Testimony of Investors Exchange Chief Executive Officer Bradley Katsuyama
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Introduction

Chairman Huizenga, Ranking Member Maloney and members of the Subcommittee, my name is Brad Katsuyama and I am the CEO of IEX Group, Inc. and Investors Exchange LLC, more commonly known as "IEX". I appreciate the opportunity to offer this testimony and also appreciate your willingness to provide a forum to consider ways to strengthen the U.S. equity markets.

The U.S. equity markets constitute a critical national asset. They provide a vital source of capital for companies, large and small, and they provide the chance for millions of ordinary Americans to help fund and participate in the benefits of economic growth. From my perspective, the question we should always consider is whether the markets are primarily focused on serving the interests of investors and public companies, and the value of any agenda items should be determined based on whether they advance or detract from this primary focus. If the equity markets are not adequately serving these constituents and advancing the principles of fairness, transparency, and trust, then action must be taken to re-focus the markets on these tenets.

Technology has been the largest driver of change in the equity markets over the past two decades, as I will detail later. As trading has become highly electronic, technology has delivered a variety of efficiencies and other advantages (i.e., automation, explicit cost reduction, increase in speed). But unlike the broad sweeping benefits of technological advances in other industries, in the equity markets these benefits have been narrowly distributed among a small group of insiders, with the result that the interests of short-term traders and exchanges have been

prioritized over public companies and long-term investors, who represent the savings and retirements of millions of Americans

Various practices by the national stock exchanges have contributed substantially to market unfairness and market complexity, and they have created and exacerbated conflicts of interest. The most significant and detrimental exchange-generated conflict involves the practice of paying rebates to brokers for orders. In simple terms, this payment to brokers when not shared with the broker's client is equivalent to a kickback. Public data shows that exchanges who pay this rebate garner a greater percentage of order flow despite providing worse execution quality. In short, rebate practices cause clear and significant harm to investors. In addition, they are inextricably linked to much complex regulation that, although designed to serve the interests of investors, has had unintended consequences and could be reduced or eliminated if this conflict is removed.

IEX came about as a free market solution to aspects of equity market evolution that left investors and public companies underserved. We began operating as an alternative trading system ("ATS") in 2013, and last year, we won the right to operate as a national securities exchange, based on broad support from investors and brokers but over the intense opposition of other exchanges and a small number of high-speed traders. As an exchange, we have continued to innovate in ways that prioritize the interests of investors, and pending regulatory approval from the SEC, we look forward to competing for corporate listings beginning later this year. IEX does not sell multiple tiers of technology and data and instead offers all members the same access, free of charge. IEX also does not pay exchange rebates to brokers and instead focuses on earning their orders by providing a higher quality execution.

Evolution of Technology

Exchanges have evolved over time from a manual, floor-based model to one that is fully electronic. This came about both because electronic communications technology was easily adapted to stock trading, and also because regulators made changes that (i) allowed electronic markets to compete effectively with traditional exchanges and (ii) promoted better market-wide price competition by mandating trading in decimals. With the adoption of Regulation NMS,

participants for the first time were prohibited from trading at a worse price than one available through an automated quotation posted on a registered exchange without first accessing the exchange quote.

Together, these developments made the speed of trading much more important than it had ever been, and gave rise to a new class of proprietary high-speed trading firms. By itself, that was not harmful. However, a critical turning point occurred when the national stock exchanges themselves became entrenched in selling high-speed data and technology, which greatly conflicted with their role as self-regulatory organizations with a mandate to maintain fair and orderly markets. In effect, their motivation for profits drove them to sell advantages on their own markets in a way that benefits the fastest traders at the expense of all other participants.

In our view, the proper role of an exchange is to act as a neutral referee, allowing buyers and sellers to compete on price and speed but ensuring that the interests of investors and public companies are protected. The role of the exchanges is to provide the fairest possible price to both sides of the trade. But in reality, exchanges today play almost an opposite role by selling different speeds of technology and data to allow those with a faster view of the market to trade with advanced information against those who have not paid for the same level of access. Ideally, exchanges should be seeking ways to level the playing field, whereas the large exchanges today are tilting it heavily against long-term investors.

