Testimony of

Richard G. Ketchum
Chairman and CEO
Financial Industry Regulatory Authority

Before the Subcommittee on Securities, Insurance and Investment
Committee on Banking, Housing and Urban Affairs

United States Senate

March 3, 2016

Chairman Crapo, Ranking Member Warner and Members of the Subcommittee:

On behalf of the Financial Industry Regulatory Authority, or FINRA, I would like to thank you for the opportunity to testify today about current issues and potential regulatory changes that could improve equity market structure.

In recent years, there has been increased debate about the structure of capital markets. Once the domain of regulators, market operators and large, sophisticated investors, market structure is now a topic for much broader public discourse. This discourse often includes questions about whether or not the markets are fair and whether they provide a level playing field for all investors.

Partly this concern is a reaction to volatility. For example, last August the Dow Jones Industrial Average plummeted more than one thousand points within the first ten minutes of trading, with message traffic nearly doubling. And the Chicago Board Options Exchange Volatility Index – the U.S. market's so-called "fear gauge" – surged 45 percent to its highest level in nearly four years. While the gauge has cooled since then, it remains elevated, recently hovering around 22, which is nearly double last year's low mark of just under 12.

While I can't fully diagnose what may at times be ailing the equity markets, this tumult exemplifies the importance of the structure of markets for financial instruments. All of us here know today that questions of market structure can be broad and complex, and it can be difficult to home in on what really needs to be addressed. I believe there are three key aspects of the markets that securities market participants and regulators should always be working to strengthen: market fairness, market transparency and market liquidity.

SEC Chair Mary Jo White has set out a road map for potential future changes in the equity and fixed income markets, which specifically includes an important, ongoing role for FINRA and other SROs. A number of changes have already been made or are in progress; many remain under discussion and analysis. As all such changes are contemplated, it is important to consider how proposals might enhance market fairness, transparency and liquidity.

FINRA

Before I address specific market structure issues and initiatives, I'd like to provide a brief overview of FINRA and its regulatory programs. FINRA provides the first line of oversight for broker-dealers and the U.S. securities markets, and through its comprehensive regulatory programs, regulates the firms and brokers that sell securities in the United States. FINRA oversees nearly 4,000 brokerage firms and over 600,000 registered brokers. FINRA touches virtually every aspect of the broker-dealer business—from registering individuals to examining securities firms; writing rules and enforcing those rules and the federal securities laws; informing and educating the investing public; providing trade reporting and other industry utilities; and administering the largest dispute resolution forum for investors, brokerage firms and individual brokers.

We also work behind the scenes to detect and fight fraud. In addition to our own enforcement efforts, each year we refer hundreds of fraud and insider trading cases to the Securities and Exchange Commission (SEC) and other agencies. FINRA regularly shares information with other regulators, leading to important actions that can prevent further harm to investors.

More than 10 years ago, FINRA established the FINRA Investor Education Foundation to support innovative research and educational projects aimed at improving the financial capability of all Americans. Together with the Foundation, FINRA is committed to providing investors with information and tools they need to better understand the markets and basic principles of investing – and to help them protect themselves.

In addition, FINRA operates and regulates OTC market transparency facilities that provide the public and professionals with timely quote and trade information of publicly traded equity and debt securities. They are the primary source for regulatory data on these transactions, and provide FINRA-registered firms with tools to comply with reporting obligations in secondary-market activity in fixed income and equity securities. In this role, we are continually evaluating and identifying areas where enhanced transparency can benefit investors and the markets.

Finally, and of particular relevance to today's hearing, FINRA, directly and through our regulatory service agreements with exchanges, monitors approximately 99 percent of all trading in U.S. listed equities markets and 70 percent of the options markets. In fact, FINRA's market surveillance systems process approximately 42 billion market events each day to closely monitor trading activity in equity, options and fixed income markets in the United States.

Evolution of Market Structure

Any sound evaluation of equity market structure should begin with an understanding of where things stand now, and how we got here. In the past 20 or so years, the equity markets have changed in many fundamental ways. Perhaps the most significant development has been the shift from human-intermediated markets to electronic intermediation. While some observers have noted that high frequency trading (HFT) activity may be declining since its peak around 2009, it is nevertheless clear from various estimates that automated trading has become the predominant force in equities markets. We have seen many of the traditional floor-based brokers and market maker specialists of previous years replaced by firms commonly characterized as HFT.

Market structure arrived at its current state because of several interrelated factors. Technological advancements have most obviously allowed for the rise of highly automated, low-latency trading systems capable of digitally ingesting orders, trades and news and making advanced trading decisions. Many also point to the impact of regulatory action, including Regulation ATS, decimalization, and Regulation NMS, all of which have the underlying goals of promoting competition, lowering trading costs, and enhancing best execution.

