



James J. Angel, Ph.D., CFA
Associate Professor of Finance
Georgetown University
McDonough School of Business
Washington DC 20057
angelj@georgetown.edu
1 (202) 687-3765
April 30, 2010

Securities and Exchange Commission
100 F St. NW
Washington, DC 20549-9303
Rule-comments@sec.gov

Release 34-61358
File Number S7-02-10

Dear Securities and Exchange Commission:

Here are my comments on the Concept Release on Equity Market Structure. In summary:

- The equity market structure is working better than ever, so don't mess it up.
- The declining number of listed companies is a crisis in the making.
- Most high frequency technology benefits the market.
- High frequency technology has not led to high frequency volatility.
- High frequency technology requires high frequency circuit breakers.
- Short-term investors are part of the eco-system that supports long-term investors.
- Don't fear the dark. Good price discovery only needs a statistically valid sample.
- Execution quality statistics should be displayed at the broker level.
- The optimal level of transactions costs is NOT zero.
- A "trade-at" rule would be a big mistake.
- The Commission should also examine fixed income markets.
- The United States is part of the global economy. All SEC Concept Releases and Rule Proposals should explicitly discuss what other countries do.
- Other suggestions are contained as well.

The equity market structure is working better than ever, so don't mess it up.

After any market downturn there is a populist movement to “arrest the usual suspects,” generally professional traders and in particular short sellers. However, most of the traditional measures of market quality show that **U.S. equity market quality is better than it has ever been.**¹ Spreads are down, commissions are down, and execution speeds are faster than ever before. Retail investors have better information than ever before. Some market participants grumble about particular aspects of the market, either as a way to thwart competitors, or as a scapegoat for their own losses due to other causes.

One of the reasons that the U.S. market structure is so good is because of its “open architecture.”

Consistent with the legislative mandate for a competitive market structure, we now have a very competitive market where no one trading platform does more than a third of the volume in its own listings. Barriers to entry have been reduced, allowing competition to produce rock bottom costs and a higher level of service and market quality than ever before.

Given the current high quality of the equity market, the Commission should proceed very cautiously with any major changes. Any changes should be thoroughly studied and tested with controlled pilot experiments.

Don't worry about fragmentation. The network IS the market.

Although some commentators bemoan the “fragmentation” of the market, the reality is that the U.S. equity market is less fragmented than ever before. The market is not any one trading platform, but the network of all potential buyers and sellers of a particular instrument. Just as Sun Microsystems used to point out that the network is the computer, we should realize that the network is the market. Market participants are now linked more quickly and with better information than ever before. The exchanges and other market centers are the hubs and routers in this network. The plethora of tightly linked competing market centers that we now have is a good thing.

¹ See Angel, Harris, and Spatt, Equity Trading in the 21st Century, available at <http://www.sec.gov/comments/s7-02-10/s70210-54.pdf>.

The declining number of listed companies is a crisis in the making.

As Charles Dickens once wrote in *A Tale of Two Cities*, “It was the best of times. It was the worst of times.” Despite the measurably high quality of the equity market, the number of listed companies has been dropping for several years, and is now about one third below the peak.² If this trend continues, the public equity markets will disappear and the SEC will be out of a job. Not only will the SEC be out of a job, but millions of Americans will be jobless because the associated lack of capital formation will dampen economic development.

There are multiple causes for this sad state of affairs. Public companies are burdened with numerous costs not shared with their private brethren. These include the risk of ruinous class-action litigation, ever increasing compliance burdens, and the costs associated with the bungled implementation of Section 404 of Sarbanes-Oxley. The SEC should understand that this will develop into a financial crisis just as serious as the current one unless steps are taken to restore our public markets.

Most high frequency technology benefits the market.

In recent years our markets have embraced computer technology, most of which is used to perform the traditional functions of trading, only better, faster, and cheaper. In particular, market makers make it possible for other investors to buy and sell quickly at low cost. Arbitrageurs and “stat arb” traders keep prices in their proper alignment with each other. As a retail investor who invests in ETFs, I depend on the arbs to keep ETF prices aligned with the stocks inside the ETFs.

