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MARKET DATA: IMPLICATIONS TO INVESTORS

HEARING

BEFORE THE

SUBCOMMITTEE ON
CAPITAL MARKETS, INSURANCE, AND
GOVERNMENT SPONSORED ENTERPRISES

OF THE

COMMITTEE ON
FINANCIAL SERVICES

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CONTENTS

	Page
Hearing held on:	
July 26, 2001	1
Appendix:	
July 26, 2001	45

WITNESSES

THURSDAY, JULY 26, 2001

Bernard, Richard P., Executive Vice President and General Counsel, New York Stock Exchange, Inc.	11
Callcott, Hardy, Senior Vice President and General Counsel, Charles Schwab & Co., Inc.	4
Ketchum, Richard G., President, The Nasdaq Stock Market	12
Lackritz, Marc E., President, Securities Industry Association	8
Smith, Cameron, General Counsel, The Island ECN	7

APPENDIX

Prepared statements:	
Baker, Hon. Richard H.	46
Oxley, Hon. Michael G.	48
Kanjorski, Hon. Paul E.	49
Bernard, Richard P.	73
Callcott, Hardy	50
Ketchum, Richard G.	82
Lackritz, Marc E.	68
Smith, Cameron	58

MARKET DATA: IMPLICATIONS TO INVESTORS

THURSDAY, JULY 26, 2001,

U.S. HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE,
AND GOVERNMENT SPONSORED ENTERPRISES,
COMMITTEE ON FINANCIAL SERVICES,
Washington, DC.

The subcommittee met, pursuant to call, at 2 p.m., in room 2128, Rayburn House Office Building, Hon. Richard H. Baker, [chairman of the subcommittee], presiding.

Present: Chairman Baker; Representatives Shays, Oxley, Biggert, Miller, Kanjorski, Ackerman, Bentsen, Sandlin, Sherman, Inslee, Moore, Crowley, and Israel.

Chairman BAKER. I would like to call this hearing of the Capital Markets Subcommittee to order. I am informed that Mr. Kanjorski is on his way and will be here momentarily for his own opening statement.

Today, the Congress faces the challenge of reviewing the national market system to determine how securities laws may be amended not only to reflect today's technology, but also be flexible enough to adapt to the changing market condition.

This is our second hearing on market data, the stock price information that is basically the lifeblood of our capital markets. In a sense, we are beginning to weigh in on very difficult questions, but one with very important implications. What is the metaphysical status of market data? Where does it reside? Who owns it? How can the system be improved so that all investors have equal access?

The 1975 amendments to the 1934 Act reflect the need for a system that would provide consolidated quotes so investors could easily match lowest offers with highest bids. While the plans established as a result of the amendments have provided a valuable function, they do not operate, in my view, in a truly competitive environment. Moreover, recent technological advances and explosion of the internet usage were not and could not have been contemplated in 1975.

In March we focused on how market data is collected, consolidated and distributed. We examined whether the fees collected by the exchanges from users, investors, are being used solely to fund the Government-mandated consolidating functions, or whether fees were subsidizing other activities.

Today, we will discuss whether there should be additional legislation to explicitly establish a proprietary right over the market database or to give special protection to the operators of the databases through new private causes of action.

The plans claim they already have a property right in the data because they build and maintain the system and add value to the information. Others, including the electronic communications networks and online trading systems, argue that the quotes from their customers are what give the databases their value. These same market participants claim that opening the market data system to a competitive environment would allow them to provide investors with better quality and depth of information and perhaps even at lower cost.

In a time when we are considering the entire national market system, we are faced with the question of whether Congress should act to give further legal protections to the exchanges over market data. Today, we will examine whether there is a need for such legislation and whether or not the cost and dissemination of market data to investors and other participants is adequately served. More importantly, we will ask whether legislation on this issue is appropriate when there is such a broad array of concerns with the underlying national market system itself.

I would note, beyond the prepared statement, that in reading all of the testimony last evening, there is a clear bifurcation in opinion. From one perspective it is our data, and we not only want to preserve and protect it, but we want an additional right of civil action against those who use it inappropriately. From the other perspective it is not yours, it belongs to me, and you should give it to me for very little cost and perhaps create an environment in which the generation of that data itself is put in jeopardy.

So this is no easy question to resolve. Clearly there is a need for modification. The question is the appropriateness of those modifications and whether we bring about any disruptive consequences of suggesting those alterations.

[The prepared statement of Hon. Richard H. Baker can be found on page 46 in the appendix.]

With that, Mr. Bentsen, do you have an opening statement?

Mr. Israel, do you have an opening statement?

Mr. Israel.

Mr. ISRAEL. Thank you, Mr. Chairman. I am pleased to be here, and thank you for convening this hearing, and I would like to welcome the witnesses.

Mr. Chairman, as you know, the securities markets have been producing market data for two centuries. In my home State of New York, the New York Stock Exchange provides an essential liquidity source for the collection of information of millions of orders every day and creates valuable, reliable and accurate market data that is relied upon by investors worldwide. The markets invest billions of dollars in state-of-the-art technology to ensure that the public receives real-time data on demand, and no one has to worry that that data is not truthful or that its integrity has been compromised.

Now, some would suggest that the New York Stock Exchange and the other security markets do nothing more than collect orders and charge others to receive the data. I strongly disagree. I visited with the New York Stock Exchange, I have seen their technology, and I am convinced that the New York Stock Exchange provides an efficient forum for price discovery that produces accurate and valuable market information that is unparalleled worldwide.

It does concern me that as we move to a greater reliance on the internet, enterprising hackers could make unauthorized uses of market data and hurt investor confidence in market information. So we have to ensure that any legislation that this subcommittee chooses to consider protects the authorized use of data and provides a uniform Federal standard. Efforts that would deter those who would pirate market data and attempt to damage the integrity of the greatest capital markets in the world would be a welcome tool.

I thank you, Mr. Chairman, for holding this hearing. I look forward to the testimony of our witnesses, and I yield back.

Chairman BAKER. Thank you, Mr. Israel.

Mr. Kanjorski.

Mr. KANJORSKI. Thank you, Mr. Chairman. And thank you for the opportunity to comment on market data issues, and particularly the implication to investors and for market transparency of granting ownership rights over stock quotes, before we hear our witnesses today.

We last discussed this issue of market data at a hearing in March. At that time, I noted that the securities industry presently faces few issues as important or as complex as those surrounding the ownership and distribution of market data. In short, the wide distribution of market data remains a fundamental component of our Nation's securities markets.

A regulatory framework that promotes the transparency of market data, especially the real-time, public dissemination of trade and quote information, helps to make certain that all market participants have access to prices across our national market system. This access, in turn, helps to provide an efficient price discovery and the best execution of customers' orders.

In our current system for distributing market data, millions of investors worldwide have easy access to market data. The world, however, has changed substantially since Congress enacted a law governing market data in 1975, and we are therefore reexamining these issues to determine whether we need to refine our approach on such matters. For example, the Securities and Exchange Commission (SEC) has recently begun to examine these difficult issues and other related and complicated questions through its Advisory Committee on Market Data.

As you may also recall, at the end of our last hearing, Mr. Chairman, you and I wrote to the SEC inquiring about the activities of its Advisory Committee on Market Data issues. In her response, SEC Acting Chairman Unger noted that she expects the Advisory Committee to issue its report no later than September 15. She also expects this report to be quite helpful, not only to the Commission, but to others interested in reviewing market data issues. Although it is appropriate for us to begin to educate the Members of our subcommittee about this complex issue, I would hope that our subcommittee would wait to pursue any further action on market data issues until we hear and fully digest the recommendations of the Advisory Committee.

In closing, Mr. Chairman, I want each of our witnesses to know that I continue to approach the issue of market data with an open mind. The comments of our panelists about securities database

issues and market data ownership rights will therefore help me to discern how we can maintain the efficiency, effectiveness and competitiveness of our Nation's capital markets in the future.

I yield back.

[The prepared statement of Hon. Paul Kanjorski can be found on page 49 in the appendix.]

Chairman BAKER. Thank you, Mr. Kanjorski.

Mr. Shays, would you have an opening comment?

Mr. SHAYS. Thank you, Mr. Chairman.

For disclosure, since Nasdaq is in my district, I disclose that it is in Trumbull, Connecticut, but I intend to have an open mind, but be very slanted toward Nasdaq.

Chairman BAKER. As your historic conduct has indicated. Thank you, Mr. Shays.

Any other Member have an opening statement? If not, at this time I would like to proceed to introduce our first witness, pleased to have you here, the Senior Vice President and General Counsel of Charles Schwab, Mr. Hardy Callcott. Welcome.

Mr. CALLCOTT. Good afternoon.

Chairman BAKER. And I am sorry for interrupting already. Everyone's full testimony will be made part of the official record. Please feel free to summarize as appropriate, Mr. Callcott, and you will need to pull those mikes pretty close. They are not as sensitive as you might think.

STATEMENT OF HARDY CALLCOTT, SENIOR VICE PRESIDENT AND GENERAL COUNSEL, CHARLES SCHWAB AND COMPANY

Mr. CALLCOTT. Thank you. Thank you, Chairman Baker, Ranking Member Kanjorski and Members of the subcommittee. My name is Hardy Callcott, and, as you say, I am senior vice president and general counsel of Charles Schwab and Company. Schwab offers a full range of financial services to our more than 7.7 million active customer accounts, helping our customers manage more than $850 billion in assets. Thank you for inviting me to testify this afternoon.

As many of you are aware, Schwab has at been at the forefront of the debate on market data for several years. In 1999, our rulemaking petition to the SEC was a catalyst that helped bring this issue to the forefront. We have participated in the SEC's Advisory Committee on Market Data, which the SEC formed last year after its 1999 concept release on market data, which was, in turn, a response to our rulemaking petition.

We asked the SEC to review the market data system for one major reason. Our clients and millions of individual investors that make the U.S. capital markets the most vibrant in the world want and deserve a system that uses cutting-edge technology to provide the robust, innovative market data essential to success in today's volatile markets.

Over the past 2 years, we have come to recognize that market data reform for the 21st century is absolutely essential for our markets, and that reform must be based on three basic principles: deregulation, competition and equal access. Today, individual investors are disadvantaged in several ways by the current Government-granted monopoly in market data.

First, the high cost of market data prevents brokerages like Schwab from offering its customers the best possible product. It is technologically feasible for Schwab to provide real-time streaming quotes to all of our online customers so that, just like institutional investors, they can watch the markets as they move. But providing all currently-available streaming data to our customers who have electronic access would cost in the neighborhood of $157 million a year, some nine times what we currently pay for market data. As a result, we can't afford to offer streaming quotes to most of our client base. With rapidly changing quotes in today's market, static market data places individual investors at a disadvantage compared to other market participants.

Second, the introduction of decimal pricing in our markets is making the monopoly quotes irrelevant for all investors. Decimals have lowered the bid-ask spread for stock, saving billions of dollars for investors. The decimals have also decreased the depth of quotations, the amount of stock available for purchase that the inside bid or ask, by some 60 to 80 percent. As a result, the basic market data provided by the markets, the inside bid and ask, no longer provides investors with enough information to make informed trading decisions.

No market currently provides a retail depth-of-book quote product. Nasdaq does provide a Level 2 quote product for an additional fee, which provides the best quote offered by each market-maker in a given security, but even Level 2 is not a true depth-of-book product, and the Consolidated Tape Association, (CTA), which processes quotes for exchange-traded stocks, has no product even equivalent to Nasdaq Level 2. As is always true when the Government grants a monopoly, product innovation and technological development is stifled.

Further, because of the increasing cost and decreasing relevance of the monopoly quotes, internet portals such as Yahoo now provide real-time quotes from ECNs in preference to the quotes produced by the markets. Brokerages like Schwab are legally precluded from providing these alternative quotes to clients without also having to display the market data provided by the self regulatory organizations.

With that context, let me briefly address two important issues today. First is our view of what not to do, and that relates to the database protection legislation that has been proposed in the last three Congresses. The second is our suggestion of what Congress can do to make a market data system that best addresses the needs of all investors.

For the past several years, the SROs have advocated database protection legislation that would grant them a property right over market data. But market information is a set of facts: bid prices, ask prices, limit order prices, last sale prices. No one can own facts. The Supreme Court's unanimous 1991 decision in *Feist Publications* v. *Rural Telephone Service Company* held that facts, in that case telephone numbers, cannot be owned, and we see no reason why this set of facts should be any different. In the several years that the markets have sought a property right in market data, they have not been able to point to any real-world abuses which would justify such a lucrative windfall.

Moreover, it is investors and brokerages who create these facts, not the securities markets. Brokerages are required by law to provide these facts to the SROs without any compensation. Brokerages are then required by law to buy this information back from these Government-created monopolies and provide it to our clients.

Schwab is not advocating that brokerages be given property rights in market data, but if we are legally required to provide the information free of charge and then are legally required to purchase it back from the markets, in our view it would be grossly inequitable to grant those markets property rights in that information in preference to us. Moreover, such a property right would be counter to Congress' laudable goal of ensuring ready public availability of the information.

Let me now turn to the principles Schwab believes should form the core of a reform plan. The solution is not to require more regulation of what should be displayed and how. Rather, it is to deregulate market data systems so that multiple vendors can compete to provide the most innovative and cost-effective market data products. To promote competition, legislation should require the SROs to make available the same raw data that brokerages and clients are required to report to them. The SROs would then be required to offer all of that data on the same terms to everyone; not just inside quotes, but also depth-of-book information. This would enable brokerages and market data vendors to disseminate real-time market data independently in ways that best respond to investor needs.

Second, all aspects of the market data system must have greater transparency.

Third, under our proposal, regulatory oversight would be limited to ensuring fair and nondiscriminatory access requirements are enforced so that no one is penalized because of how they use or distribute market data.

Finally, database protection legislation should not give the securities markets a property right over market data in preference to brokerages who create the information.

Thank you very much for the opportunity to testify this afternoon, and I look forward to answering your questions.

[The prepared statement of Hardy Callcott can be found on page 50 in the appendix.]

Chairman BAKER. Thank you very much, Mr. Callcott.

Before I recognize our next witness, we have been joined by the Chairman of the full committee, Congressman Oxley. I would like to recognize him at this time if he has an opening statement.

Mr. OXLEY. Thank you, Mr. Chairman, and I will submit my full opening statement for the record, but simply to welcome our witnesses on a series of hearings on market data. And as the last hearing pointed out, clearly there is a crying need for reform and modernization through the structure governing market data dissemination, but obviously a lot of different views on how we should do that. Ultimately our subcommittee will be working on making certain that whatever ultimately the outcome is, it is based on transparency and giving the average investor and the market players adequate information that they can use and at a reasonable cost.

And so I want to commend you, Mr. Chairman, for what you have been able to accomplish in setting up an excellent panel that will focus in on all sides of this very difficult issue, but one that we simply have to address, and obviously the sooner, the better.

And with that, let me yield back, and I look forward to the rest of the testimony.

[The prepared statement of Hon. Michael Oxley can be found on page 48 in the appendix.]

Chairman BAKER. Thank you, Mr. Chairman, and as always I certainly appreciate your interest in these issues and participation in the subcommittee's work.

Our next witness is the General Counsel for The Island ECN, Mr. Cameron Smith. Welcome, Mr. Smith.

STATEMENT OF CAMERON SMITH, GENERAL COUNSEL, THE ISLAND ECN

Mr. SMITH. Good afternoon, Mr. Chairman, Members of the subcommittee. I commend the Chairman and the Members of the subcommittee for holding these hearings concerning the integral part of our securities markets, market data.

Island has played a leading role in providing investors with unprecedented access to market information through the Island Book Viewer, a free real-time view of all open buy and sell orders on Island. It is available to all investors on our website. For this reason Island greatly appreciates the opportunity to share its views on market data.

In brief, it would be a mistake to grant exclusive proprietary ownership rights in market data before reviewing the outdated policies that create regulatory monopolies for the producers of market data. Therefore, we should embrace those reforms that promote competition and innovation.

I am Cameron Smith. I am the general counsel of Island ECN. Island is an automated trading system for equities securities. We function as a pure auction market directly matching buy and sell orders. Island is a network of approximately 700 broker-dealers represent ing a diverse array of market participants.

On an average day, Island will trade over 320 million shares, approximately 16 percent of Nasdaq's transaction volume. Through June of this year, Island has traded over 44 billion shares worth almost $1.5 trillion.

Since Island introduced the Book Viewer in 1998, hundreds of thousands of investors have visited the Island website to get the latest market information. In light of the popularity of the Island Book Viewer, the New York Stock Exchange has recently announced OpenBook, and Nasdaq plans to introduce the Super-Montage. Both initiatives are designed to provide investors and market participants with a broader and deeper level of market data.

It was the very success of Island's Book Viewer and its competitive effect on the market that drove the subsequent market reforms. Consequently, we risk undermining the very process of competition and innovation if each market were granted an exclusive proprietary right in its market data.

Let's briefly review the extensive regulations currently governing market data. By regulation, all broker-dealers are required to be-

come members of self-regulatory organizations such as the National Association of Securities Dealers or the New York Stock Exchange. By regulation self-regulatory organization members are required to report transactions exclusively to the applicable SRO. By regulation this information is required to be consolidated. And by regulation, any party disseminating market data must only disseminate consolidated market data from every SRO.

As you can see, there are no competitive free market forces at work with respect to market data. The price is determined by SROs, subject to SEC approval. The SEC, therefore, is entrusted with a difficult task of regulating market data fees.

One of the key regulatory requirements underpinning the current regulatory monopoly enjoyed by SROs is what is known as the vendor display rule. The decision as to whether to abrogate the vendor display rule is the key decision in creating a truly competitive market for data. In its simplest terms, the vendor display rule requires every vendor market participant to disseminate only consolidated quotation information. Thus, the issues related to market data rates that Charles Schwab, among others, has long raised all emanate from the existence of the vendor display rule. Ultimately the decision concerning whether to continue the vendor display rule should only be made after careful consideration of the cost and benefits.

Let me briefly identify three of the clear costs to the rule. First, the current regulatory structure confers monopoly power on the SROs that could only be checked by Government regulation.

Second, a vendor display rule subsidizes smaller markets, thus distorting competition between markets.

And third, the vendor display rule harms innovation by either directly prohibiting new data services or making such new data services cost-prohibitive to provide to investors.

In conclusion, Mr. Chairman, given the comprehensive regulatory structure already governing market data, it is not an appropriate time to create additional proprietary rights in market data. Instead, we must first reexamine the current regulatory structure, particularly the vendor display rule.

I look forward to working with you and your colleagues in introducing competition and innovation to market data and thereby strengthening our Nation's equity markets. Thank you.

[The prepared statement of Cameron Smith can be found on page 58 in the appendix.]

Chairman BAKER. Thank you, Mr. Smith.

Our next witness is no stranger to the subcommittee, President of the Securities Industry Association, Mr. Marc Lackritz. Welcome, Mr. Lackritz.

STATEMENT OF MARC E. LACKRITZ, PRESIDENT, SECURITIES INDUSTRY ASSOCIATION

Mr. LACKRITZ. Thank you, Mr. Chairman. It is a pleasure to be here, Chairman Oxley, Chairman Baker, Mr. Kanjorski and distinguished Members of the subcommittee. The Securities Industry Association, (SIA), appreciates the opportunity to testify today on the implication of granting ownership rights in stock market information.

SIA member-firms, regulators, legislators and other market participants have been reconsidering the current system of providing securities market data now for several years. We have examined the appropriate avenues to collect and consolidate the information, the fees charged for this information, and the role of revenue derived from those fees. The issue is complex, and the impact on market structure will be quite significant.

