USC Marshall
School of Business

FINANCE AND BUSINESS ECONOMICS
Lawrence Harris, Ph.D., CFA
Fred V. Keenan Chair in Finance
Professor of Finance and Business Economics

June 15, 2018

Mr. Brent J. Fields
Secretary
U.S. Securities and Exchange Commission
150 F Street, NE
Washington, DC 20549-1090

Re: Transaction Fee Pilot for NMS Stocks (File No. S7-05-18)

Dear Mr. Fields:

Thank you very much for the opportunity to comment on the proposed transaction fee pilot. Please forgive the tardiness of my comments—late semester teaching responsibilities combined with unforeseen family issues (fortunately resolved well) combined to deny me the time I needed to write this letter before the given deadline.

I am opposed to exchange transaction fee pricing based on whether traders are makers or takers. Maker-taker and taker-maker ("inverted") pricing systems, and the volume discounts usually associated with their fee rebates, create the following problems:

- Agency problems between brokers and their retail and institutional clients cause brokers to poorly represent standing client limit orders and to fail sometimes to obtain best execution of marketable client orders,
- An effective NMS minimum price variation of half a penny (which is smaller than the one-penny exchange minimum price variation mandated by Reg NMS) facilitates the execution of various parasitic trading strategies by proprietary traders to the detriment of public investors,
- Unnecessary complexity in the markets almost exclusively benefits sophisticated electronic traders and the exchanges that sell data to them,
- Volume discounts make order flow decisions unnecessarily sticky which inhibits competition among exchanges, and
- Distorted bid/ask spreads favor liquidity provision by proprietary traders over that of public traders.

If these pricing systems provided some benefit to the public, these benefits might offset the costs of the problems that they create, but I see no such benefits.

University of Southern California
701 Exposition Blvd, Ste. 231, Los Angeles, CA 90089-1422 • Tel: 213 740 6496 • Fax: 213 740 6650
lharris@marshall.usc.edu

My substantial comments first identify these problems. I then discuss the merits of the proposed pilot project. Before addressing these issues, I briefly describe the structure of exchange pricing systems for readers who may be unfamiliar with these systems.[1]

Exchange Fee Primer

Traditional Exchange Pricing. Exchanges and various alternative trading systems that arrange trades (collectively "exchanges") charge fees to their clients for these services. All exchanges used to charge a fixed fee to the seller (or split the fee between the seller and the buyer) for arranging trades. For example, an exchange using the traditional fee system might charge 0.05 cents per share for arranged trades.

Maker-Taker Pricing. In the late 20th Century, some exchanges introduced maker-taker pricing for which they charge a high take fee—once commonly called the "access fee"—to the trader who uses a market order (or a marketable limit order—an order priced aggressively enough that it can be immediately filled) to take a standing bid or offer. Maker-taker exchanges then rebate most of the fee (once called the "liquidity rebate") to the trader whose standing limit order made the market. The fees that the traders pay or receive thus depend on their behavior in the market: The trader who made the market receives the rebate and the trader who took the market pays the high make fee. (Note that either the buyer or the seller could be the maker.) For example, an exchange may charge a take fee of 0.30 cents per share and rebate 0.25 cents per share to the maker. The net fee that the exchange receives thus is 0.05 cents per share.

Inverted Pricing. In the early 21st Century, some exchange holding companies created new exchanges with rules and systems identical to their maker-taker exchanges with one exception. Instead of using maker-taker pricing, these new exchanges—sometimes called "inverted exchanges" or "taker-maker exchanges"—introduced inverted pricing. Under inverted pricing, the inverted exchange charges a high make fee and rebates most of the fee to the taker. For example, an inverted exchange may charge a make fee of 0.25 cents per share and rebate 0.20 cents per share to the taker. The net fee that the exchange receives thus is again 0.05 centers per share. Below I describe why some traders use inverted exchanges.

Volume Discounts. Most exchanges with maker-taker or inverted transaction fees require that brokers and proprietary traders meet certain periodic volume thresholds to qualify for various rebate rate levels. The more volume traded, the greater the rebate rate.

[1] The opinions expressed in this letter are mine alone and do not necessarily represent the views of the University of Southern California for which I work, Interactive Brokers, Inc. for which I serve as an independent director, or the Clipper Fund or any of the Selected Funds for which I serve as an independent trustee.