However, as SEC staff has observed recently in a number of detailed, thoughtful papers, there are no easy explanations. For example, while Regulation NMS is commonly cited as a cause of market fragmentation and the proliferation of HFT, even prior to Regulation NMS, Nasdaq had undergone a major transformation from a traditional dealer model to a new, electronic market structure. Similarly, some believe HFT owes its existence to the increase in the number of trading venues, yet HFT is also a significant force in the E-Mini futures contract, which trades in a highly centralized market.

The fact that market structure developments cannot always be easily explained does not prevent regulatory improvement. It simply underscores the need for careful data analysis. For example, the SEC's MIDAS project has been providing greatly enhanced insight into the functioning of markets and has helped provide a foundation for market structure refinements. Similarly, FINRA, through it Order Audit Trail System called OATS, collects and processes billions of order-related events each day that also helps shed light on some of the fundamental market structure policy questions.

There is undoubtedly more work to be done. The rise of automation has delivered many benefits to investors, who are now able to trade much more quickly and cheaply than ever before. But there are potential inefficiencies in today's market structure that we must continually evaluate to make sure markets are fair, transparent and liquid.

Market Fairness

Investors must have confidence that they can access current, accurate, bona fide market prices that reflect true investor supply and demand. That means that the market structure established, including the regulatory framework supporting it, must foster and promote accurate prices and low trading costs for retail investors. Having been in this business for a long time, I've been part of many significant regulatory changes that have benefitted investors. However, competition and regulatory changes have also led to a more complex, fragmented market. In today's increasingly fragmented market, bad actors can consciously disperse their trading activity across markets, asset classes and broker-dealers in an attempt to hide their footprints and avoid detection. It is part of our job at FINRA to monitor what's happening in the market and ensure that the markets operate fairly.

FINRA has responsibility to oversee and regulate over-the-counter (OTC) trading of exchange-listed and non-exchange-listed securities, as well as trading in corporate and municipal debt instruments and other fixed income instruments. FINRA also conducts examinations of market making and trading firms to assess compliance with FINRA trading rules and the federal securities laws. In addition, FINRA provides automated surveillance and other regulatory services to U.S. equity and options exchanges. FINRA has regulatory service agreements ("RSAs") in place with 10 of the 12 U.S. equity exchanges and all U.S. options exchanges. By virtue of these agreements, FINRA conducts market surveillance for approximately 99 percent of the listed equity market and approximately 70 percent of the listed options market. As a

result, while the markets have become increasingly fragmented, through our contracts with exchange clients, FINRA has been able to aggregate trading data across the markets to conduct comprehensive, cross market surveillance. This is important because FINRA has found many instances where market participants have consciously dispersed their trading activity across multiple markets in an effort to avoid detection. In addition, FINRA's cross market surveillance enables us to detect those market participants who are acting in concert to engage in market manipulation schemes. We have found that such activity accounts for a significant percentage of our cross market surveillance alerts.

We developed an innovative cross-market surveillance program that allows us to run dozens of surveillance patterns and threat scenarios across the data we gather to look for manipulation and frontrunning, as well as layering, spoofing, algorithmic gaming, and other abusive conduct. This sophisticated surveillance allows us to detect activities that we were not able to see before. For example, 51 percent of our cross-market alerts identify potential manipulative activity by two or more market participants acting in concert. And 57 percent of our cross-market alerts identify potential manipulation by a market participant on multiple markets. FINRA also is starting to design surveillance programs that will span equities and options markets together to detect potential cross-product manipulative conduct.

In addition to SEC and FINRA oversight, firms themselves have a fundamental obligation to supervise their own trading activity to ensure that the activity does not violate any applicable SEC or FINRA rules. A number of existing SEC and FINRA rules specifically govern firms' trading activities including the SEC's Market Access Rule, which requires firms with market access to have a system of effective risk management controls and supervisory procedures. Although a reasonable supervision and control program may not foresee every potential failure or prevent every undesirable consequence, it is an additional protective measure in today's regulatory structure that promotes and supports market fairness.

And as you know, in July 2012, the SEC adopted Exchange Act Rule 613 requiring 19 SROs—FINRA and the 18 national securities exchanges—to work together to jointly file a NMS plan to govern the creation, implementation, and maintenance of a consolidated audit trail, or CAT, which will collect information on virtually every order and trade in equity securities and options in the United States. The CAT will be the world's largest repository of securities data, processing approximately 58 billion records on a daily basis.