Given the multiple tiers of exchange data and technology being sold, high speed trading firms have the ability to process market data in microseconds. What seems to any normal observer as an instantaneous market event, will therefore be seen by a high-speed trader as a very slow-moving series of events (considering that it takes approximately 300,000 microseconds to blink your eye), allowing the high speed trader to utilize information that is not yet received by other participants. As a result, there is a significant transfer of wealth in these brief moments of time. And the profits don't come from thin air—the equity markets are a zero-sum game and those profits are often extracted from the large institutional investors that represent the savings of individuals through pension funds, mutual funds, and 401(k) accounts.

As a result of technology and exchange practices, it is generally estimated that "high frequency trading" ("HFT") accounts for over 50% of trading volume. This term should not be confused with "quant trading or investing" which is the use of quantitative models to make investment decisions based on factors unique to a particular company or stock. The term HFT covers a broad range of activity, some beneficial and some harmful from an investor and issuer perspective. It includes electronic market making by firms that maintain quotes on both side of the market and seek to earn the "spread" between their bids and offers in return for supplying liquidity to other participants. It also includes predatory traders who seek to use systematic and structural advantages to see and react to market information before other participants. We believe this type of activity is harmful to the equity markets. Some firms engage in both market making and predatory activity, making it even harder to distinguish who is helping or hurting the market based on a firm's business model.

Evolution of Exchange Pricing and Rebates

Another major source of complexity and conflicts of interest involves the payment of exchange rebates under the "maker-taker" pricing system that the largest exchanges use to charge for trading.

The largest exchanges in the United States operated by Nasdaq, NYSE, and BATS, pay approximately $2.5 billion in rebates per year to brokers to send them orders. These payments are paid to brokers on a monthly basis, based on complex tiers devised by each exchange, primarily designed to attract more order flow. RBC Capital Markets conducted a study on exchange pricing, revealing that there were 856 different pricing tiers across the exchanges – mainly driven by the size of the rebate and who receives it. [1]

This system of pricing is complicated and difficult to explain, but in essence, just as every transaction has a buyer and a seller, every trade must also have what exchanges call a "maker"

[1] Nathaniel Popper, "Stock Exchange Prices Grow So Convoluted Even Traders Are Confused, Study Finds," New York Times, March 1, 2016, accessed January 7, 2017, http://www.nytimes.com/2016/03/02/business/dealbook/stock-exchange-prices-grow-so-convoluted-even-traders-are-confused-study-finds.html

and a "taker." In the most typical rebate structures, if the quote for a stock is $10.00 x $10.01, both the buyer bidding $10.00 and the seller offering at $10.01 are considered "makers" of liquidity and are paid a rebate for doing so. If a buyer decides to pay the offer price of $10.01 or a seller decides to sell at the bidding price of $10.00, that buyer or seller is said to "cross the spread" and is considered a "taker" of the liquidity created by the "maker." The "taker" of liquidity is charged a fee.

Two exchanges use a variant of this system (called "taker-maker"), where the rebate is paid to the broker that takes liquidity, while the party that makes liquidity pays a fee. The maximum take fee is set by SEC rule at 30 cents per hundred shares ("30 mils"), but there is no restriction on rebates. Island ECN, an early electronic competitor to the dominant exchanges, first introduced rebates in 1997 in order to incentivize quoting activity on that market. Ironically, at a time when maker-taker pricing has become the dominant pricing model in the US equity market, even the founder of maker-taker pricing himself has publicly suggested that the rebate model has outlived its original purpose.[2]

The maker-taker system has been widely recognized as creating an obvious and significant conflict of interest between brokers and their customers. In practice, we think that the rebate system has resulted in tangible harm in a variety of ways:

First, the maker-taker system has resulted in a proliferation of exchanges without the benefit of real competition. For example, the Bats "BZX" Exchange does not compete directly with the BYX, EDGX, or EDGA Exchanges since they are all owned by the same company. The same can be said for the multiple exchanges owned by NYSE Group and Nasdaq, Inc. This result is proven by the relatively stagnant market share among the three large exchange groups in recent years. In one respect, price competition within the rebate model is limited because of the SEC access fee cap – the limit of 30 mils indirectly also limits the maximum rebate an exchange can afford to pay. In effect, the three large exchange groups compete to protect and retain the

[2] *See* Summary of Equity Market Structure Roundtable Hosted by Rep. Scott Garrett, July 28, 2014, avail. at https://www.sifma.org/members/hearings.aspx?id=8589950185

advantage that they have gained, as a group and individually, rather than competing to provide better services or products for investors and brokers.

