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**JOINT CFTC-SEC ADVISORY COMMITTEE
ON EMERGING REGULATORY ISSUES**

Minutes of June 22, 2010 Meeting¹

The Joint CFTC-SEC Advisory Committee on Emerging Regulatory Issues convened its second meeting at 1:00 p.m. on Tuesday, June 22, 2010, in the Auditorium, Room L-002, at the SEC's headquarters in Washington, DC. The meeting, which was open to the public, was held to discuss the views and observations of exchanges and market participants relating to the market events of May 6, 2010. The agenda for the meeting included: (1) opening remarks; (2) testimony by panels of representatives from various exchanges and market participants regarding the May 6 market events; (3) Committee organizational matters; and (4) an update from CFTC and SEC staffs. The meeting concluded at approximately 5:00 p.m.

Advisory Committee Members:

SEC Chairman Mary Schapiro, Advisory Committee Co-Chair
CFTC Chairman Gary Gensler, Advisory Committee Co-Chair
Brooksley Born
Jack Brennan
Robert Engle**
Richard Ketchum**
Maureen O'Hara*
Susan Phillips
David Ruder
Joseph Stiglitz*

* Present by telephone

** Not present

Co-Designated Federal Officers:

James Burns Counsel to SEC Chairman Schapiro
Timothy Karpoff Counsel to CFTC Chairman Gensler

Commissioners of the SEC and CFTC in attendance:

From the SEC:

Commissioner Luis Aguilar
Commissioner Kathleen Casey
Commissioner Troy Paredes

¹ A Webcast of the meeting and copies of materials distributed at the meeting are available at <http://www.sec.gov/spotlight/sec-cftcjointcommittee.shtml>.

From the CFTC:

Commissioner Michael Dunn
Commissioner Scott O'Malia
Commissioner Jill Sommers

Panel One: Exchange Observations of the Events of May 6:

Craig S. Donohue	Chief Executive Officer, Chicago Mercantile Exchange
Edward J. Joyce	President & Chief Operating Officer, Chicago Board Options Exchange
Joseph Mecane	Executive Vice President & Co-Head of U.S. Listing and Cash Execution, NYSE Euronext
Eric Noll	Executive Vice President-Transaction Services, NASDAQ OMX Group
William O'Brien	Chief Executive Officer, Direct Edge
Joseph Ratterman	President & Chief Executive Officer, BATS Exchange
Chuck Vice	President & Chief Operating Officer, Intercontinental Exchange

Panel Two: Perspectives on Liquidity:

Leonard Amoruso	Senior Managing Director & General Counsel, Knight Capital Group
David Cummings	Owner & Chairman of the Board, Tradebot Systems
Jeff Engelberg	Principal & Senior Trader, Southeastern Asset Management
Thomas Peterffy	Chairman & CEO, Interactive Brokers
Anoop Prasad	Managing Director, D.E. Shaw
Matt Schrecengost	Chief Operating Officer, Jump Trading
David Weild IV	Capital Markets Advisor, Grant Thornton

SEC and CFTC Staff Presenters:

From the SEC:

Robert Cook	Director, Division of Trading and Markets
Jonathan Sokobin	Co-Deputy Director, Division of Risk, Strategy, and Financial Innovation

From the CFTC:

Andrei Kirilenko	Senior Financial Economist
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SEC and CFTC Staff in Attendance:

From the SEC:

James Brigagliano	Deputy Director, Division of Trading and Markets
David Hsu	Senior Special Counsel, Division of Trading and Markets
Ronesha Butler	Special Counsel, Division of Trading and Markets
Daniel Gien	Attorney, Division of Trading and Markets

From the CFTC:

Cyrus Amir-Mokri	Senior Counsel to Chairman Gensler
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I. OPENING REMARKS

Chairman Schapiro opened the meeting by providing a general overview of the progress that the staffs of both Commissions had made in conducting an investigation into the May 6 market events, and an update on concurrent efforts across different markets to develop safeguards to prevent a similar market disruption. In particular, Chairman Schapiro described the recently adopted stock-by-stock circuit breaker and the recently proposed clearly erroneous rules. She also gave a brief preview of the subjects to be covered by the two panels that would give presentations at the meeting.

Chairman Gensler also provided opening remarks, noting certain topics that he would be interested in covering with the two panels, such as various exchange rules, cross-market circuit breakers, and the effects of high frequency trading (“HFT”) on liquidity. Chairman Gensler and Chairman Schapiro both acknowledged their fellow Commissioners before Chairman Schapiro introduced panelists on the first panel.

II. PANEL ONE: EXCHANGE OBSERVATIONS OF THE EVENTS OF MAY 6

Introductions. Chairman Schapiro introduced each of the seven panelists. Each panelist was invited to provide opening remarks.

A. Opening Remarks

Craig Donohue. Mr. Donohue noted that the CME Group performed a review of the May 6 events, highlighting four key points: (1) futures markets functioned properly and did not accelerate the price declines; (2) CME did not detect any improper trading activity or CME customer errors; (3) S&P 500 futures provided substantial hedging opportunities and greater liquidity than SPDR ETFs during the May 6 time period when markets witnessed significant volatility; and (4) the futures markets played a critical role in stabilizing market conditions, with S&P 500 futures leading the broad-based recovery, in part due to the CME’s stop-logic functionality. Mr. Donohue added that CME has developed market rules, procedures, and functionality to protect its customers.

He made several recommendations for the Committee: (1) the Committee should work with index service providers to ensure that procedures are in place to calculate relevant market indexes, taking into consideration the impact of single-stock trading halts; (2) circuit breaker rules for applicable index equity ETFs should be different than those for single-stock equities; (3) a comprehensive review should be undertaken for inter-market circuit breaker rules; and (4) SEC and CFTC staff should work with exchanges to determine best practices for system functionality in order to protect customers.

Edward Joyce. Mr. Joyce stated that, on May 6, CBOE traded twice as many contracts as its average daily contract volume and, during the period of extreme volatility, option spreads widened. Mr. Joyce noted that because options products are derivatively priced, CBOE is very sensitive to developments in the equity markets. He praised the creation of the advisory panel and stated that he was encouraged by the SEC and CFTC’s approach of interim changes.

