td>
<td>25.22</td>
<td>32.68</td>
<td>32.50</td>
<td>28.06</td>
<td>20.95</td>
<td>1,306,382.90</td>
<td>52.2639</td>
<td>1,065,948.10</td>
<td>54.7370</td>
<td>1,595,813.44</td>
<td>542,192.17</td>
</tr>
<tr>
<td>Dash/IMC Financial Markets</td>
<td>12.49</td>
<td>2.19</td>
<td>2.02</td>
<td>9.82</td>
<td>19.86</td>
<td>83,311.84</td>
<td>50.6578</td>
<td>58,668.34</td>
<td>50.1555</td>
<td>427,962.69</td>
<td>753,040.94</td>
</tr>
</tbody>
</table>

Material Aspects:

CITADEL SECURITIES LLC:
Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

Wolverine Execution Services, LLC:
Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

Global Execution LP:
Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

Dash/IMC Financial Markets:
Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality. In connection with Dash's handling of Charles Schwab's retail equity option orders, Dash has arrangements with multiple unaffiliated liquidity providers, including IMC, designed to facilitate liquidity provision and price improvement opportunities. Pursuant to these arrangements, Dash routes Charles Schwab's retail equity option orders to exchanges and preferences the liquidity providers consistent with exchange sponsored programs which are described in the fee schedules of the options exchanges. It is noted that these liquidity providers provide Dash with remuneration in connection with Schwab's retail equity options orders, including reciprocal order flow consideration or payment per contract in return for Schwab retail equity options orders that Dash routes or directs.
May 2023

S&P 500 Stocks

Summary

<table>
<thead>
<tr>
<th>Non-Directed Orders as % of All Orders</th>
<th>Market Orders as % of Non-Directed Orders</th>
<th>Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Non-Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Other Orders as % of Non-Directed Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.65</td>
<td>57.77</td>
<td>5.44</td>
<td>27.10</td>
<td>9.69</td>
</tr>
</tbody>
</table>

Venues

<table>
<thead>
<tr>
<th>Venue - Non-directed Order Flow</th>
<th>Non-Directed Orders (%)</th>
<th>Market Orders (%)</th>
<th>Marketable Limit Orders (%)</th>
<th>Non-Marketable Limit Orders (%)</th>
<th>Other Orders (%)</th>
<th>Net Payment Paid/Received for Market Orders(USD)</th>
<th>Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares)</th>
<th>Net Payment Paid/Received for Non-Marketable Limit Orders(USD)</th>
<th>Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares)</th>
<th>Net Payment Paid/Received for Other Orders(USD)</th>
<th>Net Payment Paid/Received for Other Orders(cents per hundred shares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITADEL SECURITIES LLC</td>
<td>29.17</td>
<td>27.57</td>
<td>27.71</td>
<td>28.93</td>
<td>40.18</td>
<td>10.0000</td>
<td>47.4436</td>
<td>10.0006</td>
<td>238.133.51</td>
<td>32.5095</td>
<td>49.249.29</td>
</tr>
<tr>
<td>Virtu Americas, LLC</td>
<td>21.90</td>
<td>22.02</td>
<td>22.39</td>
<td>17.87</td>
<td>32.15</td>
<td>9.9907</td>
<td>36.553.80</td>
<td>10.0000</td>
<td>120.515.73</td>
<td>32.8378</td>
<td>33.523.77</td>
</tr>
</tbody>
</table>

Material Aspects:

CITADEL SECURITIES LLC: Schwab provides payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

G1 Execution Services, LLC: Schwab provides payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

Virtu Americas, LLC: Schwab provides payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

JANEST: Schwab provides payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

UBS Securities, LLC: Schwab provides payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

---

May 2023
### Non-S&P 500 Stocks

#### Summary

<table>
<thead>
<tr>
<th>Non-Directed Orders as % of All Orders</th>
<th>Market Orders as % of Non-Directed Orders</th>
<th>Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Non-Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Other Orders as % of Non-Directed Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.38</td>
<td>54.73</td>
<td>8.25</td>
<td>27.09</td>
<td>9.94</td>
</tr>
</tbody>
</table>