Second, the rebate payment causes longer lines to execute on maker-taker exchanges. Because exchanges almost always rank orders at the same price based on time priority, orders sent by high-speed trading firms with faster access to the exchanges are more likely to win the race to the front of the line, while orders representing mutual funds, pension funds, and other ordinary investors are more likely to be pushed further back in the line, thus having a lower execution priority. When an investor's order is relegated to the back of the queue, basic supply and demand principles would suggest that the order has a lower likelihood of being executed, or if the order does get executed, the price of the stock is more likely to move against the investor's order. Proof of this poor execution quality is demonstrated by an IEX white paper that used publicly available data to show that orders posted on the large rebate exchanges on average receive materially worse executions, based on post-trade price movements, i.e., immediately after the trade, prices tend to move against the interest of the participant whose order is posted.[3] Considering these price impacts, it is hard to see how a decision routinely to send customer orders to a high rebate exchange could square with brokers' best execution responsibilities.

Third, regulatory best execution guidance states that "likelihood of an execution" must be considered when choosing among venues.[4] The maker-taker exchanges have the longest displayed queues and also the largest market share. Specifically, because of the nature of maker-taker pricing, the exchanges that pay the highest rebates to orders that must wait in line to be executed, also consequently charge the highest fees to the counterparty who "takes" liquidity ("take fees"). Therefore, orders in line waiting to execute on a maker-taker exchange (which also charges high take fees) are less likely to be executed by a broker taking liquidity if a lower take-fee alternative exists at the same posted price. Thus, existing practices call into question whether exchanges are paying brokers to ignore best execution responsibilities.

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[3] *See* Elaine Wah, Stan Feldman, Francis Chung, Allison Bishop, and Daniel Aisen., A Comparison of Execution Quality across U.S. Stock Exchanges (April 19, 2017), available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2955297

[4] *See*, e.g., FINRA Regulatory Notice 15-46 (November 2016), at 4-5.

Said more simply, why would a reasonable person ever wait on the longest line, with the lowest likelihood of being serviced, for a worse outcome?

Fourth, because exchanges pay over $2.5 billion a year in rebates, these practices have had an increasingly distortive impact on decision making by both brokers and exchanges. In some instances, brokers seeking to maximize rebate payments from exchanges can earn more in rebates per share than the client is paying them in commissions per share (even though the client's execution quality will suffer greatly). Also, exchanges have a significant incentive to recoup the money that they pay in rebates by charging high take fees to remove liquidity, in addition to the fees they charge for market data, technology, and exchange access, as discussed below.

We strongly believe that the most effective step towards a more efficient, more transparent, and less conflicted U.S. equity market is the elimination of rebates, whether they are paid for posting orders or to take liquidity. We think that if rebates were eliminated, there is the potential to significantly reduce or eliminate regulation, including aspects of Regulation NMS, that is linked to the complexities that stem from these payments. Those who object that the rebate issue cannot be addressed unless a variety of other proposals, such as the highly controversial "trade at" concept, are adopted at the same time, are simply seeking to find reasons to preserve the status quo. There is nothing about the functioning of a healthy, competitive market that requires artificial inducements for people to trade.

