September 24, 2004

VIA ELECTRONIC TRANSMISSION;
CONFIRMATION BY OVERNIGHT MAIL

Mr. Jonathan G. Katz
Secretary, Office of the Secretary
Mail Stop 0609
Securities and Exchange Commission
450 Fifth Street, NW
Washington, D.C. 20549

Re: Archipelago Comments In Response to Regulation NMS
Release No. 34-49325; File No. S7-10-04

Dear Mr. Katz:

On behalf of Archipelago Holdings, Inc. ("Archipelago") and its wholly-owned subsidiary The Archipelago Exchange ("ArcaEx"), we respectfully set forth our comments in response to the Securities and Exchange Commission's ("Commission" or "SEC") proposing release regarding Regulation NMS. [1] As a marketplace for trading of NYSE-, AMEX-, and ArcaEx-listed ("Listed") and over-the-counter ("OTC") securities, Archipelago has a profound interest in all aspects of Regulation NMS. [2]

Our letter sets out an executive summary of our positions on the four primary components of the Release followed by in-depth analysis of each.

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[1] *See* Exchange Act Release No. 49325 (February 26, 2004), 69 FR 11126 (Mar. 9, 2004) ("Release"); *see also* Exchange Act Release No. 49749 (May 20, 2004), 69 FR 30142 (May 26, 2004).

[2] In October 2001, ArcaEx was approved by the SEC to operate a fully automated exchange facility regulated by Pacific Exchange, Inc. ArcaEx is available to execute trades in over 8,000 Listed- and OTC-securities and, as of June 30, 2004, handled over 25% of total trading volume in OTC securities, over 19% of total trading volume in Amex-listed securities, and approximately 1.5% of total trading volume in NYSE-listed securities. As of June 30, 2004, our ETF volume represented over 6.8 billion shares. *See* Final Prospectus of Archipelago Holdings, Inc., dated August 12, 2004.

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I. EXECUTIVE SUMMARY

A. Trade-Through "Reform"

The OTC Marketplace:[3] The SEC's grand experiment – whose genesis was the Nasdaq price-fixing scandal of the mid-1990s and the resulting implementation of the Order Handling Rules and adoption of Regulation ATS – has been a smashing success! The SEC's farsightedness in creating this regulatory regime for the OTC marketplace, coupled with the technology innovations of the last decade, lowered competitive barriers and produced an explosion in innovation, efficiency, and choice for investors who trade stocks like Microsoft, Sun Microsystems and Veritas. Within this framework, the SEC has allowed entrepreneurs' "supply" and investors' "demand" to produce today's vibrant OTC marketplace, which is featured by unparalleled connectivity, sophisticated order-types and functionality, and best-execution algorithms. Today's OTC marketplace is of no comparison with the pre-1996 one. The complaints and inefficiencies and economic frictions voiced about the pre-1996 OTC marketplace do not exist today. On the other hand, the same cannot be said of the Listed marketplace, which has yet to be touched, in large part, by the SEC's grand experiment.

Today, despite no trade-through rule, you hear nary a complaint about "trade through" in the OTC marketplace, and in its Release the SEC provides scant empirical evidence that such a problem exists. There is a good reason for the lack of that evidence: Since 1997, competitive forces and investor demand have created a web of proprietary connectivity that is of historical significance. Supplemented by sophisticated order types and best-execution algorithms, the OTC marketplace is a virtual marketplace where nearly every pool of liquidity (Nasdaq being the exception) is linked to every other pool – creating one large pool of liquidity – ensuring best price and transparent, sub-second executions for investors.

Given the above, we are left scratching our heads as to why the SEC sees it necessary to tinker with – or rather overhaul – the fruits of its grand experiment on the OTC marketplace where no trade-through problem exists today. Why would the federal government want to re-regulate – overlooking the maxim of "if it ain't broke, don't fix it," and with the law of unintended consequences lurking in the shadows – where a vibrant and healthy and pro-investor marketplace thrives?

Accordingly, absent symptoms and diagnosis (empirical evidence), we respectfully request that the SEC "do no harm" and conduct no surgery on the healthy OTC marketplace while focusing its Nightingale energies on the malignancies of the Listed marketplace, where a complete transfusion of trade-through reform is just what the doctor ordered.

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[3] The OTC marketplace are those marketplaces and exchanges that trade Nasdaq-listed shares including, among others, ArcaEx, the National Stock Exchange, the Chicago Stock Exchange, and Nasdaq.

