TESTIMONY OF

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BEFORE THE

SENATE COMMITTEE ON BANKING,

HOUSING AND URBAN AFFAIRS

SUBCOMMITTEE ON SECURITIES, INSURANCE,

AND INVESTMENT

MAY 20, 2010

Introduction

Chairman Reed, Ranking Member Bunning and Members of the Subcommittee, my name is Larry Leibowitz and I am Chief Operating Officer for NYSE Euronext[1]. I appreciate the opportunity to share with the Subcommittee our written testimony on the subject of today's hearing.

We commend the Subcommittee for its proactive response to the trading events of May 6, 2010. We agree with the Subcommittee that an orderly trading environment is fundamental to ensuring the reliability and integrity of our financial markets, fostering investor confidence in the markets, and safeguarding the U.S. financial system and economy. NYSE Euronext has always worked and will continue to strive to be the standard for accountability and transparency in the regulated marketplace. Thus, we believe it is essential to carefully examine the market events that occurred on May 6, 2010 and to consider potential market design and regulatory actions that could mitigate any similar occurrences in the future. NYSE Euronext is firmly committed to working with regulators and market participants toward achieving this critical objective, and we strongly urge all parties to play an active and responsible role in helping our market function in a

[1] NYSE Euronext is a leading global operator of financial markets and provider of innovative trading technologies. The company operates cash equities exchanges in five countries and derivatives exchanges in Europe and the United States, on which investors trade equities, futures, options, fixed-income and exchange-traded products. With more than 8,000 listed issues, NYSE Euronext's equities markets – the New York Stock Exchange, NYSE Euronext, NYSE Amex, and NYSE Arca – represent nearly 40 percent of the world's equities trading, the most liquidity of any global exchange group. NYSE Euronext also operates NYSE Liffe, the leading European derivatives business, and NYSE Liffe US, a new US futures exchange. We provide technology to more than a dozen cash and derivatives exchanges throughout the world. The company also offers comprehensive commercial technology, connectivity and market data products and services through NYSE Technologies.

way that gives investors confidence. The trading events of May 6 are indicative of broader changes to markets and trading practices for which recent advances in technology have been a catalyst, and which the SEC wisely has opened for review. We particularly applaud the extraordinary effort and professional dedication of the SEC and CFTC in producing a thoughtful preliminary report on the events of May 6^{th} in such a short timeframe.

Today I would like to discuss:

- the trading events of May 6, 2010;
- the role automated trading and high frequency trading played in the market disturbance;
- the actions, and rationale behind those actions, that the New York Stock Exchange took during those events; and
- our recommendations for market design and regulatory changes to avoid similar events and enhance investor safeguards in the future.

The May 6, 2010 Market Drop

On May 6, 2010, from 2:40 p.m. to 3:00 p.m. Eastern time, the U.S. equity trading markets experienced a precipitous decline. At its lowest point, the Dow Jones Industrial Average suffered an intraday decline of 998.5 points, representing approximately $1 trillion in market value, with the most severe trading pressure occurring between 2:40 p.m. and 3:00 p.m. Some individual stocks lost nearly 100% of their market value. Although some of the underlying economic and global financial conditions that influenced this selling activity are known, the exact succession of events and what precipitated them remain unclear. The Securities and Exchange Commission (the "SEC") and the Commodity Future Trading Commission (the "CFTC") are aggregating and analyzing trading data from all of the equity and derivatives markets and, in addition to their preliminary findings issued on May 18, 2010, will form a complete picture of the situation. We and other markets are working with the SEC and CFTC to supply and interpret this data, but we cannot do so on our own, as any single exchange has access only to the data from trades sent to or executed on that exchange.

From our standpoint, we see no evidence of fat finger error or market manipulation, due to automated trading or otherwise. However, we do see the following:

- Elevated market activity coming from adverse European news, including a very large and a broadly based wave of orders and quotes at around 2:30 p.m.;
- A significant reduction in marketplace liquidity as measured by the size of order books through the day, which accelerated dramatically through the downturn;
- Increased downward pressure exacerbated by the triggering of retail Stop Loss orders, which sent market sell orders into an already weak market; and

- Various microstructure issues that resulted in certain marketplaces not interacting with one another, which exacerbated the liquidity effect.

