New York Law Journal

SERVING THE BENCH AND BAR SINCE 1888

WWW.NYLJ.COM
©2010 ALM
An ALM Publication

VOLUME 243—NO. 110

THURSDAY, JUNE 10, 2010

Outside Counsel

Expert Analysis

The May 6 Flash Crash And Its Successors

By
Morris N. Simkin

On May 6, 2010, the Dow Jones Industrial Average dropped 998.50 points between 2:40 p.m. and 2:47 p.m. and almost immediately recovered 543 points by 3 p.m. Based on my review of many newspaper articles, my experience in the field of securities regulation, the SEC-CFTC preliminary report and congressional testimony,[1] a study by Professors James J. Angel, Lawrence E. Harris and Chester S. Spatt,[2] as well as conversations with traders and brokers, I have drawn a tentative conclusion on what happened. The confluence of several factors resulted in the May 6 flash crash: changes in the market; development of institutional traders who seek profits from changes in prices regardless of the underlying value of the securities being traded; and market events of May 6.

SEC Chairwoman Mary L. Schapiro has testified that two measures being taken will address the factors that caused the flash crash. These are the November 2010 compliance date for the SEC's short sale rule and the rule proposals of almost all the securities exchanges that will cause a five-minute halt in trading a security in the S&P 500 Stock Index if the price of that security changed more than 10 percent in any five-minute period occurring 15 minutes after the markets open and before the last 15 minutes that the markets are open.

Ms. Schapiro also indicated that inquiries are being conducted and possible enforcement actions may be brought against those traders who were most aggressive during the period of the flash crash, specifically mentioning trading in exchange traded funds. As discussed below, I do not believe these measures will prevent a recurrence of the flash crash.

Changes in the Markets

In the past several years substantial changes have occurred in our securities markets. First, trading volume has increased dramatically. As Ms. Schapiro noted, on the key day of the 1987 market decline, trading in NYSE-listed securities totaled a little over 600 million shares. Trading in NYSE-listed securities on May 6 was about 103 billion shares. In general, equity trading volume has tripled in the last nine years. The spread between the bid price and the asked price for equity securities has materially declined, and is now about two or three cents. For stocks in the S&P 500 Index, the median spread is about 1.5 cents.

> Possible enforcement actions may be brought against those traders who were most aggressive during the period of the flash crash.

The depth of markets have changed, so that now the median displayed depth within six cents of the national best bid and best offer is about 80,000 shares. Average trade size has fallen to about 300 shares as of the end of 2009. The number of quotes per minute has materially increased since 2003.

All this has also produced an interesting development. More orders are cancelled than are executed. The ratio of orders cancelled to orders executed rose to over 30 by the end of 2009. What this suggests is that institutional/proprietary traders are sending out multiple orders totaling in excess of what they want to buy or sell and canceling those excess orders when they have reached the desired execution amount or price.

Additionally, new securities markets have arisen to execute trades. For example, the New York Stock Exchange now has about 25 percent of the trading volume in New York Stock Exchange listed shares. You don't have to go the New York Stock Exchange to buy or sell a listed stock at the best price. There are 14 national securities exchanges and about 72 automated trading systems—broker-dealers operating an electronic communication network where other broker-dealers and investors can execute orders for securities. This is in addition to those broker-dealers who have internalized customer order flow—i.e., execute internally customer orders to buy against customer orders to sell the same securities, or taking the position opposite to the customer without taking such orders to any market place or other broker-dealer.

These developments are largely the result of modern technology and communications systems, the elimination of fixed rate commissions, the competition of brokerage firms for order flow, and the decimalization of trade prices together with the rapid reporting of available quotations and recent trades.

Market Participants

The second factor in the flash crash is the participation in the market of three types of institutional traders. These traders are not investors in the sense that they buy or sell to based upon their analysis of the merits of a company or the price of a company's securities. They trade on movement. The quality or prospects of the securities they trade are of no consequence to them. Rather, it is the likelihood that the price of the security will go up or down within a short period of time that is the reason for their trading and the source of their profits.

The compensation of these traders is based on the profits they realize from their trading activity.

MORRIS N. SIMKIN *is counsel at Carter Ledyard & Milburn.*

There are three types of traders (a) the momentum trader, (b) the quantity trader, and (c) the index arbitrageur. It is estimated that these three types of traders account for some 70 to 80 percent of daily trading volume, and provide significant liquidity to the markets.

Momentum traders trade on the basis of movement in the price of a security. They will follow a stock's price up or down until it reaches a turning point. Then they will cover their positions as the stock's price goes the other way. It is their goal to end each trading day flat, i.e., neither owning stock or being short stock. They are dependent on rapid communications with the markets to see the latest trade prices and a computerized algorithm that allows them to trade instantly, even in milliseconds, without human intervention, so as to get the best price on the way up or down.

Quantity traders use high-speed computers with communication systems that are tied closely to the several marketplaces. They trade in and out of a stock as quickly as possible to take advantage of a price movement. Their goal is to achieve a profit as small as a penny a share from their "round trips," but do so in such quantity and volume that it is profitable. They too seek to be "flat" at the end of each day.