The Listed Marketplace: In its current form, the trade-through rule thwarts competition, delays innovation, and impedes efficient execution. It is the "omega" to the SEC's grand experiment "alpha" in the OTC marketplace. It entrenches older, slower markets at the expense of innovative, technology-driven competitors. Further, the dirty little secret of today's trade-through rule is that, although the NYSE pays boisterous public lip service in support of it, our experience indicates that they chronically violate the rule and trade through ArcaEx's better quotes.

Unlike the OTC marketplace, where competition has thrived and market-based and investor-driven solutions have created a "no-trade through" zone, the Listed marketplace is a web, not of proprietary connectivity, but of trade-through violations. Since its inception, the Inter-Market Trading System ("ITS") and its annual and bi-annual meetings of its operating committee are nothing short of trade-through imbroglios.

We believe the solution to trade-through reform in the Listed marketplace is simple, and agree largely with the SEC's Release, although believe the SEC does not go nearly far enough in protecting displayed limit orders. Our solution: Allow markets with firm, automatically accessible quotes to trade through markets with non-firm or non-accessible quotes, but not to trade through markets with firm and accessible quotes where no human intervention or intermediation can occur. These designations should apply on a quote-by-quote basis so that a market center can't dress itself up as a "fast market," only thereafter to change its wardrobe and implement liquidity refreshment gizmos or other "hybrids" that have "slow market" at their core.

However, we also believe the Release's focus on protecting only those limit orders at the national best bid-best offer (NBBO) is anachronistic and harms investor limit orders that are a penny or two or more away from the NBBO. Why protect limit orders at the NBBO and discriminate against displayed limit orders off the NBBO, especially now that stocks are traded in decimals and in not eighths and sixteenths??

Any trade-through reform should apply to a market center's entire book (as long as the quotes are firm, accessible, and automatically executable with no human intervention or intermediation). Sweeping the entire book is exactly what occurs in the OTC marketplace today where there is no trade-through rule. Why create a "reformed" trade-through rule in the Listed marketplace that doesn't demand the same investor protection?

Without protecting the entire book and, thus, almost certainly dis-incentivizing the display of limit orders, the SEC would adopt a gaping "Non-NBBO Opt-Out" for all limit orders only one small penny off the NBBO. Such "reform" would really be no reform at all, allowing the NYSE, for instance, to trade through every automatically executable limit order not at the NBBO.

B. Market Access and Related Fees

We agree with the Release's approach that access (i.e., linkage) from one market to another should be accomplished through member relationships. That was the ARCA ECN's model in the past and is ArcaEx's model today; and is really how today's OTC marketplace is connected. This model promotes fairness and equity in linkage and fees, and prohibits discrimination against competitors.

As much as we agree with the Release's approach on a membership-based structure for market-to-market linkage, we fiercely disagree with the Release's approach to government rate-regulating on "access fees" capping them at 1/10 cent (or $2/10 cent, depending on the situation) per share. "Access fees" for subscribers (and even non-subscribers) have been competitively reduced by anywhere from 90% to, in some cases, almost 100% (yes, free trading!) over the last several years. The marketplace works. Why, then, in such a competitive and vibrant marketplace would the government want to impose a price-fixing scheme? It makes no legal, regulatory or economic sense and, again, we believe the SEC provides scant empirical evidence to support such draconian government action. If the government elects to rate-regulate in the hyper-competitive trade execution business, why not in other super competitive businesses like the computer desk-top business (Dell, HP, etc.) or the retail food store business (Safeway, Giant, Cosco, etc.).

There was, at one time, a problem of "access fees" charged **non-members** and, this discriminatory pricing largely took place inside the Nasdaq marketplace. That "problem" no longer exists. Regulations currently on the books, competitive forces, and actions by Self-Regulatory Organizations (SROs) – namely, in this case, the NASD – have eliminated the problem of discriminatory non-member pricing. And, to the extent that past harm was done – and the ARCA ECN was certainly on the receiving end of painful discriminatory pricing – redress through the courts and arbitration provide an appropriate venue to right past wrongs.

With all due respect, we stand on the highest of moral grounds having in the past been serially gouged by competitors and arbitrarily threatened denial of access by the same. That said, we importune the SEC not to rate-regulate in this healthy and hyper-competitive environment. The Release attempts to solve a problem where none exists.