The Agency Problem

The agency problem associated with maker-taker and inverted transaction fee pricing systems arises because almost no brokerage firm passes on to its clients the exchange fees that they pay and the exchange fee rebates that they receive. (Interactive Brokers is a notable exception.) Maker-taker and inverted fee pricing thus incent brokers to route orders to maximize their profits rather than the performance of their client's orders. These incentives affect both retail traders and institutional traders whose orders may be generated and managed by algorithms.

Standing Limit Orders

The problem mostly affects standing limit orders (orders that will make market) submitted by clients. Brokers have strong incentives to send standing limit orders to maker-taker exchanges where they will receive fee rebates should the orders execute. In contrast, if they send these orders to inverted exchanges, the brokers would have to pay make fees should the orders execute.

This routing behavior is problematic because orders standing at inverted exchanges usually execute before orders standing at the same price at maker-taker exchanges: When offered the same quoted prices at maker-taker and inverted exchanges, brokers and proprietary traders route their marketable orders first to inverted exchanges because they receive take rebates for trading their whereas they would have to pay take fees when trading on maker-taker exchanges. Orders standing at the same price at maker-taker exchanges trade later, and sometimes not at all. The damage done to the clients occurs when their orders do not trade. If they are still willing to trade—they usually are—they must adjust their order prices (raise their limit prices when buying or lower their limit prices when selling) or convert their orders to marketable orders. In either event, they will obtain inferior prices to the prices that they could have obtained had their orders been placed at an inverted exchange and executed there.

Most brokerage customers do not know about this problem and so do not know that their brokers are representing their orders as best as they might. Some brokers say that they would not engage in this behavior because they only get paid brokerage commissions if their client's standing limit orders execute. But most clients reprice their orders so that they ultimately execute. The simple evidence of whether the agency problem is important lies in whether brokers send standing customer limit orders at equal frequencies (50%) to maker-taker and inverted exchanges, as would be expected if true (never observed) security values were uniformly distributed between one-cent ticks. I understand that brokers rarely send standing customer limit orders to inverted exchanges because they do not want to pay maker fees that they are unwilling or unable to pass along to their clients.

Marketable Orders

If no hidden orders are standing at better than displayed prices at maker-taker exchanges, this agency problem does not affect traders who use marketable orders. Brokers usually route marketable orders to the best available price so that the client always will get the best price. If traders at a maker-taker and an inverted exchange both offer the same price, the broker will route to the inverted exchange to obtain the taker rebate. Since this decision does not affect the price that the client receives, and since the order will trade anyway, the agency problem does not affect clients when they use marketable orders (if no hidden orders are at maker-taker exchanges).

However, if hidden liquidity at a more favorable price may be present at the maker-taker exchange, marketable order traders are also subject to the agency problem. If the broker routes to the inverted exchange, the client may lose the opportunity to trade at a more favorable price. The agency problem arises because the broker will route based on the fees and rebates that the broker expects to pay or receive rather than based on the broker's expectations about which exchanges are more likely to have hidden liquidity at more favorable prices.

The Half-Penny Tick

The combination of maker-taker and inverted exchange fee pricing effectively creates a half-penny tick. To see why consider the net prices that a proprietary trader (who pays exchange fees and receives exchange fee rebates) pays when buying at a maker-taker exchange and an inverted exchange.

At a maker-taker exchange, if the trader submits a standing buy order at $10.00 that fills, the net price that the trader will pay is $10.00 less the make rebate—say 0.25 cents—per share, or $19.9975. If the trader sent the same order instead to the inverted exchange and it executed there, the net price would be $10.00 plus the make fee—say 0.25 cents—per share, or $10.0025. The difference in prices is 0.50 cents per share or half a penny.

Consider now the net prices that the seller—the taker—will receive in this example. At the maker-taker exchange, the seller would receive $10.00 less the take fee—say 0.30 cents—per share, or $19.9970. At the inverted exchange, the seller would receive $10.00 plus the take rebate—say 0.20 cents—per share, or $10.0020. The difference in prices is again 0.50 cents per share or half a penny.

