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October 26, 2015

Mr. Brent Fields
Secretary
Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549-1090

Re: SEC Equity Market Structure Advisory Committee (File No. 265-29)

Dear Mr. Fields:

Exchange Traded Funds (ETFs) play an important role in both institutional and retail investor portfolios. The number of U.S. exchange-trade products has grown significantly over the last decade, and assets invested in ETFs now stand at well over $2 trillion in the U.S. versus less than $300 billion only 10 years ago.[1]

In response to the market volatility experienced on August 24, there have been numerous calls from all corners of the market to re-examine the ETF ecosystem. A review of market structure around ETF trading is certainly worthwhile, particularly in light of the fact that many investors (large and small) have come to rely on ETFs as an investment vehicle to diversify their portfolios. On average, ETFs comprise 25% of daily trading in the U.S. equity market, and on August 24 ETFs made up approximately 40% of trading by dollar volume. Set forth below are a few of the key areas the Securities and Commission ("SEC" or "Commission") and the Equity Market Structure Advisory Committee ("EMSAC") should consider:

1. Limit-Up, Limit-Down
2. Clearly Erroneous Trade Rules
3. Exchange Opening Procedures (NYSE Rule 48)
4. Tape Integrity and the Aberrant Trade Rule
5. Stop Orders
6. Market Maker Obligations
7. Regulation SHO

Client Survey

On September 8, 2015, we circulated a survey to our clients and various other market participants. The survey focused on the events of August 24, but also raised other market structure issues. We received responses from some of the country's largest asset managers, ETF

[1] *See* Written Statement of Reginald M. Browne dated May 13, 2015; available at: https://www.sec.gov/comments/265-29/26529-6.pdf

sponsors, liquidity providers and other market participants. Set forth below are some of the key questions and summaries of some of the responses:

<u>Question</u>: What was your experience on August 24, 2015?
<u>Responses</u>:

- August 24 was the first real test of the market structure rules implemented following the so-called "Flash Crash" of 2010.
- Several ETFs traded at prices significantly below their indicative index values.
- Contributing factors to the price dislocations included: reduced market maker liquidity, large amounts of sell orders, and certain market structure rules (including, Limit Up/Limit Down ("LULD"), the NYSE opening process and Clearly Erroneous rules).
- These issues combined to provide a poor experience for retail clients, particularly in ETFs.
- LULD bands make markets more difficult to trade and, when coupled with sell short restrictions, limit market efficiency.

<u>Question</u>: What seemed to work well and what did not?
<u>Responses</u>:

- The market traded a tremendous amount of volume and corrected itself within 45 minutes without triggering a market wide circuit breaker.
- A significant portion of the underlying stocks did not open for trading at 9:30am. When coupled with the increased volatility at the open, the highly automated systems used by market makers lacked the appropriate pricing information to provide tight pricing on the hundreds of products they systematically trade.
- The five minute halt associated with LULD was not enough time for the underlying markets to find a point of stability. Thus, some thin stocks and ETFs were quickly re-halted when they came out of the opening auction.
- NYSE Rule 48 and LULD created issues with pricing.

<u>Question</u>: What are your views on LULD?
<u>Responses</u>:

- LULD rules prevented a significant amount of clearly erroneous executions.
- LULD halts did have unintended consequences for ETFs.
- Because bands were doubled at the market open, ETF prices were able to fall in larger increments than they were then able to later ascend.
- Once markets and pricing of the underlying securities had stabilized, the LULD bands, combined with the collars in place on NYSE ARCA, inhibited the speed at which ETFs were able to recover and resume trading at their fair value.
- The re-opening process of LULD needs to be modified to account for significant dislocations and allow for a quicker recovery to fair value.

Question: Does trading activity in ETPs affect price discovery, price correlation, liquidity, or volatility in the ETPs underlying or reference assets?

Responses:

- ETPs permit market participants to express views and gain exposure to different asset classes.
- ETPs offer access and broader coverage at a lower cost relative to other derivative products like swaps.
- Allows for better price discovery in the underlying reference assets.
- ETPs provide valuable price discovery in illiquid markets.
- Active trading in ETPs could hamper price discovery as baskets are bought and sold with no consideration of underlying supply and demand.
- ETPs trading could increase price correlation among stocks and negatively impact some names and give incorrect support to other names.