Trading activity like we experienced on May 6 underscores the importance of the broad market structure review that the SEC is undertaking at present. As you know, in 2005 the SEC adopted Regulation NMS, which is the main set of regulations that govern the interaction of the competing markets in equity securities. Regulation NMS has resulted in a number of benefits to the equity markets, including narrower spreads and a greater use of technology, positioning the equity markets to handle the extreme market stresses that began in the fall of 2008. Additionally, Regulation NMS resulted in vibrant competition in the markets. We strongly support competition in the equity markets, but competition among trading centers and models has also resulted in significant market fragmentation. There are currently upwards of 40 market centers in the equities markets, including registered exchanges and alternative trading systems.

Moreover, the broader market structure has evolved to one that values speed over most other factors, while on the New York Stock Exchange we have put a special emphasis on arriving at the right price. When a trading problem occurs, such as the May 6 experience, there is no central mechanism to coordinate a market-wide response, or better yet to briefly pause, reassess what is happening in the marketplace and re-aggregate liquidity for the express purpose of conducting price discovery. Exchanges have rules for trading halts regarding pending news and trading problems and also have had to implement rules to address erroneous trades, most of which would not occur in a well-functioning market structure. And while the securities and futures exchanges, along with the Financial Industry Regulatory Authority (FINRA), have adopted the market-wide circuit breakers developed after the 1987 market crash, there were no pre-established mechanisms in place on May 6 to address precipitous declines on a stock-by-stock basis, or trading problems that result in market-wide drops of less than 10%.

We are confident that the May 6 market drop will inform the SEC's current examination of the changes in the markets, and in particular how certain recent advances in technology may have fostered trading practices that negatively impact the entire market, and how practices that in the past were considered standard do not function well in today's market. We are committed to working with the SEC and the CFTC as they consider these important issues.

It is worth noting that a theme in some responses to the outstanding SEC market structure review is that policymakers should refrain from tinkering with the equity capital markets because they operate smoothly and efficiently, with deep liquidity and narrow spreads. While we do not disagree with many of these observations on the whole, we believe May 6th highlights why we do in fact need to focus on new rules and frameworks to avoid potential issues that arise in our fragmented marketplace, in a manner that is sensitive to maintaining an innovative environment. At the same time, we do not think it is right to point blame at professional traders or one category of liquidity providers, but rather believe that events of May 6 further highlight some of the issues raised in the

SEC's Concept Release regarding market maker commitments to the marketplace, dark liquidity and overall transparency.

In this regard, I want to say a few words about high frequency trading. One of the challenges in addressing the topic is that there is no accepted definition of high frequency trading, but for present purposes I use the term to refer to a variety of high-speed techniques that have effectively filled the void left by human market makers who could no longer compete when decimalization greatly shrunk spreads.

The New York Stock Exchange Euronext believes that high frequency trading adds liquidity to the markets, to the benefit of investors. It is most common in high-volume stocks and research demonstrates that since 2002, quoted spreads between bid and offer on stocks have tightened the most in high-volume stocks compared to lower volume ones, presumably showing the benefits of high frequency trading. Moreover, the New York Stock Exchange Supplemental Liquidity Provider (SLP) program gives high frequency traders an economic incentive to quote at the best price a certain percentage of the time, thus rewarding the provision of liquidity.

I want to be clear that the New York Stock Exchange Euronext does not favor high frequency trading or any other type of strategy over others. Rather, our role is to provide liquid, transparent and well-regulated exchanges, and let customers choose how they wish to access our markets.

Before describing our actions on May 6, I believe it would be useful to explain the rules of the New York Stock Exchange that are designed to mitigate volatility which arises out of brief bursts of liquidity demand.