The combination of maker-taker and inverted exchange fee pricing effectively creates a half-penny tick because standing orders at inverted exchanges usually trade before standing orders at maker-taker exchanges as takers (or their brokers) always seek the best net price. To see this conclusion easily, consider the options available to a proprietary trader who wants to make market as a buyer when substantial size on the buy side is already on the book at the best price of $10.00 at a maker-taker exchange:

1. The trader can simply get in line and wait until the size ahead fills. The fill may take a long time to occur, and it may never occur if prices rise.
2. If the trader is impatient to trade, the trader can improve the price by the one-penny tick at that exchange (a minimum mandated by Reg NMS), thereby creating a new market by jumping ahead of all other buyers at $10.00. This strategy substantially increases the probability of filling, but the trader would have to pay a full cent more per share for the purchase.
3. The trader can send the order to an inverted exchange. As noted above, the order will then fill before the orders at the maker-taker exchange (because taking sellers are attracted by the take rebate at the inverted exchange and want to avoid the take fee at the maker-taker exchange). The cost to the proprietary trader of using this strategy is only 0.50 cent.

Although the maker-taker and the inverted exchanges both have a one-penny tick, the availability of both exchanges in the National Market System has effectively created a half-penny tick.

The half-penny tick is problematic because it reduces the costs of exercising various parasitic strategies—sometimes collectively called "pennying" that sophisticated proprietary traders use to extract value from the orders submitted, or expected to be submitted, by other traders, both retail and institutional.[2] Concerns about the use of these strategies led to the one-penny tick prong of Reg NMS.

The half-penny tick is also problematic because only sophisticated proprietary traders can access it. Brokerage customers do not benefit from this complex market structure because of the agency problem discussed above.

For some low-priced stocks, a half-penny tick may be the appropriate minimum price variation. If so, I would advise the SEC to amend Reg NMS to permit smaller ticks rather than continue to allow this convoluted exchange fee pricing system to create a half-penny tick that most public traders cannot easily access.

Complexity

The effective half-penny tick gives substantial trading advantages to proprietary traders over those who are served by brokers. Not only can they more profitably execute parasitic strategies as discussed above, but they also can benefit when trading for any other merit-worthy purpose such as dealing or arbitrage. The ability to step ahead in line for only one-half penny rather than for a full penny gives such traders valuable opportunities not available to other traders.

[2] Chapter 11, "Order Anticipators," of my book *Trading and Exchanges: Market Structure for Practitioners* (Oxford University Press, 2003) describes these parasitic trading strategies. The most important one to this discussion is quote matching (pennying), but the others are also important.

Most strategies that such proprietary traders use require very high-speed market data feeds. Proprietary traders buy these data feeds directly from exchanges. The exchanges thus effectively participate in the profits that the proprietary traders can extract from the order flow. As these profits are higher because the proprietary traders have near exclusive access to the half-penny tick, exchange holding companies have a strong interest in maintaining the current system. The SEC may reasonably consider these interests when evaluating comments submitted by the exchanges and proprietary traders.

Impediments to Competition

The volume discounts offered by maker-taker and inverted exchanges inhibit competition by making order flow decisions unnecessarily sticky. To qualify for increasing rebate rates, brokers have an incentive to route orders based on criteria that are unrelated to the interests of their clients. For example, brokers may route orders to one maker-taker exchange over another to quality for higher rebate rates regardless of any differences in the probabilities that standing limit orders will execute or that marketable orders will receive price improvement from hidden orders.

Aside from aggravating agency problems, these volume discounts—like all other volume discounts seen in other industries—make order flow sticky. All companies—exchange service providers included—seek sticky order flow so that they can obtain greater pricing power. Frequent flyer programs are one of the better-known examples of this phenomenon.

Companies in many industries offer volume discounts to reflect the lower unit costs of serving high volume clients. Such discounts are fair as they reflect the lower costs of serving these clients. However, exchanges generally do not experience unit cost savings when serving high volume clients. Once a customer is connected, costs are essentially linear in trade counts.