As the database industry in the United States continues to grow, efforts are now underway to grant new protections to those who collect and compile information, including securities information processors. We believe that legislation that would create new property rights in stock market information would seriously undermine the current effort to reform the process of consolidating and disseminating stock market information. Moreover, it would be contrary to the goals that Congress set forth in the Securities Act amendments of 1975. We believe that adequate protections currently exist to address information theft, and to legislate in this area would disrupt the regulatory and contractual regimes that make real-time market information so widely available today.

Securities markets are synonymous with information. Market information, that is the quotes at which people are willing to buy and sell stock and the price of the last sale of the stock, is truly the lifeblood of the market. The widespread availability of this information, also known as transparency, ensures that buyers of securities do not pay more than the lowest price at which someone is willing to sell, or sellers do not sell for less than the highest price at which someone is willing to buy.

Transparency of market information has also given individual investors unparalleled access to much of the same information that previously was available only to market professionals. Unrestricted easy access to this information is what has made the U.S. capital markets the envy of the world. Our markets are deep, liquid and fair. Transparency is one of the reasons.

The advent of the information age has raised concerns about database piracy and the need to protect those who compile information in online databases. Copyright law will generally prevent the wholesale copying of an entire database as long as there is at least a minimal amount of original expression, but it does not protect the extraction and reuse of individual facts.

Securities market information, that is, the best bid and offer and last sale reports, is no more than a collection of facts derived from various market participants. Database publishers, including securities information processors, also rely on contracts, common law and technological measures to prevent the misappropriation and misuse of data that the publishers compile.

Such measures have always been sufficient, at least until recent actions in Europe created the possibility of powerful new rights for database publishers. We must be careful not to let international initiatives trigger the dismantling of a system that has grown up over the last 30 years in the U.S. securities industry. Any legislation that would create an intellectual property right in securities market data would have huge implications on the system for collecting and disseminating market information that Congress so carefully devised in the 1975 Act amendments.

In addition, conferring new property rights could impede the flow of real-time market information, because as single-source monopolies, the markets could charge excessive fees and restrict the downstream use of that information. Because they are SROs subject to SEC oversight, this may not seem problematic at this point in time, but these markets may soon be operating as for-profit enterprises that will be obligated to shareholders to maximize their earnings.

Under SEC rules broker-dealers are required to submit last sale and best bid and offer information to the markets securities information processors. Vendors in turn receive and distribute market information from the processor pursuant to various contract and licensing arrangements. Although it is important to protect the markets' joint investment in data technology and infrastructure against persons who would take market information without paying for it, we do not believe that markets are without protection under the current structure.

Our industry strongly supports broad dissemination of stock market information. Granting new property rights in market information through database protection legislation, no matter how well-intentioned, will vest control of market information into the hands of single-source monopolies in the securities industry, and that would be the antithesis of broad access to market information that Congress intended in enacting the 1975 Act amendments.

With new proprietary rights in the information, the only constraints on pricing would be the statutory standard that requires fees to be fair, reasonable and not discriminatory. What is considered fair and reasonable by an exchange might be very different than what is considered fair and reasonable by a market participant that conducts business off of the exchange. If costs should prove to be excessive, the result is likely to be less information available to investors. Legislation that would restrict such downstream use of market information would cripple this industry and impede, rather than enhance, investors' access to information.

Bids, offers and last sale prices are nothing more than facts generated by investors. Alone they have no value, but when they are consolidated into a single stream of information, they tell investors what the market for a particular security is at a given point in time. The value of this information is unquestioned. It generates hundreds of millions of dollars each year.

Today, a combination of regulation, copyright, contract and common law ensures that information is widely accessible to all investors, and that compilers of information are adequately compensated for their efforts. New property rights will unnecessarily upset this careful balance.

Thank you, Mr. Chairman.

[The prepared statement of Marc E. Lackritz can be found on page 68 in the appendix.]

Chairman BAKER. Thank you, Mr. Lackritz.

Our next witness is the Executive Vice President and General Counsel for the New York Stock Exchange (NYSE), Mr. Richard Bernard. Welcome, Mr. Bernard.

STATEMENT OF RICHARD P. BERNARD, EXECUTIVE VICE PRESIDENT AND GENERAL COUNSEL, NEW YORK STOCK EXCHANGE

Mr. BERNARD. Thank you, Chairman Baker and Mr. Kanjorski and Members of the subcommittee. I am glad to be here on behalf of our Chairman Dick Grasso and have the opportunity to testify about protecting market data, and it is with particular pleasure I note that this is our 134th year of electronically disseminating market data, the ticker having been invented and used since 1867. It is the 26th year since your predecessors gave jurisdiction over these matters to the SEC, and as a personal note, it is 22 years since I wrote my first memo on proprietary rights in market data. So this is a special opportunity for me.

To the extent I have time, I will touch on three themes briefly. First, contrary to what some of my colleagues have suggested, we don't merely collect data, we create it.

Second, the law, as Marc has indicated, already recognizes proprietary rights, not only the common law such as State misappropriation law, but also the 1934 Act itself.

And thirdly, lest we forget, those same members of Mr. Lackritz's group are also members of the New York Stock Exchange, and they, through our board of directors, are the ones who decide how much market data fees ought to be and what percentage of our costs ought to be covered by market data fees. And so the very structure of the New York Stock Exchange is where the subcommittee should be looking to satisfy itself that what is being done with market data fees is fair and reasonable and fairly allocates our costs.

We exist to provide market data. We provide a mechanism to discover prices, and to echo a point that Congressman Israel made in his opening remarks, the orders that come from investors and the proprietary trading interests of broker-dealers, these are the inputs to our process, but the output is the trade and the last sale price, and that is what happens at the New York Stock Exchange. That is why I characterize what we do as creating data and not simply collecting data.

Second, in this regard I want to point out that current law, as I mentioned, protects the stock exchange, as Marc has mentioned. You can look to copyright law. You can look to the State common law on misappropriation. You can look to contract law, and you look to Section 11A itself, which very explicitly recognizes that the exchanges have the rights, or, I should say, confirms, since we have been doing it for some 100 years before Congress got around to speaking on the topic, but confirms a right that had been recognized by the Supreme Court of the exchanges to use market data as a way of fairly allocating their costs among their members.

Mr. Chairman, you will recall from last March's hearing that many people tried to take the matters that Mr. Kanjorski mentioned of the Seligman Committee and keep trying to boil it down to a matter of who owns the data. We think that this debate is somewhat misplaced, and it is not just because the Supreme Court settled these matters a century ago, but it is because the real issue is if you are going to change the system, you have to think about how you do it in a way that is revenue-neutral to the stock ex-

change and the other markets and doesn't create winners and losers among the broker-dealers and others who bear the market data fees. And for all the rhetoric that has accompanied this topic, both here, in previous hearings, and the hearings that your predecessor subcommittees, and before the Seligman Committee and at the SEC, no one has come forward with a better answer to the questions that the exchanges face as we try to fairly allocate our costs for creating this market data in the first place.

Let me close by simply reminding the subcommittee that we support legislation that will Federalize and codify the existing common law around misappropriation, although we are not a prime mover for it and were not part of the original discussions in the 104th Congress. But we think it will be a useful thing, in particular in reference to the *Feist* case, but more importantly, if a Federal law made clear the rights beyond what the statute does today, of the exchange to use market data as we do, then it would be simply confirming the process of our constituents, our listed companies, our broker-dealers and those who represent the public in using market data fees as one of the tools which they have to equally allocate the costs of creating this extraordinary database.

Thank you very much.

[The prepared statement of Richard P. Bernard can be found on page 73 in the appendix.]

Chairman BAKER. Thank you, Mr. Bernard.

Our final witness is the President of the Nasdaq stock market, welcome to you, Mr. Richard Ketchum.

STATEMENT OF RICHARD G. KETCHUM, PRESIDENT, THE NASDAQ STOCK MARKET

Mr. KETCHUM. Thank you. Mr. Chairman, Members of the subcommittee, I am Richard Ketchum, President of the Nasdaq stock market. I want to first commend you on holding this hearing on extremely timely issues, and I welcome very much the opportunity to continue our dialogue with this subcommittee on market data issues.

Under the thoughtful leadership of Congress and the SEC, the U.S. capital markets are the envy of the world. In particular it is under this leadership that markets like Nasdaq have been able to provide American investors with wide access to the highest quality, most current and lowest-cost market data of any major nation.

Initially, I would like to address the questions you raised in your letter of invitation. Within that context, though, I don't want there to be any misunderstanding. I strongly agree with what Mr. Lackritz said that in effect and in large part the environment today works well with respect to the regulation of market information data. As I indicated, that data is widely available; available not only to market participants, but public investors as well at costs substantially lower than available in the rest of the world. In addition, our rights to that data and other markets' rights to that data are properly protected, and we are quite comfortable with those protections that exist today.

And finally, and somewhat contrary to what may have been at least implicitly suggested before, entities that are not markets are not restricted from making available their order information, as

long as they do so consistent with SEC rules and requirements that look to both encouraging competition among markets and look to ensuring that investors have knowledge of what the best prices in the markets are.

Within that context and within the recognition that indeed the environment today does work well as the internet expansion continues and other communication modes develop, some additional legislation to protect databases may be necessary. We believe that a database of market data, like any other valuable database, would benefit from greater protection mechanisms. The value of that market data is in its integrity. When unauthorized parties can misappropriate it and perhaps change it, that integrity is jeopardized to the detriment of investors here and worldwide, and for that reason we would be pleased to continue to work with the subcommittee as we have in the past in your efforts to evaluate possible legislative action.

In this regard I would like to highlight several reasons why Nasdaq, as with any exchange or self-regulatory organization, has a right, first, to protect its market data and, second, to be able to establish prices for its market data consistent with basic free market principles.

First, Nasdaq's market data is created within our marketplace and is shaped by our regulatory framework and internal quality controls. It is in this way that Nasdaq adds layer on layer of value to our market data. In particular Nasdaq has created a market structure designed to promote liquidity and transparency. Our market is supported by quality market participants, such as on the panel today, that are subject to stringent marketplace rules. We have also developed and maintained sophisticated automated market surveillance tools to monitor trading and issuer activity.

The investments made by Nasdaq in our market, regulatory and technological infrastructure facilitate universal access to quality market data that investors can trust.

Second, under the contracts we have established with our market data subscribers, investors enjoy broad access to our quality market data at fair and reasonable prices. In 1975, Congress made certain that our national market system must be premised on investors having access to consolidated market data. Nasdaq has long recognized the importance of market data to investors' decision-making process and has sought to disseminate our market data to the broadest population of industry professionals and investors.

In fact, Nasdaq's market data today is distributed to over 550,000 industry professionals and millions of investors, and investors have enjoyed a 75 percent decrease in our market data fees over the past 2 years. In fact, a full month of Nasdaq market data costs only $1, less than a single ATM transaction.

Third, our Nation's markets operate in a highly competitive environment which acts as a natural regulator of market data fees. Exchanges and other self-regulatory organizations vigorously compete for issuers' listings, market participants and trading volume, which culminates in the ultimate value of particular markets' quote and trade data.

Fourth, in this competitive environment Nasdaq understands the need to protect the flow of its market data to contracted parties.

However, the risk of unauthorized use of our market data by others is an issue that requires some attention. If markets like Nasdaq are to continue to seek innovative ways to ensure unparalleled market integrity through greater market transparency of high-quality data to investors, our ability to limit the flow of this valuable market data to parties who have contracted for its use must be apparent and expansive relative to existing rights.

In summary, it is important to ensure that the core policy goals established by Congress in 1975, including broad public access to consolidated market data, the maintenance of stable and orderly markets, and the ability to promote competition, are preserved and encouraged to the greatest extent possible. Our legislative and regulatory framework, such as exists today, that encourages competition and innovation among markets will result in a continued development of quality market data that investors can trust.

Nasdaq stands ready to assist the subcommittee as it continues to consider this very important issue, and I thank you again for allowing me to participate in this hearing.

[The prepared statement of Richard G. Ketchum can be found on page 82 in the appendix.]

Chairman BAKER. Thank you, Mr. Ketchum.

I do very much appreciate all the witnesses' participation here today, and your openness to discussion of this topic, which is a very difficult one.

Mr. Bernard, in your written statement, you make reference on page 7 to the importance of market data, and actually make the comment that it is important to preserve the revenue stream for the market that is generated by the fees associated with the sale of that data. And, Mr. Ketchum, I think I recall reading something where Nasdaq's revenue stream, approximately a quarter to a third of that comes from market data fees. Is that still a broad statement of accuracy?

Mr. KETCHUM. It is broadly accurate, though each year is a little different, broadly accurate that somewhat less than a quarter of our revenue comes from that.

Chairman BAKER. All I wanted to establish is the significance of this to both markets as an element of your stability so I understand the sensitivity of this discussion.

Second, the basis on which you feel the current revenue stream is appropriate is still difficult. You will recall from the hearing in March, I raised the issue, how do we know about appropriateness if we can't allocate the costs associated with the function? The response to this is that the breadth and depth of the data we collect and the assimilation and the value added are all very difficult to segregate. Therefore, we may not have the ability to generate a fixed dollar cost per transaction, for example.

In looking at the provisions of Section 11A, which you made reference to, Mr. Bernard, it does allocate the responsibility to the SEC to make a determination as to whether the charges are fair and reasonable, and I have asked staff basically to look at the elements that are reviewed, and I got back fair and reasonable. It doesn't seem to be real clear.

On the other hand, both have taken some credit in recent years for significant fee reductions that, depending on which type of in-

vestor we are examining, reductions could be from significant to very significant. It again is a troublesome point, and that is, if we are able to reduce fees and acknowledge that that fee reduction has come about through efficiencies, how does one measure the appropriate level of fees if you can't tell me what the cost basis for the fee is to begin with other than perhaps pressures from the consumer side of the equation are saying this is too much? Which then, I think, gets to Mr. Kanjorski's issue of what is it you do to the data that is the value-added aspect of the process?

And I am going on a bit, because we have got a vote, and I am going to give you a chance to respond at length during the vote, but, for example, Mr. Kanjorski and I enter into a transaction, the broker-dealer executes, the trade is done, it is a $20-per-share activity, you record it. I assume your response would be, yes, that is correct, and we just report the $30 trade, but we do it across market breadth so we have the depth and assure quality of that information. So therein is the value; not one transaction, but perhaps thousands. And you would claim that the value added is the quantity and quality, verification of that activity is what is representing the value of that transaction.

In looking at the report language of the 1975 Act, which I had here somewhere, it went on to say that we must be sure that the central processor is not under control or domination of any particular market center. Any exclusive processor is, in effect, a public utility, and thus, it must function in a manner which is absolutely neutral with respect to all market centers, all market-makers and all private firms.

The point here is that the function, as I am understanding it, it is a collection of data, a distribution of data, with an obligation to do so for the national economic good as a public utility, and the argument that the fees are not related to the cost associated with this transaction is the difficult point for me. I am at a loss as to how we establish the fairness of the transactional cost associated with your process, because you are, in effect, aggregating a utility as a utility, a publicly reported value of a transaction.

Lastly, with regard to the competitive action aspect, and I am restating Mr. Smith's testimony on these points, by regulation every broker dealer who wants to trade has to be a member of some SRO, let's just say Nasdaq. If I am a Nasdaq member, I have got to report exclusively to you on my activities. Then you are required to consolidate and make that available to investors, and that anybody we catch disseminating this inappropriately is subject to some SEC enforcement action. That is a different model of free market competition. I will admit that the problem is that we don't have a counterparty ability for someone else to do this, because by Government regulation, the responsibility is created and the authority to govern solely granted to the particular SRO.

So in a broad context we have a fee system established without an understanding of the cost basis which has been reduced over the last few years that is required by a law to preserve the economic function of our investment community.

Help me out here. Give me a picture that makes me understand why significant modifications—and let me answer Mr. Kanjorski's opening statement, I have no intent to do anything anytime soon.

We are certainly going to wait on the Seligman Committee before I would recommend any action. And this is not with the idea that tomorrow morning we are going to wake up with a new national market system, but I certainly have concerns in light of the explanations given about how these functions are conducted.

Mr. Bernard, why don't you take a swipe at it.

Mr. BERNARD. I think I tracked about five questions within your comments, and let me try to answer them in turn.

First, just as a point of reference, about 17 percent of our revenue is from market data, and as you will remember from Mr. Lackritz's testimony, that has been consistent for about 70 years. That is as far back as we can trace it.

When you get to the question of fair and reasonable, it is important to remember that Section 11A is not the only provision in the 1934 Act. If you go to Section 6, under which we are registered as an exchange, and under which Rick will shortly be registered, you will see that we are obliged to have constituent boards, with fair representation of everybody, not just the broker-dealers, but also the listed companies and the public. And so if you look at the scheme as a whole, the SEC is just a fail-safe mechanism. The real defense to "fairness and reasonableness" lies in having the very people who pay the fees decide what the fees shall be. The SEC is a fail-safe. The focus should be on the board of directors, and you will see in recent SEC actions over the last 10 years that the SEC has intervened with the Nasdaq and with the Philadelphia Stock Exchange to make sure that those boards of directors really do do a good job of representing all the constituencies.

Second, to characterize us as being in the business of collecting data is not accurate. We don't have any conventional vendors on the panel today, but such companies, like ILX or Bloomberg, those people are in the business of collecting data. We are in the business of generating data. Two people don't just show up and do a trade and tell us. Rather, we provide a facility for price discovery, investors send orders through systems to the New York Stock Exchange or call them into brokers on our floor, we provide a facility for that. We provide a facility for arraying those interests. We provide a facility for figuring out which of those interests by itself are aggregated with others as the best quotes, and we provide a facility for actually making that execution take place. So we are far more than a mere data collection operation.

And in that lies the answer to your third question regarding whether we are just charging for the quality and quantity. First of all, we are not charging for anything. What we are doing is allocating our costs, as our members and our listed companies and investors direct us to, into various "buckets," i.e., listing fees, transaction fees, market data fees and other fees. They have chosen in their wisdom to put about 17 percent of our costs into market data fees.

No one is trying to decide that listed company fees are collected to only pay for services provided to listed companies. What we are talking about is one big machine, one big factory, the NYSE, to use an earlier analogy, and how do you finance that thing, and what are the vehicles for financing it.

To your fourth question regarding the 1975 language, not to prejudge the work of the Seligman Committee, but I should tell you that consistent with the NYSE's position for more than a year-and-a-half now, the Seligman Committee does seem poised to recommend the New York Stock Exchange and the Nasdaq and the other exchanges withdraw from the Consolidated Tape Association and the other consortia. That language that you are talking about was very specifically related to anticipating that these consortia would be created, and they were. Now they are about to be dissolved, and so this issue of exclusive authority to process evaporates if the Seligman Committee makes the recommendations and the SEC supports them as they go forward.

And I think I will yield to Mr. Ketchum, if I might, on the last question having to do with competition in membership.

Mr. KETCHUM. Thank you, Mr. Chairman, and I would agree with everything that Mr. Bernard has said. I will just add two additional points and certainly get to your point with respect to the membership question.

My first point is to reiterate what he has said, the level of SEC oversight with respect to reasonable fees. The Commission does look at and does recognize that both the membership participation and investor participation in the board has a governing effect on fees as well as it looks very closely itself to ensure that we are reacting to an expansion in the numbers of investors and numbers of participants taking the fee and the growth in those fees. So it is not an accident. It is not an accident from the standpoint of competition from the desire of our marketplace to increase the dissemination of public information, because increasing the dissemination of public information increases the volume in our market, increases the desires of investors to trade. The Commission looks very, very closely at those issues.