HFT has become a matter of controversy because of a false meme that has spread through the media. The false meme alleges that HFT traders get an unfair advance look at the orders of mutual funds and other investors. That just isn't true. Institutional investors are extremely concerned about information leakage from their orders. In the current competitive environment, no exchange or ATS would stay in business if it leaked information about pending orders without the permission of the people placing those orders.

It may be true that some traders may be able to guess that large orders are pending and attempt to go along for the ride. This is a trading strategy that has been going on since the earliest days of the equity markets and it will never go away. Even such traders provide some value to the market because they commit capital that moves the market toward its new equilibrium faster than it would otherwise.

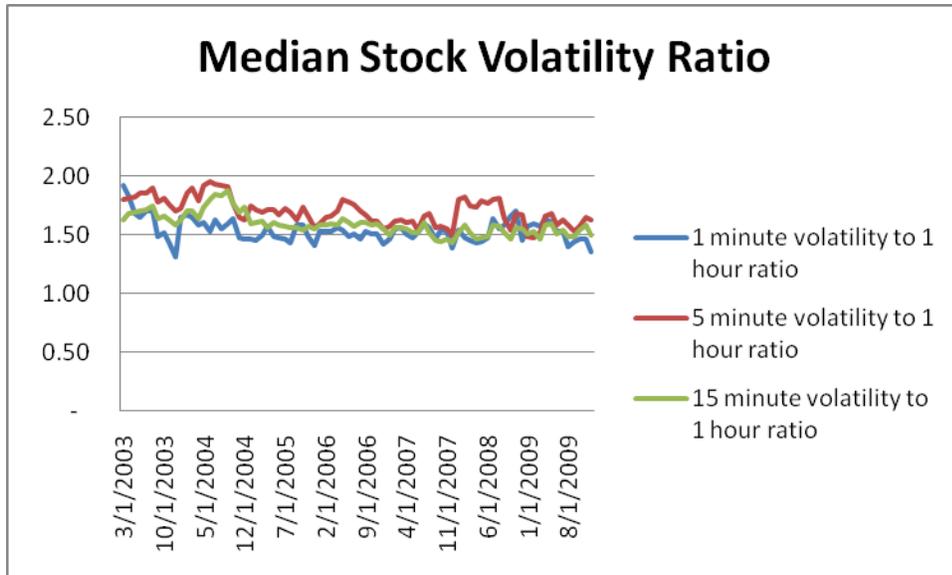
² This has been eloquently documented in the Grant Thornton report by David Weild and Edward Kim, *A Wake Up Call For America*
http://www.grantthornton.com/staticfiles/GTCom/Public%20companies%20and%20capital%20markets/gt_wake_up_call.pdf

Manipulative strategies such as “order ignition” strategies are already illegal. The solution is not to restrict computers, but to use them more intelligently to surveil and prosecute illegal manipulative behavior.

High frequency technology has not led to high frequency volatility.

One of the allegations against high frequency technology is that it has increased short-term volatility in the markets as nasty high frequency traders engage in lightning-fast manipulations. Indeed, quotes can and do move quite quickly, but has this led to a real increase in volatility? If the use of high frequency technology has led to such disruptions, then we should see that the ratio of volatility measured in short intervals to volatility measured at longer intervals should have increased in recent years as HFT has grown to be a larger part of the market.

The following chart shows the median ratio of volatility for all US exchange-listed stocks measured at 1-minute, 5-minute, and 15-minute intervals relative to volatility at the one hour interval. (Volatility was measured by taking the standard deviation of the returns of the bid-ask midpoints at 1-minute, 5-minute, 15-minute, and one-hour intervals). One can see that there has been no discernable increase in these volatility ratios over the past several years, which indicates that **HFT has not been a short-term disruptive influence.**



High frequency technology requires high frequency circuit breakers.

