Circuit Breakers

SEC Order Approves Proposals to Address Extraordinary Volatility in Individual Stocks and Broader U.S. Stock Market

SUMMARY

On May 31, 2012, the SEC approved two proposals submitted by the national securities exchanges and FINRA that are designed to address extraordinary volatility in individual listed stocks and the broader U.S. stock market. The exchanges and FINRA will implement these changes by February 4, 2013 on a one-year pilot basis.

One initiative establishes a “limit up-limit down” mechanism that will prevent trades in individual exchange-listed stocks from occurring outside a price band determined by reference to recent trading prices for the relevant stock. In addition, the primary exchange will be required to impose a five to ten minute trading pause in an individual stock to accommodate more fundamental price moves in the stock. When implemented, this new mechanism will replace the existing single-stock circuit breakers that the SEC approved on a pilot basis in 2010 in reaction to the “flash crash” of May 6, 2010.

The second initiative updates existing market-wide circuit breakers that, when triggered, halt trading in all exchange-listed securities throughout the U.S. markets. The existing market-wide circuit breakers were adopted in October 1988 and have been triggered only once, in 1997. The changes lower the percentage-decline thresholds for triggering a market-wide trading halt and shorten the amount of time that trading is halted. Market declines will be measured by reference to the Standard & Poor’s 500 Index rather than the Dow Jones Industrial Average, and the trigger thresholds will be calculated daily rather than quarterly.
BACKGROUND

On May 6, 2010, the U.S. stock markets experienced a severe disruption, often referred to as the “flash crash.” During the trading day, the DJIA plunged over 1000 points – or approximately nine percent – only to recover those losses within minutes. It was the second largest point swing and the biggest one-day point decline on an intraday basis in DJIA history. This severe price volatility led to a large number of trades being executed at temporarily depressed prices, including many that were more than 60% away from pre-decline prices.¹

The SEC expressed concern that events such as those that occurred on May 6 could seriously undermine the integrity of the U.S. securities markets. As a result, the SEC worked with the exchanges and FINRA to identify the causes of, and factors contributing to, the flash crash, and to develop policy responses to help prevent a recurrence.

The SEC’s initial response to the event was a pilot program for a single-stock circuit breaker that was implemented in three stages beginning in June 2010. The first stage provided for trading halts during extraordinary price movements (in either direction) in stocks included in the S&P 500 Index.² The second stage extended the program to stocks in the Russell 1000 Index and specified exchange-traded products,³ and the third stage extended the program to all remaining NMS stocks.⁴ In general, NMS stocks include all common stocks that are listed on U.S. exchanges.⁵ The current pilot program is scheduled to expire on July 31, 2012.⁶

On April 5, 2011, a number of exchanges filed with the SEC for its approval a proposed Plan to Address Extraordinary Market Volatility (the “Plan”), which would implement upper and lower price limits for individual stocks.⁷ The SEC received a number of comments on the Plan and, in response, the

³ See Securities Exchange Act Releases No. 62884 (September 10, 2010) and No. 62883 (September 10, 2010).
⁵ “NMS Stock,” as defined in Rule 600(b)(47) of Regulation NMS means “any NMS security other than an option.” “NMS Security” is “any security or class of securities for which transaction reports are collected, processed, and made available pursuant to an effective transaction reporting plan, or an effective national market system plan for reporting transactions in listed options.”
⁷ In addition to FINRA, the following exchanges are parties to the Plan: NYSE Euronext, on behalf of New York Stock Exchange, NYSE Amex and NYSE Arca; BATS Exchange and BATS Y-Exchange; Chicago Board Options Exchange; Chicago Stock Exchange; EDGA Exchange and EDGX Exchange;
The two pilot programs are to take effect on February 4, 2013.

THE PROGRAMS

As approved, the pilot programs involve two mechanisms designed to manage extreme market volatility: one that addresses sharp price movements in individual listed stocks and the other that addresses market-wide price declines in listed stocks as a whole.

**Single-Stock Program**

The single-stock program is intended to address extraordinary market volatility in individual NMS stocks. In general, it sets a price band, consisting of an upper price limit and a lower price limit, for each covered stock and precludes execution of most trades at prices outside the band (“limit up-limit down”). It also imposes a trading pause in the stock when no trades have been executed within the price band for a specified period.

**Limit Up-Limit Down**

For each NMS stock, the relevant securities information processors (“SIPs”) will calculate a price band that will be set at a specified percentage level above and below a reference price for the stock over the immediately preceding five minutes. The first reference price for an NMS stock on any trading day will be the opening price per share on the primary listing exchange, provided that the opening price occurs less than five minutes after the start of regular trading hours. At any other time, the reference price will equal the arithmetic mean price for the eligible reported transactions in the stock during the immediately preceding five minutes. The Plan was filed pursuant to Section 11A of the Securities Exchange Act of 1934 and Rule 603 of Regulation NMS.