C. Market Data Revenues and Allocation

The Release proposes a market data revenue formula that is Rube Goldberg-ian complex, poorly understood, and ripe for abuse. The proposed formula bases revenue allocation on the data's theoretical information content, a first in government ratemaking. In our view, any allocation formula dictated by plan cartels or by regulatory directives creates unintended consequences. Allowing the marketplace to make its own judgments about market data economics through the adoption of a competitive consolidator model, we believe, is the best course. A competitive consolidator model will let the market decide what the data is worth and how revenue should be allocated. In the alternative, we believe revenues should be allocated simply on the percentage of dollar volume traded by each market center. If that is not

acceptable, we would ask that the current allocation formulas be left in place, but that the SEC, above all else, reject the formula proposed in the Release.

D. Sub-Penny Quoting

We agree with the Commission's proposal to prohibit sub-penny quoting. While we support market-based initiatives, 30,000-foot regulatory standards are essential (e.g., driving on the right-hand side of the road), as long as these standards are equally applicable to everyone. Today, SROs are held to minimum quoting increments, while other market centers are not, and this arbitrage should be eliminated (lest accidents occur with folks driving on the left-hand side of the road!).

II. ANALYSIS

A. Trade-Through

1. The OTC Marketplace

While strongly believing that the Listed marketplace requires trade-through reform, we also believe that it would be a colossal mistake to impose such a rule on the OTC marketplace. A trade-through rule is unnecessary in the OTC marketplace because competition has driven the market to develop its own means of price protection.

The OTC marketplace over the past decade has evolved into a predominantly electronic market with sub-second executions and multiple access points by way of competitive forces. Dating back to the SelectNet era, the OTC marketplace was characterized by dealers frequently backing away from their quotes. Fragmentation was embedded in the marketplace since there was no assurance that orders routed to dealers would be executed at the displayed price. With the emergence of qualified ECNs in 1997, the OTC marketplace rapidly evolved into a highly competitive arena characterized by speed, price, and guaranteed automatic execution. Displayed quotes are firm and customers demand instantaneous responses. Moreover, robust private linkages enable efficient, frictionless access to displayed prices. In many respects, the OTC marketplace has become less fragmented than the listed marketplace. Indeed, the highly competitive nature of the OTC marketplace developed in part because it had no trade-through rule. Faster, investor-friendly markets were able to develop because they were not constrained by inefficient quotes from dealers or other competitors. [4]

[4] The Release speculates (providing little but anecdotal evidence) that the primary cause of locked/crossed markets in recent years has been ECN systems programmed to lock/cross the market with immediately executable orders instead of routing them for execution at an away market. Our review of data over the last couple of years suggests that there is no repeated pattern and practice of customers locking/crossing markets strictly to capture fees. In our experience, the average lock or cross lasts for well under two seconds, which implies that arbitrageurs resolve temporary price distortions extremely quickly. A study conducted by ArcaEx for the month of April, 2004 determined that 4.87% of quotes produced by UTP participants caused a locked or crossed market. During that same period, 2.52% of all CQS quotes were locked or crossed.

Importantly, a trade-through Rule in OTC marketplace would damage the marketplace. Execution speeds in OTC stocks are generally sub-second and currently surpass quote update speeds by factors of 200:1 or more. Accordingly, introducing a trade-through rule in the OTC marketplace would result in holding up executions while awaiting dissemination of quote updates, or worse yet, instigate increased cancellation of orders. [5]

2. The Listed Marketplace

The recent history of the OTC marketplace vividly displays the benefits of efficient market access and firm quotes. Our success in the OTC marketplace is, in large part, attributable to our ability to access firm quotes on other markets and to assure our investors always receive best execution.

In the Listed marketplace, however, non-firm quotes – "maybe quotes" – are rampant and prevent timely execution. The trade-through rule in Listed securities was designed to provide government-mandated price protection and encourage display of aggressively priced limit orders. The rule sought to assure that better priced orders would not be circumvented by inferior executions in other markets. But "maybe quotes" on manual markets have defeated this lofty goal. The SEC's efforts to reform theses archaic features of the trade-through rule are welcome.

The current ITS trade-through rule was designed for a 1970s market structure, when exchanges were manual markets. In today's electronic world, however, the rule limits customer choice and dumbs-down best execution to the lowest common denominator of the slowest market. It compels fast electronic markets, and their customers, to trade at glacial speeds. Today, an unintended effect of the trade-through rule is to thwart competition between electronic markets and the NYSE. The trade-through rule in its current form makes it difficult for fully electronic markets such as ArcaEx to operate in the listed market because it conditions executions on the slower pace and less firm and accessible quotes of manual markets. For this reason, fully electronic markets only have a small market share in NYSE-listed stocks. Worth noting, too, is that the NYSE regularly ignores other market quotes and commitments with impunity, which hurts investors (literally) thousands of times a week.

