

High-Speed Trading Is Progress, Not Piracy



Illustration by Matthew Hollister

By Bernard S. Donefer Apr 10, 2012 7:00 PM ET

They steal from the rich and keep it! That sums up the criticism of E-pirates, aka high-frequency traders, the current bad boys of the financial markets. Many retail and institutional investors believe that as much as \$2 billion annually in high-frequency trading profits are coming out of their own pockets.

High-frequency technology has also been wrongly blamed for sudden instability in the markets, most recently when the Bats equity exchange canceled its initial public offering after a computer glitch caused chaotic trading in its own stock and others.

But criticisms of HFT are overblown, and regulating potential abuses isn't as hard as many believe. In fact, more regulation -- unless wisely applied -- is likely to do more harm than good.

Critics are concerned that traders with "low-latency" technology, who often pay to locate their servers near an exchange's systems to decrease messaging delays, have the earliest access to market data and may front-run other market participants.

But information-timing asymmetries have always existed. Specialists, over-the-counter market makers and floor traders have always had price information ahead of the rest of the market. In the mid-1990s, the "SOES bandits" took advantage of human market makers by using [Nasdaq \(NDAQ\)](#)'s Small Order Execution System to place orders before humans could update their bids and offers.

Speed of information and execution is everyone's objective in the marketplace -- and the current trading infrastructure is no more than a logical extension of a long-term trend.

Benefits of HFT

That's not a bad thing. If an investor plans to hold a stock for weeks, months or years, it isn't clear that he is disadvantaged -- and, in fact, he may benefit from HFT.

In a study published March 19, Ana Avramovic of Credit Suisse Group AG showed that intraday volatility has actually been steadily decreasing since 2005, even as HFT has increased. In 2008, of course, daily volatility shot to the highest level since 1932, as traders responded to the collapse of Lehman Brothers Holdings Inc. But 2011 ranked only 16th in terms of daily volatility in that period, and was less volatile than 2000 and 2002, years when HFT was less prevalent.

Avramovic also found tighter spreads and greater liquidity for the national best bid and offer since 2004. She concluded that, as far as HFTs were concerned, "at a minimum, markets are not worse for their presence." This has been corroborated by a number of academic and industry sources.

The reason why is that automated market makers (or AMMs), a subset of HFTs, are liquidity providers. Their quote-and-cancel rates may be high, but unless they offer the best price in the market, they won't get order flow.

Some argue that AMMs are less reliable than traditional market makers and that their liquidity evaporates in a crisis --as in the May 6, 2010 "flash crash." Some AMMs did indeed abandon the market that day, and left the infamous, and now banned, stub quotes (buy at \$0.01, sell at \$10,000) as evidence. But AMM systems automatically stop trading when market data appear out of normal bounds or when regulatory capital reaches prescribed limits. These are reasonable actions. Had AMMs kept trading, they would have been criticized for not having appropriate risk systems in place.

More to the point, after a few minutes of analysis, managers responded to the flash crash by quickly restarting their systems and driving the market to a recovery within half an hour -- as opposed to the year it took to recover from the stock-market crash of 1987. A [report on the flash crash](#) by the Securities and Exchange Commission and the Commodity Futures Trading Commission notably did not place the blame with high-frequency traders. Those who question the reliability of AMM liquidity forget that liquidity itself has always been a fleeting and fitful commodity in our markets.

Further Scrutiny

Do esoteric quant models, which also require little human interaction, pose a threat? It depends on the model. Models based on momentum strategies may exacerbate volatility. But quants are most often based on arbitrage strategies, which I believe smooth markets and lower volatility. In examining many of the models, it is clear that they use techniques similar to the technical analysis I learned decades ago -- only now exploiting access to real-time data. This is neither illegal nor unexpected. It's merely a consequence of technological advances.

Some HFT practices do require further scrutiny. Momentum ignition (in which traders take a position and then start rumors or place orders to quickly drive the market up or down) and layering (where traders place orders in the market-order books to imply substantial

buying or selling pressure without the intention of executing) could both open the door to market manipulation.

But we need specificity in identifying such strategies, rather than cracking down on high-frequency traders as a homogenous class.

Regulators worldwide are responding to calls to address perceived market abuses. Studies have been undertaken by an alphabet soup of organizations: the FSA, IOSCO, SEC, CFTC, FINRA, FRB and others. All these studies suffer from the same problems -- too much anecdotal information and insufficient relevant data. We still can't tell if a 300-share buy order originated as a market-maker quote, my aunt's retail order, a quant trade or part of an institutional algorithm programmed to buy 500,000 shares.

There is a good solution to this problem. As I've previously argued, all market orders should be coded by trading strategy. This information would be available only for use by regulators, who could analyze trading trends or a problematic market event. However, since all order-management systems, financial-information exchange (or FIX) messages and execution systems would need to be modified to carry the data, many in the industry reject this suggestion as too costly. Hopefully that attitude will change.

Structural Reforms

In January 2010, the SEC identified a number of other problem areas that need to be addressed in its excellent "[concept release](#)" on market structure. Most important, we need to direct attention to broad structural issues. For example, we should consider creating new trading venues exclusive to institutional block investors, and perhaps allowing block traders to opt out of the SEC's "trade-through rule," which requires buying shares at the best available price, even when that's a hindrance to large trades. A new call market limited to small and mid-cap stocks might increase liquidity and tighten spreads for stocks with low average [daily volume](#).

Finally, we need to ensure that all markets and asset classes are regulated in a consistent way. That means, for example, uniform rules across exchanges on circuit breakers, trading collars, trade-cancellation rules and systemic-risk models.

Let's regulate to ensure fairness and not to hinder technological advance. Perhaps high-frequency traders are the more useful privateers -- and not the pirates.

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