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Momentum Bars: The Sequel — The New World of Technical Analysis and Parallel Invention

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[Editor's Note: If you have never believed that truth is stranger than fiction, you may change your mind after reading this story. The many responses to "Paradigm Shift Lights the Way to Momentum Bars" in the February issue set our reporter, MacRae, to checking what readers told us. What he found is a fascinating tale of parallel invention that, in some ways, rivals the simultaneous inventions of calculus in the 17th century by two different mathematicians. The parallel inventions of the transistor in 1948 by Bell Labs' scientists in the U.S. and Westinghouse Labs' scientists in the U.K. is a more recent example. Most people who responded agreed that MBars are a major advance in technical analysis either by saying so directly, or indirectly by asking when they would appear. As you will now read, they already are in one charting program. The way MBars appeared might persuade you that the old saw about truth and fiction certainly fits this story well.]

In February 2003, SFO magazine and I introduced a new charting concept in the article entitled, "Paradigm Shift Lights the Way to Momentum Bars." In the 30 days following publication, their inventor, Danton Long, and I received comments from more than 100 people.

Comments, that continue to arrive, fall into several different categories. A few say that Danton Long didn't invent MBars. He did. A few people wrote that MBars first were described by Cynthia Kase in chapter 8 of her book, *Trading with the Odds* (Irwin, 1996), where she called them Universal Bars. They weren't, but Kase did come close. Most of the others were queries about when and where MBars could be found on charting packages. Finally, a few readers said they can be found on Fibonacci Trader where they are called Range Bars. They can. Before we get to what happened, and how they got there, here is a precis of the February article for those who missed it. (The full text with illustrations can be found at www.sfomag.com.)

Momentum Bars are charted as standard vertical bars with opens, highs, lows and closes, but charted in specified price ranges rather than being charted in units of time or ticks. By disregarding time, this charting technique describes price action more accurately than standard bar charts, just as point-and-figure charts do.

However, its traditional bar chart format accommodates all of the technical analytical tools used in standard bar charts.

What makes them a unique paradigm shift in technical analysis is that values of investment/trading instruments are almost always charted in time (or in groups of ticks) simply because that's the current convention. In other words, most traders believe that time bar charting is the correct way to study price action when, in fact, it grossly misrepresents what is actually happening to contracts' or securities' values as their prices fluctuate.

MBars look like standard bars, but are different in three ways. One is that they are always equal in height. This is because they are based on specific price ranges selected by their users. If, for example, the price range chosen is six ticks, which in the S&P 500 E-mini futures contract equals \$75, all of the bars represents a price value of \$75.

The second difference is that the open of a new bar is always one price tick above or below the close of the previous bar. This is because a new bar does not begin until the old bar has been completed, which can only occur when a price tick exceeds the range set by the trader using them. While opens can appear anywhere on MBars, closes are always at the tops or the bottoms of these bars.

The third difference is that MBar charts have no gaps. Say, for example, the MBar value for the S&P500 E-mini is set at six ticks (\$75). While no contracts would have traded at the prices represented by these "phantom" bars filling the gap, MBar charting assumes they did, thus generating signals more rapidly than waiting for real prices to appear.

There are three advantages of Mbars: (1) they eliminate sideways price congestion making charts "cleaner" so that technical analysis tools can do better work; (2) When prices gap, "phantom" MBars fill these gaps so that tools like moving averages, for example, respond and generate trading signals more quickly; and (3) MBars work in any price frame for any contract or security.

Parallel Discoveries

In the last article, I wrote that "Momentum Bars are such a simple concept that many traders will wonder why no one thought of this before." In fact, there are three people I have interviewed who, in addition to Danton Long, claim to have invented or thought of Momentum Bars - Vincente Maria, Brent August and Pierre Orphelin.

Parallel invention is well-known in the history of ideas. One famous example is the development of calculus by both Leibnitz and Newton in the early and mid-1670s, although in this case, they learned of each others' work before each presented his own version of this extraordinary mathematical insight.