There is one risk that HFT imposes on the market that must be addressed by the Commission. With so much activity driven by automated computer systems, there is a risk that something will go extremely wrong at high speed. For example, a runaway algo at a large firm could trigger a large series of sell orders across multiple assets, triggering other sell orders and causing major disruptions with losses in the billions. With the global linkage of cash and derivative markets around the world, it would be extremely difficult to go back after the fact and bust the appropriate trades, leading to years of litigation. The uncertainty and confusion would cause serious damage. Even more troubling is the prospect that such a glitch could be caused intentionally, either by a disgruntled employee or a terrorist.

All market participants have the right incentives to prevent this from happening. The brokerage firms and exchanges have filters in place designed to catch “fat fingers” and other mistakes. However, the never ending quest for higher speed also creates incentives for them to cut corners and eliminate time consuming safeguards that might slow their response time. In today’s competitive market place, no one market center can take all the needed actions alone. There needs to be coordinated guidance from the Commission on this issue.

No human system is perfect. Despite all of the correct incentives and precautions, airplanes sometimes crash. **Eventually there will be some big glitch.** We need a market wide circuit breaker that is activated automatically in real time. It is my understanding that the crude market-wide circuit breakers imposed after the crash of 1987 are currently operated manually. In the minute or so it takes for humans to respond to a machine meltdown, billions of dollars of damages could occur.³ The April 28, 2009 incident involving Dendreon is an example of what can go wrong. The stock lost over half its value for no apparent reason in less than two minutes before the humans could stop trading. When trading resumed, the stock returned to its previous value. Many investors who had placed stop orders experienced severe losses from trades that were not busted. Almost exactly one year later, on April 27, 2010, a botched basket trade resulted in the need to bust clearly erroneous trades in over 80 different stocks. It is extremely messy to attempt to bust erroneous trades after the fact, especially if multiple instruments in multiple asset classes traded on multiple exchanges in multiple countries are involved. For example, an investor may sell stock that was purchased during the malfunction only to find that the purchase was busted but not the later sale, leading to an inadvertent naked short position. We need a real time circuit breaker that can stop the market before extreme damage occurs.

The Commission should consider imposing an automated market wide trading halt in any instrument that falls 10% in a short period of time. The stock would then re-open using the opening auction after humans have examined the situation to make sure that the stock can be re-opened in a fair and orderly manner.

³ See Bernard S. Donefer, *Algos Gone Wild: Risk in the World of Automated Trading Strategies*, *Journal of Trading* 5 (2), Spring 2010 pages 31-34 <http://www.ijournals.com/doi/abs/10.3905/JOT.2010.5.2.031>

If this Commission fails to act on this risk after asking so many questions about HFT in this Release, this Commission and its staff will be blamed for ignoring this risk when the inevitable big glitch occurs.

Short-term investors are part of the eco-system that supports long-term investors.

The Commission's recent focus on "long-term investors" in the Concept Release and the recent Flash Order Release is a rather curious -- and not well thought out -- evolution of regulatory thought. A quick search of the Securities Act of 1934 shows that phrase "long-term" shows up in the '34 Act exactly once, in §15E(a)(1)(B)(i) which calls for short-, medium-, and long-term credit ratings performance statistics.⁴ Thus, there is no clear statutory mandate calling for a bias toward long-term investors. In contrast, the phrase "long-term" shows up 61 times in the Concept Release.

Long-term investors are, to be sure, necessary for capital formation and economic growth. For example, venture capital and private equity firms make long-term investments vital to the growth of our economy. Yet their willingness to do so is contingent upon the ability to exit at some point in the future, and often their exit strategy is to sell their stake into the public capital markets. When long-term as well as short-term investors want to trade, they seek to do so at the lowest practicable cost.

Short-term traders benefit long-term investors by reducing their transactions costs. The market making and arbitrage activities of short-term traders means that long-term traders experience more liquidity and can trade at more accurate prices. The information gathering activities of short-term traders also make market prices more reflective of fundamental asset values.

