



**WRITTEN TESTIMONY**  
**OF**  
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**FOR THE HEARING**  
**THE ROLE OF REGULATION IN SHAPING EQUITY MARKET**  
**STRUCTURE AND ELECTRONIC TRADING**

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**BEFORE THE**  
**U.S. SENATE COMMITTEE ON BANKING, HOUSING, AND URBAN**  
**AFFAIRS**  
**JULY 8, 2014**



Chairman Johnson, Ranking Member Crapo, Members of the Committee, I am Kenneth Griffin, Founder and CEO of Citadel LLC. I appreciate the opportunity to testify here today and share our views regarding the state of the U.S. equity markets.

Established in 1990, Citadel is a leading global financial institution that provides asset management and capital markets services.

Citadel manages in excess of \$20 billion in investment capital on behalf of institutional investors and high net worth families. As a significant investor in the U.S. equity markets, Citadel has a strong interest in the integrity, transparency, efficiency, and stability of our markets. Our equity research teams follow over 1,800 public companies, seeking to identify appropriate investment opportunities. Our equity research process, combined with our ability to execute upon our investment ideas in a cost-effective manner, enables us to deliver returns to the pensions, endowments, sovereign wealth funds and other institutions that entrust us with their investment dollars.

Citadel Securities is one of the leading market makers in the United States, and is a market leader in the execution of orders on behalf of retail investors. Citadel Securities makes markets in more than 7,000 U.S.-listed securities and 18,000 OTC securities worldwide. Since 2005, we have used our automated trading systems to deliver greater reliability, innovation and service to retail investors. In short, we empower retail investors by deploying sophisticated technology with respect to market data, order routing, and execution strategies in providing best execution.

Our capabilities allow us to deliver faster, more reliable and lower-cost trades for millions of retail investors. This has made us a trusted and valued resource to most of America's major retail brokerage firms. Our continued investment in people, compliance, process and technology earns us business on the merits, and I am proud to say that our continued growth is evidence of the enormous commitment we have made to support the interests of retail investors.

Citadel's experience as both an institutional investor and an active liquidity provider in the U.S. equity markets gives us deep insight into the strength, structure and resilience of our equity markets. From that vantage point, I can state without hesitation that the U.S. equity markets are the fairest, most transparent, resilient and competitive markets anywhere in the world.

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The U.S. equity markets play a fundamental role in our economy. They facilitate capital formation by channeling savings into productive enterprises, creating a win-win for American investors and businesses, both small and large. The more efficiently our markets

operate, the greater the benefit to the investing public and to the enterprises that rely on them to fund the growth of their businesses.

In recent months, some have questioned the fairness of U.S. equity markets. They have raised serious questions about the changes that have taken place in our markets. They have called into question the motives, and in some cases even the integrity, of market participants, exchanges, regulators and virtually everyone else who has introduced the changes that have unleashed competition and revolutionized the way our securities markets work.

It is my intent today to respond to this criticism, and to separate fact from fiction.

Over the past two decades, a wave of innovation has swept through the markets in response to new technologies and thoughtful regulation. This has disrupted the “old boys’ network” to the benefit of all investors. While the basic function of the stock market – matching buyers and sellers – remains the same, the mechanisms through which buyers and sellers come together has been revolutionized. In the supposed “good old days,” much of the trading in a given stock happened on the trading floor of a single stock exchange in a single specialist post under the control of a single specialist.

In recent years, regulatory changes combined with technological innovation have disrupted the old order. Today’s markets are incredibly competitive, wherein a variety of competing trading venues have emerged alongside the exchanges. Orders are now matched and executed by computers and a new generation of analytically driven and technologically sophisticated market participants has emerged as the dominant liquidity providers, displacing the manual intermediaries that once controlled the markets.

The unleashing of competition and surge in innovation has markedly improved conditions for all investors, who benefit from dramatically lower trading costs, improved market transparency and liquidity, and increased competition by liquidity providers. As a result, bid-ask spreads are substantially narrower, currently averaging less than 0.03 percent for S&P 500 stocks, while displayed market depth for the average stock, measured as the value of the shares displayed on the bid and offer, is nearly triple what it was a decade ago.

Fees and commissions are also much lower – retail investors can now trade for under \$10 (down from \$25+) and institutional brokerage commissions often are less than 2¢ per share (down from 6¢), and can be as low as a fraction of a penny per share. Retail investors in particular have benefitted – not only do they frequently get better prices than those publicly quoted, but they often get their orders filled at such prices for more size than is publicly displayed.