The last piece I will just mention as you go is that while it is true a broker-dealer must be a member of an exchange and must be a member of the NASD, they are not required to be a Nasdaq market-maker or required to be a dealer or participant in any particular market. They can choose to bring their orders or participate as a dealer in any market that they choose, and with that have the ability and indeed in many cases have the ability to share in transaction fees as those markets compete with each other.

Chairman BAKER. If I may, Mr. Ketchum, we will return to this. We won't cut off any discussion. I am told we have about 3 or 4 minutes left on the vote under consideration. There is a subsequent 5-minute vote. Depending on the outcomes, could be a third. So at best expectation the most we will be gone is about 15 minutes, and we will recess momentarily. Thank you.

[Recess.]

Chairman BAKER. Mr. Ketchum, I curtailed your remarks at the end of the last question if you wanted to respond for us.

Mr. KETCHUM. Mr. Chairman, I think you gave me the opportunity to finish my response, and I guess the only thing I would add from what I said, just on the particular point you raised is to emphasize again the choice that brokers have between other markets, the fact that those markets do compete very aggressively to have them choose, and the one point I did not indicate; that the

SEC has spent a great deal of time looking at the policy issues involved of brokers that wish to operate free from the marketplace, including the right way for them to do that is to register as an exchange. And in fact Island, represented at this table, has begun the process of doing exactly that.

Chairman BAKER. I read through a Nasdaq subscription agreement, and I am not a subscriber, just for the sake of saying I had done it.

Mr. KETCHUM. I admire you for merely taking up the——

Chairman BAKER. You can tell I am not well. Section 7 of that agreement has an interesting provision, and I wanted you to explain it to me, because I understand this is the agreement that would be used for a retail agreement, is that not only do you make records available—and that is understandable—upon reasonable notice, but "subscribers shall make its premise available for review of said records and for physical inspection of vendor services." Does this mean in a technical sense that if I sign the agreement and my computer at home is the location for distribution of the data, do you have the right to examine that physical location?

Mr. KETCHUM. No. That provision is basically aimed at professional participants in the marketplace. It does not apply to a nonprofessional agreement and to an individual investor from that standpoint, as I understand it, Mr. Chairman.

Chairman BAKER. Oh, sure. Well, have your folks look at it, because I went back and read it a couple of times to make sure that I didn't want to bring it up inappropriately, but I didn't find any qualifying conditions around it, and if it is something you want to get back to me on later, that is fine.

Mr. KETCHUM. Mr. Chairman, it has just been added to the fact that it can be read as client and nonprofessionals, and I think it is a good point. In fact, we are in the process of looking at it and making sure that if—we have never invaded the premise of an individual investor with respect to——

Chairman BAKER. The market consequences of that headline would not be favorable, but, you know, examine it, get back to me, and it is something that I found—it is a basis for saying we need to be looking at the whole subject matter.

We have been joined by Chairman Oxley, Mr. Kanjorski has just returned. And Mr. Kanjorski has waived his right at the moment. Mr. Chairman, if you would like to proceed.

Mr. OXLEY. Thank you, Mr. Chairman, and I appreciate the gentleman from Pennsylvania's courtesy. Let me ask Mr. Callcott. You mentioned the Seligman Advisory Committee during your testimony. If the Seligman Committee were to recommend a competing consolidator model, what would be your position? Does that really provide the kind of competition we are looking for, or do we need to look at other avenues?

Mr. CALLCOTT. I think a lot of the participants in the Seligman Committee have been advocating a competing consolidator model, including us. It depends what that model consists of. For a competing consolidator model to work, as Mr. Smith indicated, in our view, you have to eliminate the display rule, because otherwise the requirement under the display rule is that you display the quotes from every market. And so even if you have competing

consolidators, every market has the right to charge monopoly rents. But we think a competing consolidator model, as we have outlined in our testimony, where every market has to sell information on the same terms to every customer does create the possibility of actual price competition. That would bring down the prices for market data, and, in our view, improve the quality and innovation in market data products.

Mr. OXLEY. Mr. Smith, do you agree with that?

Mr. SMITH. Certainly I do. I want to make clear that we certainly would not be opposed to a market owning its market data, but in order to get to that ultimate goal, we do need to reexamine the current regulatory structure. And as Mr. Callcott said, the vendor display rule. And I was struck by something Mr. Bernard said earlier about how the board sets the prices for the market data. The board meets and they, in consultation with their members and other constituencies, decide the price for the market data. That struck me as not a very market-oriented approach to deciding a price. To me, a price is determined by a free market, where a buyer meets a seller, instead of having it be set. If we could all determine prices like that, that gives—to the extent that, for instance, Nasdaq has capacity issues or something, I suppose we could have this subcommittee to meet and decide the closing prices for the stocks each day, because that would be certainly much more convenient than having the market forces decide the closing prices.

Mr. OXLEY. Mr. Smith, while you are on, let me ask you, Mr. Ketchum observed in his testimony that competition in the marketplace acts as a natural regulator of market data fees. Do you agree with that perception?

Mr. SMITH. Yes. It is certainly their duty to ensure that all fees are fair and reasonable. Clearly, it is a very difficult position for the commission, but it is a role that they do play.

Mr. OXLEY. And Mr. Callcott, what do you think about that?

Mr. CALLCOTT. Well, there is active competition right now between the markets for listing. There is no question about that for listed companies, but as we set forth in our testimony, right now each of the major markets, the exchanges, Nasdaq and options, has a monopoly in the market data area. And so there is not effective competition in the market data area, and all the competition in the world on the listing side is not going to create competition on the market data side.

If I could expand on that, I very much agree with what Chairman Baker said earlier, that as the exchanges are going to for-profit status, this idea of cross-subsidization, that you have a monopoly in one area that cross-subsidizes other areas, becomes even more problematic. I mean, their boards are going to have a fiduciary duty to their shareholders—and we are a shareholder in Nasdaq—to maximize their profits, and that is just an inherent conflict for us with the idea of having low priced, widely available market data as the 1975 Act amendments contemplate.

Mr. OXLEY. I will start with Mr. Bernard and respond to Mr. Callcott's last statement.

Mr. BERNARD. Well, first, for the record, the New York Stock Exchange has no plans to demutualize. So its members will continue to run the exchange in order to minimize their costs while getting

the best services possible, deciding how much of those costs ought to be recovered by market data fees. The structure is like a condominium or the New York City cooperative building in which I live, or a golf club. So, at least in the context of a mutualized institution like the New York Stock Exchange, I don't understand that issue.

Mr. OXLEY. Mr. Ketchum.

Mr. KETCHUM. Thank you, Chairman Oxley.

I think the point we meant in our testimony with respect to competition, why we do think it is quite effective, as Hardy correctly indicated, there is aggressive competition between markets, both for listings and also for market share. Beyond that, there are efforts by markets in as many ways as possible to increase the amount of trading that occurs on their marketplaces, and overall in the United States. Market competition—that is a natural competitive regulator with respect to price and market information.

It is our desire and always a balance to both be able to gain sufficient return with respect to market information to support, not cross-subsidize, but to support the things that make that market information valuable. The running of the technology, the maintenance of the network that allows market makers and ECNs to collect information and to compete and the regulatory surveillance that ensures fair and orderly markets and the accuracy of that information.

But within that balance on the other side is the need to have the prices sufficiently low enough that as Mr. Lackritz said before, that in the United States, we have the widest most broadest dissemination of market information in the world, and that is equally critical to our mission if we are going to succeed as a market.

Mr. OXLEY. If I could have one more question, Mr. Chairman. And as the Chairman pointed out, you have had a lowering of costs, and that has been rather significant in some areas. What drove that cost lower, and if there is no competition—or not adequate competition, then why would those costs be lower?

Mr. KETCHUM. Well, I guess part of the answer to that is that there is adequate competition, in our view. Those costs were driven lower, and indeed the initial decisions, both with respect to Nasdaq and its securities and with regard to listed securities where we participate in a joint plan, resulted basically from the initial decision to have separate pricing for when data was disseminated to individual investors or nonprofessionals in the marketplace. That was because of our desire to expand the availability of that information, a continuing desire to expand that information, continuing belief that the lower the price, the more focus on that information, particularly with the revolution as a result of the internet and online investing that would lead us and allow us to benefit in two ways: One, if a price is low enough, more investors will take it; second, if more investors take it, more investors see that information. They will be more interested in trading and have a higher degree of trust and confidence in the marketplace, which will encourage their trading as well, and that is how we gain our primary means of being able to operate and profit as a marketplace.

Mr. OXLEY. Well, that turned out to be a softball for you, Mr. Ketchum. Let me just finish with asking Mr. Callcott and Mr. Smith essentially the same question. If, indeed, those prices have

gone down, wouldn't that indicate that competition is truly working in the market data area?

Mr. CALLCOTT. I think the prices have come down per individual. The market's revenues for market data have been growing at double digit rates because of the increase of individuals who are coming online and are paying prices for quotes that they never paid before. I would say that the market's prices have come down precisely because in the last 2 to 3 years, the SEC and the Congress has been paying attention to this issue and putting pressure on the markets, and as a result of that, monopolies respond to their regulators, not to market price.

But the fact is, their revenues have been growing at 18 to 20 percent annual rates for the last half-dozen years.

Mr. OXLEY. But, there haven't been any changes in the regulations, nor have there been any changes in the statute.

Mr. CALLCOTT. Right. The change has been that once the SEC started putting out concept releases and Congress started holding hearings, the markets all of a sudden had a very substantial incentive to keep their prices fair and reasonable.

Mr. OXLEY. So ergo, if we keep having hearings, the price will continue to drop; is that correct?

Mr. CALLCOTT. This is a very useful function that Congress serves, Mr. Chairman.

Mr. OXLEY. Well, Mr. Chairman, I had no idea we had that kind of power.

Chairman BAKER. And I am so appreciative of this. You have finally learned I am worth something, Mr. Chairman.

Mr. OXLEY. Let me let Mr. Smith take a crack at it, and then I will yield back.

Mr. SMITH. Thank you, Mr. Chairman. At the risk of sounding repetitive, I think I would return to my earlier comments. While it is certainly good that market data prices have declined, there is still the fundamental fact that the price charged by the consortium of SROs is still not determined by a competitive market. It is determined by a group of individuals who, after canvassing market participants, decide on what they think an appropriate price is.

Mr. OXLEY. That describes a cartel, doesn't it?

Mr. SMITH. I agree, yes.

Mr. OXLEY. I yield back.

Chairman BAKER. Thank you, Mr. Chairman.

Mr. Kanjorski.

Mr. KANJORSKI. I just want to make the observation, Mr. Chairman, that if you look at the panel, we have two of the investor groups, and then we have two of the exchanges, and in the middle we have the association. It probably is interesting and what is reflective of the issue. I want to address it, first, to the investor groups. I listened to your testimony, Mr. Callcott, and isn't this just a fight over how much and who pays?

Mr. CALLCOTT. It is a fight about money.

Mr. KANJORSKI. Do you have any feeling about being a little guilty of talking about the freest market in the world and charging the exchanges with being monopolistic utilities?

Mr. CALLCOTT. We would like to provide the best possible information to our customers. There is very good market data informa-

tion out there, streaming market data that professional investors, institutional investors use. Most investors, because of the current cost structure, do not have access to that data. We would like to provide it to them. We can't afford it at the current rates, and most individual investors can't afford to pay for it themselves at the current rates. We think we could make that available under a competitive structure.

Mr. KANJORSKI. OK. On the other hand, you have to concede, don't you, that this is a utility and a monopoly? I mean, this portion of it? There is nobody else that can announce to go out there and create this information. You are really granted this right through the SEC and through the Federal legislation. I am not criticizing what you have done, and I cannot go into business tomorrow and compete against you.

Mr. BERNARD. If you break up the consortium, which we have been a strong advocate of, what you are talking about is ten or more stock exchanges competing with each other for order flow. Now, it is certainly true that the New York Stock Exchange has consistently enjoyed market share of about 85 percent, but that hasn't been because of an absence of competition. It is because——

Mr. KANJORSKI. But you are not representing the same companies on the same exchanges. They are different.

Mr. BERNARD. Oh, yes, we are. Nasdaq has what they call the "intermarket" that trades in New York Stock Exchange-listed stocks; Philadelphia, Chicago, Pacific trade NYSE stocks. Island, for that matter is trading New York Stock Exchange stocks.

Mr. KANJORSKI. So when they do greater volume, they are just better than the New York Stock Exchange?

Mr. BERNARD. Well, they haven't done greater value. We continue to do 85 percent. The rest of them together do 15 percent. So I guess that means we are doing better.

Mr. KANJORSKI. This is going to call for the wisdom of Solomon, I think, and I don't know any of my colleagues up here that possess that type of wisdom. The one thing that really does disturb me is the fact that when you are privatizing, this does seem to go to that conflict. It was indicated that there are just two fiduciary responsibilities that have to be there, the charge that you are under to charge reasonable and fair rates, and to disseminate this information; on the other hand, to earn as much for the investors as possible. Why can't we take market data and treat it like a monopolistic utility and just set it over there and with the SEC as the regulator, to take the complaints of the new internet market and other things that weren't here in 1975, and treat the data in that regard. This will ensure a fair return on an investment, that you continue to have the excellence for which that material goes out, but that no one feels disadvantaged as to price, nor do they want to come in with another competition.

I have to mention that just the other day, as you know, we have had deregulation recently in telephones and utility companies, and I can address just the telephone problem that was interesting. My wife called me up, and she said, you know, we have a telephone, but we are only listed in one book. And there are four books that are disbursed, but we would take advertisements or whatever we

have to do to get the other three books, which costs me four times what it is going to cost today.

I don't know that we can get in there every year with new technology and new methodology, trying to figure out who is advantaged or who is disadvantaged, but if we look at this market data accumulation and disbursing and we did it and said this is a utility. It is monopolistic, because the SEC has given it to you. You are entitled to a fair return on your investment, as a utility would be, and then the SEC will be your regulator when there are complaints and changes in the marketplace that this information should be available. Because quite frankly, if you think about it, nothing stops you from charging $1,000 a hit, and that would take away all day traders.

I am not sorry if it probably took them away, but, you know, that is one nice way to get rid of day traders, just hit them so hard, that they cannot participate. That wouldn't be the fair thing to do if we really have a free and open competitive market. And on the other hand, we can't anticipate where Schwab or other firms are going and what is the change in evolution of technology that is going to occur over the next 2 or 3 years. By the time we get done drafting a bill, it will probably be obsolete and not relative to the situation.

But if we did recognize that the 17 percent of your revenues that come out of data processing get carved out of whatever you are going to do in privatizing and put that into a utility-type, agreed-to monopoly and give you a decent return on your capital and evaluate that fairly, and then have a very broad board or representation of users to help set rates, and even they won't be able to finalize it, and have the final determiner the Federal Communications Commission, wouldn't that be fair to both sides?

Mr. KETCHUM. Congressman, if I could, let me try to address each of the points that I think you have made. I guess the first point is that indeed there is somebody who stands between us and imposing a $1,000 charge with respect to this information, and that somebody is the SEC that has the ability and responsibility to both ensure that the fees are fair and reasonable and the authority to look at all relevant issues, including our costs involved with the information.

The second thing is I do have to respectfully disagree. I don't believe in any way this is a monopoly, or certainly as Rich Bernard indicated, it does not raise any consortium issues if indeed the position, both Nasdaq and the New York Stock Exchange, is taken, that we should eliminate the plans and each market should have the ability to offer its data separately and separately price it. Third, not only are there 10 exchanges operating today, but there is also the ability for trading systems, such as Island, to become an exchange and to compete directly with respect to——

Mr. KANJORSKI. Do you think by defining that as a property right and maintaining your own data collected that you would do a favor to the free market system that we have, and the transparency and access that we have in this market? Isn't it to the advantage of the members of the Exchange that they have the absolute access to the most investors possible, that it is accurate, reliable? I mean, that is the precondition to good trading. It wouldn't seem to me so that you could get some return on, quote, this property right interest,

which I still have some difficulty with. It would seem to me that you would be shooting off your toe to spite your foot.

Mr. KETCHUM. Well, again, I think it very much is an advantage to the members of the Exchange or from the standpoint of Nasdaq, of Nasdaq, for there to be wide dissemination of this information. It is just as much to the advantage of Nasdaq to occur, because it does attract activity and increase confidence in the market. That is the very reason why the prices have been reduced as much as they have and why there is a different price for access to the information of the individual investors. And indeed, I wonder if you had utility rate regulation, whether there would be anything such as a separate charge for individual investors.

Mr. KANJORSKI. Maybe there wouldn't be.

Mr. KETCHUM. And I think that necessarily wouldn't be in the interest of our——

Mr. KANJORSKI. Why?

Mr. KETCHUM. Because I think you would not necessarily have seen the innovation of providing lower cost information.

Mr. KANJORSKI. Well, if you were making a decent return on your investment as a utility, you mean you are only driven to make more, and that is the only reason that you change?

Mr. KETCHUM. The primary reason we are driven to provide the information is, because it increases investor confidence and increases investors.

Mr. KANJORSKI. That's right. So giving this information out, if you could effectively do it for nothing or almost nothing, and increase the activity of the market and increase the activity of capitals in general in the United States, that is to your benefit. You are going to drive brokerage fees and other fees and transactions that are going to make more than enough money for you.

Mr. KETCHUM. And that is usually what competition is quite effective in driving forward, if indeed it is to our benefit, and I would agree it is, and it is exactly that reason why we have continued to reduce the price and to distinguish the price for individual investors over market professionals.

Mr. KANJORSKI. Well, how about if we allocate part of this excess money that the SEC is collecting to you fellows, some portion of it, so we do not have to charge the other fellows anything, or an extremely low rate. Is that a fair way to do it?

Mr. KETCHUM. Well, those other fellows are the same ones being charged that other fee, and we think it is a great step that Congress has taken to try to reduce transaction fees, which is an important step to ensuring the continued competitiveness of the U.S. markets.

Mr. KANJORSKI. I am sort of disappointed that we have to have—I mean, I know our activity and attention to this probably plays to make all parties work better together, but it just seems to me you are almost disproving the effectiveness of the private market to work these things out. This shouldn't be before the Congress, and if it has gotten to that point, you know, we certainly should not cut favoritism on either side. But then, you know, don't argue if we start regulating things. Do we want to empower the SEC as a great super-regulator to constantly be hearing who is being charged what? It seems so infinitesimal, in terms of the whole capital mar-

ket of the United States, that you all have to come together and do what is right and what is reasonable.

And that would get a return on investment that is reasonable. I would say make it a utility rate or both. It doesn't matter to me. But not exceptional. I mean, you know, it is possible that, as a result of technology or change or activity, you could end up like these banks with the ATM fees. I mean, you know, I keep telling my friends in the banking business, and incidentally the credit union business, that they keep making more money on ATM fees than anything else, they are apt to get themselves regulated, because I am one of the guys that will do it.

I mean, I find that incomprehensible that a college kid has to pay a buck-and-a-half or $3 bucks to get $20 or $30 out of an ATM machine. And they say that is not the cost of the transaction, but they can get it. Do we want to get into that regulation? You are almost forcing us to get into the exchange regulation. I don't see that as very profitable for the Government to start thinking in your business and regulating your business any more than we absolutely have to.

