

Liquidity Analytics for Treasury Futures Products

www.cmegroup.com/liquidity

Expanding the Liquidity Analytics from CME Group Research – a set of interactive online tools designed to provide quantitative, timely, and useful data for improving order execution strategies and capitalizing on the full benefits of our markets.

These tools can be helpful for assessing market impact costs of order execution strategies. Easily compare and contrast how different order quantity sizes or placement times can affect outcomes. Views are built from historical market data from the preceding several weeks, for 2-Year, 5-Year, 10-Year, Bond, and Ultra Bond futures. *Hover your cursor over a chart for further explanation.*

With the **Liquidity Analytics tools**, you can:

- **Customize data views** by order size, time of day (market open, midday, and market close), and product
- **Compare** to the displayed order book with market width and depth charts
- **Check out** average execution speed of various order sizes
- **View** slippage rates versus top of book and midpoint of prevailing bid/ask spreads
- **See** the distribution of order fill percentages



Do You Have the Right Order Placement Strategy?

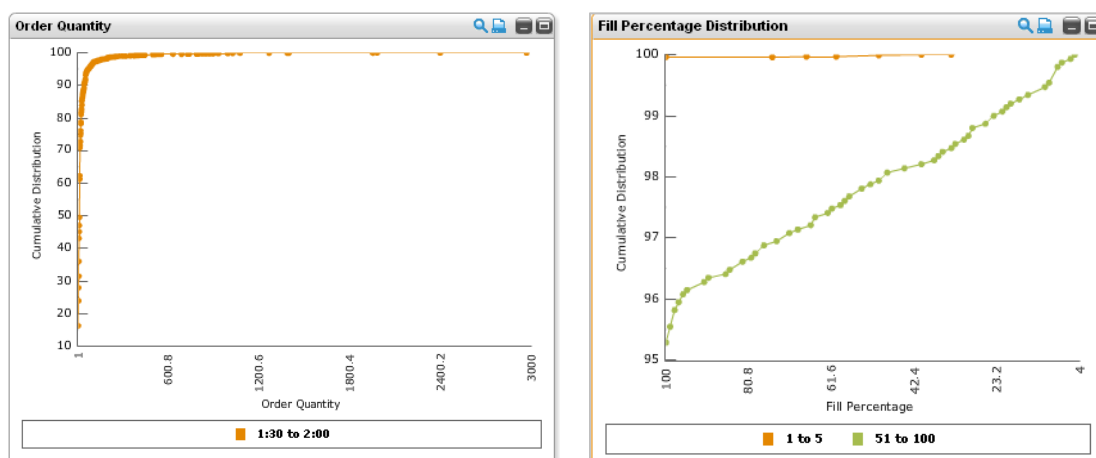
These resources provide information you may find useful in evaluating and adjusting your order placement strategies.

Order Quantity and Fill Percentage Distribution charts

Is it better to enter 1,000 1-lot orders or 100 10-lot orders? These two charts may be helpful in determining which order quantity size to use to increase the likelihood of order fills.

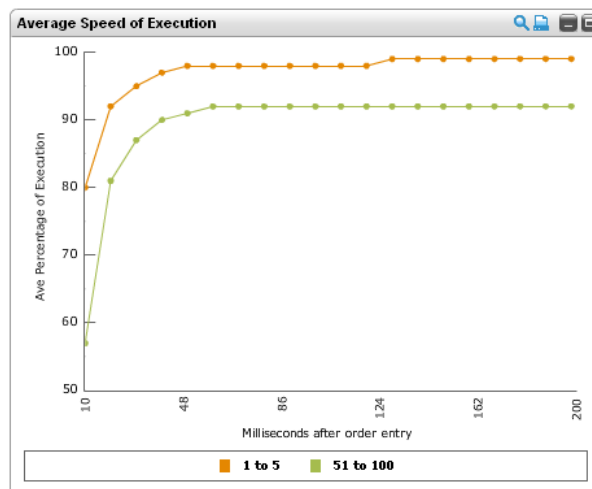
The **Order Quantity Distribution chart** (*at left*) shows the cumulative distribution of order quantities for the selected time frame(s) – the chart plots what percentage of the market (y axis) is made up of smaller-sized orders vs. larger-sized orders (x axis).

The **Fill Percentage Distribution chart** (*at right*) plots how selected order quantity sizes affect the likelihood of being fully to partially filled. In this example, nearly all 1 to 5 lot orders were filled 100 percent of the time; a larger order quantity of 51 to 100 lots had at least 5 percent filled (x axis) 100 percent of the time (y axis).