FINRA strongly supports the SEC's action to require the development of the CAT, an important initiative that will even further enhance regulators' ability to conduct surveillance of trading activity across multiple markets and perform market reconstruction and analysis. Comprehensive intermarket surveillance is essential to ensuring the overall integrity of the U.S. securities markets and maintaining the confidence of investors in those markets.

Market Transparency

Transparency is of paramount importance to the equity markets. The SEC said recently, and I agree, that transparency is a primary tool by which investors protect their own interests. To this end, the FINRA Board of Governors formed a Working Group to assess FINRA's rules and regulatory programs related to HFT, which resulted in a series of initiatives designed to increase the scope of trading information FINRA receives and provide more transparency into trading activities to market participants and investors.

In general terms, these efforts include a call for alternative trading systems (ATSs) to provide more in-depth order information for regulatory surveillance, greater transparency of volume executed away from stock exchanges, more granular audit trail information and tighter restrictions around allowable clock drift to better ensure proper sequencing of events.

These initiatives build on an earlier initiative from 2014, when FINRA began publishing on its website weekly volume information regarding transactions in equity securities executed within ATSs. Since that time, FINRA has been considering additional data that may be useful to market participants and investors and is expanding this initiative to provide more insight into larger-sized, or "block," trades. Later this year, FINRA will begin publishing monthly aggregate ATS block trading statistics, which will provide interested parties with more detailed information on ATS trading activities, thus further enhancing transparency in the over-the-counter market. In addition, FINRA will be further expanding its transparency initiative by publishing the remaining equity volume executed over-the-counter by FINRA member firms, including the trading activity of non-ATS electronic trading systems and internalized trades. The ATS and non-ATS volume data on FINRA's website will be free of charge to all users.

Data from FINRA's ATS transparency initiative helped inform the SEC's recent proposal to significantly revise the disclosure regime for NMS Stock ATSs. The SEC's proposal would, among other things, require greater public disclosure concerning the operation of business dealings of NMS Stock ATSs and would provide for enhanced oversight of these ATSs' filings. As it stated in its recent comment letter on the proposal, FINRA fully supports the proposal's objective of enhancing market transparency.

Market Liquidity and Volatility

Since the May 2010 flash crash, the SEC, FINRA and U.S. stock exchanges have implemented a variety of initiatives to minimize the impact of extreme volatility, the causes of which can vary from market forces to technological malfunctions. These initiatives have created a multi-faceted safety net for the markets and are designed to promote investor confidence. Among the changes, regulators adjusted the market-wide trading pause, which gives market participants an opportunity to assess their positions, valuation models and operational capabilities when extreme periods of volatility occur.

On top of that, FINRA and the exchanges implemented a limit up/limit down initiative, which addresses the type of sudden price movements that the market experienced during the flash crash. Under the plan, a limit up and limit down mechanism prevents trades in NMS stocks from occurring at prices outside of certain ranges. And if the changes in price are more significant and prolonged, the limit up/limit down plan would trigger a trading pause in that security.

We had an excellent opportunity to evaluate the effectiveness of these changes last August 24th, when the Dow plummeted more than 1,000 points within the first ten minutes of trading. The events of that day illustrated not a market out of control, but the value of having appropriate controls in place. Were it not for the limit up/limit down procedures, the market fluctuations last August would have been more dramatic. There were over 1,200 trading pauses that day, with over 1,000 occurring in exchange-traded products (ETPs), many which were repeats in the same ETP.

Clearly, the August events showed these processes are serving a crucial function, but also showed that additional refinements are necessary. One of the issues that day was the big gaps

between the value of underlying indexes and the exchange-traded funds (ETFs) that track them. ETFs combine aspects of mutual funds and conventional stocks. They operate like a mutual fund by offering an investor an interest in a professionally managed, diversified portfolio of investments. Unlike mutual funds, however, ETF shares trade like stocks on exchanges and can be bought or sold throughout the trading day at fluctuating prices, whereas mutual funds are priced just once at the end of the trading day. On August 24th, unusual trading affected many of the major ETFs as well as many less liquid ones. While trading volume surged, public display of trading interest—or liquidity—dropped. And we saw pricing volatility in ETFs because of the conflicts between halts on the underlying stocks within the indices and the pricing of the index.

The volatility and the issues we saw with ETFs offers up a great opportunity for regulators to take another look at the effectiveness of the initiatives put in place after the 2010 Flash Crash, as well as our market structure generally. Among the issues ripe for review are: the opening processes on primary listing exchanges; the operation of the limit up/limit down at the opening of trading, at re-openings after a trading pause and where the price is rebounding; the use of single market prices rather than consolidated prices for index calculations at times when the primary market opens outside its normal process; the use of stop orders, which become market orders when triggered and can execute at a price substantially worse than anticipated by the investor, particularly in volatile markets; and whether market maker quoting obligations are stringent enough to promote market stability.