Question: How important is the market maker to the ETP trading process?
Responses: *97% responded: Essential*

Question: Should the regulators establish affirmative obligation rules for HFT participants and Market Makers?
Responses: *68% responded: Yes // 22% responded: Not Sure*

Question: Should liquidity providers receive incentives to remain in the market during period of high volatility? Examples of incentives: enhanced maker/take rebate, parity or priority matching or some other incentive?
Responses: *60% responded: Yes // 20% responded: No // 20% responded: Not Sure*

Question: If a stock or ETF is halted given the LULD rules, should a reopening process be considered so investors receive a consolidated price across all exchanges and execution venues?
Responses: 82 *% responded: Yes // 17% responded: No*

Limit-Up, Limit-Down

August 24 was certainly a day marked by extreme volatility and, rightfully, impacted investors' confidence in the market. However, it is very important that we remain mindful not to let an exception drive (or rush to) rulemaking. Indeed, many of the marketplace rules in effect today help to provide for an organized, efficiently run marketplace. Although some tweaking of existing rules may help to address some of the anomalies experienced on August 24 and on other days where volatility is particularly high, it is critical that we continue to let free markets trade.

The Limit-Up, Limit-Down ("LULD") Pilot was approved by the SEC in 2012 as part of a Joint Industry NMS Plan to address extraordinary market volatility in U.S. equity markets. LULD is intended to prevent trades from occurring outside of specified price bands. The bands are set at a percentage level above and below the average reference price of the security over the immediately preceding five-minute period. There is a five-minute trading pause if trading is unable to occur within the specified price band after 15 seconds.[2] On typical market days, these bands work well to prevent large, sudden price moves in individual stocks and ETFs. However, on days were there is market-wide volatility due to global economic events (as witnessed on August 24), LULD may exacerbate certain issues, as well as inhibit the reversion of many securities and the overall market. Industry reports noted that LULD halts occurred more than 1,000 times in various stocks and ETFs on August 24. As a result, the recovery of many securities was much slower than it could have been without LULD, and this contributed to the dislocation of pricing between certain ETFs and their underlying constituent stocks.[3] To address some these issues, I suggest the following:

1. During periods of market-wide volatility, the bands across all securities should be wider – allowing the free market forces of supply and demand to operate without artificial interference. The narrower the bands, the more frequently stocks are halted.

2. Since ETF pricing is derivatively based, the bands for ETFs should be different (possibly wider) than its underlying constituent stocks.

3. The re-opening process needs to be modified. Today, the primary exchange reopens the halted stock, and the new reference price is the reopening price on the primary exchange. Once a trading pause is triggered, the primary exchange looks to orders and quotes it receives to determine the indicative clearing price. To ensure the best possible clearing price during the LULD halts, I recommend that all exchanges route all orders to the primary exchange. As has occurred many times before, the primary exchange will re-open a stock only to have it immediately paused again when an order from another exchange is either executed or displayed outside the LULD bands. Thus, routing to the primary exchange will lower the risk of trades occurring outside the bands given the latency between the collars and market data transmissions.

4. LULD halts should be as long as necessary to satisfy the original order that caused the halt. This will minimize the chance of multiple, consecutive halts. This will help to ensure there is minimal unsatisfied interest coming out of a LULD halt.

5. Shorten the period LULD is active and eliminate the double wide bands in the first 15 mins and the last 25 mins of the trading day. The ultimate goal is for the price discovery process to occur and permit market supply and demand to determine pricing. Artificial bumps can impede that process at the most important times of the day.

These recommended adjustments to LULD will not only allow stocks to more quickly recover in periods of extreme volatility, but will also permit the overall market to operate more efficiently

[2] SEC Release No. 34-67901 (May 31, 2012). Generally speaking, during market hours (9:45am – 3:35pm) the bands vary between 5%-10% for securities priced above $3 per share, and during market open and close (9:30am-9:45am, and 3:35pm – 4pm), the bands vary between 10%-20% for securities priced above $3 per share. *See*, https://www.nasdaqtrader.com/content/MarketRegulation/LULD_FAQ.pdf

[3] In the client survey noted above, many respondents noted that August 24 revealed flaws in LULD which proved to be an "interruption to price discovery."

and will minimize the instances in which there are significant dislocations between ETF prices and their underlying constituent stocks.[4]

Clearly Erroneous Trade Rules

The Clearly Erroneous Trade Rules were modified largely in reaction to the so-called "flash crash" of May 2010.[5] Under the current rules, exchanges have adopted specified percentage thresholds at which trades will be broken. Despite the best efforts to bring more certainty to the process of when erroneous trades will be broken, there are still many situations in which a trade can be declared erroneous even though it falls within the LULD bands.