We strongly believe that the Release is an important step forward toward reforming the trade-through rule. It protects firm, immediately accessible quotes. [6] We agree with the Supplemental Release that trade-through protection extend to automated (fast) quotes rather than automated (fast) markets. [7] It would not be consistent with the intent of the trade-through rule

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[5] For example, if three markets are quoting buy orders at 20, 19, and 18, and a firm sends a sell order to sweep through all three prices, under a trade-through rule, the 19 and 18 executions would be held until the 20 market was updated or the orders sent to the 19 and 18 markets would be canceled.

[6] It is important to stress that accessibility includes the ability to enter and to exit a market center. Otherwise, some market centers will become deliberately "sticky," with a reduced ability, or no ability, to cancel and exit without an execution.

[7] In its Supplemental Release, Exchange Act Release No. 49749 (May 20, 2004), 69 FR 30142 (May 26, 2004) ("Supplemental Release"), the SEC proposed an automated quote exception from the trade-through rule that would

for a market to receive trade-through protection for manual quotes even if the vast majority of its quotes were automatically accessible. We also suggest that the SEC refrain from a single, time-specific standard for the designation of an automated quote. Rather, the SEC should insist that an automated quote be capable of accepting, processing, and transmitting a response for an incoming order automatically and without any human intervention or delay in any circumstance. Of course, the SEC would need to police the designation of automated quotes to ensure that a market did not, whether intentionally or unintentionally, interject latency in its reaction to and processing of incoming orders against automated quotes. In addition, we recommend that the SEC drop the proposed limitation on trade-throughs of manual quotes to a set, small amount. Slow or inaccessible manual quotes should never restrict the execution of automated quotes.

3. All Limit Orders Are Created Equal

While we support adoption of a trade-through rule in Listed securities that protects automated quotes, we believe that trade-through protection for the top of book would only be a baby-step towards true reform and would be obsolete upon adoption. Instead, as Jerry Putnam, ArcaEx's Chief Executive Officer, has said frequently in the past and forcefully recommended in congressional testimony on Regulation NMS this past July, trade-through protection should extend to every displayed and automatically accessible quote of a market for Listed securities, not just the top of its book (NBBO).[8] Otherwise, only a small fraction of limit orders would be protected and markets that displayed the best prices could not be assured that other markets would not trade through those prices. Otherwise, small retail investors, in particular – which was the focus of comments by Senators Richard Shelby and Charles Schumer (his father being a retail investor), SEC Chairman Donaldson, and NYSE CEO John Thain at the same congressional hearing – will not necessarily get the "best-price" and will be harmed.[9]

A top-of-book (NBBO) trade-through protection made sense 25 years ago when markets only displayed their best quote and where the minimum increment was one-eighth. Market participants at a particular market were not able to discern the depth of book at away markets, and therefore could not be held to honoring prices below the best bid or offer at away markets.[10]

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except quotes that are not immediately accessible on an automatic basis from trade-through protections. This would permit automated quotes to trade through non-automated quotes but not through other automated quotes.

[8] *See* Written Statement of Gerald D. Putnam, Chairman & Chief Executive Officer, Archipelago Holdings, L.L.C. Concerning "Regulation NMS and Developments in Market Structure" before the Committee on Banking Housing and Urban Affairs, United States Senate, One Hundred Eighth Congress (July 21, 2004).

[9] *See* Transcript for Hearing "Regulation NMS and Developments in Market Structure" before the Committee on Banking Housing and Urban Affairs, United States Senate, One Hundred Eighth Congress (July 21, 2004) (FDCH Political Transcripts).

[10] A narrow exception was established for block trades because market participants could assume that away-market interest might exist between the NBBO and the block clean-up price. For less than block-sized trades, it was not reasonable to hold markets to quotes that were not transparent or accessible in away markets.