#### Venues

<table>
<thead>
<tr>
<th>Venue - Non-directed Order Flow</th>
<th>Non-Directed Orders (%)</th>
<th>Market Orders (%)</th>
<th>Marketable Limit Orders (%)</th>
<th>Other Orders (%)</th>
<th>Net Payment Paid/Received for Market Orders(USD)</th>
<th>Net Payment Paid/Received for Marketable Limit Orders(USD)</th>
<th>Net Payment Paid/Received for Non-Marketable Limit Orders(USD)</th>
<th>Net Payment Paid/Received for Other Orders(USD)</th>
<th>Net Payment Paid/Received for Other Orders(USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITADEL SECURITIES LLC</td>
<td>29.69</td>
<td>27.66</td>
<td>27.42</td>
<td>29.22</td>
<td>44.09</td>
<td>887,238.62</td>
<td>10,0000</td>
<td>262,200.56</td>
<td>714,326.68</td>
</tr>
</tbody>
</table>

#### Material Aspects:

**CITADEL SECURITIES LLC**

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

**Virtu Americas, LLC:**

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

**G1 Execution Services, LLC:**

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

**JANEST:**

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

**UBS Securities, LLC:**

Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

---

### May 2023

---

### Options
### Summary

<table>
<thead>
<tr>
<th>Non-Directed Orders as % of All Orders</th>
<th>Market Orders as % of Non-Directed Orders</th>
<th>Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Non-Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Other Orders as % of Non-Directed Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.00</td>
<td>11.20</td>
<td>6.11</td>
<td>42.16</td>
<td>40.52</td>
</tr>
</tbody>
</table>

### Venues

**CITADEL SECURITIES LLC**
- Non-Directed Orders (%): 34.57
- Market Orders (%): 35.34
- Marketable Limit Orders (%): 35.94
- Non-Marketable Limit Orders (%): 34.88
- Other Orders (%): 33.84
- Net Payment Paid/Received for Market Orders(USD): 1,449,502.00
- Net Payment Paid/Received for Market Orders(cents per hundred shares): 47.7221
- Net Payment Paid/Received for Marketable Limit Orders(USD): 1,648,076.63
- Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares): 52.4550
- Net Payment Paid/Received for Non-Marketable Limit Orders(USD): 1,394,909.96
- Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares): 48.6983
- Net Payment Paid/Received for Other Orders(USD): 278,212.25
- Net Payment Paid/Received for Other Orders(cents per hundred shares): 9.8949

**Wolverine Execution Services, LLC**
- Non-Directed Orders (%): 25.92
- Market Orders (%): 24.98
- Marketable Limit Orders (%): 24.42
- Non-Marketable Limit Orders (%): 24.35
- Other Orders (%): 28.05
- Net Payment Paid/Received for Market Orders(USD): 1,187,939.96
- Net Payment Paid/Received for Market Orders(cents per hundred shares): 51.1856
- Net Payment Paid/Received for Marketable Limit Orders(USD): 1,053,249.22
- Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares): 56.5489
- Net Payment Paid/Received for Non-Marketable Limit Orders(USD): 1,511,021.00
- Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares): 60.3158
- Net Payment Paid/Received for Other Orders(USD): 1,120,590.20
- Net Payment Paid/Received for Other Orders(cents per hundred shares): 48.6487

**Global Execution Brokers LP**
- Non-Directed Orders (%): 25.64
- Market Orders (%): 33.65
- Marketable Limit Orders (%): 33.41
- Non-Marketable Limit Orders (%): 28.90
- Other Orders (%): 18.85
- Net Payment Paid/Received for Market Orders(USD): 1,287,741.58
- Net Payment Paid/Received for Market Orders(cents per hundred shares): 51.8519
- Net Payment Paid/Received for Marketable Limit Orders(USD): 1,005,717.42
- Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares): 56.0022
- Net Payment Paid/Received for Non-Marketable Limit Orders(USD): 1,834,552.75
- Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares): 60.6113
- Net Payment Paid/Received for Other Orders(USD): 623,359.25
- Net Payment Paid/Received for Other Orders(cents per hundred shares): 47.6316

**Dash/IMC Financial Markets**
- Non-Directed Orders (%): 11.82
- Market Orders (%): 3.89
- Marketable Limit Orders (%): 1.44
- Non-Marketable Limit Orders (%): 8.99
- Other Orders (%): 19.21
- Net Payment Paid/Received for Market Orders(USD): 68,312.40
- Net Payment Paid/Received for Market Orders(cents per hundred shares): 51.3724
- Net Payment Paid/Received for Marketable Limit Orders(USD): 57,516.00
- Net Payment Paid/Received for Marketable Limit Orders(cents per hundred shares): 55.5463
- Net Payment Paid/Received for Non-Marketable Limit Orders(USD): 509,299.94
- Net Payment Paid/Received for Non-Marketable Limit Orders(cents per hundred shares): 53.5267
- Net Payment Paid/Received for Other Orders(USD): 858,611.74
- Net Payment Paid/Received for Other Orders(cents per hundred shares): 46.8036