Fair and orderly as well as efficient capital markets require a mixture of short-term and long-term investors. Both types of investors are necessary parts of our economic ecosystem. Attempting to tilt the balance in one direction or the other could seriously disrupt the ecosystem.

Don't fear the dark. Good price discovery only needs a statistically valid sample.

Large traders have always been concerned about reducing the price impact of their trades. One of the ways to do this is to limit exposure of their trading interest only to parties who are very likely to trade with them. This limited disclosure reduces the likelihood that other traders will try to go along and trade at the same time and increase the market impact of the order. Whether in the murky depths of the ancient NYSE floor, or in the telephone conversations of upstairs block traders, limited disclosure is a long-

⁴ The character string "long" shows up 44 times. 37 of these are the word "longer" as in "such longer period" or "no longer in existence." The phrase "long or short" shows up twice. These statistics are based on the .pdf file posted on the Commission's web site at <http://www.sec.gov/about/laws/sea34.pdf>.

standing and useful practice. The so-called “dark pools” along with other innovations provide automated ways for traders to execute their trades better, faster, and cheaper. The exchanges themselves facilitate this selective disclosure through their hidden order facilities.

In reality, there is no such thing as a truly “dark pool” in the U.S. Immediately after a trade takes place in the U.S., the lights are turned on and the entire world can find out the price and quantity of the trades within seconds. This last sale information is extremely important in price discovery.

There are two concerns with dark pools. First, if too much of the trading interest occurs in dark pools, will this hurt market quality for the rest of investors? So far, there is no empirical evidence that market quality has declined in recent years as dark pools have proliferated. There is good reason to believe that a very large fraction, even a majority, of trading could originate in dark pools with no adverse impact on market quality. **As one learns in statistics, one can get a very a reliable estimate of a quantity without measuring the entire population.** Most surveys of the U.S. population measure only a tiny percentage of the entire population. Similarly, one only needs a statistically big enough sample size to measure the current market price of a stock. Given that the market already has 100% post-trade transparency of price and volume, the markets can thrive even when a large amount of pre-trade activity takes place in the dark.

The second concern has to do with the fairness of access to dark pools and other modern trading facilities. The Commission clearly has a statutory obligation to foster “fair and orderly” markets, although the exact definition of “fair and orderly” is not spelled out in the ’34 Act. Are dark pools or other trading systems that exclude various participants fair to those who cannot participate? One thing to consider is that retail investors hire brokerage firms to execute their orders. The brokerage firms have a duty of best execution, and many of them use sophisticated order routing technology to get the best execution for their customers. Many firms can and do routinely check dark pools in the hope of getting a better execution for their customers even for simple small retail market orders. Thus, most of these platforms are available to almost everyone through their agents.

Execution quality statistics should be displayed at the broker level.

Rules 605 and 606 were intended to enhance execution quality through the disclosure of information about order routing practices, payment for order flow, and execution quality. Rule 605 requires all market centers to display some execution quality statistics, and Rule 606 requires brokerage firms to report on their order routing and payment for order flow practices. Although these rules provide some useful information, they have failed to produce information that is usable to the average investor. The Rule 605 data on execution quality are too raw for most investors to interpret. The Rule 606 data on order routing practices is interesting but gives most investors very little information with which to judge the quality of the services provided by the brokers.

There is a fundamental flaw in the logic of Rules 605 and 606. The structure of the rules assumes that execution quality is solely a function of the market center and that the brokerage firm has no impact on execution quality. This is not true. A good broker picks the right market center for a given order at a

given time. Indeed, the better brokers use sophisticated order routing technology to get best execution for their clients. Execution quality is thus a product of BOTH the broker's skill and the quality of the market center's execution.