The current market environment is completely different. Some markets, such as ArcaEx, display the entire depth of book and make those quotes subject to automatic execution. It would be a fallacy for a market to claim today that it could not see the quotes below the NBBO at such away markets. Moreover, these quotes below the top of book are just as accessible as top of book quotes. There is no logical or practical reason to deny trade-through protection to these quotes. This is especially the case with the conversion to decimal pricing and penny increments. Pre-decimals, the top of book represented the best liquidity in a market, and as a consequence real size existed at the NBBO. With decimals spreading out liquidity at multiple price points below the NBBO, the NBBO is no longer the best measure of a market's liquidity. Indeed, with thinning depth at the inside market, and with firm liquidity available and displayed at numerous price points, the NBBO is far less meaningful today. Even the NYSE realizes this and has implemented a liquidity quote in order to provide more transparency at its true price.

Shown below is the ArcaEx book in Nokia from a recent day. Our BBO at that time was 14.61 bid, 14.62 offered, 1300 x 2000. Our full book showed a combined 100,070 shares bid and offered. Of these 100,070 shares, 97,170 shares are within an 1/8th tick of the BBO – the tick size when the trade-through rule was first created in the early 1980s. Yet, the trade-through rule in the Release would only protect the 3,300 shares at the inside today. **Without protection of the entire book, any trade-through "reform" would essentially result in a "New York-sized 'opt-out.'"**

10:29:41	Bid Size	Bid	Ask	Ask Size
			14.68	3000
			14.67	3000
			14.66	22000
			14.65	10000
			14.64	500
			14.62	2000
	1300	14.61		
	5000	14.58		
	10000	14.57		
	20000	14.56		
	17000	14.55		
	3000	14.54		
	185	14.53		
	185	14.5		
	2300	14.42		
	300	14.31		
	300	14.11		

A trade-through rule predicated solely on top-of-book protection stifles competition, rewards markets that maintain as much manual order handling as possible, and leads to continuous trade-throughs. Bearing the Nokia book in mind:

- **A specialist or floor broker executing an order on the NYSE could take out the top of book at away markets and then simultaneously effect the remainder of the execution at prices below displayed interest on other markets. There would be little incentive for the NYSE to develop a hybrid model that allowed automatic executions by competitors below the BBO.**

- **As the NYSE's proposed amendments to Direct+ show, the NYSE would allow its members to sweep the exchange's limit order book at prices inferior to away markets' displayed interest:**

  - **The comment letter from Fidelity [11] on Direct+ is right on point in its assessment that, because the SEC's proposed trade-through rule has no exception for quotes of minimum size, and the NYSE's hybrid market proposal, if approved by the SEC, will afford the NYSE specialist the ability to program his systems to automatically put up a pre-emptive quote of small size to match the NBBO at any given time on any other market. If the SEC adopts its (NBBO-only) trade-through rule, the NYSE would *never* be obligated to send trades to another market as long as its specialists match the NBBO with a minimum bid or offer.**

  - **Even if the NYSE specialist does not preemptively quote in minimum size increments, the NYSE only would be required to send that small portion of an automated order to another market that is displaying the NBBO, and could keep the rest of the trade for execution on the NYSE at prices inferior to those displayed on other markets. In that case, Fidelity argues, and we agree, "it seems seriously open to doubt whether a (NBBO-only) trade-through rule, if adopted by the SEC, would promote the interest of investors in any meaningful sense."**

For these reasons, we urge the SEC to amend Regulation NMS to provide trade-through protection to all displayed quotes that fulfill the criteria for automatic quotes. In its Release, the SEC states that "the SEC believes that from a policy viewpoint it would make sense to provide protection to any better-priced quote or order displayed in another quoting order execution facility, not just the top-of-book of each quoting order execution facility." [12] Yet, the SEC expressed some concern about feasibility at this time of providing such protection. We believe not only that such protection would be feasible but also would be demanded by market participants within months of implementing the trade-through rule as proposed. The tremendous advances in order routing technology, computer processing, and bilateral and multilateral

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[11] *See* Comment Letter from Eric D. Roiter, Senior Vice President and General Counsel, Fidelity Management & Research Company, re: Amendment No. 1 to File No. SR-NYSE-2004-05 Relating to Amendments to NYSE Direct+, dated August 10, 2004. Although this letter relates to the NYSE rule filing on its Direct+ system, the SEC has included it as a comment letter to proposal Regulation NMS. It is available on the SEC's website at the following address: http://www.sec.gov/rules/proposed/s71004/fidelity081004.pdf .