Liquidity in the U.S. markets has thrived because of confidence in the markets. Investors need to be sure that markets will operate predictably. And it's important for us as regulators to implement programs that minimize the impact of market volatility and to limit market disruption while also promoting an efficient price discovery that encourages the provision of liquidity.

Work of the SEC's Equity Market Structure Advisory Committee

As noted in the Subcommittee's invitation to testify, the questions enumerated above as well as a number of other market structure issues are also being considered by the SEC's Equity Market Structure Advisory Committee (EMSAC), of which I am a member. In addition, given the number and broad ranging issues to address, the EMSAC created four subcommittees to focus on specific equity market structure areas: Regulation NMS, Trading Venues Regulation, Customer Issues and Market Quality. These subcommittees have met several times between full EMSAC meetings. Both the SEC staff and EMSAC members have dedicated significant time and effort with good progress being made, and I look forward to seeing where the process takes us.

EMSAC discussions have ranged from more broad, thematic topics such as increased coordination between the equities and futures markets to more specific regulatory and market-based improvements, like retail investors' use of certain order types. For example, discussions have included efforts to update the SEC's rules on the public disclosure of execution-quality statistics and order-routing practices. These rules brought much needed transparency to the markets when they first were adopted, but market structure has been largely transformed since then and they are in need of updating to better reflect the current market structure.

In addition, the committee is reviewing the current regulatory model for exchanges and other trading venues, as well as the current state and impacts of Regulation NMS. In particular, the EMSAC and its subcommittees are considering whether the Regulation NMS rules on limiting trade throughs, capping access fees, and preventing locked or crossed markets continue to

serve their intended purpose. These rules were generally intended to bolster investor protection when they were adopted, but some market observers have questioned whether they might also have contributed to market fragmentation and rebate arbitrage.

The EMSAC also is actively considering many of the questions about market volatility highlighted above, including the operation of limit up/limit down and whether firms could better educate their customers about the risks of market and stop orders. This issue is one example of a place where FINRA believes it can work in parallel to complement EMSAC efforts. Guided by the recent EMSAC discussion, and based on FINRA's own regulatory analysis, FINRA is currently considering providing additional guidance to firms to underscore the importance of investor education in this area.

The EMSAC has heard a variety of views on these important market structure questions, which is why, as I noted above, I believe it is critical to use data as the guide forward as we evaluate how any potential changes may impact market fairness, transparency and liquidity. I look forward to continuing to offer my and FINRA's experience and expertise as the EMSAC moves forward with its work.

Small Company Issues

Issues related to small company issues deserve careful consideration as well. FINRA has been involved in several projects focused on this segment of the market.

Tick-Size Pilot Program

On May 6, 2015, the SEC approved an NMS Plan submitted by the SRO Participants to implement a Tick Size Pilot Program. The Order approved the NMS Plan for a two-year period, which is to commence on October 3, 2016. The Plan is designed to allow the Commission, market participants, and the public to assess the impact of increment conventions (commonly referred to as tick sizes) on the liquidity and trading of the common stock of small-capitalization companies. The Tick Size Pilot is a data-driven test and will evaluate whether or not widening the tick size for securities of smaller capitalization companies would impact trading, liquidity and market quality of those securities. The pilot will consist of a control group and three test groups, with each test group having approximately 400 securities. Each SRO Participant, including FINRA, is required to comply, and to enforce compliance by its member organizations, as applicable, with the provisions of the Plan. The SROs have filed rule changes in furtherance of the Pilot and have been working closely with the industry on implementation issues, including the data reporting requirements necessary to allow for effective data and impact analysis of the different test groups.

JOBS Act Implementation

In order to fulfill our mandate under the JOBS Act crowdfunding provisions, we filed proposed rules and forms with the SEC for SEC-registered funding portals that become FINRA members. FINRA streamlined the rules to reflect the limited scope of activity that Congress permitted to funding portals while also maintaining investor protection. The SEC approved FINRA's Funding Portal Rules, which became effective on January 29, 2016. FINRA's systems were ready as of that date to begin receiving applications from prospective funding portals. FINRA's regulatory program is fully prepared for the May 16, 2016 effective date of the SEC's Regulation Crowdfunding.

Conclusion

FINRA appreciates this opportunity to discuss these important market structure issues and its programs with the subcommittee. We remain committed to working closely with the SEC, other regulators, this subcommittee and the full committee as we continue to work toward our dual mission of protecting investors and safeguarding market integrity.