Statement of Thomas Wittman Executive Vice President, Nasdaq, Inc. Equity Market Structure Advisory Committee Meeting April 5, 2017

Introduction: Commissioners, Committee Members, members of the Staff, my name is Tom Wittman, I am the Executive Vice President for Global Trading and Market Services of Nasdaq, Inc. I'd like to thank you for having me back to testify again, and to applaud the hard work you've done on these complicated issues since I was here last. From my vantage point of operating three equities and six options exchanges in the U.S., I say without reservation that this is among the most important U.S. market structure dialogues I have joined during my nearly thirty years in the industry.

Nasdaq's perspective on market structure is unique among the Committee and panel members: no company on earth operates closer to the intersection of capital formation and market structure than Nasdaq. Across its global exchanges, Nasdaq lists more than 3,700 companies from 35 countries, representing more than \$10 trillion in total market value. Nasdaq serves issuers through all stages of growth, in all phases of their operations, and on every continent. From liquidity events on the Nasdaq Private Market through initial public offering and secondary trading to fixed income issuance and derivatives hedging, Nasdaq lives at the heart of capital allocation. Nasdaq issuers, in turn, are the engine of the U.S. and global economy, spurring innovation, creating jobs, and driving economic growth.

In addition to our role as the owner and operator of 35 markets, clearinghouses in central securities depositories in the U.S. and Europe, we also are the market infrastructure technology supplier to 85 markets, clearinghouses, and regulators, across the globe. Therefore, Nasdaq is uniquely focused on the value of displayed liquidity that is instantaneously accessible to global investors. For over 400 years, governments and institutions have recognized that well-functioning public markets are the *sine qua non* of effective capital formation. Initial public offerings depend upon readily available secondary markets, which in turn depend upon public price discovery and displayed liquidity. Liquidity displayed on Nasdaq helps form the public reference price that millions of investors rely on, not only for valuing individual stocks, but also for valuing trillions of dollars of equities exchange traded funds and mutual funds, not to mention the larger pool of options, futures, and other derivatives tied to that reference price.

Data Driven Policy Analysis. The U.S. equities markets are the envy of the world. Main Street investors can access thousands of public companies' stocks and funds safely, quickly and at low-cost. Issuers can tap the deepest pool of public capital available anywhere in the world. Broker-dealers can efficiently and effectively source liquidity from multiple venues and channels. Any reform of our powerful equity markets should be approached prudently. Those calling for reforms must present compelling empirical evidence to demonstrate that our world-class system is in fact broken. Reformers must state clear policy goals, and proposed reforms should be closely tied to those policies and designed to avoid harming the markets in unanticipated ways.

Any data driven analysis must be accompanied by meaningful reform of the metrics used to evaluate the behaviors and successes of the U.S. Equities Markets. Metrics must evolve with the markets to support ongoing, meaningful disclosure. Investors must be able to easily and accurately assess the performance of their agents, brokers, and exchanges alike; regulators and policy makers must be able to apply meaningful regulatory scrutiny. Today's metrics fall short on both measures. For example, based on Nasdaq's review, Rule 605 reports for three major markets cover only 29 to 54 percent of total trading.

Therefore, Nasdaq recommends a substantial modernization of Rules 605 and 606 before or at least simultaneous with revisions to Rule 611 or other components of the current regulatory structure. Speed and quality metrics must be updated to reflect the vast improvements in technology that occurred after the adoption of Regulation NMS. With this enhanced data set, other metrics and analytics could be developed to guide the evolution of market structure while preserving the many benefits investors currently enjoy. Nasdaq supports a staged analysis and revision, where some foundational elements are fixed first, and those will pave the way for other changes that can build on them. Thus, we can preserve the solid economic and performing environment that currently exists, and continue to adapt and enhance it to keep pace with evolving markets.

Markets and Market Structure are Interconnected. In Nasdaq's experience, the building blocks of market structure are fundamentally interconnected; they cannot be separated and they cannot be examined in isolation. Nasdaq, therefore, supports a broad and integrated approach to market structure revisions, one that re-examines all related elements and that analyzes the costs and benefits of changing one element, and the ways in which that change may affect other elements. There can be no sacred cows; all four elements of Regulation NMS should be revisited. The Order Protection Rule, Fair Access Provisions, Minimum Increments, and Market Data. In fact, we believe that to maximize results and minimize unintended consequences, the analysis must extend beyond Regulation NMS to include all regulations adopted incrementally over the last 20 years: Regulation SCI, Regulation SHO, Regulation ATS, and the SEC's Order Handling Rules.

A true, integrated analysis must be guided by articulated principles and policy goals. Before adopting Regulation NMS, the Commission clearly stated its policy goals, including promoting competition, protecting orders, and ensuring fair access. Whether you support the manner in which Regulation NMS approached those goals or believe that Regulation NMS ultimately succeeded or failed, I think we can all agree that the goals were well understood and that they remain important. For the Commissions' current review to perform well, it must once again state the motivating policy goals. It is not enough to say the market has broken, or that Regulation NMS had unintended consequences. Participants must understand what has broken, why that matters, and how the government will approach repairs.

