WILLIAMS & JENSEN, PLLC

Fr: Alex Barcham, Rebecca Konst, and Lucas Rogers

Re: SEC Equity Market Structure Advisory Committee

Dt: October 27, 2015

Summary
On October 27, the Securities and Exchange Commission (SEC) convened a meeting of the Equity Market Structure Committee (Advisory Committee, Committee, or EMSAC) to discuss: (1) Rule 610; (2) Regulatory Structure of Trading Venues; and (3) Recent Market Volatility.

The Advisory Committee created subcommittees to focus on four issues: (1) Regulation NMS; (2) trading venue regulation; (3) retail customer issues; and (4) market quality.

Steve Luparello (Director, Division of Trading and Markets, SEC) said he hopes that the Subcommittees will present at the next EMSAC meeting, which he expects will be in January.

Commissioners/Opening Remarks:
SEC Chair Mary Jo White gave a statement and emphasized the importance of the Advisory Committee's input. She said other market participants have requested to join the Advisory Committee, but not all of these requests can be accommodated. She noted that there will be presentations at all Advisory Committee meetings to receive outside input, as well as private briefings and open comment files. **White** said the Commission will consider ways to seek input from all constituencies. She noted that at the last meeting the Advisory Committee emphasized the benefits of creating subcommittees to examine specific topics. She said any advice from a Subcommittee would be presented to and deliberated on by the Full Committee in a public meeting, as required by law. **White** said the Advisory Committee will consider exchange access fees in its morning session. She said there is intense competition for order flow between trading venues. She stated that one of the more widely used fee structures is the maker-taker model. She said maker-taker fees unquestionably impact market structure. She said proponents of maker-taker say it is a key competitive tool and reduces spreads, while opponents suggest that it creates conflicts of interest, keeps taker fees high, and promotes fragmentation. She emphasized that any proposed changes to the maker-taker model must be carefully considered. She said a maker-taker pilot has been proposed. She suggested that a pilot should be considered, but must be carefully structured. **White** said there are questions about whether the current regulatory structure for trading venues is optimally serving the market. She said self-regulatory organizations (SROs) are subject to a wider range of regulatory requirements than alternative trading systems (ATSs). She stated that ATSs are viewed are having greater flexibility and lower regulatory burdens. She stated that some observers have questioned whether the exchanges should continue to serve as SROs, given that many have outsourced their SRO functions to FINRA. She expressed interest in the witnesses' views on the regulatory structure for trading venues.

Commissioner Luis Aguilar gave a statement and observed that there have been two major market disruptions since the Advisory Committee first met. He stated that the July 8 event showed that primary exchanges still have no backup plans for the opening and closing operations. He pointed to the growth of exchange traded funds (ETFs). He urged the staff of the exchanges and the

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Commission to work on robust contingency plans. **Aguilar** said the August 24 event showed how acute volatility can wreak havoc on the market. He said many ETFs traded at sharp discounts to the markets they track. He said there are issues with how trading is resumed after it is halted by limit-up/limit-down (LULD). He suggested that exchanges' reopening auctions should be reexamined. He said algorithms may not be programed to deal with rare events like reopening auctions or extreme volatility. **Aguilar** urged the Advisory Committee to work with the Investor Advisory Committee's (IAC) Market Structure Subcommittee. He noted that he previously expressed concern that the EMSAC's makeup did not account for all of the views in the market. He urged the Committee to regularly receive outside input, particularly from retail investors. **Aguilar** said the Commission should implement a pilot program in which maker-taker rebates are suspended for the most liquid stocks. He encouraged the Advisory Committee to recommend that the Commission take up such a pilot program. He said institutional investors now hold 80 percent of large cap firms and questioned what impact this has on the market structure. He stated that different studies have reached different results on whether market liquidity has deteriorated, urging the Committee to examine this issue for itself. He suggested that the Advisory Committee should examine the impact of indexing and systemic trading systems. He questioned how the Commission should address the issue of excessive intermediation. He asked if public exchanges remain an attractive option for smaller and emerging companies and if the market structure discourages their use. He emphasized that the markets must be structured to support issuers and investors.

Commissioner Kara Stein said the August 24 event highlighted the importance of the EMSAC's input. She expressed interest in the maker-taker model and how the SRO model has evolved. She urged the EMSAC members to raise any issues that are of concern to them.

Commissioner Michael Piwowar in a statement said the Commission has been slow in moving forward with its market structure review, with only three market structure achievements. He urged the EMSAC to encourage the SEC to move forward, and suggested that the EMSAC should exercise its independent judgment on what are the most pressing issues. He questioned the goals of the Committee and how the EMSAC will measure its success. He urged EMSAC to create concrete goals and benchmarks for success.

Creation of Subcommittees

Steve Luparello (Director, Division of Trading and Markets, SEC) said at the Advisory Committee's first meeting a number of issues of interest were identified. He said many EMSAC members recommended creating subcommittees of four issues: (1) Regulation NMS; (2) trading venue regulation; (3) retail customer issues, including payment for order flow (PFOF) and execution quality; and (4) market quality, which would include high frequency trading and dark pools. He said Commission staff would help to direct the initial meetings, but the subcommittees would largely be self-directed after that, including in appointing subcommittee chairs. He said subcommittee agendas and minutes would be made public.

Discussion of Subcommittees

Richard Ketchum (FINRA) emphasized the benefits of having subcommittees which are more focused on particular issues. **Kevin Cronin (Invesco)** asked if there are limits on how many subcommittees each Advisory Committee Member could be on. He asked if a Subcommittee can be the Full Committee, to which **Luparello** responded in the negative and suggested that would be inconsistent with the Federal Advisory Committee Act. **Luparello** stated that the Committee is not

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limited to four Subcommittees and there is no limit on how many Subcommittees a Committee member can serve on.