The disruptive innovation that has taken place within the equities market has created winners and losers. While investors have clearly benefitted, most legacy market participants have lost out. They simply cannot compete in today's hyper-competitive and incredibly efficient marketplace. And so we should not be surprised that they publicly yearn for the old days when they extracted disproportionate rents from investors on the basis of anti-competitive business practices.

I applaud the regulatory efforts to ensure that U.S. equity markets continue to best serve the interests of all investors. In this regard, Citadel supports a data driven and comprehensive review of U.S. equity market structure, and we believe the SEC is taking constructive steps to gather and analyze relevant data and information, ensure the market's operational stability, and protect market quality and fairness.

The SEC has implemented several measures to obtain the data it needs to evaluate market operations, quality, and performance. For example, the SEC has adopted the Large Trader Rule and the Consolidated Audit Trail framework, and has implemented the MIDAS system through its new Office of Market Analytics so that it may efficiently gather key data and analyze significant market events and trading activities. The financial crisis and the May 2010 "Flash Crash" illustrated the need for the SEC to be able to swiftly reconstruct and analyze market events. Moreover, as the SEC considers various reform ideas and assertions about problems with the current equity market structure, it needs a rich set of data to analyze methodically. That will ensure that the SEC has the best information available when making these critical decisions.

With the balance of my testimony, I want to focus on a handful of ideas and concepts that I believe will further strengthen investor protections, further improve price transparency and market liquidity, and promote market resiliency in times of crisis.

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### **Enhancing Market Quality**

Today's markets are more competitive and liquid, with lower overall transaction costs, than ever before. To further improve market quality, we must continue to take steps that encourage competition. Encouraging competition leads to greater price discovery and market liquidity and reduces both the cost of trading for investors and the cost of capital for American businesses. As we foster greater competition, we must continue to take steps to protect the interests of retail investors in our equity markets.

I recommend the following proposals to enhance our market quality.

*Take a Rational Approach to Tick Sizes*

The SEC recently ordered the exchanges and FINRA to jointly develop a pilot plan that would require certain stocks to trade in minimum price increments larger than the current one penny trading increment (the so-called minimum “tick size”). We applaud the SEC for its efforts to gather hard data on this topic before embarking on any broader or longer term policy changes. We nonetheless remain concerned that widening tick sizes will artificially widen spreads and thus drive up trading costs for all investors without any tangible offsetting benefit to market quality.

We believe that the SEC should instead focus on tick increment reforms that will both promote liquidity on displayed markets and reduce the cost of trading. Specifically, the SEC should establish a half-penny tick increment for the highest trading volume stocks trading under a specified dollar value. In many cases, the half penny shaved off the one-cent increment will go directly into the pockets of investors. And rather than having to go to dark pools to find mid-point liquidity in such stocks, smaller tick sizes would allow this liquidity to be displayed and readily accessed in the lit markets. This modification would thus bring substantially more of the orders and trades in these stocks to lit markets, and move them away from the dark markets.

*Reduce Access Fees to Reflect Declining Transaction Costs; Broaden Caps on Access Fees*

Under Regulation NMS, the charge to liquidity takers in today’s maker-taker system is called an “access fee.” The current NMS maximum access fee of 30 cents per 100 shares is now significantly greater than the cost of providing matching services by the exchanges and should be reduced to reflect the current competitive reality. Exchanges are permitted to share the access fees they charge with liquidity providers in the form of exchange rebates. A meaningful reduction in the maximum access fee would materially reduce exchange rebates.

In general, exchange rebates encourage exchanges and liquidity providers to be more competitive. Exchange rebates also reward and encourage displayed liquidity, which greatly benefits the price discovery process. Banning exchange rebates would dampen competition between exchanges and would result in less posted liquidity and could result in wider quoted spreads. The SEC has wisely focused on disclosure and other mechanisms to manage any potential conflicts of interest that may arise as a result of these fee structures. We believe a reduction in the minimum tick size for the most liquid low priced securities combined with a reduction in the maximum permitted access fee would serve the best interests of all market participants.

More importantly, we urge the SEC to close gaps by adopting an access fee cap in important segments of the market that have no access fee cap. First, we urge the SEC to expand the access fee cap to include quotes that are not protected by Regulation NMS. Second, we urge the SEC to implement a parallel (and proportionate) access fee cap for sub-dollar stocks. Third, the SEC should move forward with its proposed rulemaking to cap access fees in the options markets.