### Material Aspects:

**CITADEL SECURITIES LLC**
- Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

**Wolverine Execution Services, LLC:**
- Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

**Global Execution Brokers LP:**
- Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

**Dash/IMC Financial Markets:**
- Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality. In connection with Dash's handling of Charles Schwab's retail equity option orders, Dash has arrangements with multiple unaffiliated liquidity providers, including IMC, designed to facilitate liquidity provision and price improvement opportunities. Pursuant to these arrangements, Dash routes Charles Schwab's retail equity option orders to exchanges and preferences the liquidity providers consistent with exchange sponsored programs which are described in the fee schedules of the options exchanges. It is noted that these liquidity providers provide Dash with remuneration in connection with Schwab's retail equity options orders, including reciprocal order flow consideration or payment per contract in return for Schwab retail equity options orders that Dash routes or directs.

### June 2023

**S&P 500 Stocks**
Summary

<table>
<thead>
<tr>
<th>Non-Directed Orders as % of All Orders</th>
<th>Market Orders as % of Non-Directed Orders</th>
<th>Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Non-Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Other Orders as % of Non-Directed Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.71</td>
<td>55.36</td>
<td>5.83</td>
<td>28.96</td>
<td>9.85</td>
</tr>
</tbody>
</table>

Venues

<table>
<thead>
<tr>
<th>Venue - Non-directed Order Flow</th>
<th>Non-Directed Orders (%)</th>
<th>Market Orders (%)</th>
<th>Marketable Limit Orders (%)</th>
<th>Non-Marketable Limit Orders (%)</th>
<th>Other Orders (%)</th>
<th>Net Payment Paid/Received for Marketable Limit Orders(USD)</th>
<th>Net Payment Paid/Received for Market Orders(USD)</th>
<th>Net Payment Paid/Received for Non-Marketable Limit Orders(USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITADEL SEcurities LLC</td>
<td>29.66</td>
<td>27.63</td>
<td>28.05</td>
<td>29.73</td>
<td>41.82</td>
<td>288,652.18</td>
<td>10.0000</td>
<td>44,263.99</td>
</tr>
<tr>
<td>Virtu Americas, LLC</td>
<td>22.20</td>
<td>22.14</td>
<td>22.73</td>
<td>18.49</td>
<td>33.12</td>
<td>249,581.54</td>
<td>9.9891</td>
<td>39,889.11</td>
</tr>
<tr>
<td>JANEST</td>
<td>14.52</td>
<td>20.84</td>
<td>19.66</td>
<td>4.82</td>
<td>4.51</td>
<td>232,103.39</td>
<td>9.9704</td>
<td>36,168.90</td>
</tr>
<tr>
<td>UBS Securities, LLC</td>
<td>7.02</td>
<td>4.52</td>
<td>4.95</td>
<td>12.52</td>
<td>6.10</td>
<td>48,878.35</td>
<td>10.0000</td>
<td>18,537.58</td>
</tr>
</tbody>
</table>

Material Aspects:

CITADEL SECURITIES LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

Virtu Americas, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

G1 Execution Services, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

JANEST:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

UBS Securities, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

June 2023

Non-S&P 500 Stocks

Summary
Material Aspects:

CITADEL SECURITIES LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

Virtu Americas, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

G1 Execution Services, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

JANEST:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

UBS Securities, LLC:
Schwab receives payment for listed equity order flow routed to market makers. For marketable orders the payment rate is $0.001 per share or less, for non-marketable orders the rate is $0.0033 per share or less, and for extended hours orders the rate is $0.0006 per share or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

---

June 2023

Options

Summary

<table>
<thead>
<tr>
<th>Non-Directed Orders as % of All Orders</th>
<th>Market Orders as % of Non-Directed Orders</th>
<th>Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Non-Marketable Limit Orders as % of Non-Directed Orders</th>
<th>Other Orders as % of Non-Directed Orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>99.37</td>
<td>51.84</td>
<td>9.11</td>
<td>29.18</td>
<td>9.87</td>
</tr>
</tbody>
</table>