The use of rebates amounts to a multi-billion-dollar conflict of interest between brokers and their investor clients, and for that reason a growing number of both investors and brokers are calling for its elimination. For example, a recent industry study found that only 5% of institutional investor traders were satisfied with the current maker-taker pricing system.[5]

[5] *See* Pensions & Investments (January 9, 2017), avail. at http://www.pionline.com/article/20170109/PRINT/301099990/maker-taker-rebate-pilot-could-die-before-it-starts

Economists have long been concerned about rebate practices, and in fact two former SEC Chief Economists have stated that "in other contexts, these payments would be recognized as illegal kickbacks." One of these economists, Chester Spatt, who now sits on the SEC's Equity Market Structure Advisory Committee, has stated that the rebate problem has likely intensified as other revenue sources for brokers have shrunk, and that, "[p]resumably, many are acting in a self-interested fashion, and the self-interest leads to a lot of distortion."[6]

The Cost of Market Data and Exchange Access

The cost of market data and exchange access has been a cause of debate and concern for the industry for many years, and those concerns have grown as these costs have risen dramatically in the last several years. As described above, one factor driving these costs over time is the need for exchanges to earn revenue from sources other than trading (since rebate payments have cannibalized their trading revenues). Another factor is the increasing importance of speed to trading strategies. With the emergence of algorithmic trading and the increased role of HFT, both proprietary trading firms and large agency broker-dealers need to rely on high speed proprietary data, both because it can usually be delivered more quickly than the consolidated data disseminated by the securities information processors ("SIPs"), and because it gives a more complete view of each exchange's order book than SIP data. Exchanges also have been able to charge more for the data center connections through which participants receive this proprietary data, since they control access at the locations where the data is produced.

From our own experience as an exchange, we know that what exchanges charge for data bears no rational relationship to what it costs them to produce it. We also do not believe that the current fee levels are reflective of a truly competitive market, because there is no effective substitute for proprietary data for traders and brokerage firms that need to navigate the current market structure to be successful or serve their clients. In fact, it can be argued that brokers might be obligated in some cases to subscribe to proprietary data feeds in order to satisfy their best execution

[6] "Study Says Broker Rebates Cost Investors Billions", New York Times (May 6, 2012), avail at http://www.nytimes.com/2012/05/07/business/rebates-to-brokers-are-seen-as-a-conflict-of-interest.html

obligations to customers. Exchanges are required to file their fee increases with the SEC, but all of these filings are permitted to be made on an "immediately effective" basis that does not involve close scrutiny and does not require detailed justification by the filing exchange.

There is also a basic lack of transparency about exchange market data revenues. The available information consists only of what exchanges choose to disclose in their public company reports, but those provide only a limited view, which is not capable of comparison across markets. We believe it would be appropriate for the SEC to require disclosure of the amount of exchange revenue from the sale of market data products, borrowing from a proposal the SEC made in 2004[7] that seems more relevant and timely now, considering the increased importance of market data revenue to exchange profits over the last 13 years.

There also is no regular public information about revenues earned by exchanges from the sale of public SIP data. This points to a more general concern about the use of "self-regulatory" authority to serve the commercial interests of exchanges. As one example, the exchanges that control the relevant governing committees have an obvious conflict of interest between their role in disseminating and selling SIP data and their commercial interest in selling their proprietary data products, including products that are intended as faster and more detailed substitutes for SIP data. There is no effort to manage that conflict and no voting representation by brokers or investors. IEX has long favored voting representation by both sell-side and buy-side representatives on these committees.

Finally, the disparities across exchange market data products and access are numerous and growing, with each combination of products providing a relative advantage to those willing to pay the exchange more money. For example, simply buying "proprietary direct feeds" offers little relative advantage unless you are also willing to buy a 40GB cross connect (vs. a 10GB cross connect) and a wireless connection (vs. a fiber connection) – with each product choice being a few microseconds faster and, of course, more costly. This type of "product innovation" provides little to no value to the investment process, but allows the exchanges to generate additional profits by forcing certain members to constantly upgrade their services.

[7] Securities Exchange Act Release No. 50699 (November 18, 2004), 69 FR 71226, 71559 (December 8, 2004).

The Evolution of Alternative Trading Systems

Many brokers and long-term investors have turned to ATSs as a way to avoid the problems they encounter on the exchanges: high access fees, high and rising fees for data and technology, and relatively worse performance in terms of execution quality. The majority of ATS volume occurs on venues owned and operated by major banking entities, while a smaller proportion is represented by venues that lack this ready source of trading volume. Although ATSs first arose as a means for institutional investors to trade in larger size without the information leakage that often occurs on exchanges, today the average trade size on most ATSs is comparable to that of exchanges as they have sought to compete by attracting a more diverse group of participants, including HFT firms.

