



**Brandon Becker**  
Executive Vice President  
& Chief Legal Officer

*“Together, Building Tomorrow’s Markets Today”*  
*October 1, 2014*

## **Security Traders Association 81<sup>st</sup> Annual National Market Structure Conference**

Thank you for the opportunity to speak with you today. Given STA’s commitment to securities trading professionals and the advancement of effective markets it is a special treat to speak with you about how our markets are working and how they might be further improved. For nearly a century, people in the academic, research, medical and cultural fields have trusted TIAA-CREF to manage their retirement savings and build a secure retirement. Today, we manage over \$615 billion in assets and serve over 4.8 million individuals.

This is a responsibility that keeps us deeply committed to ensuring the continued integrity and stability of the financial markets. For TIAA-CREF, the efficiency and fairness of our markets is crucial to our participants’ financial well-being.

Before we dive in, however, it is important to acknowledge the role of market data fees. We should remain alert to the fact that much of what we tackle from a public policy perspective can be viewed as symptomatic of a marketplace that has evolved in response to data fees and their impact on exchange economics. That said, market data reform is a topic for another time. Today, my remarks will focus on how, together, we can move closer to a stronger market structure of tomorrow.

We all know pretty much what we want from our capital markets. The efficient allocation of resources to their best possible use: in other words, the formation and allocation of capital. That process starts with the primary market, where holders of cash spend it on ownership stakes in companies, for example through investing in an IPO, and the companies use the cash to grow their businesses. The primary market, however, would not be nearly as effective or attractive without the secondary market, whose structure is the topic of my talk. People will be much more reluctant to invest in a company if they think they will never be able to get their money back out. The capital markets rely on both the ability and the willingness of investors to part with their money, and fair and orderly secondary markets are the key.

To foster that willingness, we want, at least, two more things from our markets: broad societal participation and fairness. It is critical to a market that there be great diversity among its participants so differences in investment styles, risk appetites, horizons, and forecasts will help the market withstand times of stress. For that to happen, the markets not only need to be “fair”, but need to be perceived to be fair. Fairness does not imply that no one loses money or makes a bad investment it just means there are no inappropriate structural advantages that benefit one group at the expense of another.

The US equity markets generally do a good job at meeting these goals. Through individual investing, mutual funds, and retirement funds the general population’s exposure to equities is near historical highs. These vehicles, plus the professional traders,

arbitrageurs, corporates, hedge funds, sovereign wealth funds, and so on provide the diversity that ensures buyers for all sellers (at some price) and sellers to all buyers and allow price-discovery to take place. Even at the worst of the financial meltdown, when the fixed income markets seized up, the US equity markets continued to function. The sellers may not have been happy with the prices, but there were buyers. In the relatively rare times when this does not happen, such as during the few minutes of the May 2010 flash crash, it becomes headline news precisely because it is such an anomaly. Spreads have never been narrower, and retail commissions are a fraction of what they were just a few years ago. When it comes to fairness, our equity markets also do pretty well, but I will argue we can do better. When it comes to having the public perceive the markets as fair, we must do better.

Now, this would not be a very interesting talk if I just told you everything was pretty good and we could all go home. There are, however, areas of contrast between the market we have today and the markets we should have tomorrow, and I would like to discuss the path we might take to lead us to a more effective market structure.

When it comes to capital formation, there has been a long and steady decline in the number of companies in the markets. The Wilshire 5000 has only about 3,600 stocks, many of which trade very rarely, with very wide spreads and high volatility. An increasing number of startups are choosing to mature through private equity investments rather than IPOs. By replacing the wisdom of the crowd with the wisdom of a few concentrated investors, this may not result in the most efficient allocation of capital to the most worthy ideas. While I have tremendous respect for the judgment of professional investors, it is hard to believe this is the best, or only way, to stimulate the growth of our economy.

Let me highlight three key deficiencies in our market structure:

1. Complexity
2. Adverse incentives
3. Infrastructural advantages.

Their net result often creates the perception that the markets are unfair and that investing in them is a fool's game. Indeed, many former retail investors have missed the bulk of the stock-market run-up over the last three years, and trading volumes have been anemic. Societally, a lot of people missed out, and the gains from the market appreciation were more concentrated than they might have been.

Complexity:

There are now approximately 50 equity trading venues, consisting of 12 exchanges, plus 3 ECNs and dozens of ATSs and broker dark pools. There are several hundred order-types with thousands of permutations of the various switch settings on each one. The traders on our desk have access to hundreds of different algorithms, each with a variety of parameters of its own. It is likely the practice of "slicing and dicing" orders to so many venues is causing significant information leakage. Moreover, it is hard to believe the complexity of the markets is helping investor confidence. Indeed, apparently many small investors are left feeling overwhelmed and out of their element.

