

### **Retail Execution Quality Statistics (Q1 2017)**

The FIF Rule 605/606 Working Group has been working on improving access to execution quality statistics for the retail community. As part of a best practices effort, FIF members have agreed to provide statistics on retail execution quality as defined below. While many quantitative and qualitative factors go into determining routing decisions, the following statistics are intended to provide some perspective on the execution quality provided to retail investors.

Please note that when evaluating this data a number of factors such as a firm's client base, order flow mix, and business model should be taken into consideration.\*

#### **S&P 500 Securities**

<b>Order Size Range</b>	<b>Average Order Size</b>	<b>Shares Executed at Current Market Quote or Better</b>	<b>Price Improvement</b>	<b>Average Savings Per Order</b>	<b>Average Execution Speed</b>
<b>Shares</b>	<b>Shares</b>	<b>%</b>	<b>%</b>	<b>\$</b>	<b>Seconds</b>
1 - 99	27	99.7%	95.2%	0.41	0.08
100 - 499	187	99.6%	98.2%	2.64	0.09
500 - 1,999	865	98.9%	96.4%	8.79	0.09
2,000 - 4,999	2,706	96.5%	92.3%	9.89	0.09
5,000 - 9,999	6,124	95.2%	87.7%	11.04	0.09

#### **Non-S&P 500 Securities**

<b>Order Size Range</b>	<b>Average Order Size</b>	<b>Shares Executed at Current Market Quote or Better</b>	<b>Price Improvement</b>	<b>Average Savings Per Order</b>	<b>Average Execution Speed</b>
<b>Shares</b>	<b>Shares</b>	<b>%</b>	<b>%</b>	<b>\$</b>	<b>Seconds</b>
1 - 99	31	99.7%	96.8%	0.49	0.09
100 - 499	206	99.5%	96.7%	3.08	0.10
500 - 1,999	885	98.2%	94.1%	9.36	0.10
2,000 - 4,999	2,709	95.6%	89.0%	9.67	0.16
5,000 - 9,999	6,308	92.8%	83.1%	9.32	0.26

### **Comments**

\* Data is compiled on a uniform basis across participating firms, applying commonly accepted statistical practices, in an effort to accurately represent the retail execution experience.

These statistics are produced on a best efforts basis and provided "as is" without warranty of any type.

Execution quality statistics are provided by RegOne Solutions, a third-party data provider.

## Definitions:

- **Order Size Range (Shares)** – Orders have been grouped into different order size ranges as follows 1 – 99 shares, 100- 499 shares, 500 – 1,999 shares, 2000 – 4,999 shares and 5,000-9,999 shares.
- **Average Order Size (Shares):** Measured as the average order size within each order size range.
- **Shares Executed at Current Market Quote or Better (%):** Measured as the percentage of shares that receive price improvement (an execution priced better than the National Best Bid/Offer at the time of order routing) plus the percentage of shares executed at the National Best Bid/Offer at the time of order routing.
- **Price Improvement (%):** Measured as the percentage of shares that receive price improvement. Price improvement is defined as an execution priced better than the National Best Bid/Offer at the time of order routing.
- **Average Savings per Order (\$):** Measured as the net notional dollar value of price improvement per share multiplied by the number of executed shares given to clients divided by the total number of executed orders: [(Net price improvement per Share \* Executed Shares) / Executed Orders].
- **Average Execution Speed (Seconds):** Measured from the order route time to execution time.<sup>1</sup>

## FAQs

### **1. What orders are covered by these statistics?**

Standard market orders that range in size from 1 – 9,999 shares are included in these statistics.

### **2. The definitions of many of the statistics provided refer to the National Best Bid /Offer (NBBO). What is the National Best Bid/Offer (NBBO)?**

The National Best Bid/Offer (NBBO) represents the best price in the public market for a security at a point in time during a given trading day. The Bid represents the price at which someone can sell a security while the Offer represents the price at which someone can purchase a security. The National Best Bid/Offer fluctuates throughout the day as buyers and sellers move in and out of a given stock.

### **3. Why are there different rows based on order size ranges?**

Different rows based on order size ranges provide the opportunity for a better comparison when analyzing execution quality. The size of your order may impact the execution you receive. For example, a 200-share order may be handled differently than an 8,000-share order when considering the available quantity at the NBBO.

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<sup>1</sup> Note: Order route time is defined based on existing FINRA regulations (See FINRA Rule 7440). Execution time is based on the time executions are recorded by a firm's order management system.

**4. What does average order size tell you?**

Average order size allows you to understand how your order compares to others in that size bucket. Average order size is also an indication of the mix of client order flow seen by a particular firm. Differences in average order size between firms should be taken into account when comparing the execution quality statistics across firms. For example, an average order size in the 2,000-4,999 order size range that is 2,500 shares for one firm versus 4,800 shares for another firm may account for differences in other execution quality statistics.

**5. What does the “Shares Executed at Current Market Quote or Better” column represent?**

This metric is also commonly referred to as “At or Better” and represents the percentage of shares that upon order routing execute at the NBBO or better. It combines the shares that executed at the quote as well as the shares that were price improved and executed within the quote.

**6. What does the “Price Improvement” column tell me?**

Price improvement occurs when you receive an execution at a price lower than the best offer for a buy order and higher than a best bid for a sell order (i.e., better than the NBBO). In the price improvement column, this value is represented as the percentage of shares in market orders executed with price improvement. Receiving price improvement is a positive outcome and occurs for a variety of reasons.

**7. What does the “Average Saving per Order” column tell me?**

Average savings per order quantifies real cost savings passed back to retail clients in the form of price improvement received. When normalized on an order basis, this dollar figure represents the savings received on an average order within the order size range.

**8. In some cases the average saving per order may be negative. Why does this situation occur?**

Average savings per order may be negative as a result of market orders entered in quantities that are larger than the available size at the NBBO at the time of order receipt. Such orders, especially in less active securities, may require executions at multiple price levels to fill the entire order. While the individual trade execution(s) received on these orders may be in line or better than the market at the time of execution, the above statistics compare each execution against the NBBO prior to the order entering the market. In turn, this method of evaluation can result in valid execution prices appearing to have negative savings.

Let us look at an example: A customer places a market order to buy 1,000 shares of XYZ. The best offer price for XYZ is \$21.10 and there are 500 shares available at this price. The customer receives an execution on 500 shares at the best offer price of \$21.10. The new, best offer price for XYZ is now \$21.15 and there are 2,000 shares available at this price. The customer receives an execution on the remaining 500 shares at a price of \$21.14, better than the best offer price. Since each execution is compared to the NBBO prior to the order route time regardless of the size available, the 500 shares that were executed at a price of \$21.14 is compared against \$21.10 instead of the next NBBO price of \$21.15. The result is an average saving per order of -\$20.00 per order (i.e., 1,000 shares were executed with an average price of \$21.12, two cents worse than the NBBO price prior to order entry of \$21.10).

**9. Why does the average execution speed matter? How do I interpret that number?**

Average execution speed measures a firm's ability to receive a quick and efficient execution. This statistic represents the difference between the order route time and the time of order execution.

**10. Where can I go for information about order routing destinations for my trades?**

Rule 606 Order Routing disclosures serve to identify the venues to which a broker sends its client order flow for execution. Rule 606 disclosures provide a quarterly recap of the routing for the majority of orders received by a broker. These disclosures include descriptions of any material relationships that a broker may have with a particular venue to which it sends client order flow. These disclosures allow for retail investors to better understand where their orders go for execution.