So I would hope you take away—I am hoping—and I look at Art Folcum in the middle there. It is your job to come up here or tell these fellows to work this out. And this is something that should be able to be negotiated in the private market without Government involvement. If it requires Government involvement, all five of you are going to come up here and be yelling at us, oh, you are moving into the private market and you are doing things, but you are not giving us a heck of a lot of choice.

Yes, Mr. Bernard.

Mr. BERNARD. If I might respond, first of all, neither the New York Stock Exchange or the Nasdaq is a proponent of creating database legislation. That is coming from the outside. Second, the very negotiation that you want to have happen happens every other month at the board table at the New York Stock Exchange. You may be hearing from some people who don't like the outcome of that consensus, but that consensus, for at least 70 years by our count, has said that market data fees is a good way to cover about 17 percent of the New York Stock Exchange's expenses.

I don't think Congress should intervene and tell Merrill Lynch and Goldman Sachs and Salomon Smith Barney and IBM and Leon Panetta, representing the individual investors—and by the way, I don't know why you call two broker dealers more of a representative of individual investors than the New York Stock Exchange or Nasdaq. I have got three people on my board who are specifically charged with representing the interests of individual investors, not to mention ten broker dealers. So I don't understand that dichotomy.

But to finish my thought, that board decides that 17 percent is a good number. All the continued recognition of our proprietary rights does is permit that negotiated outcome to be activated.

Chairman BAKER. Thank you, Mr. Kanjorski.

Mr. Shays.

Mr. SHAYS. I have questions, but Mrs. Biggert needs to leave, so I will defer to her.

Chairman BAKER. Certainly.

Mrs. Biggert.

Mrs. BIGGERT. Thank you, Mr. Chairman. And I thank the gentleman from Connecticut for yielding.

Mr. Bernard, you just mentioned that you are a proponent of the legislation. Why do you need this legislation to protect your databases?

Mr. BERNARD. I am sorry if I said I was a proponent. I misspoke. What I said was that we did not initiate this legislation. However, if there is going to be database legislation, then discriminating against markets' data as opposed to baseball scores is not something that we think ought to happen.

Mrs. BIGGERT. Well, I guess I was changing the question a little bit. I assumed that you thought that you needed legislation and I just wondered if you could cite any examples of someone who has disseminated your stock quotes, those obtained from you without your permission?

Mr. BERNARD. Well, it does happen when we don't know about it, but when we catch it, let me just quickly explain. First of all, the common law of misappropriation, which is all you are proposing to do in the database legislation simply tries to federalize and codify an existing common law that has been out there for centuries, and is one of the protections that we enjoy today.

The second, of course, is contracts. The contract that the Chairman was reading, although I believe it applies to professional subscribers, it is those network of contracts that helps us make sure that no one is pirating the data. And just to finish the point, remember what is the relevance of preventing pirating? We are allocating the cost of running the Exchange among various users as those users have chosen. If someone is pirating the data, they are cheating. They are not paying their fair share. And that is why it is important that we be permitted to do this, but we are not proponents of legislation.

Mrs. BIGGERT. So you have been able to use the current copyright protection laws, as well as the contract laws?

Mr. BERNARD. Not the copyright laws, although the copyright laws may protect us. It is a fine question for the litigators, but clearly the State law, the common law of misappropriation, as well as contract law, have been the two pillars upon which we have been able to minimize any pirating.

Mrs. BIGGERT. OK. What has been the practical effect, then, of the 1991 Supreme Court, their first decision?

Mr. BERNARD. Well, we have seen no impact in our world, and I point out the case was about putting together a telephone directory. As I have already mentioned, we don't simply collect data. We actually create the data. So we are in a different place from someone who puts together a telephone book anyway. So it has had no impact.

Mrs. BIGGERT. I guess I was looking for what would be creating the data?

Mr. BERNARD. Well, as I have mentioned—let me go a little slower on it. If Island and Schwab and Salomon Smith Barney and Merrill Lynch and the rest of them all send orders to us—and take General Electric, the world's largest company—to the New York Stock Exchange, our job is to have systems that collect those or-

ders, safe-store them, validate them, route them to the place where the stock is traded, have them interact with each other, and with the brokers on the floor who are representing institutional investors and with the specialists who are market making and have them all come together, and when the buyer meets seller, to perform an execution.

When we do that execution, we have systems that disseminate that data out to the world. That is the market data side of it. It also reports the trade back to Salomon and Merrill Lynch and the rest of the firms and sends it into the Securities Industry Automated Corporation. So it is no different than producing anything else. We are in the business of producing trades under the allowed sale prices.

Mrs. BIGGERT. OK. Thank you. That is all I have. Thank you, Mr. Chairman.

Chairman BAKER. Thank you, Mrs. Biggert.

Mr. Bentsen.

Mr. BENTSEN. Thank you, Mr. Chairman.

Is the position of Schwab and Island that—if I read this right, Mr. Callcott, is that you believe that the exchanges should provide the raw market data to anybody at no price or the same price, or what do you mean exactly?

Mr. CALLCOTT. Our concept is the Most-Favored-Nations concept. So if they provide it to anybody, everybody else gets the benefit of that best price that they offer to anyone, and then our expectation is that private sector enterprises like Reuters, Bloomberg, Bridge, and so on, will compete to aggregate that data in ways that is both cost-effective and innovative in terms of the quality of the information.

Mr. BENTSEN. And so, under the current structure, as allowed under the 1975 Act, the raw data is just provided by the exchanges to their own processors, and then resold to the market. And the processors are effectively subsidiaries of the exchanges?

Mr. CALLCOTT. That's correct.

Mr. BENTSEN. And then members of the exchanges are able to subscribe to the refined data, but rather, you would almost—you would want to—I mean, I don't know that they charge for the raw data. So maybe it is a bookkeeping exercise. I am not sure how it works out with the exchanges. I guess I have two concerns. One is do current SEC regulations, govern how the raw data is refined? I don't want to say "manipulated," but that may not be the appropriate term. I think it is, but it has unfair connotations. But are there any regulations governing how the raw data is refined and then made public? Because there are regulations in how it is utilized by the brokerages after it is made public, the crosses and things like that.

And the second is—are you arguing that there is no value in that?

Mr. CALLCOTT. The answer to the first question is the plans are subject to SEC regulation and any amendment to the plans has to be approved by the SEC, and no, we are not arguing that there is no value in the Exchange's function. What we are arguing is that there can be alternative sources. If the NYSE or Nasdaq or the Pacific Exchange decides to charge too much to all-comers, we could

put together a quote today from Schwab, Waterhouse, Island, Datek, Knight, which we think would have equal or greater value to the quote products currently being offered by the Exchange or Nasdaq. If there is that level of competition in the markets, we think that will keep the prices down and improve the quality of the overall information.

Mr. BENTSEN. Is there a risk that, you know, Schwab is a pretty good-sized company. Is there a risk that if you were to open up the primary market for this data, if you will, that the bigger, well-capitalized players would have access to it, but the smaller brokerages wouldn't necessarily have the ability to go in and create the systems to refine the data and make it available. Could there potentially be a disadvantage to the smaller brokerages?

Mr. CALLCOTT. Under a competitive system, our view is that, sure, they probably wouldn't do it themselves, but they would have multiple different vendors, such as Bloomberg, Bridge, Reuters, plus bigger brokerage firms from which they could buy the data. There would certainly be competition. Of course, those little brokerage firms are overseen by the NYSE or the NASDR, and so if they were providing something that was so far out of the mainstream that it was problematic from an investor protection standpoint, there would be that level of regulation.

Mr. BENTSEN. But the other point is that the smaller brokerages are—if I understand the essence of the exchanges, already two parts to it. One are the members who make the Exchange, and the other are the stocks that trade through the Exchange. Wouldn't this be unraveling the exchanges effectively and unraveling the national market system as we have it today? And maybe we want to do that. I don't know, but I suspect there is a structure in place. And it may be a cartel. But we established these exchanges so you had some regulated exchanges to ensure that the most accurate market data was available to the consumer and that somehow has to be paid for.

Mr. CALLCOTT. Well, that is a good question. Right now we have, as Mr. Bernard and Mr. Ketchum have indicated, a great deal of competition on the listing side. Different Nasdaq market makers compete with each other. The New York competes with Island and with Nasdaq third market makers and with the regional exchanges. So on that side, the natural market system is built on competition. In 1975, it wasn't feasible to build competition on the market data side. Computer systems just hadn't sufficiently evolved. Today, 26 years later, we think that evolution has occurred and that it is worth exploring the possibility of competition.

Mr. BENTSEN. I guess, then, with the Chairman's indulgence here, could you make an argument that the members of the NASD and the members of the NYSE and the other exchanges, for that matter, pay their dues and created these systems and created these exchanges and made the initial capital investment and created these markets and created the asset? And even if it is a regulated asset and they have monopoly power, you now have Island. You have got other market makers out there. You have, you know, these electronic networks that can trade stocks. You have after-hour networks, things such as that. Why should somebody who can

set up their own operation receive a preferential benefit to information that these others set up earlier?

Mr. CALLCOTT. Well, we are legally required by the 1975 Act amendments and the rules to buy the information from the existing consolidators. That is the display rule. We have to show it to customers, and I should tell you, Chairman Baker, we have tried for 3 years to convince Nasdaq to drop that very clause that you read, because we get hundreds of complaints a year from customers saying, well, why does Nasdaq want to come into my house to examine my computer? And the Nasdaq subscriber agreement, you have to check in six different places. Furthermore, because it is a monopoly, they don't have to negotiate with us on those terms and conditions. So, again, our view is if you can create a competitive system, you won't have those sort of hallmarks of monopoly behavior.

Mr. BENTSEN. Can I ask another question?

To Nasdaq and NYSE, it seems to me the problem here is that with the change in the structure of the market, particularly the retail market, where people like Schwab and others—they have more individual trading on their own, and I think this is where Mr. Lackritz is coming from, whereas the SIA membership consists of brokers and dealers with their rates and all sitting up on the phone calling and making trades. Now you have more online brokerage through traditional brokerage houses. Would it not be appropriate—and maybe this is what the Commission is looking at—to revisit the pricing structure?

I mean, on the one hand, it is not fair to say that, well, online brokerage should get a better deal, a group deal when traditional brokerage houses have to carry the freight, because they are the ones that have 10,000 brokers or 12,000 brokers or whatever. On the other hand, the marketplace has changed, and maybe there ought to be some weighted form of pricing for the service. To me, somewhere in between there seems to make more sense than disrupting the national market system, which I think is not necessarily a bad thing. I think, as you have said in your testimony, it has served us quite well. I mean, what would your comment be on that?

Mr. BERNARD. First of all, we have done exactly the weighting you are talking about. The New York Stock Exchange's revenue for market data—74 percent of it comes from charges on traditional market participants; that is, broker dealers who are operating with registered representatives interfacing with customers and individual traders and institutional investors who are taking the data as professionals. Only 17 percent in 2000 came from the sort of consumer end. These are the $1.00 a month that we charge to nonprofessionals or the so-called "per quote" or "pay as you go" at a penny per quote that is capped.

So we have done exactly that and it is exactly as you say. If you start from the premise that you are going to collect 17 percent or cover 17 percent of your costs from market data, you want to hit each of the market data users in a fair way, and we have struggled with that. And the reason that the prices have not come down for the professional, except in real terms, but the nominal amounts have been stable for a very, very long time. But the rates for nonprofessionals have dropped and dropped and dropped, and that is

because the explosion of the internet has greatly increased that end of the spectrum, and so we have responded by reducing those charges.

Chairman BAKER. Thank you, Mr. Bentsen.

Mr. Shays.

Mr. SHAYS. Thank you, Mr. Chairman. I love being on this subcommittee, but I am not ready for prime time yet. So I ask these questions with some trepidation. From my simple mind, I have this basic sense that if innovation should be rewarded that cost should be covered. I see Nasdaq and I see the New York Stock Exchange as providing the service. I came here thinking that Nasdaq and the New York Stock Exchange and others were asking for something to happen that doesn't exist right now. In the hearing, I am realizing that the court case basically established a challenge. We want to see a change. Am I wrong?

Mr. Callcott, am I wrong? I mean, you are basically asking for the change; correct?

Mr. CALLCOTT. We are not asking for database protection legislation.

Mr. SHAYS. That is not what I asked. What I asked, though, is you don't like the present system. You want the present system changed. Basically, the court has established that they have a right to own this data and that they can charge a fee for it. Isn't that accurate? I am not saying in the end I won't agree with you, even though if there is a tie, I am going with my constituent.

Mr. CALLCOTT. And we have tens of thousands of constituents in your district, Mr. Shays.

Mr. SHAYS. That is a problem.

Mr. CALLCOTT. Anyway, the court case said that facts are not something that anybody can own. So we are in complete agreement with the *Feist* case. The legislation that we think is necessary is to reform the 1975 Act amendments and introduce competition into this one area of market data where Congress established a set of monopolies.

Mr. SHAYS. So you are saying the *Feist* case basically left this question unanswered?

Mr. CALLCOTT. No. We think the *Feist* case resolved the ownership question in our favor. Facts are facts. You can't own facts.

Mr. SHAYS. Would the New York Exchange agree that that is what the case determined?

Mr. BERNARD. I don't believe that was a fair reading of the *Feist* case. It was relating to telephone pages. That is what we do.

Mr. CALLCOTT. It is related to data; can you own data, can you own facts?

Chairman BAKER. And if I can further complicate your picture, Mr. Shays, as I understand it.

Mr. SHAYS. The way you talk, you need to talk more slowly with me.

Chairman BAKER. That is a rare comment on a southerner. Thank you. Let me say it this way. I believe the gentleman represented correctly that the court determined that facts are not intellectual property which belong to an individual, but that intellectual value or some asset must be added to the fact that creates a property right which the exchanges would say is their role. They

are taking the facts, the dollars from the sale, and doing things to it that create value to that asset, to which the other team is saying, no, you are not. We want the raw data. It is a fact. Give us the raw data, and then we can compete with you in the marketplace. So that complicates your problem, I think.

Mr. KETCHUM. One thing, Congressman, I think you are absolutely correct on your characterization. Both, I think, Nasdaq and the New York Stock Exchange are perfectly comfortable with our interpretation of the law at the present time and our ability to enforce our rights from adding the value that the Chairman has articulately stated. So we don't believe there is a need for Congress to be involved in that determination.

Mr. SHAYS. Let me just ask, why is the remedy here and not in the courts? I am just curious, from your standpoint.

Mr. CALLCOTT. The basic concern we have is with the regulatory system set up in the 1975 Act amendments for market data. And so that can be changed either perhaps by the SEC, but more probably by Congress.

Mr. SHAYS. So the bottom line is your reading of the 1993 case—is it 1993 or 1991?

Mr. LACKRITZ. 1991.

Mr. SHAYS. The 1991 case. Your reading of the 1991 case suggests that the 1975 law is somewhat in conflict with that case?

Mr. CALLCOTT. No. Again, the issues are about who owns the market data. We are satisfied with the status quo on that issue, as are I think the exchanges and Nasdaq. The problem that we see is with the regulatory issue, which has caused the price of this data to be so high. That is a separate issue, in our view, from the ownership issue as resulted from the *Feist* case.

Mr. SHAYS. Just a basic question. Is Nasdaq and your exchange and other exchanges getting complaints from general consumers, or is this basically being generated by companies like Schwab and others that are saying, you know, they want Congress to deal with it?

Mr. KETCHUM. I can speak for Nasdaq, Congressman. No, this is not an area where we receive complaints from investors or consumers. To my knowledge, if we have had any, it has been very few, and I am not aware of any.

Mr. SHAYS. What practical difference does it make as to who owns the market data? I open that up to any of you.

Mr. BERNARD. May I just make a point regarding Rick's point? The reason consumers aren't complaining——

Mr. SHAYS. I want the mike a little closer.

Mr. BERNARD. I am sorry. The reason the consumers aren't complaining is they never see these charges. These charges are imposed on broker dealers, not on individual investors. So if an individual investor is even aware of them, it is because the broker dealer has made a decision to pass through this particular cost in a more explicit way and all the other costs they face in doing business.

Mr. SHAYS. See, that wouldn't bother me if they made that cost clear to their consumers, to their clients. And you do that? You let clients know that that is part of the cost?

Mr. CALLCOTT. We do.

Mr. SHAYS. Is the cost so small that it is almost insignificant to point out?

Mr. CALLCOTT. Well, to provide the Nasdaq level 2 data to our customers, costs $10 per customer per month. We are able to pass that on to some customers, but very few. We make that data available for free to a very small number of our very best customers. We would like to make that best quality data that institutional investors get available to all of our customers. Technologically, it is perfectly possible to do that, and it wouldn't impose any additional marginal cost on the exchanges at all. We can't do it because of the current cost structure.

Mr. SHAYS. What practical difference does it make as to who owns the data? What is the practical effect of that?

Mr. CALLCOTT. Our view is that this data is pervasively regulated in the public interest by legislation, and that is the way that it is and should be and should stay. So that basically no one owns it. It is facts.

Mr. LACKRITZ. If I could just address that for a second. The whole issue of property rights and the reason that we don't think there needs to be legislation providing property rights to market data is, because owners of property can control its use after it is gone. And so, for example, if there is a database of historical data, if there is a property right to that data, then it would be illegal to take that historical data and use it for other purposes or put it into new products or services. So, property rights would provide an impediment to users from getting access to large bodies of data, in essence.

Mr. BERNARD. I am sorry. I don't understand the conversation. We have had property rights recognized by the Supreme Court for more than 100 years. This discussion is not about adding proprietary rights. If anything were going to happen in the area of database legislation in regard to market data, what you would be talking about is federalizing common law. That is an accurate statement of the law as it exists.

As to why it matters, it is as I said before. If the broker dealers and the listed companies and the representatives of the individual investors on our board feel that market data fees is a good way of allocating our costs among themselves in an equitable matter, then you need the legal tools to make that stick. It was the question about pirating data that I addressed to your colleague before. That is why the proprietary rights——

Mr. SHAYS. OK. And maybe one of the three, not with the Exchange, could just explain to me. How do you view their board as being representative of your interests or not being representative of your interests?

Mr. CALLCOTT. Not particularly representative of the retail interests. Our view is their board tends to be dominated by their institutional and floor membership.

Mr. SHAYS. So is this a battle between the institutions and the general consumer?

Mr. SMITH. I think I have a unique view on this. I keep coming back to the same point. Island is troubled, because——

Mr. SHAYS. A little louder, please.

Mr. SMITH. Island is troubled, because the whole price-setting mechanism is determined by a board rather than the free market, and a board can never completely represent all interests it needs to represent. We are certainly not represented on those boards.

Mr. SHAYS. Let me just conclude. If the 17 percent disappears, how do you cover your costs?

Mr. BERNARD. Well, first of all, that 17 percent—the answer is that the members who could decide tomorrow to make that 17 percent disappear, would have to look to other sorts of ways of allocating the costs among themselves, the members of the listed companies. Presumably that would mean we would raise listing fees, raise transaction fees, or we would institute other charges.

Mr. KETCHUM. Congressman, if I could, I just would like to clarify, because I don't want you to leave an impression that certainly the board of the Nasdaq stock market doesn't reflect firms that are actively involved in serving individual investors. Among the members of the board of the Nasdaq stock market is Dave Pottruck, the CEO of Schwab. Another member is a CEO of Knight Securities, which from a market making standpoint, has its basic business providing executions and service to, again, individual investors.

Mr. SHAYS. Well, that is weird, frankly.