Thus, the Commission should work with the exchanges to harmonize the Clearly Erroneous Trade parameters with the LULD bands. This would bring more certainty to the market, and minimize instances in which liquidity providers pull-back from the market in light of the uncertainty associated with when certain trades will be broken.[6]

Exchange Opening Procedures

The events of August 24 put a spotlight on the associated market microstructure of exchange opening procedures. I believe that all markets should open on an automated basis at 9:30am. By doing so, this will minimize occurrences where ETF portfolio values will dislocate severely from the secondary market price of the ETF. If the opening procedures of certain exchanges retain a manual component, an increased level of information transparency is warranted for any security that is not opened at 9:30am. Currently, automated order imbalance information is not disseminated after 9:35am on the NYSE. Additionally, as it pertains to NYSE Rule 123D, automation of the order imbalance should be fully disseminated by the NYSE to the market until the security is open. Once the requirements of NYSE Rule 123D are automated, the necessity of NYSE Rule 48 will be minimized which will speed the opening process. NYSE Rule 48 hindered the flow of information to the marketplace and was once of key factors leading to the ETF dislocations on August 24.

As noted above, August 24 helped to reveal a number of flaws in the current market structure of the equities markets. NYSE Rule 48 is one of those flaws.

[4] Some have suggested that LULD bands for ETFs should be based on the intraday indicative value ("IIV"). I disagree. The IIV is an estimate of the ETF's value, is published every 15 seconds by the listing exchange, and is based on the most recent prices of the underlying securities. However, since the IIV is only disseminated every 15 seconds, this lag could misrepresent the actual value of the ETF in volatile markets. Further, the IIV does not capture the index weight. Thus, LULD bands for ETFs should not be based the IIV.

[5] SEC Release No. 34-62886 (September 10, 2010).

[6] Additionally, the Commission and the exchanges should also consider modifying the Clearly Erroneous Trades rules to permit for adjusting prices rather than busting trades. It makes much more sense to adjust the price of erroneous trades, rather than bust the trades altogether. Adjusting the trades reduces considerably the risks (and costs) to all parties to the trade, and reduces the disruption to the market and investors caused by breaking trades.

Adopted in 2007, NYSE Rule 48 permits, among other things:

> *"In the event that an extreme market volatility condition is declared with respect to trading on or through the facilities of the Exchange, a qualified Exchange officer shall be empowered to temporarily suspend at the opening of trading…"* [7]

On August 24, the NYSE invoked Rule 48 on several occasions, causing numerous securities to open well after 9:30am. Delaying the opening of a security has the same effect of a LULD halt, as it relates to the potential for a dislocation of pricing between certain ETFs and their underlying constituent stocks. Thus, as a direct result, on August 24 the pricing of many ETFs widened during the period in which the NYSE delayed the opening of many of the underlying constituent stocks. Once the underlying securities were permitted to open, the divergence in pricing between the ETF and the underlying securities dropped to nominal levels.[8]

Tape integrity and the Aberrant Trade Rule

In 2008, the Commission approved proposed rule changes to permit the exchanges to exercise the discretion to append an indicator to a trade which indicates that the trade price does not accurately reflect the prevailing market for the security.[9] The thought behind the rules was that trades in listed securities occasionally occur at prices that deviate significantly from prevailing market prices and those trades can sometimes establish a high, low or last sale price for a security that does not reflect the true market for the security.[10]

Although appending this indicator to a trade does not impact the trade itself, the effect of such indicator is to exclude the trade from the tape and the high/low and last sale price data feeds. Data vendors and recipients of such data similarly exclude any such trade from the high and low prices that they calculate for the effected symbol.

I recommend that these rules be eliminated as they undermine the integrity and transparency of the tape. An "aberrant" trade is not an "erroneous" trade. Rather, it is a legitimate trade that has been negotiated between two parties. Thus, the trade should not be removed from the tape and should be required to remain visible to all market participants. Although I would support the print not setting the high/low for the security or other benchmark, it should remain on the tape. The integrity of the tape should be sacrosanct, as it is the only real-time data source which reflects where buyers and sellers are trading.

[7] NYSE Rule 48, available at: http://nyserules.nyse.com/nysetools/PlatformViewer.asp?SelectedNode=chp_1_2&manual=/nyse/rules/nyse-rules/

[8] For example, see Letter from Modern Markets Initiative to the U.S. Securities and Exchange Commission (dated September 24, 2015), available at: http://modernmarketsinitiative.org/mmi-letter-to-the-sec-proposing-improvements-to-etf-trading/

[9] SEC Release No. 34-59064 (December 5, 2008); SEC Release No. 34-59151 (December 23, 2008).

[10] *Id.*

Stop Loss Orders

Several market participants have noted that investors unwittingly sold their securities at prices much lower than they expected on August 24. A trading mechanism that exists today that exacerbates this issue is the stop loss order.

Stop loss orders are intended to help protect investors' downside risk by immediately triggering a sell order of an existing position if it hits a predefined price target. One of the major problems with stop loss orders is that in rapidly declining markets investors may sell at prices that are well below their desired price. Generally speaking, once a stop loss order is triggered, it converts to a market order and is immediately executable regardless of its proximity to the triggering price. In a rapidly declining market which is processing a significant amount of sell orders, a triggered stop loss order takes its place behind a long-line of sell orders.