Unlike exchanges, ATSs do not have fair access requirements, do not publicly display quotations, are subject to much lower regulatory and compliance burdens, and have a relatively low cost of entry. As a result, there are now approximately 30 equity ATSs of various types in the United States.

IEX started trading in October 2013 as an ATS, and we believe that the ATS model provides an important trading alternative for market participants. At the same time, the lighter regulatory burden and lower cost to launch an ATS has spurred intense competition that in some cases has led to relaxed standards of conduct. Various SEC regulatory settlements during the last two years detail the ways in which some ATSs misrepresented their methods of operation or failed to comply with specific regulatory requirements.

In cases where large trading firms have an affiliated ATS, they have a natural incentive to direct customer orders to that venue, where the brokers' execution costs are lower, in preference to other venues. This can create a conflict of interest with best execution and other obligations to customers. Despite recent regulatory actions and fines, we see continued evidence that some brokers continue to direct orders to affiliated ATSs to an extent that appears to conflict with the objective of seeking the best outcome for customers.

The SEC proposed a set of disclosure and other requirements for ATSs in 2015, which would provide healthy additional transparency about their operations. Additional transparency of two types could also be helpful. First, disclosing the identity of particular ATSs on public transaction reports, on a delayed basis, could help the industry to better self-police the activities of these venues without the need for regulatory intervention. Second, disclosure of which ATSs are subject to Regulation SCI would give brokers and investors important information. Regulation SCI, which was enacted by the SEC following a series of high-profile technology outages, established new minimum standards intended to reduce the occurrence of trading systems issues, improve resiliency when systems problems do occur, and enhance the Commission's oversight and enforcement of these matters. Disclosure of which trading venues meet this important standard could be important to decisions by brokers and investors whether to send their orders to a particular ATS, particularly in light of recent heightened cyber-security concerns.

IEX is Changing the Narrative

IEX is above all a free market response to concerns by investors and other participants about speed advantages, conflicts of interest, rebate payments, and the cost of market data and access inherent in the existing exchange models. Our core mission is to place the interest of the intended beneficiaries of the markets – long-term investors and corporate issuers – front and center. That focus is reflected in our ownership and membership structure and has guided all the decisions we have made in designing our market:

- We created a "speed bump" to blunt the speed advantages that predatory traders can use to disadvantage the mutual funds, asset managers, and pension fiduciaries who trade for many millions of Americans every day.
- We have developed innovative products that protect investors from harmful effects of speed-based trading and asymmetry of market information.
- We adopted a flat fee system and do not pay rebates.
- We provide a uniform method of access to all of our participants, free of charge.
- We offer all of IEX market data and technology services for free and only charge members directly for their trading on IEX.

- We have made a conscious choice to grow our market by building a stronger foundation for the long term – higher quality executions and better service.

The main beneficiaries of the current structure fought fiercely to prevent us from being approved to operate as an exchange. Fortunately, the voices of investors and participants who support a more rational market structure carried more weight, and the SEC reaffirmed its commitment to free market innovation.

We are preparing to offer an alternative listing market beginning this Fall, pending regulatory approval, which will introduce long-overdue competition for corporate listings. We believe that corporate issuers have an equally important stake in markets that are simplified, transparent, and as free from conflicts as possible. Many of these public companies have lost faith in the markets due to a series of volatility events and auction mishaps, and because the presence of predatory trading strategies contributes to unnecessary volatility that undermines the quality of the market for their stocks and the trust of their stockholders.

Conclusion

Markets best perform their function to provide capital for growth and give the public an opportunity to participate in that growth when they prioritize the needs of long-term investors and public companies. As technology reshaped the trading market, many of the benefits of technology were siphoned away from the broader investing public and corralled by the stock exchanges and a select group of high speed traders for their own benefit. IEX was founded as a free market solution to counter these developments, and we are proud of the role we are playing in drawing attention to the conflicts that exist in the U.S. equity markets and offering long-term investors and public companies an alternative exchange that is firmly in their corner.

I look forward to the opportunity to discuss these issues with the Subcommittee.