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10. For each NMS stock, this entity is the single plan processor responsible for consolidation of information for the stock pursuant to Rule 603(b) of Regulation NMS.

11. If the stock is listed on more than one exchange, the primary exchange will be the one on which the stock has been listed the longest.
preceding five minutes. The band limits will vary based on trading liquidity. For more liquid stocks (Tier 1 stocks) – those in the S&P 500 Index, the Russell 1000 Index and certain exchange-traded products\(^\text{12}\) – the percentage level for the price band will be five percent – i.e., the limits will be five percent above and five percent below the reference price. For other listed stocks (Tier 2 stocks) – all NMS stocks not included in Tier 1 – the percentage level for the price band will be 10 percent. However, the percentage levels for all stocks will be doubled during the first 15 minutes after the market opens and the last 25 minutes before it closes. In addition, wider price bands will apply to stocks with a reference price of $3.00 or less.\(^\text{13}\)

The SIPs will calculate a pro-forma reference price for each NMS stock on a continuous basis during regular trading hours. If that price does not move by one percent or more from the reference price in effect, the current reference price will remain in effect, and no new price bands will be disseminated. If the pro-forma reference price moves by one percent or more from the reference price in effect, the pro-forma reference price will become the reference price, and the processor will disseminate new price bands based on the new reference price. Each new reference price will remain in effect for at least 30 seconds.

**Price Quotations**

When one side of the market for an NMS stock is outside the price band – i.e., either the National Best Bid (NBB) is below the lower limit, or the National Best Offer (NBO) is above the upper limit – the processor will be required to disseminate the quotation with an appropriate flag identifying it as non-executable. An NBB equal to the upper limit or an NBO equal to the lower limit will be flagged as a “limit state quotation.” Trading centers\(^\text{14}\) will not be permitted to display any bid above the upper limit or any offer below the lower limit.

The market for an NMS stock will enter a “limit state” when there is a limit state quotation that does not cross the other side of the market – i.e., when the NBB equals the upper limit but does not cross the NBO, or when the NBO equals the lower limit but does not cross the NBB. This may trigger a trading pause in the stock as described below. During a limit state, the processor will stop calculating and disseminating updated reference prices and price bands for the stock. The market will exit the limit state.

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\(^\text{12}\) These ETPs are listed in Appendix A to the Plan.

\(^\text{13}\) The percentage level for Tier 1 and Tier 2 stocks with a reference price of at least $0.75 but not more than $3.00 will be 20%. The percentage level for all NMS stocks with a reference price below $0.75 will be the lesser of $0.15 or 75%. For Tier 1 leveraged ETPs, the percentage level will be the otherwise applicable percentage multiplied by the leverage ratio of the product.

\(^\text{14}\) “Trading center,” as defined in Rule 600(b)(78) of Regulation NMS, means “a national securities exchange or national securities association that operates an SRO trading facility, an alternative trading system, an exchange market maker, an OTC market maker, or any other broker or dealer that executes orders internally by trading as principal or crossing orders as agent.”
if, within 15 seconds after entering it, all limit state quotations have been executed or canceled in their entirety.\textsuperscript{15}

\textbf{Trading Pause}

If the market for an NMS stock does not exit a limit state within 15 seconds, the primary exchange will declare a five-minute trading pause and inform the processor of the halt. The processor must disseminate this information to the public, and all trading centers must halt trading in the stock. Five minutes after declaring a trading pause, the primary exchange will attempt to reopen trading in the stock. The trading pause will end as soon as the primary exchange reports a trade price within the band, but in any event will not last for more than ten minutes. Upon reopening, the reference price for the stock will be reset to equal the reopening price on the primary exchange, unless there is no reopening price within ten minutes after the beginning of the trading pause, in which case the reference price will be the last one in effect before the trading pause. Subsequent reference prices will be calculated in the manner described earlier.

If the trading pause is declared less than five minutes before the close of regular trading, the primary exchange will attempt to execute a closing trade using its established closing procedures. All trading centers may resume trading in the stock as soon as the exchange executes a closing trade and in any event beginning five minutes after the close.

The primary exchange also has discretion to impose a trading pause when the market for the stock is in a “straddle state,” meaning that the NBB is below the lower limit or the NBO is above the upper limit of the price band, but the market has not entered a limit state. In this situation, the primary exchange may declare a trading pause if it believes that trading in the stock deviates from its normal characteristics and a pause would support the Plan goal of addressing extraordinary market volatility. The primary exchange also retains the ability to declare a regulatory halt in trading under existing market-system rules.