Mr. CALLCOTT. And he is correct that we feel better represented on the Nasdaq board than we do on the New York board.

Mr. SHAYS. Oh, that is a good answer.

Mr. BERNARD. I think I would point out that just as every citizen of the United States is not sitting in Congress, so, too, not every broker dealer or every listed company can sit on the New York board. But we have ten positions that are allocated to so-called public directors, included listed company representatives, institution investors and individual investors. Ten director positions are allocated to broker dealers, four from the Exchange floor, the other six from "upstairs" firms. At least one of which includes DLJ Direct, which is a major online broker.

Mr. SHAYS. Let me just ask another question of the three. Are you basically saying that you are paying for a service in which you are overpaying for the cost of the service you are getting and that you are, in a sense, by the fee, paying for other parts that the Exchange should cover by other expenses? Do you understand the basic question? Do you feel that basically you are paying more than your fair share of the cost?

Mr. CALLCOTT. We do, and moreover, the current cost structure prevents us from providing the best quality information to all of our customers. If we were to purchase that, it would increase our costs approximately ninefold over what we are currently paying for market data.

Chairman BAKER. Mr. Shays, if I can, I am going to go to one other Member, and we will come back for another round.

Mr. SHAYS. I didn't know another Member was here. I apologize.

Chairman BAKER. Mr. Inslee, did you have a question?

Mr. INSLEE. I will pass.

Chairman BAKER. Do you want to start a second round?

Mr. SHAYS. Yes. Let us do that.

Chairman BAKER. Let me try at a summary here and get a reaction. On the one hand, the exchanges will not acknowledge the

view that you are in the role of a public utility, which would perform a public service at a cost plus a percentage rate of return, which would require supervision by an outside Government party, SEC, to determine whether or not the charges for the public good are fair and reasonable. It is my view the SEC has not exercised that authority, to my knowledge, has never acted unfavorably toward a rate structure, if they have reviewed them. And second, that there is no understandable methodology by which an outside party today can look at the Exchange's operations and come to a conclusion as to the promptness of the rate schedule in relation to the cost of providing that service. So if you are a public utility, which I know—I am not saying that you are acknowledging this. It is just part A. If you are a public utility, it would appear we need to have additional authority or have the authority now granted be exercised to understand the now apparent mystical methodology which does not lead one to conclude as to the reasonable charge associated with data production.

On the other hand, if we assume that we are corporations funded by investors who are making a profit, which I still have to believe is OK in America, and that you are providing a service, you should not, however, then be in a privileged position, granted by statute, regulation or other provisor, that enables you to engage in a service or activity which others are not offered the opportunity to provide. I don't know how you describe the circumstance differently, but take a shot at it, because if we are A and we are a public utility, I have a problem. If we are not and we are a private corporation, then the benefits of business conduct that are afforded those enterprises should be removed, or at least, similarly, granted to others, to enable them to compete in a similar regulatory environment. Are either observations close or are both wrong?

Mr. BERNARD. I think ultimately we are somewhere in between what you just described, but let me make one point. The only—this display rule—we need to talk about this, because it is the only SEC regulation that is creating what is being called a monopoly here, and you should know that that rule was invented to prevent the New York Stock Exchange from being the only source of data. We are trying to promote competition by forcing vendors—in those days they had different names, but just like ILX today—from only displaying New York data.

When that issue was before the Seligman Committee, we had a real conflict on that issue, because on the one hand, we agree with Schwab and Island and others that if you want to get the most power out of dissolving these consortia, you should get rid of the display rule and let the strongest competitive forces apply. The reason that New York was among the majority that voted against getting rid of the display rule was for the very reason why the SEC continues to feel that that display rule is important, because no one is worried about broker dealers or institutional investors getting any data they want. They have got enough clout. The issue is the individual investor, and the fear that if you drop a display rule, then, perhaps we will be back to where they only see the New York data and they only see the 15 percent of the——

Chairman BAKER. Let me interject on that point. This is not 1901. It is 2001, and the ability of an investor to get access to infor-

mation via the internet, for example, or telephone or any other mechanism, is extraordinarily different from the environment in which many of these rules were constructed. And I think the person who is investing $200 who makes $30,000 a year is going to be just as interested in knowing where his money is going as a fellow investing $200,000 who makes $3 million a year.

I think the investing environment is different, and you know, I don't want to pass anybody up for blame here, but you know the media, to a great extent, contributed to a lot of this enthusiastic activity until the last few months, I would say. So people have a different mindset. We have a different set of market conditions which are being constrained by rules written many years ago, although I am not agreeing with the ECN approach to resolve this.

I don't think we ought to blow up the national market system, but it sure appears on its face if you can't explain to me what the charges relate to, other than a board meeting, you know, some mechanism, maybe not the Congress, maybe not the SEC, maybe somebody ought to have to be able to make that assessment and your problem goes away.

I think the question that is being asked here from a market practitioner's view, are the fees that are being charged for the service being rendered appropriate in light of the services that are available, and if they aren't, perhaps adjustments are required.

I think the most onerous suggestion would be to rewrite all the rules and have 50 people claiming to be able to process this data knowing full well the enormous investments you make preclude most people from doing it at the level of competency which you provide.

So I have regard for your ability and what you do, but we need to have more disclosures to understand it in order to take a position that stands in defense of the practice. Do you understand our dilemma?

Mr. KETCHUM. Mr. Chairman, if I could say one thing on that, and you are right there, it is 2001. There is enormous access in the internet. It is for exactly that reason that we applaud, and think it is a great idea that a variety of brokers like Island and other ECNs do provide information available on the internet that provide one picture of what is going on in the marketplace.

I think our experience has been, and I think any study would find, most investors don't avail themselves of that information. Some sophisticated investors will, and that is good and it should be there and available. Most investors look at the consolidated information. They look at it because it is the simplest and easiest way to gain a picture of the marketplace, and as Rich indicated before, there was a requirement of consolidating information. Vendors simply did not make that information available and brokers given the choice of providing to their customers all information in all markets, speaking as a primary market in the securities we list as a competing market to the New York Stock Exchange and sectors we don't, vendors and brokers didn't make that information available in the third market of the other competing exchanges.

Chairman BAKER. But today, we have the delayed tape disclosures, which prior to that determination, it was viewed as being a highly controversial decision to let this information go out, even on

a 15-minute tape delay for fear there might be some inappropriate market response. My view of that is that the 15-minute tape delay for free is an exact comment about its value. If you don't know what is going on at the moment, you are trading in the dark. So I take no comfort in the fact that we shouldn't disclose real-time information to any investor who chooses, and let them, through their own judgment, make whatever decision they may make. That is my problem. I think we are giving people information that is worthless.

Mr. BERNARD. No one disagrees with that. The SEC's concern is that that is not what would happen. They would never see, if the past is prologue, the prices from Boston or Philadelphia or Pacific. That is the SEC's concern, and you can take it for what it is worth, but it is a thoughtful discussion. Although that rule was passed, I think when this guy was running the division, we looked very carefully at that.

Chairman BAKER. But the next logical step is to assume that because we are giving people information that is of no value that we are providing a public service. How do we argue, if the real value is in real-time data and the trouble with these gentlemen is that if they provided real-time data to all customers within their base, they make the allegation they would have to pay $157 million annually in order to get that level of access, level two disclosure is that correct?

Mr. CALLCOTT. Yes.

Chairman BAKER. And our judgment is that may be appropriate, but how do we know that if we can't get disclosure of the cost associated with the management of the data?

Mr. BERNARD. Well, I did tell you we were hybrid and I owe you an answer to those questions.

First, remember, we are like the guy who produces a cow, when you produce both the leather and the steak. I can't tell you, and you keep asking me and my colleague to tell you how much do I spend on producing market data and how much do I spend on producing trade executions.

Chairman BAKER. Your illustration is perfect. If I find out the guy who is selling me the leather is doing it in the same room where he is making the steak, I ain't buying. They have got to be separately allocable activities to which a reasonable business—I will tell you, I have dealt with some—the Government sponsored enterprises are extraordinarily complex organization, and they can almost break it down to the microsecond expenditure of what they do and where they do it, even given their level of sophistication. Now, I can't do it and I may not understand it, frankly, even if you give it to me. But the point is there has got to be some way to come to a defensible position in understanding the broad subject matter, and maybe there will be art form judgments made as to allocation of cost. As for capital costs, I know they are traditionally costs such as real estate—you are going to allocate those to different areas of your activity, but what do you call that?

I mean, is that an investment cost? Is it an advertising cost? I understand the problem, but I think there is a remedy to it.

Mr. BERNARD. Mr. Chairman, if I am feeding grain to the cow, I don't know whether it goes to the leather or to the steak. My

problem is that I produce last sale prices and quotes at the same time I produce trades. What I can tell you is that I only allocate to market data 17 percent of my costs. So I am very comfortable in telling you that whatever I am doing, I am not allocating too much cost to market data.

Chairman BAKER. But when the board sits down and makes that judgment from the broad array of participation you have, what information do they look at that helps them decide 17 percent?

Mr. BERNARD. I have already testified, they don't care about that question.

Chairman BAKER. But I do.

Mr. BERNARD. That is a question that's being posed by others. The board is saying I have $700 million or $800 million of expense to cover next year to run the stock exchange that produces, among other things, market data. What is a fair way to hit listed companies, broker dealers and institutional investors in doing that, what is the fair way? And over the years, they have come up with a variety of ways of doing it. That is how the board looks at the question, and I don't know that Congress, when it imposes taxes, tries to understand, does any kind of a cost allocation, either. Congress says I have got this budget, we make decisions about expenses, Congress makes decisions about expenses. Once you have done that, you have got to cover those expenses, and then the question is not cost allocation, you know, how much goes to the military, so we will have a military charge. It is fair allocation of those costs, in your case, through taxes and through us, the different types of charges.

Chairman BAKER. That engenders a longer conversation, which I won't abuse my fellow colleagues with.

Mr. Bentsen.

Mr. BENTSEN. I think that is all, with due respect, somewhat simplistic observation of the budget process up here. Mr. Shays would agree with that. We have sat on the Budget Committee for a while and I think, Mr. Chairman, that after hearing this, that you should rename this subcommittee when you brought up the GSEs, this ought to be the subcommittee on hybrids.

But I think what Mr. Bernard is saying, to use the cattle analogy, is that the butcher and the tanner are the same person, and because you are getting the information on pricing at the same time that you are executing the trades, and so it is hard to tell whether he spends more time with his right hand or his left hand.

But again, I mean the fundamental issue here, it seems to me, and I may be wrong about this, is that Mr. Callcott feels that in on-line trading and very broad discount brokerage, that under the current fee structure, you are paying too much for the information that you are getting, and that you ought to just get—that this information, these facts of trades are basically public domain, and you ought to have access to them and you manipulate them how you want and you make whatever investment you want.

And that, I would understand, if it was just this sort of open marketplace, that anybody could show up in the morning and trade and there was no regulation, but the market system doesn't work that way, does it? I mean, it is an organized exchange with listed companies. There are fees allocated to it. There are investments that are made and somehow that cost has to be recouped. And you

get the benefit of this stable exchange. Isn't there some value to that?

Mr. CALLCOTT. Sure there is, but what I should say is that at the New York, they compete for listed companies, they compete for trade executions. There is a monopoly for market data, and when they are allocating their costs among those three, it is very easy for them to say, well, let's put some more on the market data side, because we know we are going to get that. You know we don't want to raise the cost on listed companies, we don't want to raise the cost on transactions, because we might lose those to other markets. It is the cross-subsidization problem when you have a monopoly that is the basic core of what we see as the problem here.

Mr. BENTSEN. Would then the analogy be that—Congress went through this a few years ago, and we are still going through it in the telecommunications industry, and we said that the regional Bell companies had to open up their monopoly markets for local phone service, and, in return, they would be allowed to get into the local long distance market. I mean, would the corollary be here that the exchanges could go beyond just being an even exchange and get into the brokerage side and the sell side, buy and sell side of the business?

Mr. CALLCOTT. Well, I think that is a very appropriate analogy. If they provide the raw market data to everyone on the same basis, they can set up a separate subsidiary to aggregate that market data and sell it at whatever the market price would bear for their aggregation services as long as everybody is getting the same raw feed on the same terms.

Mr. BENTSEN. But the Bell companies are doing that. In theory they are going to sell their local phone service at the same time they are allowing others to come in and sell local phone service, but they are going to also include the long distance companies, but then they are going to get into the business of selling long distance as well within the local region. So what would preclude Nasdaq or NYSE to set up their own discount brokerage operation? Would that be fair trade?

Mr. CALLCOTT. Well, the concern is, of course we are members of them and we are regulated by them. If they were to get into the brokerage business, I think they would have to move that regulatory responsibility they have into a separate organization that was independent from their market. Indeed, the SIA has done a white paper suggesting precisely that, and Schwab supports that idea.

Mr. BENTSEN. I guess that is my point. They are a separate entity that has sort of a regulatory function, and they are ideally an honest broker where trades are executed and market data is made available and it is highly regulated. So wouldn't we be better in this instance in having this regulated structure where if there's a pricing issue and a cross-subsidy issue, that the regulator ought to be doing this so that we maintain the national market system as fair and open structure? If there is a problem, if there has been market disintermediation and shift to more discount brokerage and an uneven pricing structure, shouldn't that be the purview of the regulator and, say, your pricing structure is messed up?

Mr. CALLCOTT. That is certainly a possible result of the system we have now. We have identified what we think are some problems with that system in terms of pricing and innovation, both of which are skewed by having that kind of monopoly, but I certainly do agree that as the markets move more toward a for-profit competitive structure on their market side, there is a real problem with them keeping the traditional regulatory responsibilities that they have had since the 1975 Act amendments, and indeed, since the 1934 Act was first passed in the Roosevelt Administration.

Mr. BENTSEN. Well, I would agree with that aspect and that is why I wonder if we are not, I mean, I guess the feeling is nobody comes up here and offers anything for free. Any agreement would probably mean give us something in return and giving something in return might upset what is otherwise a pretty efficient model and which could, where you might otherwise find a remedy to your concern.

Mr. CALLCOTT. And my only suggestion would be that it is already happening. I mean, Nasdaq is going to for-profit status. We are a shareholder in Nasdaq. New York announced that they were and then they withdrew that.

Mr. BENTSEN. But they are not, to my knowledge, and you are much more knowledgeable on this than I am, but to my knowledge, they are not trying to become a broker dealer or anything along those lines, are they? They are just trying to create a for-profit model of their exchange, which will still be a regulated entity.

Mr. CALLCOTT. Well, in the Pacific Exchange context, you know, Archipelago, which is now basically a broker dealer, is basically becoming an exchange. Island has also filed to become an exchange. So I think the distinction between brokerages and exchanges is, in fact, currently breaking down.

Mr. BENTSEN. This is my last point, but the difference would seem to me that the 1975 Act doesn't necessarily recognize Island or any other as this sort of standard bearer exchange, nor does the marketplace at this point in time. Now maybe the marketplace will ultimately, but I don't think the 1975 Act does, where there are sanctioned exchanges and there are market created exchanges, which sophisticated investors, at least, do know the difference of, but it is a topic that is obviously going to take some time to figure out.

Thank you, Mr. Chairman.

Chairman BAKER. Thank you Mr. Bentsen.

Mr. Shays.

Mr. SHAYS. Mr. Chairman, you know, when a southerner speaks like a southerner, I have no problem, but when he speaks as a southerner like a auctioneer, I do have a problem, and I just want to say, Mr. Bentsen, I always enjoy being in this subcommittee. I learn so much from the questions you ask, as well as from the Chairman, and I appreciate it a lot.

I tell people being a legislator is like going to school, a large university. The only scary thing is I ultimately have to vote on these things.

My sense, as I have been listening to the questions and the responses, is that the bottom line is that Schwab, which is a member of the New York Stock Exchange and a voting member and, in fact,

has a CEO on the board, does have impact. And then I say, well, it is only $10 per client, but you have got a lot of clients, so that $10 adds up. So the bottom line is you just want to pay less and I understand that.

And what I am also hearing is that it is really take it or leave it. I mean you, in a sense, have a vote on the board and the scary thing could be they could double it and you still have to pay the fee. Is that accurate?

Mr. CALLCOTT. Yes. Obviously we could complain to the SEC, which we have done on occasion.

Mr. SHAYS. And the SEC could respond and that is where you have to go, but it is a little scary, because ultimately the market forces at work is an arbitrary price, and you are part of that system.

From the standpoint of listening to the exchanges, I am struck by the fact that this has been the way it has been, and it is a source of income, and it is a threat, obviously, to your operation, and you would have to do some shifting if you had to charge less.

So it strikes me that some of this is somewhat of a political battle. It is also one where the SEC and you all are going to basically charge about as much as you can charge without getting Congress mad and the SEC mad that they ultimately step in. You shook your head, Mr. Bernard. I am happy to hear your response.

Mr. BERNARD. Yes. I just want to remind you, at least for 70 years, we have charged essentially the same amount as a percentage, 17 percent.

Mr. SHAYS. That is not comforting to me honestly, because the world is different.

Mr. BERNARD. But the point is, it is the users charging themselves. As Rick testified earlier, there is a lot of reasons why we don't want to charge too much for market data, because it is the magnet that brings in the orders in the first place.

Mr. SHAYS. Monopolists have a monopolistic price and they can charge that price and in a sense, you do have a monopoly here.

Mr. BERNARD. I am not agreeing with that entirely since I have a lot of competitors. The answer is that situation has been true for 70 years and we haven't done it. There must be something else going on here, and that something else is the decision by the users, the payers of these fees, that that is all they want to pay through market data fees, and they want to get the rest of it done through listings.

If I may make one other point, we should understand what we are talking about here. If the nonpro and the pro quote fees are 17 percent of the market data fees and the market data fees are 17 percent of the overall NYSE revenue, then we are talking about something like less than four percent of the NYSE revenue and we are talking about something like $30 million a year from all broker dealers. I am not sure this Congress should be spending so much on this topic.

Mr. SHAYS. Fair enough.

Mr. Ketchum, you are not a mutual anymore, so how do your customers in a sense get to impact and determine the price they pay?

Mr. KETCHUM. It is a good question, Congressman, and I should clarify at this point, because while we look forward to the day that the SEC approves exchange registration, that day has not occurred yet. The NASD, which is a mutual, still has majority voting rights with respect to their position in ownership of Nasdaq, but beyond that, we remain a creature of statute, today, as an affiliate of the NASD, in the future as an exchange, as Rich indicated earlier under Section 6. That statute requires us to have a board that reflects our constituents. It will require us to have a board that reflects both participants in the market as well as investors in the marketplace, as well as our issuers listing on our marketplace.

So those requirements don't disappear and indeed we, as the New York Stock Exchange, are now required to have a board that has a majority not affiliated with a broker dealer. So it has to be people that are either issuers or direct investor representatives.

Mr. SHAYS. The analogy, and I will end on this, but the analogy is that of the telephone company, the breakup of AT&T. It can no longer own the Baby Bells and the Baby Bells have to open up their markets and so on. I mean, if that were the analogy, then I would want to jump in big time, because I think that was important to do, the break up, but I don't see why that analogy fits. Can someone tell me how, so I don't see it fitting. Why do some of you seem to think that fits.

Mr. KETCHUM. Well, I have to personally say I don't see how it fits as well. I guess one interesting thing to note is that with respect to the entities that profit most with respect to market information, it is starting off with no markets, it is the information vendors that retail that information out. And probably indirectly the broker dealers use that information to encourage transactions through their customers.