Nevertheless, he believes that any new controls must neither exacerbate market volatility, nor unnecessarily burden legitimate market movements, noting that the exchanges must collectively monitor the good, bad, and unintended impacts of the circuit breaker and clearly erroneous pilots and work together to enhance or reevaluate those programs. Moreover, Mr. Joyce noted that any rule-based solutions must contain sufficient flexibility and that time is needed to fully analyze how events transpired.

He noted that CBOE data showed no manipulative activity and that the options market performed as it should have. The May 6 events demonstrated a need to enhance liquidity, and rules should be established that offer a balance between obligations and incentives for liquidity providers. Mr. Joyce emphasized that CBOE has not identified any one single event that led to May 6.

Joseph Mecane. Mr. Mecane discussed his views on the following: (1) high-level causes of the May 6 events; (2) clarifications about NYSE's market model; and (3) NYSE's recommendations. Mr. Mecane indicated that NYSE saw no evidence of a primary contributing factor resulting from automated trading or manipulation. He noted that NYSE market rules provide liquidity replenishment points ("LRPs") that mitigate volatility and emphasize price discovery over speed but LRPs do not halt trading. During the 2:30-3:00 p.m. timeframe, liquidity providers did not leave the market. Stocks listed on other markets had more price declines and more erroneous executions than NYSE-listed stocks. Mr. Mecane also noted that NYSE did not cancel any trades. Mr. Mecane stressed that overall LRPs worked reasonably well, but the mechanism is only truly effective if observed by other trading venues, via industry-wide circuit breakers.

Mr. Mecane recommended that: (1) market-wide circuit breaker levels should be tightened; (2) clearer rules should be established for trade cancellations; (3) order routing practices, market orders, and stop-loss orders should all be reviewed to ensure that they are properly servicing the investing public; and (4) a consolidated audit trail should be established as the SEC has proposed.

Eric Noll. Mr. Noll stated that Nasdaq has studied the May 6 events and supports the SEC and CFTC in four areas: (1) updating market-wide circuit breakers; (2) establishing a new stock-by-stock circuit breaker that includes an element of velocity of price changes; (3) improving handling of trade breaks; and (4) changing use of quotes in specific order types. Mr. Noll stated that Nasdaq supports the single-stock circuit breakers and noted that these have not been triggered since their introduction on June 14. Mr. Noll noted that Nasdaq has submitted a rule filing to the SEC that provides transparency to the "clearly erroneous" process. Nasdaq is currently exploring other ideas as well, such as increasing the minimum market-making obligations, including requiring quotes within a specific range of a security's NBBO.

Mr. Noll stressed the importance of focusing on rule consistency and noted that the markets were strong, despite the May 6 events. He believes that there was no single cause for the May 6 market drop and that it was likely due to a confluence of unusual events. Mr. Noll noted that HFTs appeared to play no distinguishing role in the event (neither a positive role nor a negative one). Nasdaq operated continuously throughout the day, and each system worked as designed.

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William O'Brien. Mr. O'Brien stated that, from a systems and operational standpoint, Direct Edge operated normally on May 6. Mr. O'Brien pointed out that Direct Edge handled record order and transaction volume without any material issues. Despite this, Mr. O'Brien noted that the May 6 events represented an embarrassment for the entire industry, and he stressed that market fairness for investors is paramount.

Mr. O'Brien made two general observations: (1) there was widespread investor skittishness throughout the trading community that day, caused by significant macroeconomic events; and (2) when panic conditions occurred, the existing market structure left every participant to fend for itself, and corrective efforts were not coordinated. He also stated that no guidance existed for addressing the aftermath in orderly manner, arguing that, in these situations, there must be consistency regarding how markets work and how participants react.

Joseph Ratterman. Mr. Ratterman stated that technology development has led to healthy competition between market centers, benefiting investors. However, Mr. Ratterman believes that the May 6 events served as a reminder that the industry must be vigilant about optimizing market structure.

Mr. Ratterman suggested several factors for the May 6 market drop. From a macro perspective, major U.S. equity index values were in a significantly "overbought" condition. Moreover, global events led to high volatility and downward trending in the markets. This resulted in an unbalanced amount of selling interest in many securities and a significant reduction in liquidity. Mr. Ratterman then described the events observed by BATS during the 1:00 to 3:00 p.m. time period. These events indicated that a dramatic liquidity imbalance occurred, leading to an extreme but temporary drop in the prices of hundreds of securities. BATS suspects that this drop was exacerbated by (1) smart-order routers sending sell orders to the best available bid, which were often stub quotes; (2) some market centers automatically refreshing stub quotes and therefore repeatedly executing against one penny bids; and (3) the likely triggering of many stop-loss orders, converted to market orders.

Mr. Ratterman stressed that, for the long term, the industry should move away from circuit breakers and toward trading limits, which would eliminate clearly erroneous transactions from occurring in the first place. BATS does not support individualized efforts by the listing markets to maintain separate trading pauses or standalone market-specific mechanisms. Mr. Ratterman believes that all markets should operate under same rules.

Chuck Vice. Mr. Vice discussed trading on ICE Futures U.S. Russell equity indices. The Russell 2000 futures contract is the most actively traded equity derivative listed on ICE. During the equity market drop between 2:40 and 3:00 p.m. on May 6, although trading on ICE Futures U.S. was heavier than usual, no errors or unusual trades were detected by the exchange.

Regarding current ICE Futures market protections, Mr. Vice stated that ICE Futures sets a price reasonability limit that rejects bids above and offers below a reasonable range around an anchor price (most often the last traded price, but in any case the best available representative price). ICE Futures also sets a volume reasonability limit that prevents traders from entering an order

for a quantity greater than a specific volume level. ICE Futures also has a No Cancellation Range ("NCR") policy, which is set within a narrow band to provide market certainty with regard to outer prices between which no trade will be cancelled. Finally, ICE Futures also has daily price limits for the Russell markets that halt trading briefly when the price declines to a certain limit. These limits have been in place since the 1987 stock market crash.

Mr. Vice offered the following recommendations: (1) all market or stop-loss orders should have price banding or reasonability limits; (2) for severe price drops due to error or panic, circuit breakers should be velocity-oriented; (3) circuit breakers should not be hard price limits for an extended period, but instead should be a temporary price floor in effect for a short period, thus allowing resumption of trading to continue hedging or covering positions; and (4) when a circuit breaker is activated, markets should remain open but temporarily reject offers below the circuit breaker price, which gives the bid book time to rebuild.