[12] *See* Proposing Release at 11136.

linkages over the past 10 years should remove any concern about feasibility while raising expectations by investors about access to all displayed prices in a market. It's done in the OTC marketplace each and every day. The SEC should not be satisfied with adopting a trade-through rule that would be antiquated upon implementation.

B. Market Access and Related Fees

As the SEC is aware, our success is based on a business model in the OTC market that requires fair access. **While there were historical abuses with respect to fees, especially for non-member access, those abuses have been eliminated through competition, SRO rule-making, and redress through arbitration and litigation.** [13] **We strongly oppose SEC rate-regulation that is designed to address problems that don't exist and in a marketplace that is healthy and hyper-competitive.**

1. The OTC Marketplace

Because of the Order Handling Rules and Regulation ATS, along with great technological advances, the OTC marketplace has became fiercely competitive and highly efficient. Today, the OTC market consists of four major liquidity pools connected by thousands of private linkages. [14] Not only can broker/dealers become members of any of these liquidity centers, but also hundreds of firms stand ready to provide direct access to any or all markets for a small fee. All major liquidity pools in the OTC market are fully-automated, meaning all participants receive equal execution treatment—members, non-members, and competitors. In addition, we believe all members pay roughly equivalent transaction fees. This structure enables all market participants—brokers, institutions, and even retail investors—to directly access any published quote at the touch of a button, regardless of whether they are direct members of the venue publishing the quote.

We favor a framework by which competitive proprietary inter-market linkages also can develop in the marketplace for Listed securities. [15] All market centers and linkages should comply with "most favored nation" provisions that mandate access to all markets on the same economic and technical terms – importantly, at *whatever* those terms may be.

2. SEC Rate-Regulation: Why?!

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[13] *See, e.g., Archipelago Securities, LLC v. Instinet Group Inc.*, Case No. 03-00064, before NASD, Inc.; *see also* NASD rule limiting non-member access fees in the Nasdaq marketplace to 3/10 cent per share.

[14] The four major OTC liquidity pools are: ArcaEx, Instinet, and Nasdaq SuperMontage (and Brut).

[15] The establishment of a vibrant and dynamic competitive marketplace will positively impact our nation's risk management, which was exposed by the events of September 11, 2001. Certainly, a competitive network of multiple competitive market centers linked by robust linkages would appear to assuage this risk and avoid any single point of failure. A system of linked competitors is identical to the Internet model, originally designed to provide redundancy and avert such a single point of failure. It was precisely this decentralized model that proved unconditionally successful as a means of communication on September 11.

Apart from this simple proposal, we are very concerned about the role of government in regulating the amount of any fees. In essence, by setting maximum access fees for non-subscribers and subscribers, government views would be substituting for those of markets.[16]

Among its chief arguments, the SEC cites the disparity between ECNs and market makers regarding the ability of each to charge for access to their quotes. First, that is an issue of non-subscriber access, not subscriber access. (So, why is the SEC recommending a cap on subscriber fees?) Currently, ECNs can charge fees for access to their quotes. That said, market makers in Nasdaq's SuperMontage get paid 2/10 cent per share when their quotes are accessed also.

Government ratemaking is best left as a last resort. Indeed, Congress recognized this many years ago when it abolished fixed commission rates for broker-dealers in connection with the 1975 amendments to the Exchange Act. Among the concerns expressed by one Subcommittee of Congress for the abolition of fixed commission rates was "the length of time the SEC took in arriving at its decisions regarding rate structure and level."[17] At around the same time, another House Committee studying the issue "concluded that fixed rates of commission were not in the public interest and should be replaced by competitively determined rates for transactions of all sizes."[18] We believe that the SEC has not put forth any convincing arguments that capping access fees (especially for subscriber access) is in the public or investor interest. The only interests it seems to serve are the special parochial interests of market makers.

Finally, before the SEC begins to set rates in the industry, it should be forewarned that engaging in utility ratemaking is a slippery slope. One of the justifications the SEC gives for setting prices for access to quotes is that it wants to ensure that investors have access to "true prices" for their transactions.[19] Applying that same principle to other activities in the securities industry, we would also expect the Commission to establish caps for such varied fees as retail brokerage commissions,[20] market maker spreads,[21] and investment banking fees.[22]

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[16] Further, we agree with other commentators who have suggested that it is not clear that the Commission has the authority to engage in rate setting in this area in light of the 1975 Amendments, which specifically eliminated fixed commissions.

[17] *See* Gordon v. New York Stock Exchange, et al., 422 U.S. 659, 678 (1975).