Nowhere is the need for an integrated, policy-driven approach more evident than when evaluating order protection, a discrete element of market structure that is fundamentally interconnected with every aspect of market structure. Order protection is intertwined with display, access fees, price discovery, lit and dark trading, and transparency. At its core, order protection is an accepted principle of fairness and competition. It recognizes the inherent

fairness of systematically displaying and ranking competing indications of trading interest. It promotes competition by incentivizing order entry and display in a specific, predictable manner. The order protection principle is thought to promote fairness and competition within individual trading centers, across trading centers, and in the over-the-counter market.

Nasdaq fully supports the principle of order protection as a means of supporting displayed liquidity that is critical to efficient markets. Having accepted that value, the question becomes which orders to protect and how. Price/time priority is a prevalent method, and one that has helped promote competition and decrease spreads and trading costs. The application of price/time priority combined with the adoption of Rule 611 and simultaneous advances in routing and trading technology has also put a high premium on trading speed.

Price/time priority is not the organizing principle of every trading system. Shared priority based on size is another example. Nasdaq operates a pro rata allocation regime on its Philadelphia equities market, where multiple orders share protection at the best price and they are allocated shares based on their size. In other order protection regimes, priority is determined in whole or in part by the participant type of the entering party. For example in multiple options markets, customer agency orders receive higher priority than proprietary principal orders. Nasdaq also operates markets using a hybrid of customer identity and pro rata allocation. Recently, Nasdaq proposed the Extended Life Order, which prioritizes retail orders that are not speed-sensitive over investors and orders that are speed-sensitive. Nasdaq supports a broad examination of whether individual equity markets should have more flexibility to apply different priority schemes for determining which order to protect.

Whatever the future of Rule 611, the Commission must better define the Duty of Best Execution. While Best Execution and Rule 611 both ensure order protection, their interaction is not well defined or understood. Rule 611 is the exchange-centric mechanism that ensures that, with limited exceptions, the best-priced orders are actually executed and not bypassed in favor of orders entered at worse prices. The Duty of Best Execution is the brokers-dealer centric regime administered by FINRA that governs the handling of customer orders and their execution on and off exchanges. The Order Protection Rule more narrowly governs the treatment of displayed quotations of automated market centers within the national market system. Market participants must understand the role Best Execution is intended to play, and how it interacts with the version of Rule 611 that emerges from this debate.

Nasdaq encourages the Commission to evaluate the full range of potential order protection regimes, and wide variety of mechanisms for achieving it. The analysis should set forth the competing principles that must be weighed, including the value of price discovery, the level of discretion desired within and across markets, and the relative cost of different approaches.

One Size Does Not Fit All. Well-functioning markets require a mix of markets, participants, issuers, and investors. The system must accommodate passive investing, high frequency trading, and business models in between. Regulations must protect retail, institutional and proprietary traders alike. Rational regulations must simultaneously preserve the value of lit and dark liquidity, maintain an appropriate balance between them, and limit regulatory arbitrage that harms investors. And, perhaps most importantly, the markets must work effectively for all

issuers, from a market capitalization of \$50 million to \$750 billion; from average daily share volume of 50,000 to 50 million; from start-up to a centuries-old mature company.

From Nasdaq's perspective, the single biggest opportunity for reform is to modify a one-size-fits-all regime that performs well for some groups of issuers and investors but stifles performance, innovation, and choice for others. Nowhere is this truer than for small and medium size enterprises that, for various reasons, do not enjoy the deep liquidity of the large- and megacap issuers. Regulations should provide flexibility for exchanges to better support these issuers by allowing for a separate market tier with separate trading rules tailored to their trading characteristics. For example, Nasdaq has long advocated an Intelligent Tick Size regime which recognizes that different tick sizes are needed for different classes of securities. The Tick Size is a surprisingly important – and extremely sensitive – variable in trading quality. Too wide and trading costs become burdensome to investors; too small and volatility increases. The listing exchange is in the best position to optimize tick size policy in a way that responds to the everchanging needs of listed companies.

Nasdaq also believes that investors and issuers would benefit if Order Protection Rules differentiated between stocks. The scope of order protection can vary across multiple spectrums: from broad, inter-market protection to narrower intra-market; from fixed rules like Trade-At to facts-and-circumstances guidelines like Best Execution; and from top-of-book to partial or complete depth. The appropriate scope of order protection should be tailored to the trading characteristics of specific groups of stocks, including the amount of fragmentation and its impact on those stocks.

Alternatively, Nasdaq believes the Commission could consider improving order protection by reducing fragmentation. Regulation ATS and Regulation NMS encouraged transparency and inter-market competition, particularly price competition. Unfortunately, such benefits are not as meaningful to small, illiquid companies. Today, for more than 3,400 U.S. listed securities, over 50 percent of trading is reported to a Trade Reporting Facility. Nasdaq believes that this level of off-exchange trading, along with fragmentation of markets is particularly damaging for illiquid securities, because it threatens to impair price discovery, reduce market depth and liquidity, and contribute to excessive short-term volatility that harms long-term investors and listed companies. Affording certain growth companies the option to suspend unlisted trading privileges in their stock in favor of a centralized marketplace that concentrates liquidity and refocuses competition among orders would have the potential to improve overall market performance.