A better solution would be to require each broker to produce execution quality statistics for their clients. Most brokers already gather this information to monitor whether they are giving their customers best execution. Brokerage firms should release two sets of data:

- Each confirm should contain the NBBO at the time of order receipt (if the order was received during normal trading hours) and calculate the difference between the quote at the time the order was received and the execution price. The confirm would also display the date and time of the order receipt and the date and time of order execution.
- Brokerage firms would also be required to prominently display on their web sites summary execution quality statistics in an easy to interpret manner. Such a display would allow consumers to quickly compare execution quality across brokerage firms and thus assist consumers in choosing brokerage firms that provide good execution quality. Here is an example of what such a report card might look like:

Execution Quality Report
Generic Broker
Orders Received During Normal Trading Hours (9:30 am to 4:00 pm)
Month, 2010

	Odd lots < 100 shares	100-499 shares	500-999 shares	1000 +shares
Average price relative to quote (Market orders) (Higher is better)	\$0.000	\$0.001	(\$0.001)	(\$0.015)
Percent executed outside the bid-ask spread (Market orders)	0.00%	0.35%	1.5%	5.2%
Percent executed at quote (Market orders)	100.00%	84.15%	87.23%	70.12%
Percent executed inside bid-ask spread (when spread > 1 cent) (Market orders)	0.00%	20.10%	12.98%	3.14%
Average execution time (seconds) (Market orders)	.8 seconds	.6 seconds	1.5	9.8
Number of market orders	5,280	3,141,592	2,718	1,414
Number of other orders	1,234	2,718,281	5,280	1,732
Number of complaints (all orders)	0	1	2	0

This table displays execution quality statistics for market (including marketable limit) orders received during regular trading hours. Other orders consist of orders received outside regular trading hours (9:30 am to 4:00 pm EST), limit orders, stop orders, and orders with special handling conditions including “not held” orders or orders in which the customer specified that the order should be routed to a specific market.

Average price relative to quote is the average for buy orders of (Ask Quote – Execution Price) and for sell orders of (Execution Price – Bid Quote).

Execution Quality Report Generic Broker Market and Marketable Limit Orders Received Outside Normal Business Hours Month, 2010				
	Odd lots < 100 shares	100-499 shares	500-999 shares	1000 +shares
Average price relative to official opening price (Higher is better)	\$0.00	\$0.001	(\$0.002)	(\$0.008)
Number of orders	5,280	1,234,567	654,321	17,320

The optimal level of transactions costs is NOT zero.

There is an implicit assumption in the Concept Release that a perfect capital market would be one without any transactions costs.⁵ Page 40 of the Release states “Recognizing that there is no such thing as a perfect market structure that entirely eliminates transaction costs, ...” This assumption is false and can lead to some dangerously flawed policy decisions. Transactions costs represent the price of various services that include immediacy of execution, as well as various information services. **It would be foolish to assume that the optimal price of any commodity should be zero.** As a consumer I might like it if the price of gasoline were zero, but then the producers would have no incentive to produce gasoline so I would not be able to buy any.

A transactions cost such as the bid-ask spread provides incentives for market makers and others to provide liquidity. **Spreads and commissions also provide incentives for broker-dealers to produce information that is useful for investors.** Some of these costs represent payment to securities firms that act as distribution channels for securities. In other words, they serve to help market securities to investors.⁶ Most of the 10,000 public companies in the United States face a serious challenge in getting information about their companies into the minds of investors.

⁵ Alas, this false assumption is also made by many economists in their zeal to produce tractable models.

⁶ For more details see my article “Tick Size, Share Prices, and Stock Splits,” *Journal of Finance* 52, 655-681, June 1997.

Maybe transactions costs are too low for small companies.

Back in the bad old days when transactions costs were much higher, many smaller companies consciously chose to list their stock on NASDAQ despite demonstrably lower transactions costs on the Amex.⁷ Their reason for doing so is that the wider bid-ask spreads on NASDAQ provided valuable incentives for broker-dealers to market their stocks to investors. Think of the challenge faced by a manufacturer: Do they want to market their product through a mass merchandiser that will offer the product at a low price but provide no additional marketing, or do they want to market through a boutique that charges higher prices but where the sales people will suggest it to appropriate customers? Just as different manufacturers may choose different distribution channels, different types of companies will prefer different market mechanisms that provide different levels of marketing support. Large-cap companies do very well in our current market structure, but it is not clear that the same can be said for the small-cap sector. **Perhaps one of the many reasons for the declining number of listed companies is that the U.S. market structure is no longer hospitable to marketing smaller companies to investors.**

Market data are intellectual property and should be respected as such.