B. Advisory Committee Q&A

Chairman Schapiro then opened the meeting for questions from the Advisory Committee members.

1. Circuit Breakers vs. Trading Limits

- (a) Mr. Brennan asked the panelists, particularly Mr. Mecane and Mr. Noll, about their preferences between circuit breakers and trading limits, noting that trading limits are more customary in the futures markets.

Mr. Mecane replied that circuit breakers make sense, especially where the market is fragmented across multiple venues, because they allow liquidity to reaggregate.

Mr. Noll responded that there is room for a combination of both. He noted Nasdaq's recent rule filing regarding a volatility-based halt process pilot. The process was initially filed as a circuit breaker, but after the pilot is approved, the halt process will be moved to a "limit up/limit down" type process. Mr. Noll reiterated that there was room for both types of functionality in the marketplace.

- (b) Chairman Schapiro asked whether circuit breakers could ultimately evolve into a mechanism that prevents orders which are priced too far away from market from executing, or whether there could be a place for both price bans and circuit breakers across all markets.

Mr. Ratterman replied that the mechanics for circuit breakers are a good foundation and that small enhancements could follow to develop limit up/limit down functionality. Mr. Ratterman also stated that he likes the hybrid model of using velocity to calculate bands, then using the limit up/limit down functionality.

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Mr. Mecane believes that it was worth exploring a pilot with limit up/limit down functionality and warned of potential unintended consequences in the fragmented equities market, where such functionality could inadvertently force trading to happen at certain levels either on the way up or down, especially in situations where news and adverse issues lead to temporary reductions in trading.

Mr. O'Brien agreed that the industry should be cautious about potential unintended consequences from limit up/limit down functionality, noting the differences between equities and futures markets. He also stated that from an exchange and trader perspective, it would be fairly easy to institute such changes. Circuit breakers represented a good first step.

Mr. Joyce observed that the limit up/limit down functionality should be explored, and that this process works for options markets. Like Mr. Mecane, he expressed some concern about the functionality being applied to equities markets, which are so fragmented, and questioned some of the potential unintended consequences that could arise.

2. Circuit Breaker Format

- (a) Mr. Ruder observed that the circuit breakers implemented in 1988 seemed to be anachronistic, and asked whether there needed to be shorter times for circuit breakers. He also asked about (1) the effect of circuit breakers for single stocks versus for the entire market; (2) if there should be trading halts for the entire market; and (3) if so, whether such halts should be applied based on percentages.

Mr. Noll replied that the exchanges should revisit index-based (market-wide) circuit breakers, stressing, however, that the exchanges must move away from relying on an "anachronistic" index, such as the DJIA, and noting the need to use a more "robust" index. He also stated that the exchanges should look at velocity-based controls for the market-wide circuit breakers, based on the rate/speed of price changes. Mr. Noll encouraged looking at the feedback loop between single-stock circuit breakers and their effect on securities that make up the index, which could lead to incorrect index pricing.

- (b) Mr. Donohue highlighted two points: (1) looking at the May 6 price deterioration in various individual equities, to see participants might have been prevented from accessing available liquidity in the futures market if trading halts were effectuated across the entire market (which did not happen), which could have effectuated an even broader meltdown; and (2) it was important to note that the DJIA declined even more than the S&P 500 index. The top 50 stocks of the DJIA were essentially at 50% of the

index value. A key difference in the two indexes is that the DJIA is a price-weighted index, while the S&P 500 is a capitalization-weighted index. Mr. Donohue was not certain if there is an issue or problem to be solved regarding the market measures. He noted that the CME has price limits for individual stocks, and broad inter-market circuit breakers.

- (c) Mr. O'Brien added that there are obvious interdependencies between market-wide circuit breakers and single-stock circuit breakers, but they serve different objectives. Mr. O'Brien also pointed out the timing of triggering circuit breakers and that after 2:30 p.m., the percentage limits change. He observed that additional work is needed to improve this construct.

3. ETF Circuit Breakers

- (a) After summarizing the circuit breaker discussion, Chairman Gensler asked how a circuit breaker or trading pause, applied to index-based ETFs, such as SPDRs, would relate to futures markets. Mr. Donohue replied that broad-based products that are tied to the same indexes should be treated similarly; therefore, circuit breakers for SPDR should be triggered by the same sort of price movements that are observed for related futures contracts.
- (b) Mr. Mecane noted that there are two different criteria being measured: (1) broad-based circuit breakers, which measure changes in the index; and (2) single-stock circuit breakers, which measure liquidity. According to Mr. Mecane, if there is agreement that the latter is more of a liquidity measure, it becomes harder to distinguish products that should have preventions for liquidity events, such as those of May 6, versus products that should not.
- (c) Chairman Gensler then asked whether the e-Mini S&P 500 Future should be paused along with SPDRs. Mr. Joyce noted that closing one market without closing the other would merely shift the pressure in the remaining markets. Mr. Donohue agreed with Mr. Joyce, and noted that there should be coordination between the two markets; he added that it does not make sense for the markets to be unlinked.

4. Length of Market Breaks

Mr. Ruder inquired how long market breaks should last. Mr. Vice stated that market breaks should be at a short a duration as possible because the lack of pricing information for 30 minutes would create massive risk for clearinghouses. Mr. Vice noted that marking to market occurs every minute of the day because of the clearinghouses' need for accurate pricing.

5. Reduction in Liquidity

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Mr. Brennan asked the panelists, particularly Mr. Ratterman, about their perspectives on the disappearance in liquidity during the afternoon of May 6. Mr. Ratterman replied that traders and market makers will trade on their economic interests, so each single firm is going to make its own decision regarding whether to stay in or exit a market. Mr. Ratterman believes that the SEC's recent effort to introduce circuit breakers as a "cooling off" measure is a good one; this is a better response than suggesting that market makers have some extraordinary ability to withstand such market movements.

Mr. Vice added that if there is velocity-oriented single stock trading limit functionality that introduces a pause, and that the market continues to trade downward after pausing, the exchanges should ask why they should close the entire market.

6. Latency

- (a) Chairman Schapiro asked the panelists about the full range of latency issues experienced on May 6. Mr. Mecane stated that NYSE has reconstructed much of the May 6 activity and evaluated the operational effectiveness of NYSE Arca and did not see evidence of significant operating issues. NYSE noted that the market data publication rate during the 2:30 to 3:00 p.m. time period was normal. Moreover, the exchange acknowledged virtually all orders within one second during the period of high volatility, so there were no operational issues, even on NYSE, which was routing to the entire marketplace.

