MarketWatch

How trading at the speed of light exacerbates market drops

By Anora M. Gaudiano
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Investors who grew accustomed to calm markets and double-digit annual returns were rudely reminded Monday that stock markets can be volatile, and one of the contributing factors to wild swings is the current market structure.

This isn't to say that in the good old days we didn't have big swings. In fact, a 20% one-day plunge in October 1987 still holds the title of the biggest in history, and there were plenty big down days during the bear market following the financial crisis of 2007-'08.

What has changed since those days, however, is technology and the speed at which trades are occurring.

For example, at about 3:10 p.m. Eastern on Monday, after continuous selling all day, the S&P 500 SPX, +0.88% — which was by then down by nearly 70 points — suddenly dropped by an additional 40 points in the span of 10 minutes.

The immediate reaction from market experts was that it was due to machine trading that unraveled too quickly.

The problem isn't that machines are executing trades the way they were programmed in an age when all transactions are electronic. It is the speed at which these trades are processed, literally before a human can blink an eye and intervene, resulting in flash crashes.

"Monday was really bad and that drop late afternoon was a mini flash crash," said **Joe Saluzzi**, partner and co-head of equity trading at **Themis Trading**.

Saluzzi and his partner at **Themis**, **Sal Arnuk**, are authors of "Broken Markets: How High Frequency Trading and Predatory Practices on Wall Street Are Destroying Investor Confidence and Your Portfolio."

"In the current market structure, there are no traditional market makers who have limit and stop orders on their books. Instead of specialists who are responsible for a single stock on the exchange, there are proprietary high-frequency traders on multiple exchanges with multiple trading strategies. And in time of stress, they all withdraw, exacerbating any drop," **Saluzzi** said.

Traditionally, broker-dealers, who could trade on behalf of customers as well as on their own books, had the responsibility and obligation to step in to maintain orderly markets. In return, they were allowed to buys stocks at a lower price and sell at a markup, as well as benefiting from the bid-ask spread when not selling from their own inventory.

"After the regulation NMS and the financial crisis, traditional broker-dealers, such as Morgan Stanley or Goldman Sachs, all shrunk their trading desks. That void has been filled by proprietary trading firms, who have no obligation to keep markets orderly but only to make money. In fact, HFTs thrive when there is higher volatility," **Saluzzi** said.

"They sure do supply liquidity, but only when markets are rising; they actually suck out liquidity when markets are falling," **Saluzzi** said.

An academic research paper, published last May by Michael Goldstein of Babson College and the University of Sydney's Amy Kwan and Richard Philip, came to the same conclusion.

"Examining the order book imbalance immediately before each order submission, cancellation and trade, we show high frequency traders (HFT) supply liquidity on the thick side of the order book and demand liquidity from the thin side," authors wrote.

Lack of liquidity, often confused with thin trading volumes, exacerbates any down movements.

For example, on Monday more than 10 billion shares traded on the main exchanges, and 12 billion traded on Tuesday, the largest volume since November 2016, according to FactSet.

Tim Quast, founder and president at Modern IR, thinks that even this volume is illusionary, however.

"There is an appearance of high volume on exchanges, but it is largely thanks to the high number of ETFs that are constantly churned," Quast said.

"And the most liquid of them, the SPY, an exchange-traded fund tracking the S&P 500, has proved a great instrument for HFTs, who use it to arbitrage the underlying assets," Quast said.

Quast suggests the structure of ETFs add another layer that could lead to disastrous market crashes.

"Just as we saw with the XIV exchange-traded note, linked to VIX, sponsors of these instruments are under no legal obligation to redeem them. Authorized participants that create and redeem ETFs may choose not to redeem them if they cannot cover their positions. We will know there is a serious trouble when a big firm is unable to unwind their product," Quast said.