In recent years we have developed a much greater appreciation of the value of intellectual property such as software and other media. The information collected by market participants is also intellectual property and should be respected as such. Unless there is an overwhelming public interest, the owners of this property should be allowed to do whatever they want with it. The NBBO is just such an example of an overwhelming public interest. In implementing the 1975 National Market System amendments to the '34 Act, the Commission fostered the creation of the current system that makes the National Best Bid and Offer (NBBBO) and last sale data readily available to all market participants on non-discriminatory terms. The NBBBO provides an extremely useful benchmark against which investors can readily ascertain current market conditions and the quality of their executions.

It is troubling, however, that the NBBO dissemination is so slow that some participants can calculate it faster on their own than the Securities Information Processors (SIPs) can. This highlights problems at the SIP level that should be investigated by the Commission. The solution is to speed up the SIPs, not degrade the ability of the market centers to sell accurate and timely information.

A “trade-at” rule would be a big mistake.

The Release requests comment on whether the Commission should consider a “trade-at” rule that would prohibit market centers from executing a trade at the NBBO unless that market center was already displaying a quote at that price when it received the order. Given the high liquidity and tight spreads in

⁷ See Angel, James J., and Reena Aggarwal, The Rise and Fall of the AMEX Emerging Companies Marketplace, *Journal of Financial Economics* 52(2), 257-289, 1999.

our current market structure, it is not clear that such tinkering with the market on theoretical grounds would improve the market and could indeed harm it. The thinking behind such a proposal demonstrates an oversimplified view of markets. Different participants have different trading strategies, and many of these strategies depend on the ability to ascertain something about how informed a potential counterparty is. For example, a dealer may be willing to provide a good price to a customer wishing to sell when the dealer knows the entire size of the customer's order. It is safe for the dealer to accommodate the customer because the dealer knows that the customer is not about to sell a million more shares immediately after the trade in question. The dealer is providing conditional liquidity that would not be otherwise available to the market. The same dealer may not be willing to offer the same terms to an anonymous trader who may have several million more shares to sell, which would depress the price further and cause losses for the dealer.

The thinking that calls for a trade-at rule also implicitly assumes that “price-time” priority is the best way to structure a market. This is not necessarily true. Indeed, no real market actually uses pure price-time priority. Almost every market operates with numerous exceptions to price-time priority, such as order size, display status, or type of market participant. Any calls for pure price-time priority are really calls for a one-size-fits-all market which would be a step backward from our current rich market structure.

It is not unfair to the public limit orders when other investors choose to trade at the same price. The public limit order gets the advantage of advertising in the public market and this attracts potential counterparties. However, this type of public advertising is not and should not be the only way to find a potential counterparty. There is no compelling public interest in restricting investors' freedom of personal action by forcing them to trade in a particular way. Investors should be free to choose their own trading strategies, and this includes the degree to which they choose to display their trading interest to the world.

I see no benefit to a “trade-at” rule. Furthermore, it would be easily evaded. Market participants wishing to trade with only some order flow would merely set their computers to match the NBBO and route any orders that they did not want to fill, with no net benefit to the market.

Access fees are a mess and should be eliminated or reduced.

Many of the peculiarities of the current market structure stem from the fact that the SEC permits market centers to charge access fees, also known as “maker/taker pricing.” For example, dark pools and multiple exchange platforms run by the same companies are examples of this. As permitted by the SEC, markets can charge access fees of up to .3 cents per share in addition to their posted quotations to market orders. Often up to .295 cents of this is rebated to those who placed limit orders that got hit. Given that the bid-ask spread is often only 1 or 2 cents, and the revenue capture of many high frequency traders is measured in hundredths of a penny per share, this means that access fees and the accompanying rebates are a very large factor in today's market structure. Note that in a world with .3 cent access fee and .295 rebate, 98% of the access fee is rebated to the other side of the trade, and the rebate is 60 times larger than the net price (access fee – rebate) collected by the exchange. This is absurd.