Mr. Noll, however, stated that Nasdaq data gave different indications. Nasdaq declared self-help against NYSE Arca. Nasdaq then observed Nasdaq-listed securities with symbols beginning with A through L with latencies in trading, and as a result, declared self-help; latency in these symbols was observed across all telecommunications ports.

Mr. Mecane noted the issue of declaring self-help across an entire venue, rather than for individual securities, as a broad response.

- (b) Mr. O'Brien noted that Direct Edge had no issues routing to other market centers, either displayed or non-displayed. He suggested that it would be useful to share information across exchanges regarding why self-help occurred, to make sure that the remedy is invoked at appropriate times.
- (c) Chairman Schapiro asked if there were any delayed data feeds that caused uncertainty in pricing and resulted in liquidity providers leaving the market. Mr. O'Brien stated that he was aware of no evidence of any delayed data.

7. Circuit Breaker Coordination

Ms. Phillips asked if it would be feasible for markets to fully coordinate circuit breakers. She asked if the markets would need to have a consolidated tape, or if coordination could be effected within existing systems. She wanted to know what kind of coordination is feasible, while protecting competition among the markets.

Mr. Mecane replied that the relative difficulty of coordination depends on the complexity of the mechanism across markets. If the markets decide to use limit up/limit down scenarios in a fragmented market, coordination becomes increasingly complex. He agreed that competitive dynamics should not be diminished by efforts at coordination.

Mr. O'Brien believes that coordination is feasible, and that it is not in the exchanges' individual interests for irrational trades to occur. Mr. Joyce added that such coordination should be understandable across all levels of the market, and the speed of communication should be such that everyone can react at the same time. Mr. Joyce believes that this simplicity and speed are readily achievable. Mr. Ratterman likewise agreed that it was vital for all exchanges to cooperate.

Mr. Vice stated that for the equity derivatives market, he was not sure if coordination is entirely necessary. In the equity derivatives markets, trades are occurring around the clock, so there can even be significant price moves overnight. He believes that velocity-related regimes are good, but to consider whether or not a Russell 2000 index-based product should continue to trade if a small number of those stocks have a slowdown in trading did not make sense to him.

8. Stop-Loss and Market Orders

- (a) Mr. Brennan asked if, for market or stop-loss orders, the banding of orders would be a simple fix. Mr. Noll replied that on Nasdaq, market orders are banded and that less than 5% of Nasdaq's orders on May 6 were market orders. Nasdaq never saw customer stop-loss orders hit the Nasdaq platform, and did not observe any spike in market orders during that day.
- (b) Mr. Mecane noted that most retail market orders go to intermediaries, so exchanges do not generally have any visibility as to whether the order is a retail market order or a stop-loss order. As a separate issue, Mr. Mecane noted that there are order-handling obligations and best execution rules for all orders sent into the market. Fundamentally, someone had responsibility for the orders that caused damage to the marketplace.

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Additional safeguards upstream with the firms handling the orders might help to address certain issues.

- (c) Mr. O'Brien did not believe that stop-loss or market orders were the problem on May 6, but instead that such order types are particularly susceptible to damage when a problem occurs. He stated that these order types have a legitimate function, noting that if the markets rectify the lack of a unified rule to deal with liquidity deterioration, there probably would be no need to focus on a fix for stop-loss orders.
- (d) Mr. Donohue noted that, to the extent that there is a suspension or halt of trading in many constituent or component stocks in an index, index calculations cannot continue to be calculated and disseminated on a real-time basis. Secondly, investors executing market strategies do not want to see a de-linkage where some markets are working and others are not. Mr. Vice noted again that the index is not being calculated overnight even though trading occurs during that time.
- (e) Ms. Phillips asked if there were a rule of thumb, volatility or percentage where a decision would be made to halt activity on the futures market. Mr. Donohue stated that this was an issue that CME needed to work on, because circuit breakers on individual equity securities could affect the calculation of cash-index values, which in turn affect the broad-based market. The industry would need to address this issue for cash equities markets.
- (f) Commissioner O'Malia asked what panelists meant when they stated that a more robust index was needed. Mr. Noll noted his belief that the S&P 500 index is much more robust than the DJIA. The S&P 500 index represents a broader measure of the market, while the DJIA does not represent broad sectors of the economy.

9. Liquidity Replenishment Points ("LRPs")

- (a) Chairman Schapiro noted that the discussion still had not addressed LRPs, self-help, and other mechanisms. She asked the panelists whether the exchanges should continue to have different trading conventions, rules, pauses, and other distinguishing standards once single-stock circuit breakers are in place.

Mr. Mecane noted that LRPs have been a part of NYSE's model for the past three years. When there is a material movement in a stock of 2% to 5%, an LRP allows the market to pause and re-aggregate liquidity. Due to Regulation NMS, other markets may choose to bypass NYSE if they want. Mr. Mecane pointed out that May 6 ranked over 200th in terms of the number of LRPs in one day over the past 3 years, so the LRPs never really

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became an issue. Even during peak volatility, the longest period for an LRP was 2 minutes. He stated that there was no evidence that LRPs were a cause of the volatility. Mr. Mecane said that he would have expected to see more damage on Tape A versus other markets if LRPs were the problem. During the 2:40 to 3:00 p.m. timeframe, the NYSE order book was very thin; even if LRPs were not in effect, the probable end effect would have been more broken trades. The broad pauses prevented many of the erroneous trades from happening.

- (b) Chairman Schapiro asked if it would be a good idea for all markets to have LRPs. Mr. Mecane replied that it would depend on the form that the circuit breakers take. Mr. O'Brien added that exchanges should be allowed to innovate to modify their market structure, but there are risks to doing so.
- (c) Mr. Mecane noted that NYSE Arca had similar problems with other exchanges. He did not agree with the contention that LRPs caused confusion in the markets, and contended that LRPs often protect their customers. According to Mr. Mecane, the difference is how firms choose to bypass NYSE when it is in LRP mode. It causes confusion only in situations like May 6, where a bad result occurs.