The second piece is about the only piece of analogy *vis-a-vis* AT&T that I can see fitting is the SEC has made a decision to make it much easier for electronic trading systems such as Island to become exchanges and to choose if they would rather be an exchange, become in the business of collecting data and disseminating it, among other things, and providing executions in that way rather than being in the business of a broker. So that Congress, always in its wisdom, has never placed a quota on the number of exchanges that may exist in the United States, and now the SEC has made it much easier for different for-profit models to become exchanges.

Mr. SHAYS. Anybody else want to respond?

Mr. SMITH. If I can comment on that. To the extent that Island can become an exchange, while that certainly will help in competition for transaction services, I don't know that it will have any effect on the price of market data. If Island were to become an exchange, we then become part of the consortium that sets the prices that everyone pays, including Schwab, when they go to purchase consolidated quotation data.

At the end of the day, I think it is important for this subcommittee to really think about the vendor display rule, because everything we talk about it, and it is not a very sexy rule, but it actually is a very important rule, because it distorts the market and creates everything we are talking about today, because it

forces every market participant to purchase this one set of information. And what you need to ask yourself is, certainly the consolidated data is very important, it is critical to investors and I certainly believe they should have it, but the real question is should that be the only data investors get, and we, certainly at Island, believe that investors should get as much information as possible, and by limiting them only to consolidated information, what you are actually doing is limiting the amount of information they can get.

Mr. SHAYS. Thank you. Thank you, Mr. Chairman.

Chairman BAKER. Thank you, Mr. Shays. I always enjoy your participation. I just want to make an attempt at sort of a wrap-up here.

Obviously, we need from all sides more information. It would not be my intention to take any significant action on any front until we certainly have receipt of the Seligman Committee recommendations, but I think it important or fair to say that this is a concern I believe is appropriate for our subcommittee to understand and examine. The nature of the participation in the markets has been dramatically democratized because of technology, and therein is the Congress's responsibility to ensure that market participation is based on the best information possible, fairly distributed without prejudice to anyone.

To that end, it has been stated that the SROs are creatures of statute, which is exactly my point of beginning, that because you are privileged by creation of statute, there comes with that specific duties and obligations one must discharge. One element of that responsibility is a fair and reasonable pricing of distribution of data.

Unfortunately, I don't feel that we can determine today, based on what I now know, that the charge is fair and reasonable, although it is apparent that from a historic perspective, it hasn't vacillated dramatically, at least in the New York Exchange's examples, but it doesn't necessarily relate to the provision of the information as a condition of your statutory authority.

I think the point that Schwab makes that it does not pass on level 2 information to all customers as an economic decision is unfortunate. When someone gets delayed tape information, and makes investment decisions on that information alone, I have great discomfort in feeling that that is the way large numbers of unsophisticated investors are making their decisions.

At the same time when that occurs, I think there is a larger economic concern that is warranted by this and that is, that level of investment activity based on untimely information does, in fact, lead to additional market volatility. That is not good public policy.

For these reasons, I feel it is important for us to engage the new chair of the SEC, assuming confirmation finally occurs this week, to assist us in better understanding this issue. I invite the participants here today and others who may have interest to forward additional information for us to review through our summer recess. I can't wait to get on the beach with an explanation of how Section 11A and other provisions of the Act affect our judgment on this matter, but I am just anxious to get there.

But we will return this fall, hopefully, better informed with the assistance of the Chairman of the SEC and any other appropriate

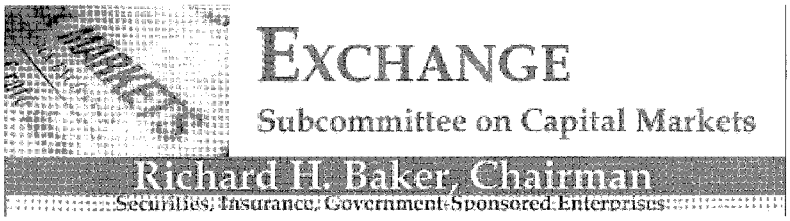
agency, to help us understand the functions of the exchanges in relation to this important public policy matter.

Beyond that, I wish to thank you for your patience and endurance. No one would have dreamed that a hearing on market data would have held us here until 4:45. I am sure you can't believe it either. Thank you for your courtesy. Hearing adjourned.

[Whereupon, the hearing was adjourned.]

A P P E N D I X

July 26, 2001



The News from U.S. Rep. Richard H. Baker
Sixth District, Louisiana
FOR IMMEDIATE RELEASE: July 26, 2001
CONTACT: Michael DiResto, 225-929-7711

Opening Statement
The Honorable Richard H. Baker, Chairman
House Financial Services Committee Subcommittee on
Capital Markets, Insurance and Government Sponsored Enterprises
Hearing, July 26, 2001
"Market Data II: Implications to Investors and Market Transparency of Granting
Ownership Rights Over Stock Quotes"

Today, Congress faces the challenge of reviewing the National Market System to determine how securities laws can be amended not only to reflect today's technology, but also to be flexible enough to adapt to tomorrow's innovations. This is our second hearing on market data – the stock price information that is the very lifeblood in the operation of our capital markets.

In a sense we are beginning to weigh in on complex philosophical questions, but ones with very simple implications. What is the metaphysical status of market data, where does it reside and who owns it, and how can the system be improved so that all investors have equal access to the speediest and least costly information available about bids and offers for securities to facilitate their investment decisions?

The 1975 amendments to the Securities and Exchange Act of 1934 reflected the need for a system that would provide consolidated quotes so that investors could more easily match the lowest offers with the highest bids. While the plans established as a result of these amendments have provided a valuable function and have contributed to the growth of the U.S. equities market, they do not operate in a truly competitive environment.

Moreover, the technological advances of recent decades and the explosion of the use and capabilities of the Internet were not envisioned by the 1975 amendments to the '34 Act and the regulations that followed. Not surprisingly, the change in the law that was intended to be a proactive technology policy in the end has created obstacles to innovation.

In March we focused on how market data is collected, consolidated and distributed. We also examined whether the fees collected by the exchanges and NASDAQ (the Plans) from users of market data, i.e. investors, are being used solely to fund the government-mandated consolidator function of the exchanges and NASDAQ, or whether these fees are subsidizing other activities.

Today we discuss the question of whether there should be legislation to explicitly establish a proprietary right over market databases or to give special protection to the operators of the databases through new private causes of action.

The Plans claim that they already have a property right in the databases they operate because they build and maintain the consolidation system and add value to the information put into the systems as a result of these functions.

Others, ECNs and online trading systems particularly, argue that the quotes from their customers are what give these databases their value. Not only are these market participants forced by law to provide these quotes to the Plans for free, but they also must purchase the consolidated data back from the Plans. These same market participants claim that opening the market data systems to a competitive environment would allow them to provide investors with better quality and depth of information and lower cost.

In a time when we are reconsidering the entire National Market System, we are faced with the question of whether Congress should act to give further legal protections to the exchanges and NASDAQ over market data. Today we will examine whether there is actually a need for any such legislation and the consequences that it might have on the costs and dissemination of market data to investors and on the ability of other participants to innovate.

More importantly, we will ask whether legislation on this limited issue is appropriate when there is such a broad array of concerns with the underlying National Market System that need to be addressed.

In the end, our attention should be focused on enhancing competition in the dissemination of market data so that all investors, individual and institutional alike, have access to the broadest, deepest and least expensive market information available in real-time.

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Opening Statement
Chairman Michael G. Oxley
Committee on Financial Services

Subcommittee on Capital Markets, Insurance and
Government Sponsored Enterprises
"Market Data II: Implications to Investors and Market Transparency
of Granting Ownership Rights over Stock Quotes"
July 26, 2001

I thank the Chair and commend him for holding this hearing, a second in a series that examines stock market data. Today we will be looking at the important issue of intellectual property rights over market data, and how granting new legal rights over that data would impact investors and the markets.

As we explored at previous hearings on this subject, stock market data is the lifeblood of our markets. Without accurate, up-to-the-second information, investors could not make informed investment decisions on saving for a home, their child's education, or retirement.

Congress recognized the importance of market data in 1975 when it amended the Securities Exchange Act to promote market transparency and ensure that all investors would have access to market information.

But many changes have taken place in our markets since that time. New communications technology, like the Internet, have transformed the markets so significantly that the rules that were put in place in 1975 are now outdated.

Yet, as our last hearing demonstrated, while there is wide agreement that the regulatory structure governing market data dissemination needs modernization, there remain divergent views on how the system ought to be modified

That's why today's hearing is so important. For several years, Congress and market participants have debated the issue of whether the stock exchanges and the over-the-counter market should receive new legal protection over the data they publish. While there have been attempts in past years to move legislation to settle this issue, none has yet been successful.

In considering this issue, it is important to recognize that one of the pillars on which the strength of our markets rests is transparency. This Committee will ensure that any market data legislation that this Congress considers will strengthen, not chip away at, that fundamental pillar of our marketplace. Concerns have been raised that granting new intellectual property rights over stock data will inhibit access to information, through the imposition of higher or additional fees. Moreover, questions have been raised as to who really owns the data – is it the buyers and sellers who create the quote or is it the party who compiles that information.

I look forward to the discussion of these important issues today and I thank the witnesses for their testimony.

OPENING STATEMENT OF
RANKING DEMOCRATIC MEMBER PAUL E. KANJORSKI

SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE, AND GOVERNMENT SPONSORED ENTERPRISES

HEARING ON MARKET DATA II: IMPLICATIONS TO INVESTORS AND MARKET TRANSPARENCY OF GRANTING OWNERSHIP RIGHTS OVER STOCK QUOTES

THURSDAY, JULY 26, 2001

Mr. Chairman, thank you for the opportunity to comment on market data issues -- and particularly the implications to investors and for market transparency of granting ownership rights over stock quotes -- before we hear from our witnesses today. We last discussed the issue of market data at hearing in March. At that time, I noted that the securities industry presently faces few issues as important or as complex as those surrounding the ownership and distribution of market data.

In short, the wide distribution of market data remains a fundamental component of our nation's securities markets. A regulatory framework that promotes the transparency of market data -- especially the real-time, public dissemination of trade and quote information -- helps to make certain that all market participants have access to prices across our national market system. This access, in turn, helps to provide for efficient price discovery and the best execution of customer orders. In our current system for distributing market data, millions of investors worldwide have easy access to market data.

The world, however, has changed substantially since Congress enacted the legislation governing market information in 1975, and we are therefore reexamining these issues to determine whether we now need to refine our approach on such matters. For example, the Securities and Exchange Commission has recently begun to examine these difficult issues and other related and complicated questions through its concept release and advisory committee on market information.

As you may also recall at the end of our last hearing, Mr. Chairman, you and I wrote to the SEC inquiring about the activities of its advisory committee on market data issues. In her response, SEC Acting Chairman Laura Unger noted that she expects the advisory committee to issue its report no later than September 15. She also expects this report "to be quite helpful, not only to the Commission, but to others interested in reviewing market data issues." Although it is appropriate for us to begin to educate the Members of our Subcommittee about this complex subject, I would hope that our Committee would wait to pursue any further action on market data issues until we learn and fully digest the recommendations of the advisory committee.

In closing, Mr. Chairman, I want each of our witnesses to know that I continue to approach the issue of market data with an open mind. The comments of our panelists about securities database issues and market data ownership rights will therefore help me to discern how we can maintain the efficiency, effectiveness, and competitiveness of our nation's capital markets into the future. I yield back the balance of my time.

WRITTEN TESTIMONY OF HARDY CALLCOTT
SENIOR VICE PRESIDENT AND GENERAL COUNSEL,
CHARLES SCHWAB & CO., INC.

BEFORE THE COMMITTEE ON FINANCIAL SERVICES
SUBCOMMITTEE ON CAPITAL MARKETS, INSURANCE
AND GOVERNMENT-SPONSORED ENTERPRISES
U.S. HOUSE OF REPRESENTATIVES

JULY 26, 2001

Chairman Oxley, Chairman Baker, Representative LaFalce, Representative Kanjorski, and distinguished members of the subcommittee: My name is Hardy Callcott, and I am senior vice president and general counsel of Charles Schwab & Co., Inc., one of the nation's largest financial services firms. Schwab was founded more than 25 years ago as a pioneer in discount brokerage. Last year, Schwab became the first firm to form a financial holding company under the provisions of the Gramm-Leach-Bliley Act. Today, we have more than 7.7 million active accounts with more than $850 billion in client assets. About 4.3 million of those accounts are online accounts, making Schwab by far the largest online brokerage in the world. I would like to thank you for the opportunity to present Schwab's views on one of the most important issues facing the U.S. capital markets today: our outdated market data system and its impact on individual investors.

Schwab has been at the forefront of the market data debate for more than two years. As you may know, our firm filed a formal rulemaking petition with the SEC in June of 1999, asking the agency to review and correct what we believed to be the unjustified, unreasonable and discriminatory market-data fee structure. The SEC subsequently issued a "concept release" that outlined several approaches to reforming the system. A public comment period ensued, during which Schwab and dozens of other market participants expressed their views. While there was little consensus on what the appropriate solution should be, there was wide agreement that the current market data system has outlived its usefulness.

In September 2000, the SEC formed an Advisory Committee on Market Information, chaired by Dean Joel Seligman of the Washington University School of Law, to examine the issue in depth and issue recommendations to the Commission. Schwab has a representative among the 25 members of that panel, which has met several times over the last year to discuss the problems and possible solutions. While we believe the process has been an important and useful one, it has been limited in the range of options it is considering. The panel has concluded its meetings, and we understand its report will recommend only marginal changes to the current market data system. This is because, in our view, the panel has steered clear of a number of issues that we believe are critical to any discussion of fundamental reform of the market data system. For that reason, we believe that Congress will have to become directly involved in crafting a system that better meets the needs of today's investors.

Since our original rulemaking petition, the market data debate has expanded – appropriately, we think – to encompass the entire market data structure, not just the fees paid for the data. It is Schwab's belief that the time has come for a fundamental overhaul of the current structure. The 1975 Act Amendments to the Securities Exchange Act of 1934, which created the current monopoly system for the distribution of market information, may have been a logical reflection of their time. But the information technology, markets and the investors of the early 1970s were a mere shadow of the sophisticated information technology, markets and investors that we have today. The system created in 1975 has outlived its usefulness. It discriminates against individual investors, costs too much, inhibits innovation in market data products, and makes our capital markets operate significantly less efficiently than they should. For those reasons, Congress should craft a new system that deregulates market data distribution to end-users and takes advantage of today's technology to assure that all investors can have access to the depth of market information necessary to make the best possible investment decisions.

How Individual Investors Are Disadvantaged by the Current System

Individual investors are disadvantaged in four primary ways by the current monopoly system: limited access, inferior product, lack of innovation, and high costs. Individual investors do not receive the same quality or quantity of market data as institutional investors. Individual investors typically receive only the best bid, best offer and last sale price (commonly referred to together as the "NBBO"), while institutional investors have the advantage of depth-of-book data. Today it is technologically feasible for Schwab to provide real-time, streaming quotes to all of our online customers, so that (like institutional investors) they can watch the markets as they move. We have the ability to incorporate real-time market data into portfolio management and investment research tools that could significantly benefit individual investors. The only obstacles are cost, based on how the self-regulatory organizations (SROs, such as NYSE and Nasdaq) charge for market data, and contractual restrictions, based on the SRO's control of market data usage and distribution through license agreements. This is the case even though the widest possible dissemination of real-time market data would not impose any significant marginal costs on the SROs. Under the current market data system, providing all currently available streaming market data from the SROs to all of our customers who have electronic access to market data would likely cost in the neighborhood of approximately $157 million a year, or some nine times what we currently pay.[1] As a result, Schwab cannot afford to offer real-time streaming quotes to most of our client base. Indeed, the high cost of market data causes many brokerage firms and Internet companies to offer 15-20 minute delayed data, rather than real-time quotes, even for single snap-shot quotes. In our current decimal markets with rapidly changing quotes, delayed market data is effectively the same as no market data.

[1] This figure conservatively assumes 1.1 million Schwab client households using the web per month, and conservatively assumes only one client per household. Nasdaq Level 2 streaming data would be $132 million for the year ($10 per month for each client). OPRA streaming data would be $13 million for the year ($1 per month for each client). CTA Tape A (for NYSE listed stocks) would be $6.3 million for the year (enterprise cap of $525,000 per month). CTA Tape B (for Amex listed stocks) would be $6.3 million for the year (enterprise cap of $525,000 per month). While CTA has an enterprise cap that can reduce costs, it does not make available to the public any market data below the "top of the book." While Nasdaq does make some depth of book data available to the public through Level 2, it does not offer an enterprise cap.

Historical Background: The Evolution of the Current Market Data System

Market data, quite simply, is the prices at which investors are willing to buy and sell securities, and the prices of completed transactions. Investors rely on this information to evaluate potential investments and to determine the best prices available in the markets. The 1975 Act Amendments to the Exchange Act and the SEC's implementing rules created today's system, which works as follows. Real-time market data – data that shows transactions and quotations as they occur – is created by investors and brokerage firms. Brokerage firms are legally required to provide this information – immediately and without any compensation – to their SROs. The SROs jointly own and operate three "Plans" that administer the consolidation and distribution of real-time market data (the Consolidated Tape Association or CTA for exchange-listed stocks, Nasdaq for NASD-listed stocks, and the Options Price Reporting Authority or OPRA for options) each of which has a government-created monopoly in its respective market. The SROs send their "raw" data to the Plans' information processors (like SIAC), which then distribute the market data to information vendors, such as Bloomberg or Reuters, and also directly to brokerage firms. Brokerages are legally required to buy this information from these government-created monopolies and provide it to our clients. The Plans set the price for market data, define the terms and conditions of distribution, and require prior approval of any brokerage or vendor use of the Plans' market data. Currently, there is no competition to counter this monopoly control.

This short description of market data belies its importance: market data is the critical information that gives the US the most vibrant, open and transparent marketplace in the world. The goal is, and should continue to be, that all investors can see where the market is at a given moment in time. The widespread availability of accurate market data is the key to democratizing our markets – allowing all market participants from the largest Wall Street institution to the working family putting away a few dollars a week to make informed investment decisions.

The irony of our current market data system is the fact that the basic information is created not by the securities markets, but by brokerages like Schwab and our clients. We create the orders and trades, which we are legally required to give to the markets without any compensation. Then we have to buy the data back in order to provide it to our clients. It's a circular system that gives the markets monopoly control over something they didn't create in the first place.

In the 26 years since passage of the 1975 Act Amendments, the securities markets have used that monopoly to control every aspect of market information: the format, the speed, who can receive it, when they can receive it, how they can use it, and how much it costs. The creation of a monopoly system may have been necessary in 1975, but computer and communications technology has advanced so significantly in the years since, that it no longer makes sense. The irony is that the system intended to widely disseminate market information now functions as a barrier to cheaper, more innovative use of data.

Do We Need a Database Protection Bill for Market Data?

A key goal of the Subcommittee today is to understand who owns market data. The securities markets believe that they do, and they want to see that ownership codified in law. For that reason, they have been advocating for three Congresses database protection legislation, particularly bills introduced by Rep. Howard Coble in the 105th Congress (H.R. 2652) and the 106th Congress (H.R. 354), that would grant them a property right over market information.