Danton Long began trading early in the 1990s. He was first taught by his stepfather Robert Krausz, whose contributions to market lore are documented in *The New Market Wizards* by Jack Schwager. In the mid-1990s, Krausz developed Fibonacci Trader, a charting program with many of the standard tools of technical analysis.

Long was inventing trading tools even as a beginning trader. Among them were the Danton Stop, the ShockWave Principle, and a Ratio Oscillator all of which Krausz incorporated in Fibonacci Trader directly, or as add-ons.

Sometime in 1994, Krausz and Long were discussing Symmetrics, a trading program Krausz had begun to sell. Part of the program involved drawing bars with widths to demonstrate a relationship between price and time. "I suggested that he simply draw bars of a specific price range, so that no new bars could be drawn until momentum moved prices out of the range," Long reported to me in February of 2002, adding that Krausz ignored this suggestion.

Vincente Maria, a trader living in Sao Paulo, Brazil, told me that sometime in the mid-1990s, he was wrestling with the ambiguities of standard bar charting. "I saw that a market goes up 30 to 40 points in one day or the same amount in six months," he recalls, "I wanted to deal with this by drawing bars based only on price."

In 1996, he went to live in the U.S. for almost two years. In Fort Lauderdale, Maria met a fellow Brazilian, Carlos Almeida, who was a systems programmer. He says that Carlos programmed the MBars idea for him and that he (Maria) has been using them ever since. "I have tested them with some 25 different (technical) tools," Maria says. He will not say which ones. "I only trade for a living, so I never wanted to tell anyone about this." A little later, Almeida became the programmer for Robert Krausz's Fibonacci Trader. He still is.

In 1996, Cynthia Kase's book, *Trading with the Odds*, got the attention of many people including Brent August, a trader living in California. He read Kase's description of universal bars (pp. 141 & 142), which has led some SFO readers to write that they are MBars. They are not.

Kase bars are not always equal in length, while MBars are. Universal bar charts can have gaps; MBars cannot. Kase's bar charts can also have inside "days" (or periods); MBars never do. Kase's bars are formatted on true ranges (not fixed price ranges). Her bars depend, in part, on time, as her explanation on pp. 140-141 shows. But her attempts to deal with volatility to create a clear picture of prices, inspired Brent August, a trader in California, to come up with MBars he says are like Danton Long's.

In September 1999, Brent August contacted Pierre Orphelin, the Omega TradeStation representative in France through a chat room. Orphelin told August that he could program MBars for him to replace a DOS program August was using. Orphelin claimed that he had thought of MBars in 1992, but says he has not programmed them yet.

But seemingly similar bars can be charted on Fibonacci Trader, version 4. Carlos Almeida added them to the program in late September or early October 2002, calling them range bars.

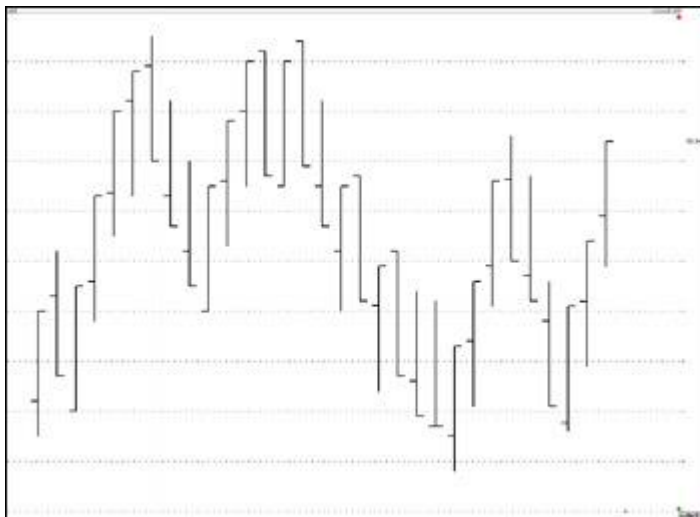
How they got there isn't totally clear. When I asked Almeida about these range bars on Fibonacci Trader, he initially told me that Danton Long had not invented them, and that they were Cynthia Kase's universal bars. Danton Long contacted a patent lawyer very early in 2002. In May, and again in July, he told mother Jeanne of his intention. (Jeanne Long is Robert Krausz's widow, and is a leading financial author, trader and program creator well known to those interested in trading with astrology.)

