

## Commentary: What's Old is New Again

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In the last week of April, we wrote a column about the recently proposed Large Trader Reporting Rules, which were originally trotted out in 1991 in response to the 1987 Black Monday equity market collapse. We pointed out that other changes to equity market regulation and market structure had succeeded in preventing another market collapse, even during the unusual trading volumes and patterns that resulted from the Panic of 2008. We therefore argued that the proposal was unnecessary, amounting to an expensive solution in search of a problem.

No sooner was the ink dry on the page when the “flash crash” occurred. On May 6, 2010, during a 20-minute period in the afternoon, the Dow Jones Industrials dropped about 700 points and then recovered, ending at about 350 points down on the day. A handful of stocks were especially volatile, including such blue chip conglomerates as Procter & Gamble and 3M.

The role of markets in a capitalist economy is to determine a value for things. Securities markets reflect investor expectations about the effects of future events on corporate earnings capacity. While investors have plenty to be gloomy about lately, it is difficult to argue that investor expectations dipped more than 5% in a matter of minutes and then recovered when there was no shocking news to explain the change in sentiment. It seems clear that for a brief period of time, the equity markets failed to determine values that accurately reflected investor beliefs.

When markets are functioning properly, we prefer that regulators keep their hands off them. When markets fail, we expect that the regulators will do something about it. Congress immediately responded by summoning Mary Schapiro and Gary Gensler, respective heads of the SEC and CFTC, to explain what happened and what they planned to do about it. Their answer was that they didn't know and hadn't yet developed a plan. But, they were working on it.

On May 18, 2010, the SEC and CFTC confirmed this puzzle in a report entitled “Preliminary Findings Regarding the Market Events of May 6, 2010,” which interested readers can download from the SEC's website.

The report pointed out that one of the reasons the SEC and CFTC had not yet determined the cause of the crash is that the Large Trader Reporting rules have not been adopted: “Although trading now occurs in microseconds, the framework and processes for creating, formatting, and collecting data across various types of market participants, products and trading venues is neither standardized nor fully automated.” Of course, the SEC’s rules would not require reports on futures trading because it has no authority to regulate futures. The CFTC, which does regulate futures, already has Large Trader Reporting rules, although the reporting is not automated. The CFTC is planning to address that in future rule proposals. It seems that the solution has finally found a problem to solve.

In the meantime, the SEC and CFTC have four “working hypotheses” as to the cause of the crash.

The first of these theories is that activities in stock index futures – especially index ETFs and E-mini S&P 500 futures – were linked to simultaneous and subsequent waves of selling in individual securities. And, in fact the CFTC has located one trader that sold a lot of E-mini S&P 500 futures during the flash crash episode. Of course it’s not entirely clear how selling futures indices would result in a precipitous decline in the common stock of Proctor & Gamble, 3M and Accenture, without affecting other S&P 500 stocks much at all.

The second theory is that high-frequency traders and market makers may have withdrawn from the market and that, coupled with the use of automatic stop-loss orders, produced a cascade of sell market orders. As was demonstrated with force in 1987, no market maker has the capital necessary to stand up against a severe market decline. For that, the resources of the Fed are required, and no one has seriously proposed that the Fed should intervene in the equity markets. We think it is probably best if high frequency traders unplug during periods of market instability, rather than adding to the mayhem.

The third theory is that when the New York Stock Exchange shut down its electronic market and began manual executions, in accordance with its Liquidity Replenishment Rules, the sell orders that would otherwise have been matched by NYSE buy orders instead were sent to other exchanges for execution. However, why wouldn’t NYSE buy orders also have been sent to other exchanges?

The fourth theory is that some combination of market orders, stop loss market orders and stop loss limit orders in both equity and futures markets, when confronted with sharp price declines, exacerbated the decline and caused market instability. This is a sort of kitchen sink explanation that just confirms that, as of now, the regulators simply have no idea what really caused the flash crash.

The SEC and CFTC have all but ruled out trading errors, computer hacking or terrorist activities as possible causes of the flash crash.