[18] *Id*.

[19] *See* Proposing Release at 11156.

[20] The average retail broker charges $25 per execution, or $0.006 per share (based on an average trade size of 200 shares and average stock price of $20), or six times the proposed market center fee cap.

[21] Market makers that do not execute customer orders at the NBBO mid-point – the true price – are charging an implicit fee of $0.015 per share (assuming the average spread is $0.03), or fifteen times the proposed market center fee cap.

[22] Average investment banking fees are approximately 7% of the total value of the offering. With an average offering worth $500 million, investors pay investment banks $1.40 per share to take a company public, or one thousand four hundred times the proposed market center fee cap.

C. Market Data Revenues and Allocation

The allocation formula in the Release is both too complex and introduces a steeply progressive tax on liquid stocks to subsidize illiquid stocks. No one can guess the effects of its complexity and of its new tax and subsidy structure. **A far better approach is to let the marketplace make its own judgments about market data economics, and the best mechanism for doing so is a competitive consolidator model. Absent a competitive consolidator model which lets the market decide what the data is worth, we believe revenues should be allocated based on the percentage of dollar volume traded by each market center – a flat model much like the allocation formulas in place today.**

Regulation NMS Market Data Allocation Formula

$$MDR_1 = \sum_{i=1}^{I} \left[\begin{array}{l} \left\{ \min\left(.5 \times MDR \times \frac{\sqrt{DV_i}}{\sum_{i=1}^{I} \sqrt{DV_i}},\ .2 \times QT_i \right) \times \left(.5 \times \frac{DV_{ij}}{\sum_{j=1}^{J} DV_{ij}} + .5 \times \frac{QT_{ij}}{\sum_{j=1}^{J} QT_{ij}} \right) \right\} \\ + \left\{ \left(.35 \times MDR \times \frac{\sqrt{DV_i}}{\sum_{i=1}^{I} \sqrt{DV_i}} + \max\left[.5 \times MDR \times \frac{\sqrt{DV_i}}{\sum_{i=1}^{I} \sqrt{DV_i}} - .2 \times QT_i,\ 0 \right] \right) \times \frac{\sum_{n=1}^{N} QSec_{nj} \times QSize_{nj}}{\sum_{j=1}^{J} \sum_{n=1}^{N} QSec_{nj} \times QSize_{nj}} \right\} \\ + \left\{ .15 \times MDR \times \frac{\sqrt{DV_i}}{\sum_{i=1}^{I} \sqrt{DV_i}} \times \frac{\sum_{m=1}^{M} (QQ5sec_{mj} \times QQsize_{mj}) + \sum_{p=1}^{P} QQTsize_{pj}}{\sum_{j=1}^{J} \left[\sum_{m=1}^{M} (QQ5sec_{mj} \times QQsize_{mj}) + \sum_{p=1}^{P} QQTsize_{pj} \right]} \right\} \end{array} \right]$$

"Mathematics has given economics rigor, but alas, also mortis."
Robert Heilbroner, Norman Thomas Professor of Economics, Emeritus, at the New School for Social Research.

Today, market data revenue is allocated based on trade counts for Tape A and B, and on a combination of trade counts and share counts for Tape C. Because trading produces the product, allocating revenue based strictly on trade activity apportions the revenue to whoever produced it, one-for-one. This acts like a flat, cost-based plan. The allocation formula in the Release, on the other hand, allocates revenue based on several of the SEC's subjective judgments about quoting, the relative volatility of the particular security being quoted, and the "information content" of trades and quotes. These judgments say that though trade activity correlates with the economic value of market data, it correlates imperfectly. Because it correlates imperfectly, "value" has to be interpreted and transformed by the federal government.

The SEC's interpretation is that the increasing frequency of a quote or trade in a particular stock reduces the information content of an incremental quote or trade. No one knows whether this is true at all, or in every circumstance, with every stock. And no one knows whether the economic value of an incremental quote or tick also declines, as the Regulation

asserts without evidence. No one knows whether its economic value declines following the slope of a square root function, no one knows that it does so for all participants, and no one knows that the revenue from that tick should be redistributed to subsidize other ticks, as the Regulation proposes. We do know that if a tick is rare, not many people trade the stock, and so it's reasonable to conclude that not many people are interested in the stock. We also know that if a tick is common, lots of people trade the stock and lots of people are interested in it. By definition, ticks and quotes are created dynamically as a function of the aggregate investor interest in a stock. When a stock's tick and quote frequency increases, it is direct evidence of the increased interest in, and presumably the increased economic value of, its incremental ticks and quotes, even as the information content of each of those incremental ticks and quotes may decline for some investors. Because the Release's formula is based on completely contrary assumptions, we believe the SEC should reject it.