The New York Stock Exchange's Market Model

The New York Stock Exchange has embraced electronic trading, and we believe our market model provides the best combination of cutting-edge technology and human judgment. The New York Stock Exchange market rules expressly provide mechanisms to mitigate volatility and large price swings – which we have always believed is a critical piece of our offering to listed companies and their investors.

Specifically, the hybrid design of the New York Stock Exchange incorporates in its trading structure a type of circuit breaker mechanism, known as Liquidity Replenishment Points ("LRPs"), which temporarily and automatically pause trading in stocks when significant price moves occur. The LRPs are triggered by specific criteria based on the prices of particular stocks, which criteria are included in our rule book and were approved by the SEC. On a typical day, LRPs are triggered a few hundred times, lasting for seconds at most, and served the market well during the recent financial crisis.

LRPs are designed to allow pauses and judgment to supplement artificial intelligence when trading appears irrational. The New York Stock Exchange's human liquidity providers absorb the news and trading patterns with respect to individual stocks and can conduct auctions of order imbalances. To be clear, the LRP mechanism does not halt trading and does not allow liquidity providers to step away from the market. Instead, for a short time, trading is automatically paused to facilitate more accurate price discovery, mitigate confusion and reduce panic, and prevent the market from experiencing a sudden and significant move. During this pause our quote is visible to other market participants and new orders are accepted. Our LRPs are analogous to taking the controls of a plane off auto-pilot during turbulence.

Necessarily, and beneficially, this process is more deliberate and time consuming than fully electronic trading. Although Regulation NMS permits electronic trading to ignore the New York Stock Exchange when we are in our circuit-breaker mode, many market participants specifically chose our mode of trading in this time of stress: during the 20-minute period of focus on May 6, including the periods when the New York Stock Exchange was in LRP mode, market share on the New York Stock Exchange was five percentages points *higher* than usual during that time of day, and the participation rate of our Designated Market Makers (formerly known as Specialists) and Supplemental Liquidity Providers was actually higher than usual. This is evidence that our liquidity providers did not walk away from the market as we actively traded during the downturn

Once the New York Stock Exchange's circuit breakers were triggered, prices on the New York Stock Exchange were dramatically different from prices on electronic exchanges that did not have in place a similar circuit breaker mechanism. Because the New York Stock Exchange had switched to LRPs, and because Regulation NMS allows traders to bypass us, orders were routed to electronic markets that had not mitigated the volatile price declines and which had limited amounts of liquidity on their books.

To demonstrate that LRPs protected orders in our market, stocks listed on other markets had price declines and erroneous executions far greater than stocks listed on the New York Stock Exchange. For instance, while Proctor and Gamble traded no lower than $56.00 on the New York Stock Exchange during the 20-minute period of focus, it traded as low as $39.37 on electronic exchanges. In terms of erroneous executions, the overall marketplace needed to cancel approximately 15,000 executions after Thursday's decline. On the New York Stock Exchange – even though we handled the largest share of orders in the marketplace – *we had to cancel ZERO trades* because of the protective measures in our market – while still trading more shares than any other venue. In fact, 85% of the trades that ultimately were canceled were securities that were not listed on the New York Stock Exchange.

I emphasize these points to dispute the notion that the New York Stock Exchange stepped away from the marketplace during this crisis.

We should note that LRPs are not intended to prevent the market from falling; indeed that is not the role of an exchange, and could not be achieved by any one market. Rather, our LRPs are designed to protect the integrity of our market by preventing a panic-led downdraft and mitigating systemic risk. Yet, when we are in this "slow" mode, other electronic markets may choose to ignore our quotes, as permitted under Regulation NMS. Thus, a circuit breaker on a single trading market, such as the New York Stock Exchange, is not able to staunch volatile and panicked trading on other markets especially if those markets choose not to participate in our circuit-breaker mechanisms.