Market data consists of facts: bid prices, offer prices, last sale prices, limit order prices. No one can own facts – facts are in the public domain. As a unanimous Supreme Court determined in *Feist Publications, Inc. v. Rural Telephone Service Company, Inc.*, the protection of purely factual data, gathered and disseminated with no originality in its selection, coordination or arrangement is statutorily precluded and constitutionally prohibited. Moreover, in the several years that the securities markets have sought property rights in market data facts, they have not presented any example of abuse which would justify requesting such a lucrative windfall at public expense.

Moreover, it is investors and brokerages who create these facts, not the securities markets. If anyone should be granted property rights in market data, it would be the investors and brokerage firms. In fact, today market data is a public good, which since 1975 has been pervasively regulated from the moment of creation by investors and brokerage firms, through its collection and dissemination by securities markets, and its retransmission to brokerages and investors. Granting market data ownership or protection to the securities markets midway through this chain, with no recognition of the value investors and brokerages supply at the beginning of the chain, would be counter to Congress' laudable goal of ensuring ready public availability of information. Schwab is not advocating that brokerages be given property rights to market data. But if we are legally required to provide the information free of charge to the markets, and then are legally required to purchase it from the markets, it would be grossly inequitable to grant those markets property rights in that information in preference to us.

Granting the exchanges – or anyone – a property interest in market data would be contrary to the very purposes of the national market system. Already, the government-mandated monopoly they enjoy stifles innovation, prohibits competition and discriminates against individual investors. A property right over market data would do nothing more than exacerbate these problems and make it even more difficult for individual investors to get a fair shake in today's marketplace. Schwab strongly opposes database protection legislation.[2]

However, we do believe market data legislation is necessary. Now is the time to end the government-created monopolies in market data created in 1975. It is now possible to replace

[2] One proposal would codify the "hot news" doctrine that is part of many states' common law of misappropriation. Because market data is to be regulated in the public interest under the Exchange Act, it should be expressly excluded from any such federal legislation. Moreover, the purpose of the hot news doctrine – to protect the interests of the news gatherer from the free-riding of competitors – is inapplicable where, as here, the SROs enjoy a monopoly franchise created by statute. In any event, if a "hot news" property right is to be granted with respect to market data, it should be granted to the original creators of that news: brokerages and investors, not to SROs.

those government-created monopolies with free market competition which will provide higher quality market data to all investors at a lower price.

Problems With the Current Market Data System

- **The Current Market Data System Has Failed to Keep Pace with Technological Innovation and Changes in the Markets**

The reality is that the power and sophistication of our information technology is many magnitudes greater than what existed in the 1970s. Combine that with the explosive growth of individual participation in the markets – and in investor demand and need for quality market information – and it is easy to see that our current system is simply out of date. That system was designed before the technology revolution that has transformed our securities markets. Further, in 1975, securities investing was rare except in the most wealthy US households, and even these households monitored their portfolios for the most part only monthly through brokerage firm account statements. Today, with nearly half of all Americans invested, either directly or indirectly, in the stock market, individuals are monitoring their portfolios like never before. And increasingly investors monitor their portfolios daily or hourly at their desktops.

Moreover, the structure of our securities markets has changed dramatically since 1975. The last year has seen the introduction of decimal pricing in our markets. Decimals have lowered the bid-asked spread for stocks, saving billions of dollars for individual investors. But decimals have also decreased the depth of quotations (the amount of stock available for purchase or sale at the best national quote) by some 60-80%. As a result, the basic market data provided by the markets (the inside bid and ask) no longer provides many investors with enough information to make informed trading decisions.

The relevance of the quotes that the securities markets provide has deteriorated in a post-decimal environment. Nasdaq provides a "Level 2" quote which provides the best quotes provided by each market-maker in a given security. But no securities market provides a retail "depth of book" quote product providing all the purchase and sale interest outside of the (typically small) volumes now available at the national best quote. And the CTA, which processes quotes for exchange-traded stocks, does not even provide a quote product equivalent to the Nasdaq Level 2 quote. As is always true, when the government grants a monopoly, it stifles product innovation and technological development. Indeed, because of the increasing cost and decreasing relevance of the monopoly quotes, Internet portals such as Yahoo! now provide real-time quotes from ECNs such as Instinet and Island in preference to the consolidated quotes produced by the securities markets. Brokerages such as Schwab are legally precluded from providing these alternative quote sources to clients without also having to display the consolidated quotation provided by the SROs.

The increase in online investing has led to dramatic increases in the cost of market data. For the privilege of distributing this fundamental information to our customers, Schwab paid approximately $16 million to the exchanges in 2000. That figure actually represents a decline – we paid about $19 million in 1999, but benefited from the markets' implementation of per quote and per retail subscriber fee pilots, which we believed were in direct response to our petition and

the SEC's Concept Release process. As discussed above, under the current pricing structure, to provide the best available real-time streaming market data to all of our online customers would cause an at least eight-fold increase in Schwab's costs.

- **The Current Market Data Fee Structure is Flawed and Unfair**

Another core problem with the current market data system is the complexity of its cost structure. For each Plan, there are different enterprise fee caps, per-subscriber caps, per-quote fees and monthly per-terminal fees for professional users. Some exchanges offer tiered fees. The Nasdaq has an additional fee structure for "Level 2" quotes. Even more troubling is that the fee-setting process is not transparent. No company knows exactly what a rival might be paying for the same data, because the Plan administrators have substantial discretion in how they apply their "standardized" contracts and fee schedules. The result is a system staggering in its inefficiency. For Schwab, the time required for all aspects of market data administration translates into the equivalent of six and one quarter full time positions. We have some 25 different processes and systems to count, track, report and pay for market data. All together, market data administration, in terms of personnel and systems expenses, costs Schwab approximately $1 million a year – on top of the actual fees. Once again, in the absence of a government-granted monopoly, a competitive market would never produce such an expensive, costly and bureaucratic fee structure.

One of the most frustrating aspects of the fee-structure system is that no one knows if the fees paid for market data bear any relation to the actual cost of producing and disseminating that data. That was a principal question in our June 1999 rulemaking petition to the SEC, and it remains unanswered to this day. The SEC, in its market data Concept Release, admitted it didn't know how much market data costs to produce. Earlier this year, representatives of the SROs repeatedly said under questioning from members of this Subcommittee that they were unable to provide even a ballpark figure for the costs they incur in processing and disseminating market data. If the SROs do not know how much it costs them to produce their market data, how can investors have confidence that the fees charged for that product are fair, reasonable, and non-discriminatory? The answer is, they can't. In a competitive market, producers would know their costs, and customers could be confident that the fees they pay bear a reasonable relationship to those costs. Moreover, as several SROs begin a move to for-profit status and begin to compete with private sector firms such as ECNs, it is critical that they not be permitted to use their government-granted monopoly to subsidize this competition.

That said, I want to reiterate that, in Schwab's view, this is not simply a disagreement between our firm and the NYSE or Nasdaq over the fees they charge us for access to market data. In fact, there is considerable common ground between the markets, Schwab and other industry participants on issues such as the elimination of the government-mandated plans. This issue is about a regulatory regime that is no longer relevant and, as a result, serves none of the market participants – institutional investors, retail clients, media outlets, data vendors, brokers, dealers and even the markets themselves – well. It's time to reform the system to achieve the goal of ensuring that all market participants have access to a fair, reasonably-priced, efficient and accurate market data.

Blueprint for Reform

Let me turn now to the principles that Schwab believes should form the core of any reform plan. As I said at the outset, it is our belief that these reforms must be undertaken through an overhaul of the 1975 Amendments. The principles for reform include:

Competition. Legislative reform should first and foremost promote access to and competition for innovative market data products and services. To promote competition, legislation must require the SROs to make all of the "raw" market data that brokerages and their clients are required to report to them available to any third party on the same terms as they make it available now to their own processors. This will enable brokerages and market data vendors to disseminate real-time market data independently, in consolidated, unconsolidated, and derivative forms in ways that respond best to investor demands and needs. The current Plans, with their administrative burdens, inefficiencies, and restrictions, should be abolished. Any vendor or brokerage firm should be allowed to obtain the raw data (or a finished product) directly from the SROs themselves. Regulatory oversight would be limited to ensuring that fair and non-discriminatory access requirements are enforced, so that all data vendors have access to the same data at the best price offered by the market to any vendor. The SROs would be required to offer all of the data they collect on these terms: not only the inside quotes but also depth-of-book information. Virtually any of the current organizations that collect market data – from publishing powerhouses like Reuters and Bloomberg to brokerages like Schwab and Internet companies like AOL – could collect and disseminate this data and incorporate the raw data into their own products in a competitive market. The SROs could create affiliates which also could compete in this market. How the information is packaged and sold would be limited only by the pace of technological innovation and creative thinking.

Level Playing Field. A new system must ensure the broadest possible access to the information. Schwab believes that all investors, no matter where or how they trade, must have the information necessary to make a fully informed investment decision. Individual investors should have the same access as institutional investors to see the depth of the market. Moreover, there should be no discrimination as to medium – online clients should have the same access to information as clients using the telephone or conducting face-to-face meetings in a branch office. Today, there are still different fee structures for online brokers – who tend to pay either per-quote or per-client fees – and traditional brokers, who are more likely to pay a flat monthly fee per broker for an unlimited number of quotes. Clients are often not even aware of this difference. The price-setting structure should be the same for all types of investors. And rather than having the SEC mandate a specific set of information that brokerages must provide to clients, brokerages should be allowed to compete by providing different types of information.

Open, Transparent Process. Simply put, all aspects of the market data system, including the setting of market data fees, must take place in the sunshine. Greater transparency of the fees, costs, contracts and policies relative to the collection and dissemination of market data is critical to the creation of a fair and open system that treats all investors equitably. Congress should direct the SEC to end specially negotiated rates, and make all fee schedules, contracts and

agreements public. Transparency is the hallmark of our capital markets – so too must it be the hallmark of our market information system.

No Ownership Over Market Data. Database protection legislation should not give the securities markets a property right over market information. Market data is made up of the facts that are the most critical feature of our capital markets. No one can own this, or any, set of facts. Granting ownership or copyright protection to any one party would simply be contrary to the goal of ensuring broad access to market information.

Limited Oversight. In this new system, the SEC would continue to play a critical role in enforcing the non-discrimination requirements, as well as setting and enforcing general standards for such issues as capacity, sequencing, and synchronization. A new competitive system will allow the agency to focus it resources on ensuring that all investors have appropriate access to information – a goal more in line with the purpose of the SEC.

These broad principles should form the backbone of an overhaul of the 1975 Amendments.

Mr. Chairman, two years ago, this committee played a critical role in shepherding the historic financial modernization bill into law. The next logical step is to liberate the information that drives the securities markets. The information technology available to us today affords us an opportunity to work together to craft a new market data system that combines transparency, competition, innovation and fairness in a way that will benefit investors large and small and solidify the standing of America's capital markets as the envy of the world. On behalf of Schwab and its 7.7 million clients, I ask Congress, and this subcommittee and committee in particular, to undertake this challenge on behalf of all investors.

Thank you very much for the opportunity to share my thoughts with you today.

Statement of Cameron Smith

General Counsel, The Island ECN

House Financial Services Subcommittee on

Capital Markets, Insurance, and Government

Sponsored Enterprises

July 26, 2001

Chairman Baker and Members of the Subcommittee:

I commend the Chairman and the Members of the Subcommittee for holding these hearings concerning an integral part of our securities markets – market data. As the pioneer in providing investors with unprecedented access to market information through the Island BookViewer℠, Island greatly appreciates the opportunity to share its views on market data. Due to the technological advances in communication that allows the dissemination of market data at cost levels unimaginable just a few short years ago, we have a unique opportunity to revisit our policies regarding market data. Within this context, it would be a mistake to grant exclusive proprietary ownership rights in market data before reviewing the outdated policies that create regulatory monopolies for the producers of market data. Therefore, we should embrace those reforms that promote competition and innovation. In so doing, we will further the principles of transparency and access that have been the bedrock of our capital markets.

INTRODUCTION

I am Cameron Smith, General Counsel of The Island ECN ("Island"). Island is an automated trading system for equity securities. It gives brokers the power to electronically display and match customer orders in equity securities. We function as a pure auction market -- directly matching buy and sell orders. Island was founded approximately four and one half years ago with the intent of providing all market participants - from individual investors to large financial institutions - with the ability to

execute securities transactions on a level playing field, at an extremely low cost and without the presence of intermediaries or dealers.

Island is a network of approximately 700 broker-dealers representing a diverse array of market participants. On an average day, Island will trade over 320 million shares – approximately 16% of the transaction volume on Nasdaq. Through June of this year, Island has traded over 44,073,432,288 billion shares worth almost $1,541,710,680,625.42 during 2001.

One of the key reasons for Island's success is its commitment to providing investors with more accurate and complete information. Specifically, in sharp contrast to quotation information provided by traditional markets that provide the high bid and low offer, Island is the first marketplace to provide a free, real-time display of all orders in its market through the Island BookViewer℠. Why is this so important? In addition to providing the investor with the highest bid or lowest offer in a security, the Island BookViewer℠ enables an investor to see all buy and sell orders entered into Island for display. This insight allows investors to better gauge supply and demand and thus more accurately price their orders. This additional level of transparency has become increasingly important to investors with the introduction of decimal pricing. With the advent of decimal pricing, oftentimes liquidity is spread out over more price points, making it necessary to see more than just the highest bid or lowest offer.

Perhaps more importantly, the public display of the Island BookViewer℠ reduces the informational and temporal advantages traditionally enjoyed by market makers and specialists, thus creating a level playing field for all investors. By eliminating these time and place disparities, Island helps lower the hidden costs of trading associated with higher spreads and inferior executions.

In the context of policies regarding market data, it is important to understand the benefits that accrued to investors as a result of Island's policy of providing its own real-time market data for free to all investors. Since Island introduced the BookViewer℠ in 1998, hundreds of thousands of investors have visited the Island web-site to get the latest market information. In light of the popularity of the Island BookViewer℠, the New York Stock Exchange has recently announced OpenBook, and Nasdaq plans to introduce the so-called "Super-Montage" in 2003. Both initiatives are designed to provide investors and market participants with a broader and deeper level of market data. It was the very success of Island's BookViewer℠ and its competitive effect on the market that drove these subsequent market reforms.

Consequently, we risk undermining the very process of competition and innovation if each market were granted an exclusive proprietary right in its market data. Such a regime would prevent market participants, such as Island, from continuing to provide investors with newer, better market data related services. In such an environment, for instance, the Island BookViewer℠ may never have been introduced, and investors would never have had unprecedented access to buy and sell information.

I certainly understand the sentiment of those who believe that the producers of information, whether it is market data or other valuable data, should retain a proprietary right in such data and be compensated by those who elect to use such data. Yet, market data is unique in that it is produced in an environment that is the subject of extensive federal government regulation. In fact, the processing and dissemination of market data is currently done through a regulatory created monopoly overseen by the United States Securities and Exchange Commission.

Let me now outline the extent to which federal regulation surrounds all aspects of market data.

- By regulation, all broker-dealers are required to be members of Self-Regulatory Organizations such as the National Association of Securities Dealers or the New York Stock Exchange.
- By regulation, Self-Regulatory Organization members are required to report transactions exclusively to the applicable SRO such as Nasdaq or the NYSE.
- By regulation, this information is required to be consolidated and made available to investors.
- By regulation, any party disseminating market data must only disseminate consolidated market data that includes data from every Self-Regulatory Organization.

As you can see, there are no competitive free market forces at work with respect to market data. The producers of market data, the broker-dealers, are required by regulation to give the data to the applicable Self-Regulatory Organization. Thus, the ownership of the data by the Self-Regulatory Organization is solely due to the regulatory structure, especially in instances where the SRO adds no or little value to the transaction. Further, when the SROs sell the data, there is no competitive market that determines the appropriate price for the data. The price is determined by the SROs, subject to SEC approval. The SEC is, therefore, entrusted with the difficult task of regulating market data fees.

Given the regulatory monopoly bestowed on Self-Regulatory Organizations, it would be inappropriate to provide additional ownership rights in market data without first substantially revising the regulatory structure that governs market data. Creating a proprietary right without addressing the regulatory monopoly on market data would only further reduce what little innovation and competition remains with respect to market data. Instead, Island urges the Subcommittee to address the overall regulatory regime governing market data and focus on how best to foster competition.

One of the key regulatory requirements underpinning the current regulatory monopoly enjoyed by the SROs is what is known as the vendor display rule. In its simplest terms, the vendor display rule requires every vendor and market participant to disseminate only consolidated quotation information that includes data from every Self-Regulatory Organization. Due to the vendor display rule and the fact that only consolidated data can

be disseminated, there is no market-based pricing of market data. Instead, market participants and vendors requiring market data must pay whatever price the SROs jointly decide to charge, subject to SEC approval.

The decision as to whether to abrogate the vendor display rule is the key decision in creating a truly competitive market for market data. The SEC's role in regulating rates for market data and the monopoly power of the SROs derive directly from this rule. Thus, the issues related to market data rates that Charles Schwab, among others, has long raised all emanate from the existence of the vendor display rule. Given its importance, the vendor display rule must be re-examined.

Too often, and at the expense of any real discussion on the issue, any debate concerning the vendor display rule has been framed as whether consolidated data is beneficial to the market place. The real question, however, is whether consolidated market data would be available in the absence of government regulation. Without allowing market forces to operate, we will never know if investors would receive more and better market information at a lower cost. I believe the forces of competition and innovation would deliver a better product than we have today.

Ultimately, the decision concerning whether to continue the vendor display rule should only be made after careful consideration of the costs and benefits of the current regulatory scheme. Let me identify three clear costs: First, the current regulatory structure confers monopoly power on the SROs that can only be checked by government

regulation. Thus, due directly to the vendor display rule, the SEC is required to play the difficult role of rate-maker. Any so-called reforms, such as competing consolidators, that leave intact the vendor display rule, fail to address this point.

Second, the vendor display rule subsidizes smaller markets, thus distorting competition between markets. For example, the market data for the NYSE is generally much more informative and, therefore, valuable than the market data from the regional markets. Due to the vendor display rule, however, regional markets receive as much on a per trade basis as the NYSE, even though their data is less valuable to market participants and investors.

Third, the vendor display rule harms innovation. There are many ways to represent market data, but they are either directly prohibited or just become too costly due to the existence of the rule. For instance, a market maker that sought to provide additional market data such as the depth of its book to its customers would be prevented from doing so without providing consolidated data as required by the vendor display rule. The requirement of consolidated data, however, would make providing any additional data far too costly. As a result, investors may actually be receiving less market information due to the vendor display rule.

In defense of the vendor display rule, some insist that all investors should only receive consolidated data or they may be misled or misprice orders. Thus, the vendor display rule protects investors by ensuring that all investors receive a minimal amount of

information. In particular, consolidated market data, it is asserted, allows investors to gauge whether they receive best execution from their broker. It is Island's position that if the purpose of the vendor display rule is to ensure that investors receive the best price, there are alternative methods to achieve this goal without distorting the entire national market system.

The second main argument in support of the vendor display rule is that it prevents certain dominant markets from charging exorbitant rates for the market data. I believe, however, that it would be counter to the interests of any market, dominant or not, to charge members exorbitant rates for its market data. For example, consider the New York Stock Exchange. The NYSE generally earns revenues from market data, transaction fees, and listings. If the NYSE were to begin charging exorbitant rates for market data, this could negatively impact its other revenue streams. Thus, the NYSE, and every other market, has an incentive to widely distribute its market data. Indeed, Island gives its market data away for free over the Internet.