Joseph Mecane (Barclays PLC) asked about the schedule for creating subcommittees and commencing meetings. **Luparello** said the subcommittees would be created today, but the two subcommittees of focus at this meeting would meet more urgently. **Jamil Nazarali (Citadel Securities)** said there is a concern that the deliberations of the subcommittees will be opaque and made in private, and he asked how that can be addressed. **Luparello** said any deliberations in the subcommittees would play out in the full committee.

Ted Kaufman (Duke University Law School and former U.S. Senator from Delaware) noted that the Advisory Committee is only intended to last for two years. **Luparello** said the Advisory Committee is required to meet for a minimum of two years, but could last longer. **Kaufman** asked how many times the Committee will meet in 2016. **Luparello** said the Commission's intent is for EMSAC to meet four times per year. He said subcommittees would have the ability to meet more often.

Reginald Browne (Cantor Fitzgerald & Co.) suggested that a subcommittee could be created focusing on exchange traded products (ETPs). **Luparello** questioned whether this should be a stand-alone subcommittee or if it would fit in the Market Quality Subcommittee.

Joe Ratterman (BATS Global Markets) asked how the Commission staff would respond to Subcommittee recommendations. **Luparello** suggested that the subcommittee recommendations would be addressed by the full committee, after which they would be examined by the SEC staff.

Nancy Smith (AARP) questioned how the EMSAC can leverage the work of the IAC's Market Structure Subcommittee. **SEC Chair Mary Jo White** agreed that there is a need to leverage the work of the IAC. **Luparello** said the work of the EMSAC is recapped at IAC meetings. He suggested that the work of the IAC could also be recapped at EMSAC meetings. He suggested that a liaison relationship could be created between the EMSAC and the IAC.

A Committee Member asked if a Commission staff member would attend each Subcommittee meeting. **Luparello** suggested that this would likely be the case, stating that the staff member would draft minutes from the subcommittee meetings. He noted that it is within his discretion to create subcommittees.

Luparello asked if a separate ETP Subcommittee should be created. **Browne** recommended creating stand-alone ETP Subcommittee. **Ketchum** suggested that the Market Quality Subcommittee should not be prevented from examining the role of ETFs in the August 24 market event. **Nazarali** said there is an overlap between ETFs and other products. He suggested that ETPs would be best dealt with by the Market Quality Subcommittee. **Luparello** recommended that the EMSAC create the four proposed Subcommittees, with ETPs being under the Market Quality Subcommittee's purview. He said the EMSAC can later examine whether an ETF Subcommittee is necessary.

<u>Presentation on Rule 610 by SEC Staff</u>

Richard Holley (Division of Trading and Markets, SEC) stated maker-taker fees started as a competitive tool for help attract liquidity to new trading venues. . He explained maker-taker provides

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rebates to incentivize members to post limit resting orders. **Holley** stated they help markets attract liquidity and incent better prices. He stated unlike some other order incentives, maker-taker is transparent. He stated exchange access fees are filed and posted on the exchange website. He noted that fees become immediately effective. **Holley** stated exchange fees are required to be reasonable and not unduly discriminatory. He stated access fees are a "big deal" because Rule 611 requires trading centers to prevent trade-throughs. He stated Rule 610 creates an access fee cap limiting the amount centers can charge. **Holley** stated that there are pros and cons to the maker-taker exchange model. He indicated that the pros include: (1) it is a significant competitive tool for exchanges; and (2) it may benefit retail investors by narrowing posted spreads. He stated the potential cons of maker-taker fees include: (1) it creates a conflict of interest between brokers and their customers when the rebate is not passed onto the customer; (2) it increases market complexity as order types proliferate and fee schedules change; (3) it impacts price transparency; and (4) higher rebates generally require higher offsetting fees.

Holley listed several potential options to address the maker-taker fee structure: (1) reduce the access fee cap or ban the fees, although he stated this could increase costs for retail investors; (2) keep maker-taker where it works in certain segments of the market (less liquid stocks) but eliminate it where it does not work, adding that a pilot program could help examine the effects; (3) require fees and rebates to be passed back to customers, however, he suggested that would not address the complexity criticisms; (4) incorporate access fees into the public quotes to better reflect the actual price paid by the liquidity taker; (5) the SEC or FINRA could issue additional best execution guidance in the context of maker-taker fee structures; or (6) do nothing, if it is to the benefit of investors.

<u>Presentation and Q&A on Rule 610</u>

Panelists:
Robert Battalio, Professor of Finance, University of Notre Dame
Michael Buek, Principal, The Vanguard Group Inc.
Thomas Farley, President, NYSE Group
Larry Harris, Professor of Finance & Business Economics, USC Marshall School of Business
Matt Lyons, Senior V.P. & Global Trading Manager, The Capital Group

Robert Battalio (Professor of Finance, University of Notre Dame) said that he studied the routing practices of four national retail brokers, which he stated routed limit orders to venues paying the highest rebates. He suggested that this would not be consistent with best execution obligations. **Battalio** offered three potential solutions to the maker-taker model. The first option is to eliminate maker-taker fees; however, he stated the result of this could be worse than the conflicts. He stated that payment for order flow (PFOF) has a long history, and order flow will always have value. He noted that one advantage of the maker-taker model is that the fees are transparent. He stated that eliminating the fees should not be done without a full evidential review, which could take the form of a pilot program. **Battalio** explained that the second option is to mandate that rebates be given to the investor. He noted that this would solve the conflict of interest, but he questioned what the resulting cost would be. **Battalio** discussed a third option that would enforce best execution obligations and require new disclosures, including a requirement that brokers produce monthly Rule 605 reports would allow better comparisons of execution across brokers.