Access fees create a pathological situation in which the party that chooses the trading platform does not bear the cost of its choice. Furthermore, the NBBO does not reflect the access fees, so measures of best execution based on the NBBO are flawed. This creates perverse economic incentives for broker-dealers, exchanges, and investors.

Indeed, access fees are one of the primary reasons for the existence of so many dark pools. Dark pools give investors who would otherwise have to pay high access fees the chance to trade with other liquidity that is willing to forgo the access fee. If the Commission is serious about increasing the amount of activity in “lit” markets it should reduce or eliminate access fees. Access fees are also one of the primary drivers of flash orders, as traders seek to avoid paying the access fee with what would otherwise be a market order.

The Commission needs to examine this area. If the Commission is unwilling to eliminate access fees, it could require market centers to round their posted quotes up to reflect access fees. Thus, a market that is offering stock at \$10.00 with a .3 cent access fee would then display a public quote of \$10.01. At the very least it should reduce the size of the fees from their currently absurdly high levels, which as we saw before can sometimes be 60 times the net cost of trading charged by the exchange. Capping the access fee at the smaller of 1/10th of the tick size or ½ of the net cost of trading (access fee – rebate) would be one approach.

In the sub-dollar area where the tick size is infinitesimal (\$.001), the Commission should require access fees to be displayed in the price quotes.

The Commission should experiment with different tick sizes.

When the Commission ordered decimalization, the proposing release contemplated a pilot experiment examining the impact of different tick sizes.⁸ The industry went straight to a one cent tick size without conducting such a pilot. As the Commission considers the tick size in low priced and sub-dollar stocks, it should conduct controlled experiments to determine the real impact of such changes.

All NMS Plan filings such as Form 1 and Form ATS should be on Edgar

It is often difficult to get information about the operations of the SROs and NMS plans, even though their public filings are theoretically available to the public. The public filings that these entities make should be required to be on their web sites and routinely posted on Edgar.

⁸ See Division of Market Regulation: Order Directing the Exchanges and NASD To Submit a Decimalization Implementation Plan. Release No. 34-42360 <http://www.sec.gov/divisions/marketreg//34-42360.htm>

The exchange rule filing process should be simplified greatly.

The current system of exchange rule filings is excessively burdensome and can be simplified greatly without harming investor protection. The current system was put in place when there was one dominant exchange and Congress felt it necessary to restrain that exchange. The world is different and much more competitive now. No exchange handles more than a third of the volume in its own listings.

The resources expended at the exchange level and at the Commission level to shovel all this useless paperwork can better be spent elsewhere, such as in better compliance and better enforcement. The overwhelming majority of SRO rule filings receive ZERO comments, indicating that putting them out for public comment is usually a waste of time.

Note that most developed countries do not require their stock exchanges to go through this bureaucratic process. Exchanges are also at a competitive disadvantage compared with the less regulated ATS.

A better system would be for the Commission to wield its broad exemptive power to vastly reduce the number of filings that require Commission approval. **The Commission should move from a “guilty until proven innocent” standard to an “innocent until proven guilty” standard and permit the exchanges to implement most rule changes without going through advance approval.** The Commission, of course, would retain the ability to abrogate rule filings it finds not in the public interest.

Do we still need three data plan networks? I suspect not.

Does it still make sense to have three separate “tapes” for NYSE, Amex, and NASDAQ-listed stocks? This seems more like a historical accident rather than the best way to organize data distribution. Now that NYSE Euronext, Inc. runs the SIP for both Tape A and Tape B, the Commission should consider merging those tapes together. Indeed, it may make sense to consolidate all three tapes to avoid unnecessary duplication of expenses.