One of the contributors to the steep drop in the May 6 flash crash was that many of these quantity traders did not feel comfortable trading in the face of such volatility. Many of them withdrew from the market until the turnaround in the market indices gave them comfort that things were back to the milieu in which they were comfortable trading.

The index arbitrageur trades to take advantages of price differences between a security index, the stocks underlying the index, Exchange Traded Funds based on the index and the futures on the index. They do not necessarily trade in all of the securities comprising the index. Most market indices are weighted to reflect the public float and price of each of the stocks comprising the index. Therefore, it is possible to buy or sell those stocks most weighted in the index or whose price movement would more likely move the index in order to reflect the arbitrageur's position. At the same time they would take the opposite position with a replica of the index such as an exchange traded fund based on the index or the futures on that index.

Again, as with the momentum trader, their goal is move quickly and take advantage of small price differentials, as low as one cent a share, and to end the day flat—neither long nor short any of the stocks in the index, the exchange traded fund based on the index and the futures on the index.

May 6 Market Events

Trading on May 6 began with a negative market stirred by fears of a Greek default on its Euro denominated bonds, riots in Greece opposing the government's proposed austerity program, and concerns about the U.S. economy. Between the opening and 2 p.m., Eastern time, the Dow Jones Industrial Average declined some 161 points or about 1.5 percent.

A second factor was invoking the liquidity replenishment points under New York Stock Exchange Rule 1000. Under this rule if the price of a listed stock changes by an amount specified in the rule based upon the volume of trading in that stock from its last price, no automatic executions may occur until the price has recovered. In other words, instead of automatic execution of orders, the orders must be routed to the floor for manual execution. This slowing of the market effectively removes a degree of liquidity from the market for that stock.

Several measures are being discussed as tools to prevent a recurrence of the flash crash. First is the SEC rule prohibiting short sales of a stock after the price declines more than 10 percent from its previous day close and on the next day.

Further, there was a sharp decline in the futures market for S&P 500 Index futures. As noted before, index arbitrageurs will trade in the index, stocks comprising the index, Exchange Traded Funds based on the index and the futures on the index. The result is that the prices in these several markets tend to move together.

Last, the NASDAQ, NASDAQ OMX BX, BATS Exchange and the National Stock Exchange declared self-help regarding trading on NYSE Arca Exchange, the primary listing market for exchange-traded funds. Under the National Market System rules, if one exchange is deemed to be slow in its trading (more than one second to execute a trade) another exchange may declare self-help and not have to route orders in a stock to the slow exchange even if the quotations on the slow exchange are the better quotes. This further decreased market liquidity.

In addition, as mentioned before, the withdrawal from the market of a number of quantity traders during the flash crash resulted in fewer quotes. This in turn forced trades to be effected at decreasing prices as market participants sought prompt execution of their orders. In some cases, the result was that stub bids—bids to buy at a price that the submitter never expects to be accepted, were executed. This included trades in Accenture at one cent a share.

Subsequently, several market places cancelled, trades in 326 securities executed at prices that were 60 percent or more below the price of the subject security at 2:40 p.m. under their powers to cancel erroneous trades. Most of the cancelled trades were in exchange-traded funds. This raises questions as to the integrity of markets and the fairness to the buyers of those securities while advantaging the sellers in those circumstances.

Successor Flash Crashes

Several measures are being discussed as tools to prevent a recurrence of the flash crash. First is the SEC rule prohibiting short sales of a stock after the price declines more than 10 percent from its previous day close and on the next day. Compliance with this rule will not be required until November 2010. Interestingly, this rule applies to securities exchanges, automated trading systems and to broker-dealers that internally cross-trade between customers and between customers and themselves.

A second measure is a rule being proposed by almost all the securities exchanges. During the period beginning 15 minutes after the market opens and ending 15 minutes before the market closes, this would impose a five-minute trading halt on a stock in the S&P 500 Index if the price changes by more than 10 percent during a five-minute period. This measure does not address trading in the automated trading systems and internal trading by broker-dealers. So even if trades could not be effected on a securities exchange in a particular stock during this five-minute halt, the stock could still be traded in markets that report bids and offers and the prices of executed trades.

1. See Testimony Concerning the Severe Market Disruption on May 6, 2010 by SEC Chairwoman Mary L. Schapiro, May 11, 2010 at http://www.sec.gov.news/testimony/2010/ts0511mls.htm, Examining the Causes and Lessons of the May 6 Market Plunge, by SEC Chairwoman Mary L. Schapiro, May 20, 2010, at http://www.sec.gov/news/testimony/2010/ts052010mls.htm, Preliminary Findings Regarding the Market Events of May 6, 2010, Report of the Staffs of the CFTC and SEC to the Joint Advisory Committee on Emerging Regulatory Issues, May 18, 2010, at http://www.sec.gov/spotlight/sec-cftcjointcomnmnittee/sec-cftc-prelimreport_may62010.pdf.

2. Equity Trading in the 21st Century, Feb. 23, 2010, at http://www.sec.gov/comments/s7-02-10/s70210-54.pdf.

Reprinted with permission from the June 10, 2010 edition of the NEW YORK LAW JOURNAL © 2010. ALM Media Properties, LLC. All rights reserved. Further duplication without permission is prohibited. For information, contact 877-257-3382 or reprints@alm.com. # 070-07-10-44