In volatile markets, stop loss orders can cause more harm than good. As more and more trigger points are reached in a declining market, a deluge of sell orders are dropped into the market putting further downward pressure on the stock, and causing a snowball effect. As the market moves down, more sell orders are triggered, causing the market to decline further, triggering more sell orders, and so on.

We recognize that eliminating stop loss orders altogether may not be practical (even though it may be the best course of action). Thus, it is incumbent on brokers to educate retail investors as to the dangers of stop loss orders – particularly in volatile markets. Additionally, placing certain controls around stop loss orders could help to dramatically reduce investor losses on days like August 24. For example, limit the notional amount an investor can place in a stop loss order to a percentage of the ADV. Or, require investors to place limit prices on the stop loss order – in other words, once the stop is triggered, no shares will be sold below a certain limit price level.

Market Maker Obligations

Many of the respondents to our market survey supported the notion of enhanced market maker obligations. In fact, nearly 70% supported the notion of enhanced market maker requirements and incentives. Market makers are an integral part of the marketplace, and the liquidity and stability they provide are invaluable to the resilience of the capital markets.

I suggest that the Commission increase market maker obligations and likewise increase incentives to market makers, including:

- Publish continuous quotations, with a maximum quoted spread obligation
- Quote a minimum number of stocks
- Quote at the inside market a certain percentage of the day
- Minimum quote size requirements
- Provide depth at various price levels[11]

[11] *See*, Letter from GETCO LLC, Virtu Financial, LLC, Knight Capital Group, Inc. to Robert Cook, U.S. Securities and Exchange Commission (July 9, 2010), available at: https://www.sec.gov/comments/s7-02-10/s70210-255.pdf

Regulation SHO

Amendments to Regulation SHO are long overdue, and certain of the recommended modifications (discussed below) would provide market makers with meaningful incentives.

Today, market makers generally have two additional days to close out short positions following a fail to deliver (T+6 instead of T+4). However, even with these two additional days, market makers cannot sell short to buyers in thinly-traded securities, unless they are confident they can cover any short position quickly – which in illiquid securities is not often the case. Additionally, many market makers tend to run balanced trading books, long vs. short. If the market maker's ability to carry short positions is impaired, then its ability to carry a long positons will be similarly impaired, leading to an overall degradation in liquidity. To illustrate this further, consider a scenario where a marker maker is short 100 shares of an ETF. In order to satisfy Regulation SHO requirements if shares are not available to buy in the secondary market without significant dislocation, the market maker would have to create one unit of the ETF, which often times is a minimum of 50,000 shares. The resulting spread of ETFs will widen to account for the burden of financing the large position of a thinly-traded ETF. Thus, the Commission should consider extending the timeframe for *bona fide* market makers to close out short positions.[12]

Importantly as well, Rule 201 (Alternative Uptick Rule) of Regulation SHO provides a short sale-related circuit breaker that when triggered, imposes a restriction on prices at which securities may be sold short.[13] The Rule restricts a market maker from executing a short sale order at a price that is less than or equal to the current national best bid (for the remainder of the trading day and following trading day) if the price of that covered security decreased by 10% or more from the closing price on the prior day.[14]

Commission Aguilar recently noted in a public statement,

> *"Would providing ETF market makers a limited exemption from the short sale price test restrictions of Reg SHO help make ETF pricing more accurate?"*[15]

The answer to the question posed by the Commissioner is resounding "yes." It is imperative for market makers who are engaged in *bona fide* market making activities to be provided an exemption from this short sale price restriction. It will enable market makers to maintain tighter spreads and provide additional liquidity, particularly during periods of extreme market volatility.

[12] *Supra,* note 1.
[13] SEC Release No. 34-61595 (February 26, 2010).
[14] *Id.*
[15] Statement of Commissioner Luis A. Aguilar, "How Can the Markets Best Adapt to the Raid Growth of ETFs" (Oct.15, 2015), available at: http://www.sec.gov/news/statement/how-can-markets-adapt-to-rapid-growth-etfs.html

<u>Conclusion</u>

As we have stated previously, important market structure issues must be driven by the careful analysis of empirical data. In that regard, we commend the Commission for its Market Information Data and Analytics System (MIDAS).[16] Since its roll-out in January 2013, MIDAS has provided market participants and investors with a tremendous amount of useful market data which has permitted interested parties to conduct in-depth analysis of a variety of market structure issues including, for example, the market events of August 24. The Commission should continue its work to expand MIDAS information and analytical tools.

I would be happy to answer any questions. I look forward to a continued discussion of these and other important market structure issues.

Sincerely,

Reginald M. Browne

[16] Available at: http://www.sec.gov/marketstructure/#.Vio9dvlVhBc