Michael Buek (Principal, The Vanguard Group Inc) said the U.S. equity markets are the most efficient in the world. He stated that regulatory changes and technological advances over the past 20

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years have benefitted all investors, as transaction costs have gone down and access has never been better. He said Regulation NMS provides incentives for certain types of behavior. He stressed the need to continually reevaluate the market structure. He commended the SEC for its equity market structure review. **Buek** suggested that certain practices were originally created for good reasons, and that the maker-taker model should be examined to determine whether it is still appropriate. He said the current cap of 30 mils was created based on the market in 2005 and has not been updated. He stated that what has developed over time is a market structure that competes based on fees. He suggested that there has been a related proliferation of complex order types. He said there is a perception that some brokers focus on maximizing rebates, rather than obtaining best execution for clients. He recommended that the SEC create a well-designed pilot program that would include a broad universe of stocks and eliminate the rebates paid under the maker-taker model. He also recommended that the pilot include a trade-at component. He suggested a trade-at provision would help with price discovery, encourage the display of orders, and decrease the need for complex order types. He noted that the SEC has already included a trade-at in another pilot program, and that not involving a trade-at provision in a maker-taker pilot would be a "missed opportunity."

Thomas Farley (President, NYSE Group) expressed concern that the EMSAC lacks representation from listing venues and retail broker-dealers. He also expressed concerns that the subcommittees could be free from airing their deliberations in a public setting. He explained he agrees with most of Buek's statement. He said there are concerns that maker-taker gives rise to conflicts and complexity. He noted there is a difficulty in getting unanimity on access fees because every exchange has its own vested interest. He said reducing or eliminating access fees and doing nothing else, will push the markets away from exchanges. **Farley** suggested that broker-dealers are ethical but "ruthless" on behalf of their shareholders.

Farley said the market learned a great deal about ETPs from the August 24 event. He noted that the system had never been tested in such a stress environment. He said ETPs have reduced costs for investors wishing to diversify their portfolios. **Farley** suggested that NYSE has already implemented measures to fix what went wrong on August 24 and additional dialogue is ongoing on what else can be done. He said NYSE Arca is the largest pool of liquidity. He said there are ongoing discussions on what can be done to harmonize reopening procedures. **Farley** stated NYSE has been focused on promoting industry change and incentivizing market makers to stay in the markets during stress events. He said NYSE has widened its opening auction collars and has worked to end stop-loss orders which are not bounded by limits. He emphasized that ETPs provide value to investors, stressing that the August 24 event was not an ETP event, but an equity market structure event.

Farley expressed opposition to eliminating the exchange SRO function. He explained the SROs serve an important function of surveillance, investigation, and enforcement against members. He said NYSE works to make its rules as prescriptive as possible, but that some situations require subjective judgment. He said exchanges are in a position to do what is best for the industry without concerns about liability. He stated that he is open to discussion about whether exchanges should have a higher limit of liability for when one of their systems fails.

Larry Harris (Professor of Finance & Business Economics, USC Marshall School of Business) suggested that prior to electronic trading the markets operated well without the maker-taker rebates. He said exchanges are essentially brokers who match buyers to sellers and charge a commission. He said when maker-taker was established other market participants began to match the fee schedules offered by electronic traders. He stated that the supply and demand of liquidity

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determines maker-taker fees and rebates. He said the exchange revenue is the difference between the maker fee and the taker fee. **Harris** said maker-taker has narrowed spreads and increased non-price competition but has created an agency problem. He said taker-maker pricing allows buyers to jump ahead of the queue. He suggested that maker-taker combined with taker-maker has essentially created a system of sub-penny pricing. He noted that sub-penny pricing was banned by Regulation NMS. He emphasized that there are "no free lunches." He said limit orders go maker-taker fee models and market orders go to taker-maker as long as there is liquidity present. **Harris** recommended that the SEC promote competition by requiring exchanges to all use the same simple pricing standard. He suggested that exchanges could discount their transaction fees, but not based on who makes or takes liquidity. He said "convoluted pricing systems" should not be allowed. He suggested that maker-taker fees are an impediment to orderly markets. He said that the fees are essentially kickbacks. He contended that all rebates or fees for order flow should be passed onto the investor, although he acknowledged that this could lead to an increase in commissions charged but he suggested that customers would at least be aware of the true costs. He stated that investors have no idea what they are paying, suggesting that the fee practices amount to systemic "dishonesty".

Matt Lyons (Senior V.P. & Global Trading Manager, The Capital Group) said the Capital Group represents millions of investors' savings. He stated that the goals of Rule 610 are being undermined by the maker-taker model. He said the SEC originally proposed to cap the fees at 10 mils, but later increased the cap to 30 mils. He disputed claims that maker-taker incents displayed liquidity. He said market makers play an important role in the market, but the rebate system creates a subsidy from takers to makers. **Lyons** said there are problems with the economic incentives under the maker-taker system. He said the Capital Group has not seen the supposed decline in transaction costs as a result of maker-taker. He also disputed the notion that liquidity rebates have driven down spreads. He said spreads have come down, but that this is not the result of maker-taker. He suggested that there has been no material decline in spreads since the passage of Regulation NMS. He suggested from 2000 until passage of Regulation NMS most of the benefits of wider spreads had already been seen and after passage of Regulation NMS there has been no material change in spreads. He said the goal in Regulation NMS of allowing investors to trade without intermediation has not been met. **Lyons** said the conflicts of interest under maker-taker led the Capital Group to invest in IEX. He said complex order types have developed simply for the purpose of fee avoidance. He said fee avoidance has led to a proliferation of broker ATSs. He suggested that additional complexity has made the market more fragile. He recommended eliminating rebates, but acknowledged that there may be some consequences so he suggested that the SEC implement a pilot study. Additionally, **Lyons** suggested an evaluation of the current market data scheme.

<u>Committee Discussion of Rule 610</u>

Jamil Nazarali (Citadel) stated there are fewer conflicts of interest from the retail side of the markets. He stated that retail brokers have every incentive to execute their customers' orders. He explained the average retail commission is $10 and the average size is 300 shares. He stated broker-dealers make on average three cents when they execute these retail trades. **Nazarali** stated the idea that broker-dealers would route these trades on another exchange for a few cents is not reasonable. He stated for retail the broker-dealer has an incentive for the order to be executed because they make more on the commission than the few cents from the rebates. Nazarali noted that any system will have "pros and cons" but if the access fees were eliminated there would still be complexity because some exchanges would pay "zero" rebate and charge a take fee. He stated there is still a conflict because unless they are required to charge a certain price there will always be exchanges that charge more. He suggested spreads will likely widen if the maker-taker model were eliminated. He

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noted that increased liquidity in the markets is a public good and the maker-taker model creates incentives to add liquidity.