The bottom line is that while there is always room to improve LRPs and other such mechanisms, these actually worked well on May 6th. However, the mechanism is only truly effective if observed by other trading venues, and that's why Chairman Schapiro's plan for an industry-wide trading circuit breaker is needed.

Recommendations

One clear lesson of May 6 is that our markets need a predictable, pre-established, coordinated way to respond to extreme and rapid market volatility. The LRP system has worked, but market-wide circuit breakers are necessary and will be even more effective. The listing and trading venues, under the SEC's guidance, have filed proposals to adopt stock-level circuit breakers to pause trading when the price of a security has changed by ten percent in a five-minute period. Once circuit breakers have been triggered in a security, they will apply to all trading in the security, wherever it takes place, with the decision to invoke and reopen governed by the primary listing market. In this regard, we would also highlight the order protection rules under Regulation NMS. The original intent of the rule may have been to give automated markets the option of bypassing a market that was temporarily operating in a manual mode. In practice, however, the ability of markets to bypass a manual market by default resulted in a situation where markets effectively chose to ignore and trade around our quotes once our circuit breakers were triggered. While we feel the LRPs helped the market overall on May 6th and certainly did not exacerbate the problems, most of the benefit accrued to orders on the NYSE marketplace, and the events of May 6 have demonstrated that it may be time to reconsider routing practices that trade through functioning quotes as a default matter.

Second, the current market-wide circuit breakers were established long ago and are based on market moves of ten percent, twenty percent and thirty percent. There has not been a move greater than ten percent in a single day post-2000. These levels should be tightened, and the circuit breaker should be based on a broader index rather than a narrow Dow Jones index.

Third, the rules on cancellation of trades should be further defined. On May 6, it was announced after markets closed that any trades executed at 60% above or below the last price at 2:40 p.m. would be cancelled. This action was not predictable and caused confusion in the markets. We are working with regulators and other exchanges to establish clear cancellation rules for the future, which set thresholds and circumstances under which trades will be cancelled or adjusted, to correct errors rather than market-wide movements.

Fourth, brokers should review their order routing practices to ensure they are truly getting the best prices for their clients, and also see whether allowing market orders and Stop Loss orders really service the investing public, or whether there are things we can jointly do to educate and protect retail investors from being the victims of volatile markets.

Fifth, to facilitate a review of extraordinary trading events, there should be a consolidated audit trail that would allow regulators to easily review market-wide trade data. Having such a mechanism in place very likely would have aided the review of the May 6 events. We understand the SEC is developing such a proposal, and we are committed to assisting in that effort.

We also note that the SEC has recently proposed regulations that would govern the risk controls applicable to providers of market access, to provide more transparency to the equities markets more broadly, and more generally review the functioning of the equities markets, and we have expressed our support for many of these proposals. In order to both avoid similar trading events and to facilitate surveillance, there should be uniform standards across markets that govern the risk controls and procedures that market access providers are required to implement. In addition, the SEC has proposed rules to gather information from large traders. These proposals may address some of the problems associated with aggregating and reviewing trading activity.

Ultimately, these and other important actions may best be achieved by consolidating market surveillance in one securities self-regulator – probably FINRA, which would require an act of Congress. We also need to ensure both the SEC and FINRA have the funding required to perform these duties.

Finally, the SEC should continue its broad-based market review to help find ways to improve our current market structure.

Conclusion

The events of May 6, 2010 demonstrate that the markets would benefit from a comprehensive structural review of the rapid advances in technology and their effect on trading practices and market integrity. As you know, the SEC has already commenced such a review, issued several rule proposals and has indicated that other proposals are forthcoming. We are committed to working with the SEC in these initiatives, and we strongly urge all parties to play an active and responsible role in helping our market function in a way that gives investors confidence. In addition, we applaud the SEC and the CFTC for working together to review the events that transpired on May 6, their extraordinary effort in producing their May 18, 2010 preliminary findings, and their continued work to develop a coordinated solution to prevent a recurrence of those events.

Once again, thank you for the opportunity to appear before the Subcommittee. I would be happy to answer any questions you have.