

CQG's Pre-Trade Analytics

The next stage of utilizing today's market transparency is to provide analytics aimed at monitoring traders' actions in the order book away from the best bid and best ask price levels.

The article "CQG's Aggregated TradeFlow™ Charts" explained how TradeFlow charts track traders' actions at the best bid and best ask price levels in the exchange's order book. The next stage of utilizing today's market transparency is to provide analytics aimed at monitoring traders' actions in the order book away from the best bid and best ask price levels.

Pre-Trade Analytics is a suite of four studies that scan traders' actions in the exchange's order book away from the best bid and best ask.

The key benefit is that CQG traders can monitor what other traders are doing in the order book and look for behavior patterns that may indicate changes in the short-term trends.

The four studies are the DOMTracker, DOMTracker Oscillator, DOMActivity, and the Older Orders Ratio.

Each study monitors one feature of trader activity in the four ask queues above the best ask level and the four bid queues below the best bid level. The study's outputs range from gauging the level of activity to tracking the sum of resting bid and ask orders.

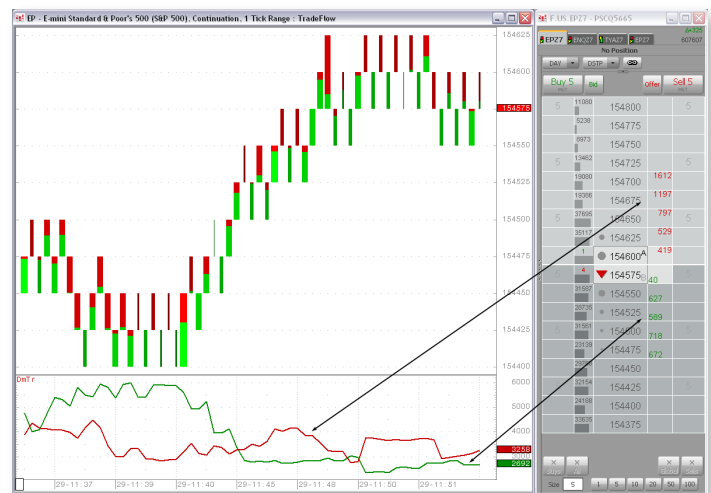


Figure 1: Pre-Trade Analytics. In the right-hand column of the DOMTrader are the number of contracts offered (red numbers) at each price level and the number of contracts bid (green numbers) at each price level. Pre-Trade Analytics track traders' actions in the exchange order book four price levels above the best ask price, here 1546.00, and four price levels below the best bid price, here 1545.75.

Figure 1 shows the relationship between the CQG DOMTrader and one of the studies, the DOMTracker, which is detailed below.

Three of the four studies output two sets of readings with one curve plotted based on bid orders and one curve plotted based on ask orders. The DOMTracker Oscillator tracks the difference between the bid order curve and the ask order curve from the

DOMTracker study. Pre-Trade Analytics are only applicable to TradeFlow charts.

The DOMTracker

The DOMTracker monitors the contract size of orders placed, modified, and canceled in the four ask levels above the best ask price and the four bid levels below the best bid. Two lines are plotted. The red line is the weighted sum of the resting orders to sell (asks) and the green line is the weighted sum of the resting order to buy (bids) for each TradeFlow bar.



Figure 2: DOMTracker Study. The red line is the weighted sum of ask prices resting in the order book. The green line is the weighted sum of bids resting in the order book. Notice the tendency in this example for the number of resting ask orders to climb over the number of resting bids during the rally.

Figure 2 displays the DOMTracker study with the E-mini S&P 500 contract TradeFlow chart with a two-tick aggregated range. The DOMTracker preferences, as well as the preferences for the other three studies, allow you to set the weightings applied to each B/A queue. The default settings are 2, 1.2, 0.7, and 0.4 for calculating the weighted sum. These can be changed to suit the trader's preferences. In addition, a filter is available that allows for tracking orders by size as well as by the amount of time the orders have been resting in the order queue.

Traders should evaluate this study on a market by market basis. Different markets will display different characteristics.

For example, in Figure 2, the TradeFlow bars of the E-mini S&P 500 are climbing and the weighted sum of the orders to sell (the red line) is dominating the weighted sum of resting orders to buy (the green line). In other words, as the market is climbing, traders are increasing their offering sizes over the market.

The DOMTracker Oscillator

The DOMTracker Oscillator displays the difference between the two outputs from the DOMTracker study. Displaying the difference as histogram bars enables a view of when the resting ask orders relative to the resting bid orders are changing.

This view may precede changes in the direction of the market as traders adjust their resting orders in response to the market. Again, traders should compare the application of this study on a market by market basis to determine the characteristics of this study relative to an individual market.



Figure 3: DOMTracker Oscillator (Bottom Pane). This study calculates the difference between the resting ask orders and the resting bid orders from the DOMTracker. In this example, both times the market turned up, the DOMTracker Oscillator crossed from flashing negative readings to positive readings.

The DOMActivity

This study monitors traders' levels of activity by either the size of activity or the amount of activity.

If set to actual activity, then a total of 1,000 contracts entered and 1,000 contracts canceled would cause a reading of +2,000. If the study is set to tick, then a total of 1,000 contracts entered and 1,000 contracts canceled would cause a reading of +2. It does not matter whether it is one contract or 50 contracts.

By monitoring activity, traders can determine low periods of activity relative to high periods. Markets tend to display high activity when the price is trending and when the market is completing a trend run, the level of activity will tend to subside.



Figure 4: DOMActivity Study. Here, the two lines track the total number of contracts entered, modified, plus canceled for bid orders (green) and ask orders (red). The lines tend to peak at the end of short-term swings.

The Older Orders Ratio

The Older Orders Ratio tracks the ratio of orders resting in the order book longer than a trader determined threshold. The default setting is sixty seconds. For example, if there were 1,000 contracts bid in one order queue and 500 contracts had been resting in the queue for longer than sixty seconds, then the ratio would be 0.50.

This study calculates a weighted sum of the ratios for four orders resting in the bid queues below the best bid and the four ask queues above the best ask. Therefore, the study outputs will at times be greater than one.



Figure 5: Older Orders Ratio. This study monitors the orders resting in the orders queues as a ratio based on a trader-set time threshold. The study dropping to zero indicates that traders are likely going to the market for trades and are not letting orders rest in the order book longer than the threshold.

Figure 5 shows the Older Orders Ratio. The two study values dropped to zero when the market made a short-term down swing. The study indicated that traders were not placing orders in the order book and letting them rest beyond the time threshold, which was sixty seconds here.

Summary

Pre-Trade Analytics and TradeFlow charts and studies are CQG's solution to providing tools for traders who use the high level of market transparency available from the electronically-traded markets. Different markets are likely to produce different displays from these studies; therefore, research should be done on a market-by-market basis.

Today, traders have far more insight into both price movement and the behavior of other traders driving the price movement than they did with the classic view of the markets just built upon last price. These solutions are designed to give traders the ability to make better-informed trading decisions throughout the trading day.

Disclaimer

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