While choice and competition usually are attributes of a healthy ecosystem, in practice the paradox of choice suggests there is no way ever to know whether the right combination of algorithm, order-type, and venue is being employed. Furthermore, there seems to be no market discipline that helps identify a winner or even a best practice and thus automatically weed out any unnecessary complexity.

Adverse Incentives:

One way exchanges compete for market share is through "maker-taker" pricing, where they charge an access fee to one party and

rebate part of the fee to the counterparty. The majority of exchanges pay the rebate as an incentive for brokers to post limit orders on the exchange book (the “makers”) and charging the traders who crosses the spread (the “takers”), although some exchanges employ an inverted “taker-maker” pricing model where the flows are reversed. Reg NMS caps the access fee at 30 mills, or 30 cents per hundred shares, so the rebate has to be at least slightly lower for the exchange to cover its expenses. In practice, the rebate is usually only a tiny bit lower, so the swing in cost between posting and taking can be almost the full 60 mills. Over the billions of shares traded daily, it seems clear that the sums represented by the fees and rebates will influence where brokers choose to send their orders, and create an incentive to find the best rebate. The complexity of the markets makes it extremely difficult, though not impossible, to detect and measure the effects of this incentive. The Tabb Group, however, recently has launched a product called Clarity that tries to do just that, but until now it has been a challenge.

Another adverse incentive is the practice of payment for retail order flow by wholesale brokers. Today, most of the marketable orders from retail investors never reach the market, but are internalized by the brokers providing de minimus price improvement (sometimes one ten-thousandth of a dollar per share.) At first glance this might seem like a good deal, or at least a wash, for the retail investor, who also is the beneficiary of a rock-bottom commission rate. Nevertheless, a couple aspects of this practice open the question of whether it is good for the market as a whole, and even if it is as good as it seems for the retail investor. First, retail flow comprises 10-15% of the daily market volume, so not having it in the mix reduces the diversity that a healthy market ecosystem needs in order to perform effective price discovery. By offering “price improvement” to the prevailing NBBO the wholesaler is taking the market price as exogenous instead of participating in its creation. Second, the fact that the wholesalers scramble to be selected to pay for that flow, and that the retail investor cannot avoid having her orders sold, raises the question of whether the retail investor would have obtained a better deal in the open market. Note that the broker selling the flow is also shielded from paying the exchange access fee; this is another example of high fees potentially influencing the broker’s decision on where to execute the order.

#### Infrastructural Advantages:

The last of my three categories of ways in which our markets diverge from the ideal is in what I will call infrastructural advantages. The size of these problems relative to the market as a whole may be small, but their impact on the public’s perception of unfairness is outsized. The best example of an infrastructural advantage is a practice known as latency arbitrage, which is when one participant subscribes to faster market data feeds than do certain trading venues. When a price changes in the market, the informed trader knows about it before the venue in question, and can dart into the venue and trade at a stale price while simultaneously locking in a profit elsewhere in the market. The counterparty to the trade is not the slow venue but rather the hapless investor whose order was placed there by a broker often with a financial incentive to select that venue. Arbitrage in general is a practice that is useful to the markets as a whole because it keeps prices in line. It is not, however, particularly popular with the “arbitragee”. An overly complex market generates overly frequent opportunities for arbitrage, and when stories of these make it into the press, many people can come away feeling that the whole market works against them. This is not a positive outcome for our market. Arbitrage is a useful activity when prices diverge; rather than trying to prevent people from performing it, however, it would be better to remove the opportunities.

Which brings us to how we, together, can make tomorrow’s market structure better than today’s. The “together” will be an important element in improving our market structure, because we need to keep in mind the needs of our society and economy as a whole, not just a relative advantage for our particular sector achieved at a cost to other constituencies.

The only way market structure can evolve in a deliberate fashion is through the thoughtful interaction of market forces and effective regulation. Ideally, regulation should facilitate market-based solutions. Indeed, when individual players try to buck the status quo, they may not remain solvent long enough to make a difference. A number of exchanges for example, tried experiments in the past to reduce the distortions of rebates by reducing or eliminating them; most of the experiments failed almost immediately as their market-share went almost to zero overnight. IEX is having some success in a similar experiment, but they are the exception and may not turn the tide on their own.

Considering a reduction in exchange access fees, perhaps to 5 mills, could be helpful in providing additional insights as we look to reduce conflicts of interest and distortions in order-routing decisions.