1. Not All Quotes are (Born) Equal

The Release also proposes using quotes in market data revenue allocations. Before this is implemented, however, several questions need further consideration and research. The most important question is how paying for top-of-book quotes – on a time- and size-weighted basis or on any other basis – encourages beneficial behavior. Quoting behavior won't change unless participants extract some kind of additional value from their quotes, most obviously through market data rebates. If participants do not get additional value from their quotes, participants will not do anything new. If participants do get quoting rebates, participants have incentives to game the formula, just as they do today. The gaming continues, just by a different name.

A second issue that arises from the use of quotes to allocate data revenue is the appropriate value of different types of quotes. All quotes are not equal. Quotes from intermediaries like specialists are not equal to non-intermediated quotes. Manual or semi-automated quotes are not equal to automated market center quotes. Quotes also generally cost nothing to post, and if a quote is not immediately accessible and firm, there is a low risk of an adverse trade. Lower-risk quotes in illiquid stocks will be manipulated to extract their market data revenue, especially since the revenue allocation to these stocks increases dramatically under the Regulation because of its tax and subsidy structure. Because of these inequalities, different quotes should have different values. Whether factors like these increase or decrease the value of a quote relative to other quotes, and by how much, is an open question. This question needs further study before a quoting component is used to allocate tape revenue.

As important, the quoting component in the Commission's proposed reallocation is incomplete because it is based only on the best quote. Top-of-book quotes make a partial contribution to price discovery. Market centers publishing their entire books contribute more to price discovery than best quotes, particularly in a decimal world. For this reason, they should receive the lion's share of any consolidated market data revenue allocated to price discovery. As we point out in the Nokia example in our comments on trade-through reform (above), top-of-book in a decimal world is not nearly "price discovery."

2. Alternative Approach – Competing Consolidators

We agree with the SEC that current market data revenue plans (OTC-UTP, CTA/CQ) need reform. Most of the problems that the Release seeks to address are caused by the plan cartels themselves, which distort pricing and delay innovation. Although many in the industry have asked the SEC to help break up the log-jams that the plans create, the Release does not directly address the failure of the plans to resolve these issues. In our view, the best way to reform the plans is to abolish them altogether and adopt a competing consolidator model. Under this new model, the market, not the cartels, will determine the value of the information provided and the appropriate cost for that data.

In the absence of market-driven reform, market data revenue should be allocated based on the percentage of dollar volume traded by each market center. If that is not acceptable, we would ask that the current allocation formulas be left in place, but that the SEC, above all else, reject the formula proposed in the Release.

D. Sub-Penny Quoting

We agree with the Commission's proposal to prohibit sub-penny quoting. While we continue to be a supporter of market-based initiatives, we believe that standards are appropriate, as long as any standard is applicable to everyone and that exceptions granted to the standard are not made in a manner that advantages one market structure over another. Currently, SROs are held to common standards of minimum quoting increments, while other market centers are not.

In most securities, the global demand by investors for trading in increments less than a penny does not exist. The study by the Commission's staff cited in the Release [23] suggests that some users are engaging in a pattern of quoting in finer increments merely to step ahead of larger previously displayed interests without taking any real economic risk. This should not be confused with demand by investors for sub-penny trading in most securities. On the other hand, there is real demand for sub-penny trading (and therefore sub-penny quoting) in securities trading below $1.00, due to the low trading value of the security. We therefore support the Commission's proposed exception from the sub-penny quoting prohibition for National Market System securities with a share price below $1.00. Should actual investor demand for sub-penny trading (and therefore quoting) develop in the future at different price levels or for specific instruments (such as ETFs), this exception should be reassessed.

It is important that all market participants, including broker-dealers, institutions, individuals and market makers/specialists follow the same market-wide standard for trading increments.

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[23] *See* Proposing Release at 11169.

We thank the SEC for providing us this opportunity to comment on Regulation NMS. If you have any questions concerning our views on Regulation NMS, please contact me at 312-442-7146. We look forward to continuing to work with the SEC on these important investor and market structure issues.

Very truly yours,

Kevin J. P. O'Hara
Chief Administrative Officer &
General Counsel

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