\textbf{Policies and Procedures}

All trading centers in NMS stocks will be required to establish, maintain and enforce written policies and procedures reasonably designed to prevent trades in those stocks from being executed at prices outside the respective price bands\textsuperscript{16} or during a trading pause, and to prevent the display of any bid above the upper limit or any offer below the lower limit for the relevant stock. Member broker-dealers that execute orders internally also must comply with these requirements relating to policies and procedures.

\textsuperscript{15} If such a bid or offer is nevertheless submitted notwithstanding such policies and procedures, the processor will display it but flag it as non-executable and will not include it in the NBB or NBO calculations.

\textsuperscript{16} Single-priced opening, reopening and closing transactions on the primary listing exchange, however, are excluded from this limitation.
Market-Wide Circuit Breakers

The second program will revise the existing market-wide circuit breakers that were approved by the SEC in 1988. The circuit breakers are governed by various exchange rules, and the SEC has approved changes to these rules to implement the new program.

The existing circuit breakers provide for cross-market trading halts during a severe market decline as measured by a single-day decrease in the DJIA. Currently, there are three circuit breaker thresholds – 10%, 20% and 30% – set by the markets at point levels that are calculated at the beginning of each quarter based on the average closing values of the DJIA during the preceding month. The revised rules will reference the S&P 500 Index rather than the DJIA and will reduce the percentage thresholds to 7%, 13% and 20%. The exchanges believe the somewhat lower levels are appropriate because the events of May 6, 2010, while extraordinary, did not trigger the existing thresholds. They also believe that the broader-based S&P 500 Index will provide a more meaningful benchmark against which to assess a serious market-wide decline. Moreover, the point levels of the triggers will be recalculated daily rather than quarterly.

The revised rules also shorten the duration of trading halts that do not close the market for the day. While the current rules provide for trading halts of 30, 60 or 120 minutes depending on when in the trading day they occur, the revised rules will halt trading for only 15 minutes in all cases when the market does not close for the day. The exchanges believe that, in light of the highly automated nature of today’s markets and improvements in communication technology, shorter trading halts likely will be sufficient to allow market participants an opportunity to assess a serious market decline and express their trading interests with less disruption to the markets.

Whether a trading halt will occur and, if so, whether it will end after 15 minutes or last the remainder of the trading day, will depend on two factors – the level of the market decline and whether it occurs before or after 3:25 p.m. during the trading day. A Level 1 decline (7%) will result in a 15-minute trading halt if it occurs before 3:25 p.m., but will not result in any trading halt if it occurs at or after 3:25 p.m. A Level 2 decline (13%) also will result in a 15-minute trading halt if it occurs before 3:25 p.m., but will not result in any trading halt if it occurs at or after 3:25 p.m. A Level 3 halt will occur when the market declines 20% at any time during the day, and trading will not resume for the rest of the day.

As under the existing rules, each exchange will remain responsible for halting trading in its market if the circuit breakers are triggered.

FURTHER COMMENT REQUESTED

According to the SEC, it received comments on the single-stock program from 18 parties and on the market-wide circuit breaker program from eight parties (four parties commented on both programs), who generally supported the changes but expressed concerns about specific aspects. With regard to two of
the most significant concerns, however, the exchanges recommended that no changes be made to the programs at least for the time being.

In particular, commenters expressed concern about the interaction between the single-stock and market-wide circuit breakers, with some asserting that the market-wide circuit breaker should be triggered if a sufficient number of single-stock trading halts were triggered. If a sufficient number of single stocks are experiencing trading halts, one commenter suggested, a market-wide halt would be appropriate given the difficulties of accurately calculating the level of the S&P 500 Index in that situation. In response to these comments, the exchanges asserted that attempting to identify the appropriate correlation between individual stocks in a trading pause or limit state and a related trigger for a market-wide circuit breaker would be "premature" at this stage and instead urged the SEC to use the pilot period to examine data and develop a better understanding of how the limit up-limit down mechanism will operate in practice before determining whether any changes of this kind should be made. The SEC is seeking further comment on this point and on whether the market-wide circuit breaker should be modified in any other respect in light of experience with the limit up-limit down mechanism.

In addition, commenters expressed concern about the fact that the market-wide circuit breaker would not be triggered after 3:25 p.m. unless there was a Level 3 decline. As a result, the markets could experience a decline of up to 20% during the last minutes of the trading day without trading being halted, and commenters suggested that a Level 2 circuit breaker should apply after 3:25. In response, the exchanges expressed concern that a 15-minute trading halt after 3:25 p.m. would be disruptive to a fair and orderly closing at 4:00 p.m. The SEC noted that it will continue to consider this issue during the pilot period and is seeking comment on this point as well.

Additional comments are due by June 27, 2012.
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