Mr. Noll disagreed with several of Mr. Mecane's points. According to Mr. Noll, when comparing top-line stocks, Nasdaq went down 22%, while NYSE went down 40%. Mr. Noll also noted that NYSE Arca does not observe LRPs, and endorsed the idea to look at the issue and examine the safeguards.

10. High-Frequency Trading

- (a) Because Nasdaq did not observe any issues with HFT, Chairman Schapiro asked if Nasdaq had any statistics or data regarding this issue that could be shared. Mr. Noll stated that he would be happy to provide that information to the Advisory Committee.
- (b) Mr. Mecane noted that NYSE has obligations for its market makers and that HFT and every other participant category withdrew from the market; such market exits were not limited to one particular segment of market participants.

III. PANEL TWO: PERSPECTIVES ON LIQUIDITY

Introductions. Chairman Gensler introduced each of the seven panelists on the second panel. Each panelist was invited to provide opening remarks.

A. Opening Remarks

Leonard Amoruso. Mr. Amoruso began with a brief history of Knight Capital Group, noting that the majority of trades that the firm executes are on behalf of retail investors. Mr. Amoruso contended that a single cause for the May 6 events was unlikely and that, based on Knight's observations, the May 6 market events were the result of a confluence of events. To place the day in the proper perspective, he observed, events during the months prior to May 6 also needed to be considered, such as the rise of market indexes followed by a negative tone in the market during the week of May 3.

Knight Capital Group found no material technology issues on the day, and observed that, operationally, the market performed exceedingly well. Moreover, Mr. Amoruso noted that the firm did not see any evidence that HFT caused or catalyzed the problem. Instead, Amoruso noted several factors, including: (1) macroeconomic issues, such as riots in Greece and the Gulf of Mexico oil leak; (2) weakness in the markets in the days prior to May 6, causing investors to shed risk; and (3) uncertainty around how the clearly erroneous trade rules would be utilized. Mr. Amoruso believes that the recent changes advanced by the SEC and CFTC, if applied consistently across all market centers, will help the markets to avoid another May 6 situation.

David Cummings. Mr. Cummings stated that not enough has been done in the wake of the May 6 events and that the market is still having problems. He stated that exchanges must establish limits and prevent trades from occurring outside the limits altogether. Broken trades cause bad market data that lead to more trading stops, resulting in a cascading chaotic effect.

Mr. Cummings stated that limits have been successfully used in the futures markets for years and the equities markets that had some reasonable limits in place functioned perfectly. Mr. Cummings stated that the problems were caused by markets that refused to recognize limits to their matching of orders. Mr. Cummings believes that limits are far preferable to trading halts, especially in fragmented situations where only the top-of-book is protected. He stated that markets should be open rather than closed, noting that when hundreds of stocks consistently come on and off trading halts, a "nightmare" scenario results. Mr. Cummings believes that single-stock circuit breakers are far preferable to market-wide circuit breakers. Finally, Mr. Cummings stressed the value of competition in the marketplace and that the playing field should be level. Despite what the media claim, he observed, co-location services often offer a leveling effect. What makes the markets effective is the diverse array of different trading styles.

Jeffrey Engleberg. Mr. Engleberg believes that, across market participants, average holding periods have plummeted, while the number of active securities requiring little to no fundamental knowledge of underlying securities has increased. This has resulted in many market participants not knowing what businesses they fundamentally own, making a bad situation worse.

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Mr. Engleberg noted that Southeastern Asset Management's trading desk was very calm and that the May 6 volatility was not the reason for the company's entry into the market that day. Instead, Southeastern was confident of the attractiveness of the underlying businesses in which it invested. Given the high volume that was trading, the lack of activity in the institutional market at the time was noteworthy. It appeared that low-latency co-located strategies had been set for a more stable environment and continued to trade within microseconds, thus enforcing the negative downward spiral. Mr. Engleberg stated that fast automated trading removes complex human thought from the process. On May 6, a large number of liquidity providers were simply unable to react before catastrophic events took place, and that excess speed and technology destabilized the markets. Mr. Engleberg questioned (1) why humans with market access need to be licensed, while technology does not, and (2) why remedial responses are preferred instead of preventative actions.

Finally, Mr. Engleberg stated that he had no opinion regarding what exactly caused the May 6 events. He stated that May 6 should be viewed as a symptom of underlying weakness in market structure, and these structural problems should be fixed.

Thomas Peterffy. Mr. Peterffy believes that the May 6 events seemed to be caused by several factors: (1) registered market makers have been weakened by competition from unregulated HFTs, thus reducing overall liquidity; (2) ETFs have become increasingly popular as a way to hedge large portfolios; (3) during sharp market moves, it is difficult for market makers to price and quote ETFs; and (4) HFTs have developed ETF arbitrage strategies, where they try to buy the ETF shares for just under the sum of the underlying stock bids.

Mr. Peterffy had several recommendations: (1) the new circuit breakers will solve issues as long as they are enhanced to provide that any ETF with more than 3% of its underlying stocks that are halted are also halted; (2) exchanges should never break trades, because to do so would hurt liquidity, and any trade that is executed should stand; (3) the national market system needs more and committed market makers; and (4) the SEC needs to approve the proposed market access rule, which would ban unfiltered sponsored access.

Anoop Prasad. Mr. Prasad noted that as an investor, D.E. Shaw recognizes that quantitative techniques can be enormously beneficial, but that models are only as effective as the people who design them. D.E. Shaw software reflects skepticism in one's ability to systematically predict market events, and is designed with guardrails to protect against programmatic exuberance.

Mr. Prasad believes that the May 6 macroeconomic events led to a legitimate large market correction. He believes that the volatility was the result of a series of smaller market anomalies that occur from time to time, and that there was no one single cause. During the afternoon, trading volumes grew, price and execution data feeds began to be delayed, and liquidity supply at the NYSE became largely unavailable, leading to a temporary supply/demand imbalance. Delayed and unreliable quote and execution data, combined with inconsistent policies at different market venues, was also a factor.

Mr. Prasad stated D.E. Shaw's view that market participants must set up necessary guardrails to protect against bad data. D.E. Shaw also supports circuit breaker rules, which give participants a

chance to assess information and allow order books to rebalance. Mr. Prasad also suggested that market infrastructure needs to be enhanced to provide better information on pricing to investors. The firm also encourages rules that are clear, consistent, and uncomplicated.

