U.S. Securities and Exchange Commission
Equity Market Structure Advisory Committee Meeting
Market Volatility Panel
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Good morning – my name is Paul O'Donnell, head of Electronic Trading product in Morgan Stanley's Institutional Equities Division. I would like to thank the Chair, the Commissioners, the Staff and the Committee members for giving me this opportunity to participate in the discussion regarding market volatility and the events of the morning of August 24th, 2015. I will make some brief comments about the events of the day, which has been covered in depth by the Staff and others, and I will conclude with some recommendations.

The events in the equity markets on August 24th were driven by many inter-related factors. There was no single cause and there is no simple fix. Most notably, the pricing mechanisms that normally keep instruments trading at efficient prices relative to each other did not function as expected leading to price dislocations in the opening minutes of the trading day. In situations of market stress, market centers need to allow for liquidity to enter the market, while preventing price insensitive orders from creating further disruption. August 24th was the first real test of the changes put into place in the aftermath of the Flash Crash. While some things worked as designed, for example we did not see stocks trading at one penny, there are still improvements to be made.

In order to understand the events of that morning, we must remember the state of global equity markets over the preceding days. The S&P 500 closed 3.2% down on Friday, and Asian and European markets were down 5%-8% over the weekend and into Monday morning. We were in the midst of a global selloff.

As the Staff observed in its report, the E-Mini future was limit-down at 5% from 9:15 on Monday morning, and at 9:25 went into a 5 minute trading halt prior to the U.S. equity market open. In other words, one of the most liquid instruments in the world, which acts as a major input to many U.S. equity pricing models, was not trading and therefore not providing price signals. In addition, market participants were facing the possibility that a Market Wide Circuit Breaker might trigger and the entire equity market would halt for 15 minutes.

The New York Stock Exchange (NYSE) invoked Rule 48, intended to streamline the opening of NYSE securities amid a market disruption. A consequence of this action was that there was no public dissemination of imbalance data or opening indications outside the NYSE floor after 9:35. In a time of market stress, the willingness of market participants to provide liquidity is driven in part by transparency of pricing. At a time when liquidity was most sorely needed, most market participants had little to no information on which to base trading decisions. I note that NYSE has since partially altered this practice. Imbalance information now continues until the stock opens, but dissemination of opening indications is still not required when Rule 48 is invoked.

As the Staff report also notes, the opening minutes of trading were characterized by heavy volume and a lack of order book depth, suggesting an influx of liquidity takers while liquidity providers were largely absent. Further analysis of non-public data such as OATS is required to understand the nature of the liquidity taking flow. As the market opened, many securities saw severe price dislocations and entered Limit Down halts as liquidity demand overwhelmed supply. Many securities experienced multiple halts before prices stabilized.

Given the repeated cycle of halts and re-opening auctions on these securities, we should revisit the operation of opening and re-opening auctions on the U.S. listing exchanges to understand whether they are operating effectively. Opening and re-opening auctions are designed to aggregate liquidity and find a clearing price which should be in line with subsequent trading levels. While such price discovery will never be perfect, the repeated nature of the halts suggests that many of these auctions did not find a reasonable clearing price. At the end of this presentation I will make some recommendations designed to improve the operation of these auctions.

As identified in the Staff report, many of the sell imbalances as the market declined consisted of market orders. The New York Stock Exchange reports a 6 fold increase in market orders during the first 30 minutes of trading, specifically from firms handling retail flow and hypothesizes that many of these market orders were a result of stop loss orders that were triggered. While market orders are a legitimate and reasonable order type in normal market conditions with a stable far side market, stop orders are placed in advance to execute at a later time in unknown market conditions. One thing that is certain is that a sell stop order will trigger on a down tick. However, whether the down tick is short term or part of a sustained decline is not knowable at order entry time. As I previously noted, an analysis of non-public data would allow regulators to determine whether this influx of market orders was in fact driven by stop loss orders and whether a regulatory response is required regarding the use of stop loss orders.

Another area of uncertainty relates to the disconnect between Clearly Erroneous rules and Limit Up/Limit Down rules. Given this disconnect, liquidity providers were facing a situation where trades within Limit Up/Limit Down price bands might still be busted under Clearly Erroneous rules, creating further disincentive to provide liquidity.

Here are some suggested improvements that could be introduced into the U.S. equity market based on the lessons learned from the events of August 24th:

1. In order to attract liquidity, exchanges should publish information about imbalances and indicative opening prices as widely as possible until the security opens.
2. Auctions should not execute with a market order imbalance but should wait to find a reasonable clearing price at which all such imbalances are offset.
3. There should be a Price Monitoring Extension mechanism built into exchange auctions. This mechanism would provide a price collar around the execution price of the auction. The collar would widen over time until a clearing price is found. This mechanism would slow auctions with

large price moves, allowing market participants to source additional liquidity and provide greater confidence that the price move is warranted.

4. The SIP should publish LULD bands simultaneously with the reopening indicator so that there is no period of time after the open/re-open during which there are no published LULD bands, as was the case on August 24th. Listing markets should honor these bands when transitioning from auctions into continuous trading.
5. We suggest that regulators conduct an analysis of non-public data such as OATS to determine the source of the liquidity taking order flow seen on the morning of August 24th. Based on the results of that analysis, regulators should consider rulemaking to require that all stop orders be entered with a limit price.
6. Clearly Erroneous rules should be amended to ensure that short of a technical malfunction of the Limit Up/Limit Down process, all trades executed within the bands will stand.

In closing, the U.S. equity markets are resilient and liquid. We have made improvements since the Flash Crash, but there is work still to be done. Thank you again for this opportunity. I applaud the Commission and the Committee for its efforts on these important issues.