Ratterman stated the challenge is that retail order flow has unique characteristics. He stated half of the retail order flow "shows up" by the open of the markets and 98 percent are executed if the price is touched during the day. **Ratterman** suggested that retail is not chasing order flow and want to execute no matter where the orders are. He stated retail orders are getting executed.

Reginald Browne (Cantor Fitzgerald & Co.) stated if one were to study data, the change to maker-taker and taker-maker would result in increased costs for retail investors. He stated if maker-taker were eliminated a segment of the market would be eliminated and money in ETFs would be reduced.

Browne noted that exchanges are owned by shareholders. He asked if trade-at were instituted, whether the SEC would be picking winners and losers. He asked what the long term impacts to the markets would be if there was decreased competition.

Buek stated pilots are about finding what behavior changes, and if a trade-at were included traders would be more likely to post limit orders. He stated that real buyers and seller are more likely to place limit orders, and that Vanguard would post more limit orders if there is a trade-at provision. But he said that until it is seen how traders react, the outcome is unknown.

Matthew Andresen (Headlands Technologies LLC) stated in the 1980s and 1990s there were deep flaws in the markets. He stated now spreads are well within a penny and investors are better off. He suggested that many issues have contributed to that change. He noted that now there are more exchanges and higher velocity trades. He suggested that access fees were not "novel" when Island developed its access fee model. He noted that NASDAQ had a fee and Island matched that. He noted a rebate was offered because Island needed to attract orders. He stated eventually other markets matched Island's price. **Andresen** stated all major markets settled at 30/20 in 2002 and then Regulation NMS capped the access fee at 30. He stated there are a lot of benefits of trading were "baked in" during the decimalization time period.

Ketchum asked Harris whether there is a need to eliminate the taker-maker model, since there was a rough equilibrium until the taker-maker model was created. **Harris** stated when all venues are charging the same prices there is no agency problem. He stated if all are using taker-maker and charge the same fees then the bid-ask spreads compress. He stated order routers cannot choose between the rebate rates so that leads to a focus on best execution. Harris suggested the "hidden" taker-maker pipeline leads to money flowing into different venues and the misrepresentation of costs is harmful. He stated if all venues are operating at 30/20 then the agency problem is reduced.

Farley stated to some extend the trade-at would pick winners and losers but he stated that the winners would be the investor. He explained that increased competition of orders is central to the marketplace. He stated NYSE makes $200 million for matching equity trades but he noted that some broker-dealers can make that in a week. **Farley** stated that NYSE chooses the institutional investor. He recommended a pilot to eliminate the rebates. He suggested this would create an even more competitive market because it will be "lit."

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Andresen suggested the SEC look at indexing access fees to inflation. But he also stated exchanges also charge other fees, which are just as material, to access the markets. He stated the costs for entry have never been higher. **Andresen** stated if a market participant wants faster feeds they can pay up to $25,000 a month. He suggested that a customer can have pricing power to lower these fees. In addition, he noted the fees associated with data and matching. He stated that co-location is renting a data center, and the costs tend to be higher when owned by the exchange. He stated that exchange fees are paid because it is required and customers have no pricing power.

Mehmet Kinak (T. Rowe Price Group) stated the trade-at can be tested without touching maker-taker. He stated maker-taker and trade-at are completely different components. He stated if there are more characteristics added to a maker-taker pilot program, such as trade-at, it will be harder to determine what is actually impacted. He noted the NASDAQ pilot which found that brokers did not route for fees and maybe the trade-at would help with that. He stated if there is a pure rebate model and all migrate to the dark then the SEC would know that the maker-taker model impacts order flow. However, he suggested if the trade-at is added, the impact of that would be harder to see. **Buek** stated there can be a trade-at without maker-taker. **Kinak** stated that trade-at focuses on lit liquidity, and there is no way to test that with the maker-taker fee.

Gary Stone (Bloomberg Tradebook LLC) stated the first ECNs always displayed liquidity. He asked whether there would be a benefit of having tiered access fees and he asked how the pass-through should be handled. **Lyons** stated it would be a burden to gather this data. He stated if they have the information on fees then the burden would be minimal. Buek stated if one argues that maker-taker is critical to market quality they could work through the fee issue. He stated they have spent a lot of time on the fee issue.

Kevin Cronin (Invesco Ltd.) stated access fees are an issue and conflicts from an institutional aspect are real. He stated it seems like developing a pilot program would be a good idea but would need to solve for market makers displaying liquidity. He stated they need investors to put in limit orders and suggested it would be sensible to consider incentives for posting more liquidity, but eliminating rebates for highly liquid stocks. He asked what would be done for mid and small cap stocks, suggesting tiered access might be a better option. **Luparello** stated the subcommittee could make recommendations on the makeup of a pilot.

Harris stated the way to get liquidity displayed is to protect investors from those who would front-run. He stated if one desires for institutional orders to come out of the dark then there is a need to eliminate taker-maker rebates to get the tick back to one cent. He stated if the desire is to get rid of internalization then the benefits of it need to be removed. **Farley** stated that the trade-at focuses on displayed liquidity. He stated a pilot that decreases fees would be a benefit as well.

Maureen O'Hara (Cornell University and Investment Technology Group Inc.) stated when the access fee was capped at 30 cents spreads were 30 to 40 percent wider than today. She stated correlating the trade-at with access fees is overly simplifying the issue. She stated the trade-at brings more liquidity but decreases flexibility. She suggested the SEC will need to consider the right balance between the two. **O'Hara** suggested as the SEC considers a pilot program they must consider the complicated interactions, as it will be hard to know the net effect. She stated the pilot would be a way to learn before broad changes are made. She asked how to measure and consider the net benefits of these pilots.