Matt Schrecengost. According to Mr. Schrecengost, the only sector where Jump Trading saw price action that was completely out of bounds (i.e., where trades were busted trades) was in the U.S. equity market. In the e-Mini S&P 500 futures, the market moved down 10%; however, given the macroeconomic events of the day, this market move was an understandable one, just faster than what the market would have liked. Mr. Schrecengost stated that there was legitimate, orderly trading on both sides.

Mr. Schrecengost cited several concurrent causes for events on May 6: (1) fragmentation of the marketplace; (2) lack of circuit breakers across exchanges; (3) a liquidity crisis on the bid side; (4) and the overall complexity of the U.S. equity market. Mr. Schrecengost emphasized in particular that the U.S. equity market is enormously complex, and such complexity leads to confusion, which leads to markets being shut down.

Mr. Schrecengost recommended that the Committee and CFTC and SEC staffs concentrate on simplicity and feasibility for future regulatory efforts. He also noted that the market “ecosystem” underwent a stress test on May 6, and the U.S. equity market fared the worst. The fact that short-term players pulled out of the market received a lot of attention, but Mr. Schrecengost noted that long-term players who exist in the futures market are not participating in the U.S. equities market anymore. He encouraged the CFTC and SEC staffs to prioritize their focus on the public markets over dark pools because so much trading volume is being taken off of the exchanges by these trading venues.

David Weild. Mr. Weild described Wall Street’s computer “arms race” which is displacing fundamental investing with computer-based trading strategies and has created new forms of systemic risk. Fundamental investing has been displaced by trading, and the growth in indexing and ETFs has added to the problem. Mr. Weild noted that because today’s market structure cannot support small capitalization companies and IPOs on a large scale, there should be an alternative market system to reinvigorate primary capital formation, research, sales, and liquidity provision. He stated that, until all trades, quotes and other messages in all interrelated markets are tagged and traceable to the trading venue, broker, and ultimate investor and then disclosed to the market, the markets will not be perceived as fair. Finally, Mr. Weild asked the Committee to consider a concept release devoted to primary (IPO) capital formation.

B. Advisory Committee Q&A

Chairman Gensler then opened the meeting for questions from the Advisory Committee members.

1. Equitable Access to the Markets

- (a) Ms. Phillips first asked Mr. Engleberg if he could clarify his recommendations. Mr. Engleberg stated that his firm views access to the

market as a "necessary evil" because Southeastern Asset Management invests for long-term investors. He stated that there is an unlevel playing field for market participants due to certain structural advantages. For example, some participants have access to proprietary market data feeds while others do not. Short-term traders with premium data feeds receive an instantaneous view into the future, *i.e.*, the order flows through the feeds. According to Mr. Engleberg, this is similar to "a casino with odds favoring the house."

Mr. Engleberg also noted the advantages obtained by participants with co-location services. He further stressed that submitted bids and offers should be relevant for a certain minimum amount of time (*i.e.*, nearer to one second) and that traders should be ready to execute all those trades simultaneously. In summary, Mr. Engleberg recommended: (1) a consolidated data feed, with no separate access to premium feeds; (2) some way to address co-location advantages; and (3) having bids and offers remain for a longer amount of time to transact.

- (b) Mr. Brennan asked Mr. Engleberg, given Southeastern Asset Management's reputation as a long-term investor, why the first two of his three recommendations were important to him. Mr. Engleberg described the indirect costs to long-term investors, due to the shifting of spread caused by shorter-term market movements. Disciplined investors invest when there are discounted opportunities. In some cases, the firm cannot deploy its capital because of moving prices.
- (c) Mr. Schrecengost disagreed with Mr. Engleberg about co-location services, asserting that co-location has expanded the trading pit beyond the "old boy's network" and has leveled the playing field. Moreover, the concept of minimum quote life ("MQL") makes market making more difficult, which seems completely counterintuitive; instead, market making should be made easier. Mr. Schrecengost also noted that if the equity feed world can be simplified, the industry should try to do it. He is not certain that one consolidated feed is the solution.

Chairman Schapiro asked Mr. Schrecengost where he believes long-term liquidity providers have gone since leaving the U.S. equity market. Mr. Schrecengost again stated that it was important to explore dark flow in the markets and the need for incentives for long-term liquidity providers to be in the public markets. Mr. Prasad added that given the current market structure, his tendency would be to trade algorithmically. When there is potentially corrupt data, anyone will try to move away from it, even if they intend to trade for the long-term. Mr. Prasad concluded that data integrity is paramount.

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- (d) Mr. Cummings also disagreed with Mr. Engleberg. He stated that markets are complex, and technology is a fact of life. He recommended that investors who want better fills should “get a better broker.” He noted that commissions are declining as a result of competition, and in the best of times, HFTs have extremely slim margins. If an investor does not feel comfortable with market complexity, the investor should hire someone who can help to level the playing field.
 - (e) Mr. Engleberg replied that from Southeastern Asset Management’s point of view, the fundamental point of the market is for capital deployment and transfer; it is not just a way to obtain better executions. He did not believe that trades that occur in microseconds should be the focus of regulatory organizations. According to Mr. Engleberg, co-location is antithetical to the whole idea of capital deployment.

Mr. Engleberg added that the reason that exchanges have worked is that a participant was aware of who was on the other side of the transaction. Regardless of whether technology is progressing or not, the idea of multiple interactions is important to capital formation and transfer. Mr. Engleberg stated that the idea of short-term traders as “pseudo-market makers” is antithetical to the entire process. Southeastern Asset Management fully supports market makers, but believes “pseudo-market markers” should have obligations.

- (f) Mr. Amoruso supported market maker obligations, and noted that the innovation and transformation in equity markets has resulted in tremendous levels of execution quality for all investors. Mr. Amoruso believes that circuit breakers could have helped to prevent the May 6 events, because they would have insured that all participants had the same information regarding global events and would have provided market participants time to verify that the price feeds were accurate.

2. Routing Mechanisms

Ms. O’Hara asked the panel whether the industry had the right routing structure, given the fragmentation of the market, and whether top-of-book protection should be expanded to something broader. Mr. Prasad stated that one does not need to protect just top-of-book. The market needs simplicity, so if it is desired to weave a fragmented market together, market participants need to invest in technology where the books at all venues are interwoven not just at the NBBO, but at all levels. Mr. Cummings did not believe that the routing mechanisms were a big concern.