Increasing volumes, however, greatly benefit exchanges because liquidity attracts liquidity. Those exchanges that have substantial order flow attract more orders as traders seek the best available prices. This phenomenon—called the order flow externality by economists—impedes competition among exchanges. Low volume exchanges that provide better service or lower fees often do not get order flow because traders must go to where other traders trade to fill their orders. Although this issue was much more important when exchanges were mostly floor-based, it remains important now. Volume discounts in the absence of physical cost saving do not promote competition—they inhibit it.

Bid/ask Spread Distortion

Maker-taker pricing—the dominant exchange pricing system now in use in NMS stocks—distorts bid/ask spreads. All other things the same, quoted spreads are narrower under maker-taker pricing than under traditional exchange fee pricing. However, the narrower quoted spreads do

not benefit the public. To understand these conclusions, consider what determines quoted bid/ask spreads.

Equilibrium Spreads

First, note that the bid/ask spread (actually one-half of the spread) is the price of a service called liquidity—the ability to trade when you want to trade. Traders who make market offer liquidity to impatient traders who take their markets. The benefit the makers receive is a better price in comparison to the prices that they would obtain if they took markets. The takers pay inferior prices—they buy at the ask and sell at the bid—because they want to trade quickly.

To see that the spread is the cost of liquidity, imagine that a trader simultaneously submits market buy and sell orders in the same security for the same size. The trader will lose the bid/ask spread (per share traded) while trading two orders that collectively accomplish nothing but demanding liquidity on both sides. The cost *per order* of demanding liquidity thus is one-half of the bid/ask spread.

Traders who compete to offer liquidity determine bid/ask spreads. If spreads are too wide, many traders will offer liquidity to profit from obtaining good prices if they trade. As these traders compete to obtain these prices, they will narrow the spread as they try to be first in line so that they can trade. Likewise, if spreads are too narrow, many people offering liquidity will decide that doing so is not worthwhile. If they are dealers, some will quit. If they are committed to trading, they will submit market orders instead of limit orders. The withdrawal of traders offering liquidity will cause spreads to widen.

To summarize, when spreads are too wide, more traders will offer liquidity and thereby lower spreads. And when spreads are too narrow, traders offering liquidity will withdraw, so that spreads rise.

These arguments suggest that some equilibrium spread exists in the middle between too wide and too narrow where traders who are willing to offer liquidity will continue to offer liquidity and traders who would not normally offer liquidity will not enter to do so. The equilibrium spread depends on the benefits and costs that traders perceive when offering liquidity. These benefits and costs depend on their perceptions of risk and the value of their time (among many other factors) which they evaluate relative to the size of the spread.

Effect of Maker-Taker Pricing on Quoted Spreads

To understand the effect of maker-taker pricing on quoted spreads, assume that a market switches to maker-taker pricing from traditional exchange fee pricing. This switch changes the benefits and costs of offering and taking liquidity. If quoted spreads do not change, the make fee raises the cost of using marketable orders to trade, and the liquidity rebate increases the benefit of using a limit order to offer liquidity. At the former equilibrium quoted spread, fewer traders

would want to take liquidity, and more traders would want to offer liquidity. The competition of traders to offer liquidity will cause quoted spreads to narrow. If nothing else changes, the net spread—the quoted spread adjusted for the take fee and the make rebates—must be the same. The new equilibrium quoted spread thus will be the old equilibrium spread minus approximately twice the average of the take fee and the absolute make rebate.

Implications of Tighter Quoted Spreads

The decrease in quoted bid/ask spreads caused by maker-taker pricing reduces the incentives that traders have to offer liquidity when trading through brokers because most brokers do not pass through make rebates to their clients. Maker-taker pricing thus protects proprietary traders who offer liquidity from competition from public investors.

Such protection is not in the public interest: If public traders can provide liquidity to other public traders, overall transaction costs will be lower because proprietary traders will not be taking revenues (profits plus their costs of trading) out of the market.

Proponents of maker-taker pricing argue that the system increases liquidity because it subsidizes traders who offer liquidity. But this argument fails to note that it also reduces spreads which decreases liquidity. On net, maker-taker pricing has no effect on liquidity provision except through the agency problem discussed in the previous paragraph. It merely moves part of the compensation for offering liquidity from the spread to the liquidity rebate.