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Ratterman suggested that a trade-at would "decimate" venue competition. He stated that 35 to 40 percent of volume goes dark every day. He noted some firms like to break their orders across different venues. He suggested that not all trades should go through displayed markets. He stated the SEC should not "short shrift" the role of market makers. He stated there is not enough liquidity without market makers as market makers provide "glue" or a "time gap" between investors. **Ratterman** cautioned the SEC to be careful in how the pilot may be a disincentive to market makers. He applauded the NASDAQ pilot but noted it "failed" because it was only in one market. He suggested the SEC needs a market wide pilot and the NASDAQ pilot was on the "right mark." He stated all of the exchanges need to come together on a pilot. He suggested the 30 cent access fee is "outsized" and he proposed a tiered access fee approach to incentivize liquidity. **Ratterman** stated before the access fee is changed a pilot should be conducted across the industry which has the same price constraints then the SEC can determine what to do with rebates.

Manisha Kimmel (Thomas Reuters) stated there are disparate systems and it is difficult to have them all "talk to each other." She suggested a pilot with only one variable would not be a burden. She stated the NASDAQ pilot was good and did not place additional burdens on venues. She suggested the pilot should consider one variable at a time and she is not certain the trade-at is needed at this time.

Chester Spatt (Carnegie Mellon University) stated pilot design is critical. He stated pilots have a range of designs but suggested the "gold standard" was the pilot on the repeal of short sales. He stated the "good features" were that it was an across-the-board pilot and there was not a question of it being voluntary. **Spatt** stated that a pilot on rebates should not be "mingled" with the trade-at provision. He stated it would be better to have a "clean" pilot. He suggested it might be better to not do everything at once but to roll out different buckets because that would provide more of a control group. In addition, he suggested that the SEC needs to consider what the measurements of success will be.

Nazarali emphasized that a pilot should not have a one-size-fits-all design. He suggested that higher access fees could be allowed for less liquid stocks in order to encourage liquidity. He argued against inclusion of a trade-at in the pilot suggesting it would impact competition. He explained three exchanges would control 99 percent of volume and there would be increased exchange fees over time.

Eric Noll (Convergex) said there is a difference between venue competition and order competition. He stated that most of the exchanges adopted maker-taker programs because they were the most effective way to incent liquidity and competition. He suggested that the SEC should look at other ways to incent liquidity in the marketplace. He emphasized that maker-taker is not mandated, but rather has been an effective mechanism for the exchanges. He stated that he is "generally sympathetic" to a pilot program, but that he does not believe it is necessary. He stated that incentives for liquidity provision are necessary, particularly for small and midcap stocks.

<u>Presentation on Regulatory Structure of Trading Venues by SEC Staff</u>

Nancy Burke-Sanow (SEC) explained that exchanges must prevent fraudulent acts and practices, promote just and equitable principles of trade, and protect investors and the public interest. She continued that exchanges must provide for the equitable allocation of reasonable fees, must not permit unfair discrimination, and must not impose any unnecessary or inappropriate burden on competition. She explained that the SEC examines compliance with the Exchange Act, takes

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enforcement actions, approves or disapproves exchanges' proposed rule changes, and adopts Commission rules pertaining to exchange regulation. She noted Regulation ATS was designed to provide an alternative regulatory framework for certain emerging automated trading platforms offering execution services comparable to exchanges. She said under the rule an ATS is exempt from the statutory definition of an exchange provided that it complies with certain requirements. She explained that an ATS must provide the SEC with basic information about its operations, subscribers, and order entry and execution procedures. She said if an ATS meets a threshold of five percent of average daily share value and displays prices to more than one person it must provide its best-priced orders for inclusion in the consolidated data that is made available to the public and provide broker-dealers with the ability to access its best-priced orders.

Burke-Sanow stated ATSs compete with exchanges in offering trade execution services, but have fewer regulatory obligations. She said they are not required to perform market surveillance and are not subject to Section 6 of the Exchange Act. She noted ATSs can modify their business practices more readily than exchanges because they are not required to file rule changes with the SEC before implementing them. She stated ATSs do not receive some of the benefits that flow from being an exchange, such as limited immunity from private actions when fulfilling SRO responsibilities. She added that exchanges and FINRA help shape market structure policy through their participation in joint National Market System Plans (NMS Plan) and through coordinated SRO rule filings.

Burke-Sanow explained that fees charged by exchanges and FINRA for consolidated market data must be filed with the SEC and must be fair and reasonable and not unfairly discriminatory. She stated representatives of the securities industry and other constituencies participate in the fee setting and other governance processes of the consolidated market plans through advisory committees. She asserted self-regulation produces inherent conflicts between an exchange's commercial interests and its regulatory responsibilities. She said a potential conflict of interest can exist if an exchange funds its business operations at the expense of regulation. She stated this conflict is heightened when an exchange demutualizes and becomes a for-profit business. She noted that currently all U.S. exchanges are demutualized, shareholder-owned entities. She contended that shareholders may seek to emphasize an exchange's business interests over its regulatory obligations. She added that the market for execution services, traditionally dominated by exchanges, has become increasingly competitive. She said this heightened business pressure on exchanges has raised concerns that the tension between regulatory duties as SROs and commercial interests could be exacerbated. She explained that many ATSs are operated by large broker-dealers that are also members of an exchange and their interests and the exchange's interests make conflict.