Another area where investor confidence is low is around the unfortunately-named Dark Pools. Their original intent was to facilitate size-discovery between large institutions, but they have devolved into, in most cases, simple internalization engines where the average execution size is virtually indistinguishable from the miniscule execution sizes on lit markets. The result is again that instead of contributing to price or size discovery, the orders trade at exogenous prices, which even may be stale due to market-data latency. The motivation to internalize order flow or to trade it in a competitor's dark pool is, once again, reinforced by the high access fees on the lit exchanges. Accordingly, it is appropriate for the SEC to revisit the oversight of dark pools, which should increase both their utility to the market and investor confidence in dark pools. We support the increase in transparency that enforcing additional exposure, including publicizing Form ATS and requiring millisecond-level timestamps.

To ensure the fairest and most orderly markets, we need our regulators and market utilities to remain at the forefront of technology. To mitigate (though not eliminate) the problems around latency arbitrage, the Securities Information Processor or SIP that disseminates the NBBO should be upgraded. The current custodians have very little incentive to keep the SIP current, so perhaps a neutral third party or consortium should be appointed and provided with substantial resources through a common fee structure. Similarly, the need for a Consolidated Audit Trail has never been greater to provide our regulators with a complete picture of market activity. MIDAS is a good first step, but the data collected needs to be expanded to include activity that is not currently captured, and to record the identities of the participants. Many international markets already have established successful programs in this space and we should be able to build upon their experiences.

While adding sensible regulation is one way we can improve our market structure, it also will be important to remove or revise regulations that are not beneficial. Elements of Reg NMS help perpetuate the complexity in our markets by providing all exchanges, regardless of their relevancy, with "protected quotes" via the trade-through rule. This allows exchanges with infinitesimal market share to remain in business by charging connection fees to brokers and by sharing in market-data revenues. A handful of exchanges engaging in serious competition based on competing business models would be healthy for our market. A dozen exchanges, where the same owner may operate several exchanges that differ only in their fee/rebate schedules, do not enhance our market structure. If Reg NMS were to be altered to require some level of relevancy, say 5% market share, before granting a protected quote, the landscape would automatically simplify. I recognize this is no easy task. Regulators would be faced with a real "chicken and egg" problem with some incumbents locked in, while many newcomers and small challengers would lack the tools needed to build the market share necessary to compete. Accordingly, a transition process may be appropriate.

It is also Reg NMS that sets the 30-mill cap on access fees; if the rebates were removed as motivators, there would be less incentive to keep unnecessary exchanges operating. Finally, while it may be highly unlikely meaningful action will be taken any time soon, addressing market data fees themselves would help ameliorate many of these issues.

While I am discussing complexity, let me come back to the large number of order types in our market. This rainforest of order types is fertilized by two factors: high fees-and-rebates, and the ban on locked and crossed markets. Because there is such a big difference between collecting a rebate and not, or worse, paying the access fee, traders whose revenue consists of rebates are highly motivated to have their order at "top of book". Many of the complex and obscure order types are designed to keep an order at the head of the line for collecting a rebate, while avoiding inadvertently creating a regulatory violation by locking or crossing an away market. Reducing the rebates would reduce the payoff from, and thus the demand for, rebate-maximizing order types. Moreover, it's worth examining whether the ban on locked and crossed markets is still even necessary. We all celebrated the reduction in spreads from a quarter to an eighth to a teeny and now down to a penny. So why would a further reduction, to zero or even negative, be illegal? A locked market would mean you can buy or sell for free. A crossed market means you can perform an arbitrage – and there's no doubt that someone will.

Changing regulation to keep it relevant and address industry-wide issues will be a task that we will need to undertake together, with the health of the market, the economy, and society as a whole in mind. This year we have heard many important voices lay out paths forward. Chair White and the Commissioners have charted a robust agenda for the Commission. Similarly, Rick Ketchum has set forth an ambitious FINRA role. As we continue this healthy dialogue on the principles of a modern market structure, I am eager for a thoughtful discussion of the Commission's agenda, but equally important is an action plan to tackle those issues sooner rather than later.

It is not an easy task before us, but it is timely and critical. To summarize, the changes we should consider are:

1. Reduce exchange fees to 5 mills, and consider banning rebates
2. Increase regulation, oversight, and transparency of Dark Pools
3. Upgrade the SIP
4. Develop and expand market surveillance through the Consolidated Audit Trail
5. Require a minimum market-share before exchanges are granted a Protected Quote with trade-through protection
6. Permit locked and crossed markets

Working together, we can move our market structure from its already-successful level to be even better tomorrow. Thank you for your attention.

###