#### *Reduce Regulatory Arbitrage Between ATSS and Exchanges*

In recent years, increasing amounts of trading has occurred on Alternative Trading Systems (“ATSS”). While public quotes on exchanges are available to all investors, this is not necessarily the case for liquidity present on ATSS. In fact, ATSS may refuse access to certain market participants, make available order types that will not interact with certain types of participants, give execution priority to certain market participants, and/or charge different fees to different types of participants.

ATSS (which include dark pools) should be subject to anti-discrimination rules comparable to those that apply to securities exchanges, and should be required to offer fair and impartial access to market participants. In particular, ATSS should only be allowed to determine execution priority based on the characteristics of an order (e.g., price, size, time of arrival), and should not be allowed to allocate executions based on the identity of the sender. For example, broker preferencing is a practice that has the potential to return our markets to the “old boys’ network” of prior decades when who you were and who you knew mattered more than the merits of your order.

Reducing the regulatory arbitrage between ATSS and exchanges will foster greater competition between the venues, and reduce the incentives to conduct business on the often discriminatory ATSS at the expense of our public markets.

#### *Preserve the Transparent and Regulated Practice of Payment for Order Flow*

We support the SEC’s well-established policy of permitting payment for order flow for a number of reasons. First, payment for order flow is a transparent and regulated practice, whereby exchanges and market makers pay a fee to broker-dealers that route orders to them. If a broker-dealer receives payment for order flow, it must disclose this arrangement under SEC regulation, so that its customers may decide whether they want to continue to send their orders to the broker-dealer in light of the payment for order flow arrangements. Second, payment for order flow does not affect a broker-dealer’s obligation to obtain best execution for its retail customers. Third, and perhaps most importantly, payment for order flow that is subject to a robust disclosure framework is far better and creates more accountability than opaque reciprocal business practices that would otherwise proliferate and could not realistically be prohibited.

### *Enhance Retail Investors' Transparency into Brokers' Execution Quality*

In an effort to ensure that investors are receiving the best execution possible, we believe the SEC should require brokers to publicly report consistent, standardized execution quality metrics in a way that allows investors to easily measure performance. We can empower retail investors with information about brokers' execution quality and position them to make better decisions, while also enforcing an important check on the brokerage community. Today, retail investors don't have access to all the information they could or should have, and can only see which destinations are utilized by their brokers, along with very basic information about payment for order flow arrangements. While retail investors may request more specific information regarding their orders, they have no way to compare the quality of the executions received by competing retail brokers.

We recommend that the SEC require all execution quality reports to be comprehensive, understandable, accessible in a downloadable format, and published for at least three years. Investors can then track the quality of executions over time, and hold their brokers accountable. Moreover, the disclosure of payment for order flow could be enhanced by requiring that precise amounts of remuneration (hundredths of a cent) be disclosed as opposed to the current practice of providing rounded numbers in the reports (typically preceded by the phrase, "less than").

### *Increase Protections for Retail Investors Trading Odd Lots*

We recommend that the SEC amend applicable order protection rules to reclassify an odd lot to be an order for value of less than \$500. Currently, any order for less than 100 shares is considered an odd lot and does not receive the same protections as the best round lot quote in the same stock. Because many stocks are trading at a high dollar value, many investors are being unnecessarily deprived of the benefits of protections received by round lot orders. For example, Google, ticker symbol "GOOG," ended the month of May trading at over \$550 per share. An investor placing a 50 share GOOG order is investing over \$27,500 – yet that investor's limit order is not protected from being traded through because it is considered an odd lot. As a result, quoted spreads are wider than they should otherwise be since this liquidity is not reflected in the protected quote. Given that odd lots accounted for nearly 5% of trading volume in 2013, odd lot status needs to be redefined and based on total order value, not share quantity.

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## **Improving Market Resilience**

Operational soundness and stability are fundamental to the confidence that participants have in any market. Automation and computerized trading have dramatically improved these conditions. Previously, markets were notoriously opaque and errors and control breakdowns were the norm. Participants in manual markets, including Citadel, would routinely encounter workflow control issues, trade breaks, and delays in receiving fills and trade confirmations. Although some have chosen to reminisce fondly about the past, the reality was much different.

In recent years, the SEC has taken important steps to further strengthen the stability and operational functioning of our markets. The Regulation SCI proposal, the adoption of Rule 15c3-5 on market access, and the post-“Flash Crash” reforms addressing liquidity gaps through limit up/limit down and circuit breaker rules, along with more predictable clearly erroneous rules and the abolition of stub quotes, represent important progress.