Access Fee Pilot. Flexibility is also needed with respect to access fees, which is one reason Nasdaq supports an access fee pilot provided that it is well constructed and properly adopted. In adopting Regulation NMS, particularly Rules 610 and 611, the Commission was concerned that imposing strong order protection necessitated a corresponding cap on access fees, lest venues with protected quotes raise access fees unreasonably. Since 2005, competition for order flow has further constrained access fees, and increased the use of fee rebates as incentives for displaying liquidity. Thus, high access fees generally persist only where accompanied by high rebates, and the highest access fees correlate strongly with the highest rebates. Since transactions on makertaker and taker-maker exchange always involve both an access fee and a fee rebate, the issue of access fees is not about gross fee revenue but access fee revenue net of rebates.

The questions then become whether the combination of fees and rebates supports or undermines public policy goals, such as the promoting the display of liquidity, protecting orders, or protecting investors. These questions have broad implications for the proposed access fee pilot. First, if the Commission were to eliminate the Order Protection Rule (which Nasdaq opposes), there would be no market power for protected quotes and no justification for a fee cap. Likewise, if the Commission were simply to weaken the Order Protection Rule, the justification for a fee cap would also be weakened.

Second, the pilot should study the impact of access fees and liquidity rebates. In actuality, the more effective way to study the impact of a maker-taker or taker-maker model would be to focus on liquidity rebates rather than access fees. It would be wrong to assume that capping fees would effectively cap rebates; inverted exchanges would continue to exist in a fiercely competitive trading environment, and would likely confound that assumption. This study might be particularly useful in assessing the impact of fees or rebates on locked markets behavior. Technological limitations that supported the rule against locked and crossed markets no longer exist. Nasdaq exhorts the Commission to consider studying a relaxation of that prohibition, at least for some groups of securities if not all.

Third, whether the Commission proposes a pilot to study fees or rebates, or both, it should tailor the pilot to different groups of stocks. Nasdaq believes that while liquidity rebates are critical for illiquid securities to motivate market makers to support the stock with aggressive and actionable quotes, for other securities where competition among order flow providers is very active, they are immaterial or even potentially detrimental. A well-designed study could lead to the development of an intelligent fee and rebate regime, which could be aligned with the Intelligent Tick Size regime Nasdaq has long sought.

Fourth, the pilot should harmonize the fees and incentives permitted in both on-exchange and off-exchange trading to maintain a healthy balance of displayed and non-displayed liquidity and trading. Access fees and rebates are each a component of that balance. Limiting fees and rebates on one segment of the market could tilt trading into the other. This could result in a higher percentage of investor orders executing in venues that are not required to provide fair and equal access under Regulation ATS, or to comply with the resiliency requirements of Regulation SCI.

Putting aside the relative merits and drawbacks of the current system of access fees and rebates, it is clear that the one-size-fits-all approach is sub-optimal. The interplay among access fees, liquidity rebates, minimum tick increments and the locked/crossed markets rule impacts different stocks differently, and is particularly detrimental for low-priced, low-liquidity stocks. Where trading occurs at the minimum penny tick increment and fees and rebates are inverted and approach their maximum of \$.003, the actual spread is decreased to \$.004, effectively sixty percent below the minimum quotation increment. The resulting fee arbitrage is distortive, particularly so in stocks that, but for the regulatory limitation, would trade more efficiently at a smaller increment and where the minimum increment represents a larger percentage of share price.

To be viewed as successful, an access fee pilot must render quality data on the impact and efficacy of the Order Protection Rule. The data must be sufficiently robust to support findings and recommendations that are clear and convincing to all observers, regardless of their views of the Order Protection Rule before the pilot occurred. Nasdaq believes that to be well designed, the pilot must gauge the impact on order protection of: (1) access fees and liquidity rebates; (2) both on and off exchange trading; and (3) groups of stocks with different trading characteristics. Anything less comprehensive risks generating data that is inadequate to support the enhancements sought.

Conclusion. The U.S. equities markets are the envy of the world because they are singularly effective at attracting and allocating capital to innovative companies that create millions of jobs and trillions of dollars of shareholder value, companies like Apple, Google, Facebook, Amazon, Cisco Systems, Gilead, and 3,700 other Nasdaq issuers. The Commission and this Committee must be laser-focused on these issuers and the impact that the Order Protection Rule has on them and their efficient, effective, and continuous access to capital. Otherwise, changes to our rules risk damaging the issuers and the market it is entrusted to steward. The potential fallout from changing the Order Protection Rule will not be isolated; it will reverberate through every corner of the market. In reviewing the Subcommittee's latest recommendations, Nasdaq notes the conspicuous absence of capital formation and issuer protection from its list of policy goals. Nasdaq encourages the Subcommittee, as it has done before, to revisit that list and to add those goals to it at the top.