Some proponents of maker-taker pricing argue that liquidity rebates are an essential part of the compensation that liquidity providers such as high-frequency traders receive for offering liquidity. They argue that without these rebates, these traders would not offer liquidity. These arguments fail to recognize that without these rebates, spreads would be wider so that they would be willing to offer liquidity.

These arguments assume that traders can quote any price that they want to quote. In practice, the minimum price variation limits the prices that traders can quote. In the extreme, the smallest quoted spread is equal to the minimum price variation.

For those securities for which the equilibrium spread would be smaller than the minimum price variation, traders compete on size rather than price. In such securities, decreasing the tick size might be reasonable.

Under maker-taker pricing, the net spread can be smaller than the minimum price variation for very actively traded securities. However, if smaller spreads for these securities are desirable, they can be obtained with much less complexity by decreasing the tick size.

Narrower quoted spreads decrease the profits that dealers make when internalizing customer order flow or when filling brokerage order flows directed (“preferenced”) to them in exchange

for payments for order flow. As a result, the profits associated with internalization and payments-for-order flow are smaller than they otherwise would be.

Although I am concerned about the agency problems associated with both practices, I note that brokers can benefit from their client order flows only if they can obtain orders from their clients. They compete for these orders by offering better services and lower commissions. Their dealing profits from internalization, and the payments-for-order flow that they receive, fuel this competition so that much of these revenues ultimately benefit their clients. If regulators are concerned about these practices, as am I, they would better address them directly than indirectly by trying to starve them out of existence through artificial decreases in quoted bid/ask spreads.

The Proposed Transaction Fee Pilot

I believe the SEC should ban maker-taker and inverted transaction fee pricing as well as all volume-based discounts that are not clearly and directly related to cost savings. The agency problems, distortions, complexity, and anticompetitive costs associated with these pricing structures are burdensome to the markets. The present system increases transaction costs to the public and thus logically must reduce investor participation in the markets and ultimately must increase the issuer capital costs. I have seen no argument in favor of the present system that offsets these views.

Proponents of the status quo argue that the SEC should never engage in price setting. I completely agree. But the SEC should engage in standard setting (when necessary) because standard setting can promote competition. The elimination of maker-taker and inverted fees in favor of a return to traditional transaction fee pricing would not set exchange fees. It would merely standardize how exchanges quote and collect their fees so that all exchanges quote their fees on a comparable basis. Presently, the exchange fee is the difference between a high take (or make) fee and a slightly lower make (or take) rebate. As the difference is the only value that ultimately matters, and as the present system creates numerous agency problems and distortions, the SEC should mandate that all exchanges quote their exchange fees on the same basis. The simplest such basis is the traditional transaction fee model.

The 2015 Nasdaq Access Fee Reduction Experiment showed that access fees help determine market shares and that measures of market quality vary as traders predictably changed their order routing decisions.[3] This evidence is neither surprising nor relevant to the issues considered here because the experimental fee reduction did not occur at all trading venues that traded the subject securities. However, these results clearly demonstrate that regulatory action is necessary to establish a common pricing standard because market forces alone will not do it. Instead, market forces cause the exchanges to choose maker-taker and inverted fee models to the detriment of the public interest.

[3] See the March 26, 2018 comment letter in this file by Professor Peter Swan.

Pilot Studies

Pilot studies are useful under two circumstances: When the effects of a proposed policy are not well known, and as demonstration projects that facilitate progress toward a regulatory goal when political pressures are too strong to move directly to where policy should be. Regulators must weight these potential values against the costs of pilot studies.

I believe that the effects of maker-taker and inverted transaction fee pricing on the markets are well understood. The effects of a return to the traditional transaction fee standard are equally well understood. The economic theory that I describe above is sound, well accepted by all respected economists, and generally easy to understand by most unbiased regulators and practitioner analysts.[4] At its core, the economic theory is nothing more than applications of demand theory and competitive equilibrium principles involving entry and exit. The results of tens of thousands of empirical studies have exceptionally well established these principles beyond any doubt, and their application in this discussion does not introduce any particularly novel issues. Moreover, we have centuries of experience with traditional exchange fee pricing, and many countries throughout the world have used and continue to use traditional exchange fee pricing during the electronic exchange era with no problems. Accordingly, I think that we will learn little from the proposed pilot study.