3. Premium Data Feeds

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- (a) Ms. O'Hara asked if any panelist could provide an argument for why proprietary data feeds should be allowed. Mr. Cummings replied that all of the data feeds are in fact publicly available. For example, BATS data are available for free. However, a few years ago the data from the Securities Information Processor ("SIP"), a consolidated data feed, were slow and several seconds behind the market. Proprietary data was sent to people faster than the SIP feed. Another advantage of premium data feeds is that it gives investors other data points to evaluate where the root cause of problems exist.
 - (b) Mr. Engleberg recommended that the SEC and CFTC should compare the richness of data in proprietary feeds, compared to other data feeds, and evaluate if these feeds are necessary or fair.
 - (c) Mr. Weild noted that there was once a data feed (possibly from Nasdaq) that was viewed as unfair, and that retail investors often are unaware of such data feeds. Mr. Weild believes that the multiplicity of data feeds undermines investor confidence in the market and invites people to interfere with other investors' order flow. Efficient allocation of capital, the primary function of capital markets, is not occurring because the system is not allocating it properly.

Mr. Cummings strongly disagreed, noting that if markets are fundamentally mispriced, anyone that has capital under management can take advantage of that. Mr. Weild replied that one should use the "mom and pop investor" test to determine if such a market environment is appropriate. He noted the high level of discomfort in the market and the high number of delistings that have occurred in the U.S.

Mr. Peterffy agreed that the role of the market maker has eroded. Today, HFT non-members can do whatever they want, and Mr. Peterffy questioned their social and economic purpose. He argued that such participants should have obligations where they always provide liquidity. Orders could be held back by a few hundred milliseconds.

4. High Frequency Trading

- (a) Ms. Born asked panelists if they agreed with the assertion that the availability and usefulness of the market for traditional investors is being harmed by HFT interests and that the stability and soundness of the market is being undercut. Mr. Schrecengost replied that the role of short-term traders has been in markets for a long time and that they are an integral part of long-term trading systems. He again emphasized that not as many long-term players are using the equity space in public markets.

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- (b) Mr. Engleberg again stressed the importance of human decision-making versus high frequency trading, noting that institutions do not make capital deployment decisions within a 5-minute period.
 - (c) Mr. Peterffy added that HFTs increase the transaction costs for long-term investors because HFTs are too fast for retail investors.
 - (d) Chairman Gensler asked Mr. Schrecengost what portion of his trades occurs within less than one second. Mr. Schrecengost replied that he did not know, but added an anecdote about a company's decision to use MQL for a product in the foreign exchange market. When the company discovered that the product with MQL was extremely wide and did not trade as much compared to a similar product without MQL, MQL was dropped.

5. Dark Pools

- (a) Chairman Schapiro asked if there was any reason to limit dark pools. Mr. Amoruso believes that a vast amount of liquidity remains on national exchanges. Dark pools serve needs of different investors, such as institutions and investors that want anonymity. Mr. Amoruso noted that if there is a broker who has access to that liquidity, the retail investor has access to those pools. He had no concerns with lack of transparency.
- (b) Mr. Peterffy opposed dark pools because they limit visible liquidity.
- (c) Mr. Prasad noted his concern that the discussion focused on moves that would turn back the clock and lead the industry back to slower markets. He noted that the focus should be on ways to prevent market dislocation. Instead of moving away from fast trading or electronic venues, solutions could come from consistent, coordinated approaches with better technology. Mr. Prasad said that HFTs have an important role to play. He does not support the "fiction" of registered market makers, stating that de facto market making is where technology has taken the market.

6. Market Maker Obligations for Short-Term Traders

Mr. Brennan asked the panelists for their opinions on market maker obligations for short-term or HFT traders. Mr. Schrecengost replied that healthy markets work better than mandated markets and that participants exit because of significant losses or confusion. If the proper incentives were available, participants would stay in those markets by choice, rather than through a mandate. Mr. Peterffy agreed that incentives are needed given the current technological advances.

7. Availability and Accuracy of Market Information

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- (a) Mr. Ruder asked if there was any indication that information was not getting to markets, thus creating confusion about pricing. Mr. Cummings replied that there was no such indication. He noted that the markets need to limit trades to within a specific range because HFT nets together liquidity across related assets (i.e., Microsoft and Intel). When bad data is introduced as a result of erroneous quotes, it creates a significant ripple effect.
 - (b) Mr. Amuroso and Mr. Peterffy both added that information was neither slow nor incorrect. However, Mr. Amuroso noted that, at the time of the market drop, traders were uncertain whether the data was correct. A stock-by-stock circuit breaker could have prevented this uncertainty. Mr. Prasad noted that he was aware of one venue where data was delayed by as much as 5 minutes. He recommended that every market participant should have its own internal checks for bad data.

8. Circuit Breakers vs. Price Limits

- (a) Ms. Phillips asked Mr. Cummings if he has a preference between circuit breakers and price limits. Mr. Cummings posited that price limits are better because they are less disruptive. Ms. Born asked the panelists whether there should be price limits on stop-loss and market orders. Mr. Cummings replied that brokers should probably use price limits in those instances, since the public is unlikely to use them.
- (b) Mr. Schrecengost noted that collars around market orders appeared to be intelligent checks and make sense. Mr. Peterffy stated that market order limits present a problem where the traders would eventually lower their limits.

9. Self-Help Requests

Chairman Gensler asked if short-term trader models reacted in any way when various exchanges declared self-help on May 6. Mr. Cummings stated that self-help requests, by themselves, did not determine whether traders exited the market. Instead, TradeBot decided to halt systemwide once prices overall started to look "ridiculous." Mr. Schrecengost stated that self-help requests were a small concern, but did not affect end decisions.

Chairman Gensler concluded the second panel and thanked all of the panelists.

III. COMMITTEE ORGANIZATIONAL MATTERS

Discussion and Approval of Minutes. Chairman Schapiro thanked all of the panelists for their insights and asked the Advisory Committee if there was any discussion of the meeting minutes from May 24, 2010. There was no discussion, and Chairman Schapiro requested a motion to approve the minutes. All members present voted in favor of and approved the May 24 meeting minutes.

IV. STAFF UPDATE, SUBCOMMITTEE REPORTS, AND NEXT STEPS

A. Announcement of Subcommittees

Cross Market Linkages Subcommittee. Chairman Schapiro announced that the Advisory Committee has taken the initiative to create two Subcommittees that would address particular issues that may be critical to understanding the market events of May 6. The Subcommittees had already convened during the prior week and will continue to do so regularly.