Burke-Sanow stated competition among exchanges and ATSs has raised the broader policy concern that regulatory distinctions between exchanges and non-SRO trading venues may no longer be warranted. She noted some have questioned whether the exchanges' status as SROs provides them with commercial and competitive advantages. She noted many exchanges have turned to FINRA to perform regulatory functions with respect to their members, and to some extent, their markets. She explained that some of these arrangements relieve the delegating exchanges of their SRO responsibilities. She said Regulatory Services Agreements (RSAs) are private contracts between parties under which one SRO performs regulatory functions as an agent for another SRO. She stated that it may be argued that some of the conflicts faced by exchanges may be mitigated when regulation is performed by an SRO less directly influenced by the business of the exchange. She said the prevailing view is that the current regulatory structure for trading venues has functioned reasonably well. She said given recent development in the securities markets it may be appropriate to

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reevaluate the current structure and its ramifications, including self-regulation, ways to improve the current system, and whether the system as a whole is appropriate.

<u>Presentation and Q&A on Regulatory Structure of Trading Venues</u>

Panelists:
John Kerin, CEO & President, Chicago Stock Exchange
Brett Redfearn, Head of Market Structure Strategy, J.P. Morgan,
Andrew Silverman, Managing Director & Global Co-Head of Electronic Trading, Morgan Stanley,
Thomas Wittman, Executive VP & Global Head of Equities, NASDAQ OMX,

John Kerin (CEO & President, Chicago Stock Exchange) stated new regulations have driven material market structure change. He said the combination of Regulation ATS, decimal pricing, and Regulation NMS are directly responsible for the current market structure. He stated protectable quotations and regulatory immunity have been cited by some as no longer necessary in today's markets. He said some assert that SROs enjoy a competitive advantage over other trading centers and indicated he completely disagrees with this view. He asserted undermining SROs and other fundamental market infrastructure is not the answer, noting that SROs perform unique functions of generating capital through listing equities and price discoveries for equities in the secondary market. He commented that SROs are required to design rules that prevent fraudulent and manipulative acts and practices, protect investors, and disallow unfair discrimination. He stated SROs are the most regulated entities in the industry and contended that dismantling them will result in a regulatory race to the bottom. He called for incremental improvements to the market and said there is a need to address the various conflicts of interest that have developed as the market has evolved.

Kerin expressed support for the Committees' efforts to address market structure issues, but said focusing on Rule 610, Rule 611, and maker-taker access fees misses the fundamental issue of conflicts. He asserted conflicts are pervasive throughout the industry but conflicts within SROs have largely been addressed. He explained all exchanges have adopted ownership limitation rules that prevent undue influence from members they regulate. He stated Rule 19b-4 ensures that any initiative SROs seek to implement is consistent with the requirements of the Exchange Act. He asserted that there has not been enough done to address the inherent conflict of interest that arises when a broker acting as agent for a customer utilizes customer orders to further their own interests. He said many of today's market structure issues would be solved if brokers had to serve as fiduciaries when executing orders on behalf of their customers.

Kerin stated the purpose of market data revenue is to fund the regulatory obligations of SROs and said distribution is properly governed by the SROs. He said trading centers are drivers of market data and thus more can be done to equitably share market data revenue among the market participants responsible for its creation. He said trading centers that are not exchanges should look to FINRA to enhance its revenue sharing program. He stated exchanges are best suited to regulate their own markets and noted the Chicago Stock Exchange's regulatory and compliance departments are involved for the entire development process of new functionality. He contended a one-size-fits-all approach to surveillance and regulation cannot provide the same level of oversight. He said competition to promote regulatory innovation is good.

Brett Redfearn (Head of Market Structure Strategy, J.P. Morgan) indicated his comments would focus on Securities Information Processors (SIPs). He stated NMS Plans are a form of decision making, a form of governance, and a construct to operate major aspects of the NMS. He

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said other NMS Plans are also in effect, including the Limit Up/Limit Down plan, the plan for the consolidated audit trail (CAT), and the tick pilot plan. He stated the key governance issue is that NMS Plan board members are exclusively representatives of the SROs for exchanges and FINRA. He noted exchanges are for-profit, publicly traded companies that compete with broker dealers and the market data products offered by SIPs. He asserted NMS plan governance fails to mitigate this conflict of interest and should be updated to fit today's business realities. He said NMS plans should include voting representation from broker-dealers and asset managers, and that the requirement for unanimous approval should be modified.

Redfearn said among current Plan participants there is a basic disincentive to invest in SIPs and make them competitive products. He stated a better SIP is a more expensive SIP, which takes expected revenue directly out of the pockets of exchanges. He said Plan participants have been making greater investments and improvements in SIPs, but asserted they are limited in vision and inadequate. He stated SRO participants in the equity SIP plans are selling data products that directly compete with SIPs and unlike the SIPs, 100 percent of the revenue from competing proprietary market data products goes to the exchange selling the data. He said the proprietary products are better and for broker-dealers providing electronic trading products, using the SIP is considered uncompetitive. He noted a study found that latency in SIP data is a source of unfairness across investors and reduces transparency for investors using SIP data. He stated fixing SIPs cannot be accomplished without fixing the underlying governance model.

Redfearn reiterated that NMS Plan governance be updated and modified so that they include representation from broker-dealers and asset managers with voting rights. He said a more inclusive set of views will help ensure a better outcome for all investors and noted exchange boards always include industry representatives along with exchange officials. He stated advisory committee participation is not highly impactful because advisory committee members have no substantial voice in the decision making of Plans and are excluded from working groups where key work takes place. He noted BATS Global Markets, Inc. is going to introduce an amendment to the CTA/UTP Plan tomorrow looking at possible governance changes, but stated it is unlikely the amendment will get a unanimous vote. He said it is important the SEC takes action to address the governance issue.

Andrew Silverman (Managing Director & Global Co-Head of Electronic Trading, Morgan Stanley) said exchanges and ATSs provide market functionalities that have similarities but also key differences. He stated Regulation ATS helped facilitate much-needed competition in the trading of securities, but noted brokers have taken differing interpretations of what is permissible under Regulation ATS. He said it could be said that some brokers lost sight of their role as a broker in their eagerness to grow their dark pools. He stated Morgan Stanley has never sought to compete directly with exchanges with regard to overall volume traded in any of its dark pools, which he said is in contrast with some other dark pools. He said one issue left to the interpretation of brokers is whether dark pools would accept or pursue liquidity providers or market markers in order to provide their dark pools with additional liquidity. He said in some cases aggressive order handling practices involving the use of indications of interests were employed without transparency to the end client. He said this was key in allowing some brokers to establish critical mass quickly in their dark pools.