The SEC and the CFTC argue that some rule changes would help to prevent future crashes. If market orders turn out to be the cause, their impact could be lessened by “collars,” which effectively would convert them to limit orders. Alternatively, market orders could be prohibited altogether, or efforts to educate investors regarding the dangers of market orders could be intensified. However, abolition of market orders, or even limiting them, would amount to a drastic change in market structure that would severely limit investor options.

Another suggestion is that the obligations of market makers could be increased, so that they are required to make bona fide markets at all times (or alternatively market maker obligations could be eliminated altogether). We believe that increasing market maker obligations is unrealistic, without the support of the Fed.

The SEC also believes that its current market structure proposals also would prevent future flash crashes. But, at the moment there is little evidence to support that hope.

In the recent Market Structure Concept release, the SEC asked whether the activities of high-frequency traders increase or decrease liquidity in response to market downdrafts and suggested that rules might be proposed that would limit certain “directional strategies.” As of now, there is no evidence that “momentum ignition” or other such techniques used by high-frequency traders influenced the flash crash.

In February, the SEC adopted a short sale circuit breaker that would limit short selling when the price of a stock had fallen more than 10% from the prior day’s close. But, there is no indication that short sales played a significant role in the May 6 debacle.

The SEC has proposed rules that would increase market transparency. These include the proposal to prohibit flash orders and require public display of orders presented to dark pools. However, there is no evidence that a lack of transparency had anything to do with the flash crash.

The recent market access proposal would strengthen broker-dealer risk controls and prevent broker-dealer capital depletion. But there are no reports of broker-dealers going under as a result of the flash crash.

Finally, the Large Trader Rule, as well as improved automation of the CFTC’s large trader reporting regime, would enable the regulators to get better and more timely information after the fact, in the event of future market crashes. For similar reasons, the SEC has most recently proposed the institution of a joint consolidated order-

tracking program, like the OATS program administered by FINRA. That would certainly help make presentations to Congress less embarrassing for SEC officials, but would not prevent the crash from occurring in the first place. Based on the experience with OATS, it seems clear that implementing the joint order audit trail program and the large trader reporting scheme would each be quite expensive. Perhaps the costs of one of these programs can be justified. Instituting both will be quite burdensome without providing much in the way of benefits.

We would like to propose a fifth theory not suggested by the SEC-CFTC Joint Report, based on one of the authors' mercifully brief experience as a trader. The May 6 flash crash happened in the afternoon, but not near the close. At that time, most of the early market action has done its evil for the day. The news has been reviewed, sliced into tiny bits and thoroughly digested. This is the silly time on the desk, when the paper airplanes start to fly and traders discover their ties have been dipped in ink by some bored prankster. It is not difficult to imagine that a lot of sell orders, but no buy orders, show up during a down and boring afternoon.

In the good old days, the floor supervisors on the NYSE would have heard the words "Market Imbalance," resulting in brief halts to avoid serendipitous market activity. Nothing like that exists in modern automated markets, but it probably should.

The temporary solution that has been agreed to by the exchanges – market-wide individual circuit breakers when a particular stock has dropped more than 10% in five minutes – is likely to be the most appropriate solution. The individual circuit breakers are the closest analog to the role of the NYSE floor supervisor in today's high frequency trading environment.

In the aftermath of Black Monday, after considering many possible remedies, the best anyone could design with an immediate impact were market-wide circuit breakers. Circuit breakers have been a feature of various markets for a very long time. The futures markets have employed circuit breakers since time immemorial.

It may seem odd that a reformulated ancient strategy would turn out to be the remedy of choice to improve market stability in these high-tech times, but markets have been around a long time. We have made them faster, increased our use of machines, reduced transaction costs to infinitesimal magnitudes. Our regulators have implemented market structure changes over many years that have made markets more robust. But we haven't changed the essential character of markets.

Like the markets themselves, our regulation of markets needs to be faster, highly automated, and more efficient in the modern age. However, the rules that work best are likely to resemble fast and highly automated versions of the rules adopted by our forefathers many moons ago.