Chairman Schapiro stated that the Cross Market Linkages Subcommittee will focus on topics related to the futures markets, including an analysis of orders and trading of the broad-based e-Mini 500 futures contract, liquidity and selling pressure on May 6th, trading practices and rules that can affect both futures and equity markets, and cross-market mechanisms, such as arbitrage, that link the futures and cash equity markets together. The members of the Cross Market Linkages Subcommittee are Brooksley Born, Jack Brennan, David Ruder, and Joseph Stiglitz.

Pre-Trade Risk Management Subcommittee. Chairman Schapiro stated that the Pre-Trade Risk Management Subcommittee will focus on topics related to equity-based ETFs and equity-index options, including an overview analysis of liquidity and selling pressure on May 6th, an in-depth look at the order and trading for select dislocated securities, an analysis of trading practices and rules and their implications on May 6th, and a review of any latency issues in the consolidated tape. The members of the Pre-Trade Risk Management Subcommittee are Robert Engle, Rick Ketchum, Maureen O'Hara, and Susan Phillips.

Chairman Schapiro noted that these Subcommittees represent working sub-groups of the Advisory Committee itself and will have reports as a standing item on each Advisory Committee agenda. Chairman Gensler thanked the members of the Advisory Committee for their participation in the Subcommittees.

B. CFTC and SEC Staff Update

High-Level Update. Chairman Gensler invited Robert Cook and Andrei Kirilenko to provide staff updates. Mr. Cook and Mr. Kirilenko were joined by Jonathan Sokobin.

Mr. Cook stated that the update would address two topics: (1) the research outline of key issues that are being reviewed by each of the subcommittees of the Advisory Committee; and (2) some of the data that the CFTC and SEC staffs are reviewing and the research methods they are using in exploring these issues. Mr. Cook then thanked the Committee members for their ongoing

insights and reminded members of the public that they may submit comments through the Web sites of either agency.

Futures and Futures-Equity Cross Linkages. Mr. Kirilenko stated that the Cross Market Linkages Subcommittee plans to look at the detailed data in the futures markets and identify accounts and owners of the accounts that are associated with liquidity withdrawal in the futures markets. The Subcommittee will look at large participants and active traders and communicate this analysis to the SEC in order to identify participants who are active in one form or another across both markets. Mr. Kirilenko noted that the Subcommittee also plans to look at the order book analysis to see whether the order book data would uncover on both sides similar issues with the cross-market linkages; examine trading practices and rules, including circuit breaker mechanisms, pre-trade automated safety features, and pausing mechanisms; and evaluate futures and cash market linkages, including arbitrage practices between futures and cash markets, and a statistical study of futures, cash leads, and lag indicators. Mr. Kirilenko stated that there will be a statistical study of futures and cash markets.

Equities and ETFs. Mr. Cook described six general topics that the Pre-Trade Risk Management Subcommittee will focus on: (1) the withdrawal of liquidity in individual equities (non-ETFs); (2) the withdrawal of liquidity and other considerations for ETFs; (3) events and conditions prior to 2:40 p.m. on May 6; (4) trading practices and rules; (5) potential latency and issues with the consolidated tape; and (6) options on equity indices and ETFs.

CFTC Research Methodology. Mr. Kirilenko noted that, in particular, the CFTC staff was examining volume that bounces around in the market (known internally as “hot potato” volume). The staff was trying to measure and quantify this volume to get a better overall understanding of the phenomenon, which translates directly into the issue of velocity in price movements.

SEC Research Methodology. Mr. Sokobin stated that the SEC staff plans to pursue two related courses of inquiry: one based on empirical analysis, and another based on extensive interviews with market participants.

Regarding the empirical analysis, the staff has requested several types of information from exchanges and market participants, including raw transaction and order data, with timestamps in milliseconds; order book “snapshots” of all orders displayed in a given security at a given moment from those exchanges that have such a product and summary order data by security, by exchange aggregated by the minute where an “order book” product is not available; a summary of trades and orders by security, for select market participants by the minute for the full day; specific information about broken trades, including order type (*i.e.*, limit order, market order, inter-market sweep order); portfolio information about ETF holdings to link these securities with their underlying components; and information related to initiation of LRPs, self help, etc.

In order to examine the withdrawal of liquidity, the SEC staff is obtaining snapshots of displayed and, in some cases, hidden liquidity across all traded securities, throughout the day on May 6. In addition, the staff is obtaining detailed information on order flow and order imbalances throughout the day, both from the exchanges and from market participants.

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Mr. Sokobin noted that, in addition, Subcommittee members have identified several potential topics for detailed, focused data analysis, including order cancellations, comparisons to historical time periods, statistical testing, and analyses of trading activity by particular market participants. The CFTC and SEC staffs are working with the Subcommittees to prioritize and identify the best candidates for the initial analysis.

Mr. Cook added that a lot of the work that Mr. Sokobin mentioned is already well underway. In the interest of time, Mr. Cook did not discuss the anecdotal review process.

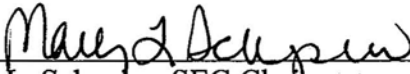
V. CONCLUSION

Commissioner O'Malia provided some concluding remarks. He noted that he enjoyed listening to the diversity of recommendations from panelists. Commissioner O'Malia wanted to get more information about cross-market circuit breakers. The technology discussions provided an additional incentive for the CFTC to start its technology advisory committee, which was planned to start on July 14.

Chairman Schapiro and Chairman Gensler then concluded the meeting by expressing their thanks to the Commissioners of both agencies, the panelists, the staffs of the SEC and CFTC, and the Advisory Committee members. The meeting adjourned at approximately 5:00 p.m.

CO-CHAIR CERTIFICATION

I hereby certify the accuracy of this record of the proceedings of the Joint CFTC-SEC Advisory Committee on Emerging Regulatory Issues.



Mary L. Schapiro, SEC Chairman
Advisory Committee Co-Chair

6.30.10

Date

CO-CHAIR CERTIFICATION

I hereby certify the accuracy of this record of the proceedings of the Joint CFTC-SEC Advisory Committee on Emerging Regulatory Issues.



Gary Gensler, CFTC Chairman
Advisory Committee Co-Chair

Date