I strongly believe that the SEC—and all other government agencies—should make decisions based on sound knowledge. Knowledge consists of three parts: Well-accepted theory, prior evidence, and potential new data. Policymakers should make decisions based on an appropriate blending of these sources with weights established by unbiased assessments of their relative values.

In this case, I believe that we do not need new data because the theory is well-accepted, and no prior evidence contradicts it. It is highly unlikely that new data would contradict it. While new data possibly could be informative, regulators should make decisions based on probabilities and not possibilities, and they should bear in mind that the pilot study will be costly. The probability that we will learn anything of value about the economics of exchange transaction fee pricing is very small.

Regulators also should base their decisions on the costs of the potential errors associated with their decisions. In this case, if the Commission fails to mandate, or delays mandating a common pricing standard, it will remain responsible for the agency problems and distortions associated with maker-taker and inverted transaction fees. This failure to act thus would be costly. The Commission must weight these costs against the costs that it would impose on the economy if it banned these transaction fee systems but should not have. I cannot imagine what these costs would be, but I note that if evidence proved that a ban was a mistake, the Commission could

[4] The only theoretical studies that produce any support for the maker-taker fee system derive their results from issues related to volume discounts, discrete tick sizes, or failures to recognize that traders ultimately determine bid/ask spreads. I do not believe that these studies provide any basis for doubting the conclusions presented above.

reverse the ban. The costs of such a sequence of events would be commensurate with the costs of running the pilot. We would not incur them unless following the ban we discovered some truly unexpected problem that has not appeared in any markets now using or formerly using traditional transaction fee pricing. As noted above, the probability of finding such problems is very low.

The proposed pilot study would be costly because

- Markets would have to set separate fee schedules for different securities.
- Broker-dealers, proprietary traders, and algorithm vendors would have to incorporate this information into their routing systems, some of which may not presently be set up to code different fees for different securities.[5]
- Analysts would have to study the results.

The following problems would compromise the quality of the information produced by the pilot study:

- Almost no public investor would be aware of which stocks have been assigned to which study groups and thus to what transaction fees they are subject. (Only a small fraction of investors—including institutional investors—are presently aware of transaction fee pricing systems and their implications for order routing.) They thus likely would treat each stock the same, which would decrease to a small extent the value of the information produced by the study. The decrease is small because the response of public investors to transaction fee issues lies largely through their response to bid/ask spreads (and associated sizes). Although these variables will change somewhat across the pilot groups, the changes will be hard for the investors to identify, especially given the discreteness of prices caused by the minimum price variation.
- Some broker-dealers, proprietary traders, and algorithm vendors may not incorporate the new fees into their routing systems on a timely basis, if ever. Changes are costly and may prove to be ultimately unnecessary if pricing reverts following the termination of the pilot study. Whether brokers make these changes quickly depends in large part on whether they presently can make routing decisions based on fee rates specific to security and venue as opposed to just specific to venue.
- Routing decisions associated with maker-taker and inverted pricing depend on the fact that make and take fees are not equal rather than on the actual difference between these fees. Accordingly, the routing results obtained from the various pilot fee groups that preserve a difference between make and take fees will not likely be different, except perhaps because the volume discounts become more or else important relative to the fees.

[5] Good software coding practices suggest that software engineers created fee tables by security-venue when they first coded their order routing systems. However, their present systems may allow for the specification of only venue fee information for all securities as only that information was originally necessary. I have no specific knowledge about this issue.

Were it not for political considerations, I would oppose the pilot study because it simply delays an important regulatory change that would benefit the public while incurring substantial costs on the industry and regulators to produce results that will not likely change our understanding of how the markets work. However, the study may produce results that increase public confidence in that understanding, which may prove to be necessary given political considerations.

Political Considerations

Banning maker-taker and inverted transaction fee systems is difficult because numerous entrenched and well-funded interests benefit from the status quo. As a practical matter, these interests can slow change and they have may be able to impose other costs on the SEC mission through various channels. I hope that the members of the Commission will be able to find the strength to impose a more sensible pricing standard without resorting to the expenses and delays associated with running a pilot study.

If the Commission does not believe that it has sufficient capital to act without a pilot study, then I would reluctantly support the proposed study. I would regret its costs, though I note that the study would ensure employment for many of my economist colleagues who would study the results.