Silverman stated the role of liquidity providers in modern markets is critical to ATSs and exchanges. He said there is no meaningful regulation that clearly defines the benefits and obligations applying to liquidity providers and the lack of significant obligation manifests itself in times of

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market volatility. He stated that with little guidance market makers were left to carve out their own advantages, often in the form of co-location and fast market data feeds. He contended meaningful regulation that clearly defines the role of the market maker would "take the mystery out of the market maker."

Silverman said the role of exchanges has changed significantly and there is now fierce competition among exchanges. He said this has resulted in a very resilient equity marketplace that can withstand a major outage of a primary exchange. He stated it is an undeniable benefit that fragmentation makes the market more resilient in the face of inevitable technology outages. He said a negative side of competition between exchanges is that the drive to increase profits conflicts with the idea of being an SRO. He questioned whether exchanges are best positioned to drive market structure changes as if they are an unbiased participant acting solely in the public interest. He contended that any potential regulation must take into account differences between exchanges and ATSs. He said rules for exchanges and ATSs could be harmonized by defining the role of liquidity providers, and for-profit exchanges could also be required to accept appropriate liability.

Thomas Wittman (Executive VP & Global Head of Equities, NASDAQ OMX) asserted current SRO regulation works and said there is little doubt the SEC regulates exchanges effectively or that exchanges regulate their members effectively. He stated access fees are a key market structure issue that needs to be addressed. He contended exchanges should be allowed to innovate and experiment with access fees and incentives to improve market quality. He recommended a cross-market experiment testing lower access fees. He said the Committee should consider ways to help issuers of less liquid securities improve their liquidity and issuers should have the choice to compensate market makers that support their liquidity. He noted NASDAQ has encountered difficulty getting approval for fee reductions for members that transact the most volume. He stated the Committee should take steps to increase its transparency and diversity.

Committee Discussion on Regulatory Structure of Trading Venues

Ratterman said BATS will be offering a proposal to include buy and sell side representation on the SIP Operating Committee.

Stone said there is a perception that exchanges are more heavily regulated than ATSs. **Redfearn** said Form ATS should be a public document. He said there are disparities regarding ATS disclosures. He suggested that more information on ATSs could be made public. He recommended that the SEC impose additional disclosure requirements for ATSs. He expressed support for the FINRA initiative regarding off-exchange volumes. He said Regulation SCI imposed provisions on some of the larger ATSs. **Silverman** agreed that there is a need for additional ATS transparency. He said ATSs have best execution requirements and must file substantial changes with the SEC. **Kerin** said exchanges' rules are public and there are significant differences between the regulation of exchanges and ATSs. **Redfearn** said investors have significant choices in regards to using different ATSs. He noted that exchanges are protected markets and ATSs are not.

Ketchum asked about the role and responsibilities of liquidity providers. **Silverman** said Morgan Stanley's liquidity providers put agency before principal. He said Morgan Stanley's liquidity providers take a back seat to liquidity flow. He said if someone is constantly reaching across the market, they are not a liquidity provider.

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Ratterman said Regulation ATS was vital for competition at the time of its adoption, noting that BATS went from an ATS market to the exchange side. He said that while fragmentation creates complexity it has benefits in improving resiliency. He stated that exchanges should accept appropriate liability limits. He asked if there are areas where exchanges have immunity but should accept liability. He asked if fair access should be pushed on ATSs. **Silverman** said the 5 percent threshold for fair access is appropriate. He noted that Morgan Stanley is one of the larger liquidity providers to the exchanges. He emphasized that the non-transactional fees charged by exchanges, such as data fees and colocation fees, are going up. He expressed concern that if the competition from ATSs is reduced these exchange fees will go up even further.

Andresen said in 2015 the SIP is viewed as not being good enough. He noted that SIP fees have gone up recently, and these fees are decoupled from merit. **Stone** said the SIP is more relevant than direct feeds in terms of how people are using them. He asked how much people are harmed by the SIP being slow. **Redfearn** said JP Morgan uses the direct feeds. He said the IEX business model is focused on dealing with differences between data feeds. He suggested that data feeds should be included in filings. He stated that how a firm is consolidating the data feeds is important. **Wittman** said the SIPs have gotten faster, but proprietary data feeds are more inclusive. He suggested that if there were a system problem firms could still use the proprietary feeds and going into halt may cause more harm than good. **Redfearn** said the market relies on the SIP and would have to halt if it went down.

Browne asked if exchanges should be required to hold higher levels of capital if they accept higher liability levels. He asked if this would be a barrier to entry. **Redfearn** said the liability limits should be raised and additional capital would be needed. **Kerin** said the Chicago Stock Exchange does not presently accept liability.

Ratterman said exchanges serve different functions, some of which they should not be liable for. He said regulatory breaks, which do not involve system error, should not be subject to liability. **Redfearn** said there are core exchange services and non-core exchange services, which should be treated differently. He said there should be some liability for system issues. **Silverman** questioned whether increased liability would slow down the development of new processes which could potentially be disruptive. **Wittman** said no amount of liability would change how he implements new software functionality.

Mecane said liability immunity is not a factor in implementing new processes. He said the cost of CAT will need to be assessed. He suggested that a more holistic view is needed for regulatory fees. **Redfearn** said the implementation of CAT should not be dependent on broader holistic changes.