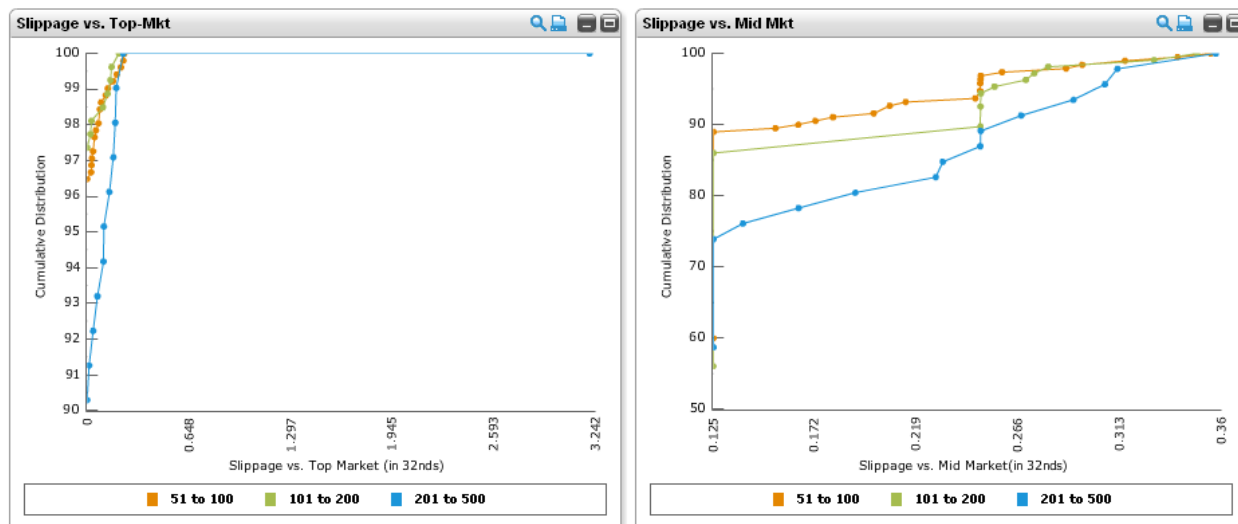
Average Speed of Execution Chart

How does order quantity size affect the speed of execution? The **Average Speed of Execution** chart enables you to easily compare and contrast how quickly (in milliseconds) various order quantity sizes were filled for a selected time frame. For example, the chart below shows that almost all 1 to 5 lot orders were fully filled in fewer than 50 milliseconds.



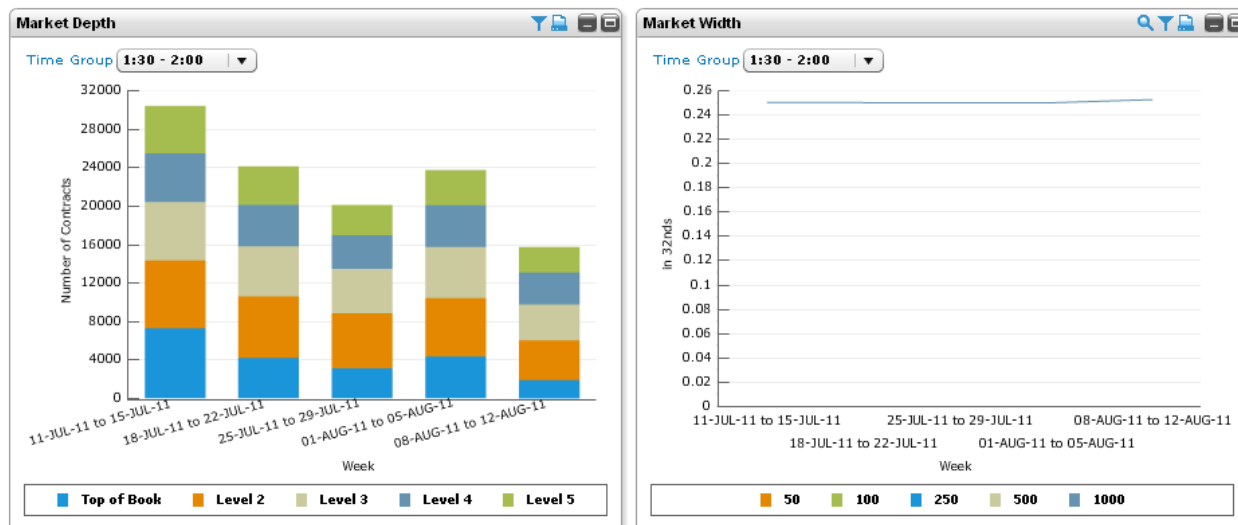
Slippage vs. Top of Market and Mid Market charts

How does the order quantity affect the quality of the fill, or price at which the order is executed? These charts plot the cumulative distribution (y axis) of any possible slippage rates (x axis) vs. the top and midpoints of the market. The top and midpoints are represented by the bid/ask spread in 32nds for the selected time frame(s).



Market Quality Charts – Market Depth and Market Width

Two additional charts offer information on the quality of the displayed order book in terms of market width and depth. The displayed **Market Depth chart** (at left) illustrates distribution of contracts (y axis) at the top of book and subsequent levels down, over recent weeks (x axis). The displayed **Market Width chart** plots the average bid-ask spread in 32nds (y-axis) for various order quantity sizes by week (x-axis). The tools in the upper-right corner of the chart enable you to maximize the chart and focus in on a time period to further examine overlap among order quantity sizes. More overlap equals greater market liquidity.





Your Feedback Is Important

We want to hear from you!

For questions on these tools, or suggestions on ways to enhance the current functionality, please use the feedback link located in the upper-right corner of the Liquidity Analytics web page.

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Or please contact our Customer Service team at info@cmegroup.com or by dialing 1-800-331-3332 and ask for **Interest Rate Research**.

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