Some Final Thoughts

Another reason why changing the present exchange fee pricing system is difficult involves legal precedent. For better or worse, the SEC has permitted maker-taker and inverted transaction fee pricing for many years. Perhaps the SEC did not initially appreciate the implications. Perhaps regulators recognized that maker-taker pricing would help new electronic exchanges compete effectively with established markets that controlled more than 80% of all trading volume. Perhaps regulators were unduly influenced by vested interests. The reasons do not matter. What matters is that the SEC now allows a practice to persist that creates substantial agency problems and distortions that market participants cannot correct by themselves.

For those worried about legal precedent, I would note that maker-taker exchange fee pricing would be a felony if the SEC had not endorsed it. Exchanges serve as agents to the traders who send them standing orders. The take fee is essentially a kickback that the exchanges demand from those who would do business with their clients. The exchanges essentially say, "if you want to trade with my client, you must pay me first." In every other industry of which I am aware, we do not tolerate such behavior. In the face of such an observation, overturning this precedent should not be so difficult.

(Inverted pricing is not subject to this criticism because the make fee is a fee that exchanges charge for providing service to their clients. The rebate that they offer takers is merely an

incentive to do the deal. Real estate brokers engage in similar behavior when they give up a portion of their commissions to buyers to facilitate trades.)

The identification of take fees with kickbacks is predicated on the understanding that exchanges primarily are in the business of providing order representation services to the makers who give them standing orders to represent. The service that they provide to takers—matching and reporting—is trivial in comparison to the representation services that they provide the makers. In fairness, I would note that to the extent that exchanges also provide regulatory services, presumably both makers and takers benefit.

Finally, I would observe that regulators and other interested parties should not view a mandate to use the traditional transaction fee pricing standard as costly new regulation or heavy-handed government intervention. Unlike most regulations, such a ban would not mandate expensive action. Just the opposite, the ban would prohibit expensive behaviors. Unlike some regulation, it would not set prices. Instead, it simply would set a common standard by which all exchanges would price their services on a comparable basis to promote competition among exchanges. Additionally, note that no new software would be needed to return to a traditional transaction fee system. Exchanges and brokers could use their existing software and set the make and take fees to be equal (with no rebates) so that the buyer and seller equally share the exchange transaction fee. A mandated return to traditional transaction fee pricing would simply reverse a decision that the SEC took that unexpectedly turned out poorly. Had the SEC not explicitly permitted maker-taker pricing, courts deciding class action cases might have already prohibited it under the Common Law.

Some Alternatives

The SEC could take other actions to deal with the transaction fee problem. First and most obviously, it could simply require that brokers pass through all fees and rebates. Volume discounts would complicate the passthrough of rebates, but regulators need not take volume discounts as given. Regulators could—and should—eliminate them.

Passing through all the fees and rebates would eliminate the agency problem, but distortions associated with quoted spreads being narrower than net spreads would remain. Investor confusion would also increase, and most investors would remain ignorant about how to use inverted exchanges. The increased confusion and the complexity of the overall system might cause the brokers to demand that exchanges return to traditional transaction fee pricing, which would achieve the desired end.

The SEC also could require that exchanges present all quotes on a net price basis. Reporting net prices would vastly increase the complexity of pre-trade pricing, which would be undesirable. It also would effectively eliminate any minimum price variation in the National Market System since traders seeking to jump the line would go to an exchange whose fees allow a minimum net price improvement. This alternative seems quite unwise.

If I can be of further assistance to the Commission on this issue, please do not hesitate to contact me.

Sincerely,

Larry Harris
Fred V. Keenan Chair in Finance
USC Marshall School of Business

cc:

The Honorable Jay Clayton, Chairman
The Honorable Kara M. Stein, Commissioner
The Honorable Michael S. Piwowar, Commissioner
The Honorable Robert J. Jackson, Jr., Commissioner
The Honorable Hester M. Peirce, Commissioner

Mr. Brett Redfearn, Director, Division of Trading and Markets
Mr. Richard Holley III, Assistant Director, Division of Trading and Markets
Mr. David S. Shillman, Associate Director, Division of Trading and Markets

Mr. Robert Cook, President, and CEO, FINRA