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 Marketable Limit Orders(USD) | Net Payment Paid/Received for Non-Marketable Limit Orders(USD) | Net Payment Paid/Received for Other Orders(USD) | Net Payment Paid/Received for Other Orders(cents per hundred shares) |
|---------------------------------|-------------------------|------------------|----------------------------|------------------|-----------------|-----------------------------------------------|------------------------------------------------|------------------------------------------------|-------------------------------|------------------------------------------------|---------------|
| CITADEL SECURITIES LLC          | 30.01                   | 27.54            | 27.79                      | 30.08            | 44.78           | 886,188.91                                   | 10.0000                                      | 311,558.09                                      | 10.0284                       | 871,886.65                                  | 25.6366                                 | 157,366.49               | 7.3548                         |
| Virtu Americas, LLC             | 22.69                   | 22.32            | 22.61                      | 18.86            | 36.03           | 733,027.76                                   | 9.9978                                       | 232,102.77                                      | 9.9997                        | 432,205.44                                  | 26.0428                                 | 115,763.81               | 7.2944                         |
### Venues

<table>
<thead>
<tr>
<th>Venue - Non-directed Order Flow</th>
<th>Non-Directed Orders (%)</th>
<th>Market Orders (%)</th>
<th>Marketable Limit Orders (%)</th>
<th>Non-Marketable Limit Orders (%)</th>
<th>Other Orders (%)</th>
<th>Net Payment Paid/Received for Market Orders(USD)</th>
<th>Net Payment Paid/Received for Marketable Limit Orders(USD)</th>
<th>Net Payment Paid/Received for Non-Marketable Limit Orders(USD)(cents per hundred shares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CITADEL SECURITIES LLC</td>
<td>34.38</td>
<td>35.11</td>
<td>35.65</td>
<td>34.30</td>
<td>34.04</td>
<td>1,278,998.06</td>
<td>40.7582</td>
<td>43.6241</td>
</tr>
<tr>
<td>Wolverine Execution Services, LLC</td>
<td>26.16</td>
<td>25.09</td>
<td>24.69</td>
<td>25.12</td>
<td>27.99</td>
<td>1,062,828.68</td>
<td>44.9323</td>
<td>46.7389</td>
</tr>
<tr>
<td>Global Execution Brokers LP</td>
<td>25.46</td>
<td>33.64</td>
<td>33.41</td>
<td>32.80</td>
<td>17.64</td>
<td>1,281,569.82</td>
<td>51.7364</td>
<td>54.3563</td>
</tr>
<tr>
<td>Dash/IMC Financial Markets</td>
<td>11.44</td>
<td>1.50</td>
<td>1.51</td>
<td>9.13</td>
<td>19.05</td>
<td>69,277.59</td>
<td>49.6774</td>
<td>46.5914</td>
</tr>
</tbody>
</table>

### Material Aspects:

**CITADEL SECURITIES LLC:**
Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

**Wolverine Execution Services, LLC:**
Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

**Global Execution Brokers LP:**
Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality.

**Dash/IMC Financial Markets:**
Schwab receives payment for multi-listed option order flow routed to market makers. For non-complex marketable orders the payment rate is $1.49 per contract or less (for classes in the penny interval program the rate is $0.51 per contract or less). For complex orders the payment rate is $0.93 per contract or less (for classes in the penny interval program the rate is $0.43 per contract or less). For non-marketable orders the payment rate is $0.98 per contract or less. All market makers pay the same rate to Schwab for any given order flow type. Schwab does not negotiate payment as a condition for sending more order flow to a market maker nor does Schwab negotiate a tradeoff between payment and price improvement/execution quality. In connection with Dash’s handling of Charles Schwab’s retail equity option orders, Dash has arrangements with multiple unaffiliated liquidity providers, including IMC, designed to facilitate liquidity provision and price improvement opportunities. Pursuant to these arrangements, Dash routes Charles Schwab’s retail equity option orders to exchanges and preferences the liquidity providers consistent with exchange sponsored programs which are described in the fee schedules of the options exchanges. It is noted that these liquidity providers provide Dash with remuneration in connection with Schwab’s retail equity options orders, including reciprocal order flow consideration or payment per contract in return for Schwab retail equity options orders that Dash routes or directs.