During these visits, Long's stepfather, Robert Krausz, may have seen the value of MBars more clearly, although he and his stepson were then at odds. Krausz must have soon found that his programmer already knew about a version of them, although Almeida claims that it was he who told Krausz about them.

The bars were quickly added to the Fibonacci Trader, version 4. When I asked why they had not be added earlier when Almeida says he had known about them for so long, a company spokesperson told me that these bars were just one item on a long list of tools waiting to be added to the program. This explanation doesn't quite ring true to me, given the extraordinary value of these bars to traders, a value that many SFO readers recognized immediately.

Unfortunately, Robert Krausz, whom I knew, respected and liked, suffered a massive heart attack while addressing a group of traders on October 3, 2002, and died a few hours later in a local hospital before he and I had a chance to discuss this.

Microsoft (MSFT) January 2, 2003 in Fibonacci Trader, \$0.25 Range Bars



What also cast doubt on the idea that Fibonacci Trader's range bars are true Momentum Bars is a chart Danton Long showed me of Fibonacci Trader Range Bars describing Microsoft (MSFT) price action from 11:46 a.m. through 3:53 p.m. on January 2, 2003 (see chart above). The prices ranged from 52.88 to 53.75. There are several cases of openings (the small horizontal ticks on the left sides of the vertical bars) being more than one tick away from closings (the horizontal ticks on the right sides) of the preceeding bars. "They certainly do not track prices like the Momentum Bars that I developed," he says.

Fibonacci Trader's range bars do not follow the protocol of MBars. Although they can appear to work pretty well with some data, traders seeking true MBars should be aware of this discrepancy. Of the 31 bars in this four-hour period, at least 20 bars are drawn incorrectly. Magnified over time, this could cause some real problems for traders.

Readers can decide for themselves by downloading Fibonacci Trader (ver. 4) for a 30-day free trial from www.fibonaccitrader.com. After you have gathered data for Fibonacci Trader real-time or end-of-day, right click Chart on the menu bar. In the CHARTS window, right click Chart. In the drop window that appears, click New Chart. A Create Chart window will appear with three horizontal windows at the bottom, Own Period, Next and Highest.

At the right of the Own Period window are two boxes - Range Bar and Tick Bar. Click Range Bar, then at the extreme left of this little window labeled Min., enter the price bar size you want in terms of point and ticks. If, for example, you want six E-mini ticks, which is 1-1/2 full points, enter 1.5, then Click OK, and your MBars (Fibonacci Trader calls them range bars) chart will appear. You may now add any indicator you like to the your chart.

The problem may be that like most other popular charting programs, Fibonacci

Trader uses data based on one-minute time frames, so that range bars are only an approximation of what is happening, and a misleading one.

“The whole point of MBars is that they are not based on time,” Long says. “Any charting program that uses time will give false signals and, sooner or later, might cost traders who use them a lot of money.”

To traders, the real inventor of MBars doesn’t matter. While parallel invention is a well-known phenomenon in the history of ideas, my assumption here is based solely on what I have been told. Neither Vincente Maria nor Brent August, being pure traders, gave me hard data documenting their claims. Both also told me they would have preferred to keep this tool to themselves.

Despite various claims, it was Danton Long who brought them to the attention of SFO magazine readers. Given their enthusiastic response to this paradigm shift in technical analysis, Long should at least be given a chorus of “Thank yous” from traders all over the world.