Nazarali said the revenue structure is a key part of the market structure. He said the equity market is the only industry in which a for-profit company regulates its customers and its competitors. He questioned why the exchanges need to serve in the SRO role. **Kerin** said there is not someone who could do a better job. **Wittman** said NASDAQ has a lot of experience and partners with FINRA on some functions. He suggested that NASDAQ is doing its job well. **Ratterman** said the SROs serve in this role because the SEC told them they have to do it. He suggested that the regulatory function could be done in a different way, but that this would be a major change in the market. He stated that the competition between the SROs has created better results than a monopoly regulator. **Ketchum** emphasized that market regulation is not broken. He said there is real value added from exchange

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oversight of exchange trading. He said there is value in the exchanges sharing the regulatory role with FINRA.

Kimmel asked if the NMS Plan process is broken. **Wittman** said the process could be enhanced, but not as much change is needed as suggested by Redfearn. **Kerin** said the plans are working well in general. **Ratterman** said BATS is putting a proposal out tomorrow to include industry participants on the SIP Operating Committee. **Ketchum** said the plans have been functional, but suggested that there should be a way to include more industry input. He said the SROs have not frozen out input. **Kimmel** said she has heard concerns from brokers about not being included in the formation of NMS Plans. **Ratterman** said including the industry in Plan formation would be helpful.

Discussion of Recent Market Volatility

Luparello said the Commission is performing a careful examination of the August 24 market event. He said the SEC is examining the interaction between LULD and ETPs. He said the SEC issued a request for comment on ETPs this summer.

Mark Flannery (Division of Economic and Risk Analysis, SEC) said August 24 provided the Division of Economic and Risk Analysis (DERA) with a great deal of information to analyze. He said there were 1,278 LULD halts on August 24, more than 80 percent of which involved ETPs. He stated that there were instances of ETPs trading substantially away from their perceived net asset value (NAV). He said DERA has attempted to document the extent to which this behavior was specific to ETPs rather than corporates. He stated that there was a large drawback in the liquidity being provided related to ETPs at the market open on August 24. **Flannery** said there was "something special" about ETFs on August 24. He noted that the problems were not restricted to the small ETFs, as more deeply traded ETFs were more likely to have an LULD suspension than less deeply traded ETFs. He said the policy issues which need to be discussed include the issues with the opening, noting that NYSE has already changed some of its opening rules. He stated that DERA is also examining how close ETF values stay to the value of the underlying products. **Flannery** noted that almost all of the trading away from the underlying ended by 10:30 a.m. He said there are questions as to whether ETFs should be required to disclose more about liquidity problems.

Daniel Gray (Division of Trading and Markets, SEC) emphasized that there was a lot of selling on the morning of August 24, even before the 9:30 a.m. opening. He said the opening auctions on the equity exchanges confirmed that there was a great deal of selling, with many large cap stocks opening down five percent. He said volume across the board was much higher than usual, particularly for ETFs. He stated that the SEC is carefully examining LULD. He noted that only 2 of the NASDAQ 100 stocks experienced a LULD pause. He said 84 percent of the halts involved ETPs, with a particularly high rate involving U.S. equity ETPs. **Gray** noted that more than half of U.S. equity ETPs did not experience a halt. He said the SEC is examining why some ETPs had very high levels of volatility and others did not, noting that market cap alone does not provide an answer. He said the exchange reopening procedures should be examined.

Nazarali said one factor was that many of the underlyings did not open on time so there was not continuous pricing. He questioned whether the SEC should mandate that all stocks open at 9:30 a.m. **Luparello** said the SEC is examining this issue, but has not found an obvious answer. **Gray** said the NASDAQ 100 stocks all opened at 9:30 a.m. He said the QQQ had significant volatility, even though there was continuous pricing.

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Mecane asked if the SEC is considering how stop orders contributed to the liquidity demand. **Gray** said the SEC will be examining this issue. **Luparello** said it is difficult to craft a remedy to the issues related to stop orders.

Browne said the ETP issues should be at the forefront in the examination of market structure. He stressed the need to harmonize the market structure with the behavior of ETFs. He said there are issues with ETFs and clearly erroneous trades, and suggested that Regulation SHO should be modernized. He said the SEC should examine different types of ETFs, including cash ETFs, emerging ETFs and commodity ETFs.

Spatt said the SEC should examine how different rules may have interacted on August 24, particularly LULD.

Stone noted that ETFs are derivatives, suggesting that a particular market center may have caused issues. He suggested that the Commission should issue guidance.

Ketchum asked if the SEC will examine LULD during the first five minutes of the day and the price reset after coming out of a LULD halt, to which **Luparello** responded in the affirmative.

Nazarali said Regulation SHO impedes market-makers' ability to serve the market and provide liquidity.

Ratterman said August 24 showed that the market has to be opened on time. He stated that if the market model based on humans cannot open on time then it has to be enhanced. He stressed the need to ensure that the parameters of LULD are set correctly.

Cronin said the opening mechanism needs some enhancements. He suggested that the SEC should look at the reopening process after a LULD halt. He stated that market orders can have a significant impact on days like August 24. He stressed the need to strike an appropriate balance between opening at 9:30 a.m. and being "sensible" about prices.

Noll said ETFs should be examined slightly differently because they are derivatives. He suggested that the derivatives may have been "leading the market," rather than responding to the underlying securities. He said the SEC should look at intraday net asset value (iNAV) pricing. He said the reopening process for LULD has been problematic since it was introduced. He said something needs to be done to allow for adequate liquidity in reopening auctions. **Luparello** said the SEC is looking at ways to make the reopening more efficient.

Stone said NYSE was almost unable to conduct its closing auction on July 8. He asked if the EMSAC should look at creating a standard for closing procedures. **Luparello** said the EMSAC or a Subcommittee should examine this issue. He noted that some changes are already underway.

Ratterman said the markets performed relatively well on August 24 outside of ETFs.

<u>Discussion of Next Steps</u>

Luparello said the Committee will work to facilitate subcommittee formation as soon as possible. He said he hopes that the Subcommittees will present at the next EMSAC meeting, which he expects will be in January.

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