Those reforms, among others, have served to enhance confidence in our markets by minimizing the incidence of disruptive trading and managing and mitigating the consequences of any systemic trading malfunctions that do occur. Nonetheless, we recommend a number of additional measures to fully achieve the goal of greater market resilience.

### *Mandate and Harmonize Exchange-Level Kill Switches*

The SEC should require mandatory exchange-level kill switches, and ensure that exchanges have clear authority and responsibility to immediately block and stop activity that appears erroneous and so severe that it is likely to materially impact other members and the market. The activity of a large number of market participants intersects on exchanges and they are thus best positioned to efficiently and consistently monitor activity across a very large number of market participants.

To cite one example, while NYSE detected erroneous trading activity by Knight Capital on August 1, 2012 within a few minutes, the erroneous activity continued for 30 more minutes. If NYSE had a kill switch in place, it could have halted Knight Capital’s erroneous trading much sooner, and prevented disastrous results.

While a number of exchanges have responded by implementing some kill switches, the kill switches that have been implemented to date suffer from certain weaknesses that have limited their effectiveness.

First, they only provide market participants with the optional ability to set certain thresholds that may then trigger notifications, disable order entry, or cancel open orders.



We should not rely on market participants alone to protect the market from their mistakes. Exchanges should still be required to implement and administer their own mandatory kill switches.

Second, kill switches add latency to the processing of orders. As a result, firms that voluntarily use kill switches are disadvantaged because their orders reach the exchange more slowly than other market participants' orders. Kill switches offered by exchanges should be implemented in a manner that introduces no additional latency and promotes a level playing field.

Third, kill switches are designed differently at each exchange. This lack of uniformity significantly reduces utility and efficacy because it requires significant resources to properly configure and maintain overlapping and inconsistent kill switch parameters at each exchange.

#### *Remove Exchange SRO Powers and Immunity*

The special status of exchanges as SROs that have regulatory authority over their broker-dealer members, combined with a history of limited liability, has created a conflicted and weaker market structure than is optimal for fair and efficient markets.

Exchanges face an irreconcilable conflict of interest in the performance of their duties as SROs. This conflict of interest in the dual role of regulator and competitor has led to inconsistencies in the manner in which the exchanges regulate their members. On the one hand, public exchanges are bound by their fiduciary duty to maximize shareholder profits, while on the other hand, they are required to be fair and impartial regulators of the broker-dealers with whom they compete. Exchanges and broker-dealers have become direct competitors in many aspects of their businesses. For example, acute competition exists for order flow, order routing services, and the provision of algorithmic trading services. Yet, to a significant extent, exchanges are able to control the landscape on which they and broker-dealers compete for business.

Further, as SROs, exchanges claim to be insulated from private liability for damages they might cause, based upon both a judicially created doctrine of "absolute immunity" and limitations on liability codified by their own rules. Limiting this immunity would increase the stakes for exchanges in connection with general culpability for operational failures. Facing liability for operational failures would give exchanges very strong financial incentives to invest heavily in steps to prevent or minimize the impact of operational failures.

*Apply Regulation SCI to All Alternative Trading Systems*

All ATSS, most of which are dark, should be subject to proposed Regulation SCI. Regulation SCI, as currently proposed, would impose substantial requirements on how exchanges and the largest ATSS design, develop, test, maintain, and monitor systems that are integral to operational integrity. ATSS, which perform the same exact market function as exchanges, should be subject to the same standards as exchanges with respect to the issues covered by Regulation SCI. Proposed Regulation SCI would only apply to the largest ATSS, and we see no reason for this size limitation.

*Balance Benefits and Costs of New Entrants to Check Fragmentation*

Regulation NMS and the foundational regulations that preceded it, along with technological advances, have helped unleash an enormous degree of competition among market centers. In recent years, however, the costs that each new market center imposes on the market in terms of additional complexity and operational risk have started to outweigh the marginal benefits of a new competing market center. The steps described above will help restrike this balance by requiring that market centers have sufficient resources and make sufficient investments in operational excellence. We expect that over time, this will reduce fragmentation by eliminating marginal market centers that rely on low cost of market entry and operation, externalization of the costs of catastrophic failure, and internalization of the profits of any success.

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To conclude, these are important steps that we should take to further enhance market quality, improve market resilience and strengthen investor protection. However, we must pursue this agenda without sacrificing the extraordinary achievements we have made in terms of market efficiency, lower costs, and increased fairness and competitiveness. We must not jeopardize the preeminent global standing of the U.S. equity markets.

Thank you for the opportunity to testify before this Committee today.

I would be happy to answer your questions.