Real time marking of short trades allows real time monitoring by market.

Short selling is a very important factor in making our markets work smoothly. However, the shorts are often blamed when prices fall, usually unfairly. We now have some disclosure of trade-by-trade short sales, but it would far more user friendly for the information to be part of the standard real-time data feeds. This would allow market participants to see for themselves in real time whether or not there is any abusive activity. The SEC and FINRA would enjoy a reduced enforcement burden because many additional eyes would be looking at the data.

Go ahead and report the odd lots, and include them in the execution quality reports.

The only reason not to report odd lots in the consolidated tape is one of bandwidth. With today's low cost communications and computer technology, bandwidth is very cheap. The advantage is that it would give market participants a better picture of odd-lot activity, and also expose any strategies that are attempting to avoid disclosure. I have heard anecdotal stories over the years of traders using 99 share orders to either take advantage of various rules favoring odd lots or else to avoid prints on the tape.

Providing further disclosure of odd-lot activity, and disclosing odd-lot execution quality in the Rule 605/606 reports could improve execution quality for small retail investors who often trade in odd lots. Currently, market centers do not have to report odd-lot activity in their 605 reports, so they have less incentive to provide good execution quality. (I recently got a really bad fill on an odd lot trade.)

However, market centers should be able to treat odd lots differently in their trading engines for the following reason: Traders should not be able to "ping" market centers with one share orders just to see if there is any hidden trading interest in that venue. Any trader wishing to find hidden trading interest should have to submit serious orders, not odd lots.

Don't give up on fails to deliver.

The scandal of protracted fails to deliver that plagued U.S. markets for years has been mostly eliminated through Rule 204. Yet there is still some cleanup work to be done. Why, for example, was Sears recently on the Reg SHO Threshold List for over 50 days? **Either someone is breaking the rules and enforcement has broken down, or someone has figured out a new loophole that will soon be exploited by others and the problems will come back.** The Commission needs to investigate this and take action.

Also, there is a problem with the large number of ETFs on the Reg SHO Threshold List. It is often difficult to short securities on the Reg SHO list. As short selling is essential for the arbitrage that keeps ETF prices in line with the ETF's constituents, the Commission should find out why there are so many ETFs on the list and fix the structural flaws in the market that lead to this outcome.

The Commission should also examine fixed income markets.

It is a good thing that the SEC periodically examines market structure issues. Alas, this concept release deals only with the equity market. The SEC's mandate, of course, covers securities and not just equity securities. A quick glance at the Concept Release Archive on the web indicates that the SEC has not performed a similar examination of the fixed income market in at least 15 years.⁹ The fixed income markets are much larger than the equity markets in terms of total volume issued each year and the total volume outstanding. The SEC should also take a good look at the fixed income markets to examine

⁹ <http://www.sec.gov/rules/concept.shtml>

whether any changes need to be made there. **The Exchange Act requirements in Section 11A for a national market system apply to fixed income markets as well.** In general, the fixed income markets do **much worse** than the equity markets in meeting the mandates with respect to the availability of information, the ability to execute in the best market, and the opportunity to execute orders without the participation of a dealer. **The Commission is not living up to its statutory mandate by allowing these conditions to continue.**

The United States is part of the global economy. All SEC concept releases and rule proposals should explicitly discuss what other countries do.

The United States is not the only developed country on the planet, and it does not exist in a vacuum. Our exchanges are part of global trading enterprises, and so are our major financial firms. Yet this Concept Release, like most SEC documents, **pays no attention to how other jurisdictions face similar issues.** We should learn from the mistakes and successes of other countries. In particular, a lot of thinking is going on in Europe about the same regulatory issues we face in the U.S. We can learn from their debates even if we choose different solutions. I recommend that every rule filing and concept release explicitly discuss how other countries are addressing the problem at hand.

Respectfully submitted,

James J. Angel
Georgetown University
McDonough School of Business
Washington DC 20057
(202) 687-3765