While a thorough discussion of the costs and benefits of the vendor display rule is best left to another time, I hope that in my brief remarks the members of the Subcommittee have gained an appreciation for the importance of the vendor display rule and the importance of truly analyzing its costs and benefits.

CONCLUSION

In conclusion, Mr. Chairman, I appreciate the Subcommittee's interest in the issues surrounding market data and agree that my remarks only touched on some of the more significant issues surrounding market data and the vendor display rule. What should be clear from my testimony, however, is that given the comprehensive regulatory structure governing market data, it is not an appropriate time to create additional proprietary rights in market data. I look forward to working with you and your colleagues in introducing competition and innovation to market data and thereby strengthening our nation's equity markets.

Written Testimony of Marc E. Lackritz
President, Securities Industry Association
Financial Services Subcommittee
On Capital Markets, Insurance and Government-Sponsored Enterprises
U.S. House of Representatives

July 26, 2001

Chairman Baker, Chairman Oxley, and distinguished members of the Subcommittee, the Securities Industry Association ("SIA")[1] appreciates this opportunity to share our views on the implications to investors and market transparency of granting ownership rights in stock market information. As you know, for the last several years, SIA member firms, along with regulators, other market participants, and legislators, have been reconsidering the current system of providing securities market information, including the appropriate entities to collect and consolidate the information, the fees charged for the information, and the role of revenue derived from those fees. The issue is complex and the impact on market structure will be significant.

At the same time, as the database industry in the United States continues to grow, efforts are underway to grant new protections to those who collect and compile information, including securities information processors. SIA believes that legislation that would create new property rights in stock market information would seriously undermine the process of consolidating and disseminating stock market information and is contrary to the goals that Congress set out in the Securities Acts Amendments of 1975 ("1975 Act Amendments")[2] to the Securities Exchange Act of 1934 ("the Act").[3] We believe that adequate protections currently exist to address information theft, and to legislate in this area would disrupt the regulatory and contractual regimes that make real-time market information so widely available today.

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[1] The Securities Industry Association brings together the shared interests of nearly 700 securities firms to accomplish common goals. SIA member firms (including investment banks, broker-dealers, and mutual fund companies) are active in all U.S. and foreign markets and in all phases of corporate and public finance. The U.S. securities industry manages the accounts of nearly 80 million investors directly and indirectly through corporate, thrift, and pension plans. In the year 2000, the industry generated $314 billion of revenue directly in the U.S. economy and an additional $110 billion overseas. Securities firms employ approximately 770,000 individuals in the U.S. (More information about SIA is available on its home page: http://www.sia.com.)

[2] Pub. L. No. 94-29, 89 Stat. 97 (1975).

[3] 15 U.S.C. 78a-78mm.

Background—Importance of Market Information

Securities markets are synonymous with information. Market information, *i.e.*, the quotes at which people are willing to buy and sell stock, and the price of the last sale of a stock, is truly the lifeblood of the market. In order to make informed investment decisions, investors, regardless of whether they are large institutions or individuals, and no matter where they are located or where they are effecting their trades, must know the prevailing market price of a security and the price of the most recent sale in that security. The widespread availability of this information, also known as "transparency," ensures that buyers of securities do not pay more than the lowest price at which someone is willing to sell, or sellers do not sell for less than the highest price at which someone is willing to buy.

Transparency of market information also has facilitated the growth of an entire industry of market data vendors that add analytic information and news services to basic market information and sell it to market participants and others, thus giving individual investors access to much of the same information that previously was available only to market professionals. Unrestricted, easy access to this information has helped make the U.S. capital markets the envy of the world. Our markets are deep, our markets are liquid, and our markets are fair. Transparency is one of the reasons.

The benefits of transparency are not limited to the securities industry. Recent advances in technology and communications have spawned an explosion of information, which has benefited consumers in **all** industries. In the securities industry, retail investors have been the primary beneficiaries of this increased transparency. The advent of the Internet has provided investors with a flood of financial information and quick and easy access to the markets. Individual investors are taking personal control of their investment decisions, and many are effecting transactions without the advice of a broker. But whether they are directing their own investments or using a broker for recommendations, because of the speed and ease with which investors can monitor their investments and execute transactions, the demand for, and value of, market information has never been greater.

The "Information Age," though, has raised concerns about database piracy and the need to protect those who compile information in on-line databases. Copyright law generally will prevent the wholesale copying of an entire database, as long as there is at least a minimal amount of original expression, but does not protect the extraction and reuse of individual facts. Securities market information, *i.e.,* best bid and offer and last sale reports, is no more than a collection of facts derived from various market participants.

Database publishers, including securities information processors, also rely on contracts, common law, and technological measures to prevent the misappropriation and misuse of data that the publisher has compiled. Such measures have always been sufficient until recent actions in Europe created powerful new rights for database publishers. Under the Database Directive (the "Directive") adopted by the European

Union ("EU") in 1996, a second-generation publisher cannot extract or reuse a qualitatively or quantitatively substantial part of a first generation database, even if the second publisher did not extract or reuse any protectable expression. A non-EU publisher can receive reciprocal protection only if the publisher's country of origin affords an equivalent level of protection. Consequently, initiatives have been undertaken to strengthen database protection in the U.S.

We must be careful not to let international initiatives trigger the dismantling of a system that has grown up over the last 30 years in the U.S. securities industry. Any legislation that would create an intellectual property right in securities market information would have huge implications on the system for collecting and disseminating market information that Congress so carefully devised in the 1975 Act Amendments.

Consolidating Securities Market Information—Who Does It and What Protections Do They Need?

Individual quotes and last sale reports have little value in and of themselves. It is the aggregation of this information that produces a National Best Bid and Offer ("NBBO"), which informs investors of the best price at which market participants are willing to trade at a particular point in time. In the early 1970's, when the Securities and Exchange Commission ("SEC") first articulated its goal for a central market system, unrestricted public access to consolidated market information was a key component in that plan.

Prior to the 1975 Act Amendments, market information was not consolidated and was not widely available. In fact, the largest market did not provide public access to its quotes. This lack of transparency is precisely what Congress set out to address in creating a national market system. The primary goal was to consolidate last sale and best bid and offer information in order to facilitate efficient price discovery and best execution of customer orders.

In adopting the 1975 Act Amendments, Congress recognized that competitive forces should play a role in the achievement of the regulatory objectives of the Act and acted to remove barriers to competition. But Congress recognized that competition might not be sufficient to ensure the automated dissemination of consolidated market information and therefore gave the SEC rulemaking authority to regulate securities information systems. Using this authority, the SEC adopted rules under which market participants are required to provide basic market information, *i.e.*, best bid and offer, and last sale information in each security to an exchange or association, which in turn consolidates the information into a single stream for dissemination to market participants and the public. Under SEC rules, the self-regulatory organizations ("SROs") are required to act jointly to disseminate market information. The exchanges and Nasdaq have implemented "Plans" pursuant to these rules, under which the SROs operate facilities to consolidate and disseminate market information, set prices for the information, and share the resulting revenues among Plan participants.

Of course, when the Commission proposed rules to provide for the consolidated reporting of transactions and quotations, there were objections from those who controlled this information. The exchanges relied on a line of Supreme Court cases from the early 1900's to assert proprietary rights in their market information. These so-called "ticker cases" held that the collection of quotations by the exchanges stands like a trade secret and is entitled to the protections of the law. To address these concerns, the Commission provided that SROs and vendors could charge reasonable fees for such information.[4]

Any uncertainty surrounding the ownership of market information was settled in 1991 when the Supreme Court, in *Feist v. Rural Telephone*, 499 U.S. 340 (1991), held that under the copyright clause of the Constitution, copyright protection could extend only to expressive elements in compilations, and that effort without creativity could not convert facts into expression. That decision eliminated the "sweat of the brow doctrine," holding that expenditures of time, effort, and money do not afford copyright protection to a collection of information.

For the last 30 years, though, securities information processors under the Plans established by the SROs,[5] as **exclusive** information processors, have enjoyed broad powers. Although securities information processors are required under Section 11A of the Exchange Act to distribute market information in a fair, reasonable and non-discriminatory manner, those processors are, in effect, the existing securities markets, and these markets have relied on revenues from market information to fund other market operations. In the current debate, some market participants have maintained that market information fees are excessive, largely because they have never been subject to competitive pricing and therefore can be used to subsidize other marketplace operations, such as market regulation and surveillance. Irrespective of this debate, we do not believe that Congress or the courts have ever granted securities information processors exclusive ownership rights to market information and to do so now would be a mistake.

Conferring new property rights could impede the flow of real-time market information because, as single-source monopolies, the markets could charge excessive fees and restrict the downstream use of the information. Because they are SROs subject to SEC oversight this may not seem problematic at this point, but opportunities for abuse could occur. These risks would be exacerbated if these markets operate as for-profit enterprises that will be obligated to shareholders to maximize their earnings. While it is important to protect the markets' joint investment in data technology and infrastructure against persons who would take market information without paying for it, we do not believe the markets today are without protection under the current scheme.

Under SEC rules, broker-dealers are required to submit last sale and best bid and offer information to the market's securities information processor. Under the terms of their agreement with the processor, broker-dealers give up property rights in that

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[4] Securities Exchange Act Release No. 9731 (August 14, 1972).

[5] The Consolidated Tape Association is the Plan for exchange-listed securities and Nasdaq/UTP is the Plan for Nasdaq-listed securities.

information which they are required by regulation to provide to the processor. This prevents "tape-racing," which would minimize the value of the information if the broker-dealer were to sell the information to a third party before transmitting it to the consolidator. Vendors, in turn, receive and distribute market information from the processor pursuant to various contract and licensing arrangements.

Of course, it is true that a contract only binds the parties, and databases are susceptible to theft by others who are not parties to the contract. Nevertheless, database publishers have successfully, to date, relied on misappropriation law and technological protections to guard their investment in their databases.

Creating New Property Rights in Market Information Will Harm Investors

The securities industry strongly supports broad dissemination of stock market information. Granting new property rights in market information through database protection legislation, no matter how well intentioned, will vest control of market information into the hands of single-source monopolies in the securities industry, which is the antithesis of broad access to market information that Congress intended in enacting the 1975 Act Amendments. With new proprietary rights in this information, the only constraints on pricing would be the statutory standard that requires fees to be fair, reasonable, and not discriminatory. What is considered fair and reasonable by an exchange might be very different than what is considered fair and reasonable by a market participant that conducts business off of the exchange. If costs are perceived to be excessive, the result is likely to be less information available to investors. Moreover, a whole industry that has grown around adding value to market information, re-packaging it, and selling it to market participants could be at risk. Legislation that would restrict such downstream use of market information would cripple this industry.

Conclusion

Transparency is a basic tenet that has helped make the U.S. securities markets the deepest, most liquid, fairest markets in the world. Widespread distribution of market information promotes public trust and confidence in our markets. Creating new intellectual property rights for consolidators of information would impede rather than enhance investors' access to information.

In fact, bids, offers, and last sale prices are nothing more than facts generated by investors. Alone they have no value but when they are consolidated into a single stream of information, they tell investors what the market for a particular security is at a given point in time. The value of this information is unquestioned. According to the SEC, it generates hundreds of millions of dollars each year. Today, a combination of regulation, contract, and common law ensures that market information is widely accessible to all investors and that compilers of such information are adequately compensated for their efforts. New property rights will almost certainly upset this careful balance.

Testimony

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NYSE

Richard P. Bernard
Executive Vice President & General Counsel
New York Stock Exchange, Inc.
on

"Market Data II: Implications to Investors and Market Transparency of Granting Ownership over Stock Quotes"

Committee on Financial Services
Subcommittee on Capital Markets, Insurance and
Government Sponsored Enterprises
United States House of Representatives

July 26, 2001

Richard P. Bernard
Executive Vice President & General Counsel
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"Market Data: Implications to Investors and Market Transparency of Granting Ownership Rights over Stock Quotes"

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Introduction

Chairman Baker, Congressman Kanjorski and Members of the Subcommittee, I am Richard P. Bernard, Executive Vice President and General Counsel of the New York Stock Exchange, Inc. (NYSE or Exchange). In this capacity, my responsibilities at the NYSE include the management of the Office of the General Counsel, and Audit/Regulatory Quality Review. I am a member of the NYSE's Management Committee. On behalf of the NYSE and our Chairman, Dick Grasso, I thank you for the opportunity to testify about protecting market data from misappropriation.

In June 1999, I testified before the Subcommittee on Finance and Hazardous Materials regarding Title II of H.R. 1858, the "Consumer and Investor Access to Information Act of 1999." Title II sought to amend the Federal securities laws and was designed to create a new cause of action prohibiting the misappropriation of real-time securities market data. The NYSE worked with the House Commerce Committee staff in a very constructive manner to assure that Title II accommodated the unique attributes of market data.

Mr. Chairman, you may recall that, four months ago, my colleague Robert G. Britz, NYSE Group Executive Vice President, testified before this Subcommittee regarding more general issues pertaining to market data. We remain keenly interested in this issue, and stand ready to work with this Committee if it decides to consider database protection legislation for financial information in the 107th Congress.

The NYSE supports the principle that all databases, including securities market databases, deserve anti-piracy protections. The NYSE also believes that investors should have access to real-time market data so that they can be empowered to make educated decisions regarding their financial portfolios.[1]

Ensuring the widespread distribution of market data is good business for the NYSE; this data "primes the pump" at the market and helps to generate additional volume for the Exchange. The widespread distribution of market data also levels the playing field for all investors and it creates interest, and confidence, in the capital markets. The NYSE believes that meaningful database protection legislation will help to maintain investor confidence in the reliability of market data and the integrity of our capital markets.

The NYSE: America's Oldest Database

The Exchange has been making market data available for over 200 years, perhaps making it the oldest information distributor in the United States.[2] While the product has not changed, the means of distribution has. Long before the Internet, technology shaped market data distribution. The first invention that revolutionized the securities information market in the 19th century was the stock ticker, introduced to the Exchange in 1867.[3] The NYSE signed its first market data contract in 1869.[4]

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[1] "Market data" includes last sale prices, which are the recent reports of prices at which stocks have been traded. Market data also includes bid and ask quotations, which are the highest announced bid price that buyers are willing to pay, and the lowest announced offer price that sellers in our market are willing to accept.

[2] Marketplace: A Brief History of the New York Stock Exchange at 4.

[3] Prior to the introduction of the ticker, messenger boys known as "pad shovers" distributed reports of sales and purchases, who constantly ran between the Trading floor and brokers' offices. No matter how quick they were, fluctuations in prices often occurred during the fifteen to twenty minutes that it took them to complete their circuit. The speed and accuracy of the ticker's reports were recognized immediately as assets to trading. Several ticker companies were permitted to station "reporters" on the Trading floor to record sales. Because of the importance of accurate ticker reports, the NYSE was gradually forced to assert control over the information gathering, and in 1885 its own employees began to collect the transaction data to give to the ticker companies. In 1890, the members of the Exchange agreed to establish the New York Quotation Company in order to buy other ticker companies and thereby assure the accurate distribution of market information. Marketplace: A Brief History of the New York Stock Exchange at 14.

[4] While the stock ticker made market data more readily accessible and thereby made trading more efficient, it also created a new problem: regulation of the quotation services. During the latter part of the 19th century, popular gambling enterprises known as "bucket shops" developed in America. Bucket shops often resembled legitimate brokerage offices. The proprietors posted on blackboards current stock quotations—sometimes reliable and sometimes rigged—and bet any comer that the price of a stock would rise or fall to a certain named price. No sales of securities actually occurred, and many bettors were swindled. "Bucket shops" also engaged in unscrupulous and

Orders In, Prices Out

The Exchange's mission is to provide all investors with a sophisticated, efficient and reliable forum for price discovery of listed securities. Mr. Chairman, when two investors trade, the execution is not only important to them. The price of the trade is important to millions of others around the world – for deciding their next market action, for pricing their portfolios, for valuing their stock options and for providing a report card on how well management is discharging its responsibilities to them as shareholders. Said another way, the NYSE exists to discover fair stock prices and distribute them pervasively. We tell the world what a fine slice of ownership – a single share – of a global enterprise for example, General Electric Co., the most valuable company in the world, is worth on a moment-by-moment basis. Through our auction, we take raw material – orders from investors entrusted to brokers, some with vast distribution capabilities, others with simply a telephone and a workstation on our trading floor – and turn it into a snapshot of a corporation's value. Our "factory" is not merely the NYSE trading floor itself, but a vast, fast, secure and reliable data network to deliver and report prices of 2,800+ of the greatest companies in the world. Moreover, the entire process occurs in a "fishbowl" – literally on national television, as well as through the immediate and broad dissemination of the data by vendors and under the watchful eye of those 550 of my partners that work in our Regulatory Group.

To meet the ever-increasing demands to access our liquidity and price discovery process, the NYSE has invested over $3 billion in technology. That considerable investment has enabled the Exchange to develop and implement a highly efficient and dependable network of systems that has the capacity to handle 2000 messages per second.[5] We currently have the capacity to trade five times our average daily volume. Today, the NYSE has sufficient capacity to handle 2000 messages, or orders, per second. Stated differently, capacity is 6 billion shares per day and the Exchange expects its systems to be able to handle a day in which 10 billion-shares are traded.

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manipulative securities selling practices. Because their activities cast a bad light on all legitimate brokerage, the NYSE deprived such establishments of quotation services. Many bucket shops found unethical ways to procure the market data that they needed to operate. These constituted early examples of market data piracy, a practice that the markets have had to combat ever since. Modern technology only enhances the ability of pirates to pilfer the data. A federal misappropriation law would be a welcome deterrent.

The Exchange is also a "self-regulatory organization" or "SRO" with the power to regulate its members. One-third of the NYSE staff is directly devoted to regulation. Every year the Exchange invests substantial resources to improve its regulatory systems. The Exchange monitors every transaction that occurs on the trading floor on a real-time basis. It examines all member firms to ensure compliance with operational, financial and sales practice requirements. It also maintains a rigorous enforcement program that can discipline our member firms and their employees.

Why go through all of the expense and effort? To ensure that we have the most efficient, transparent price discovery mechanism in the world and the best data processing and distribution systems. At its core, that is the Exchange's business—the discovery and distribution of price information. The Exchange is the primary market for price discovery for most of the great companies of the United States. The world recognizes that the NYSE is the price leader in our stocks – in fact, although scores of other U.S. and foreign exchanges, and ECNs and other broker-dealers trade our stocks, the NYSE is the price leader in our listed stocks 94% of time.

This is no accident. It is a by-product of our commitment to providing a trading platform of unequaled reliability, integrity and liquidity and to provide an efficient forum for the capital raising and allocation process. The NYSE price discovery process is the basis for all other trading activity in NYSE stocks, regardless of whether that trading takes place on the Exchange, or on another exchange, in the over-the-counter market, overseas, through the facilities of an alternative trading system or otherwise. Trading in NYSE listed stocks other than on the Exchange would be far more volatile and less orderly without the NYSE pricing mechanism "discovering" and "validating" current value of listed stocks.

Why Market Data Is So Important

Market data is the beginning and end, and the heart and soul, of every trade. It is the information that investors all over the world rely upon in making their investment decisions. One key reason why the United States equities markets are generally acclaimed as the finest in the world is because those markets excel at making market data available to the investing public. That reliable, widespread distribution

[5] A message is any discrete entity of information that has a specific function such as an order, a report, a cancellation or an administrative message

creates trust and confidence in our securities markets. It allows investors to witness the open and orderly auction market price discovery process. Investors can witness the agency auction market price discovery process through computer terminals, television screens, personal digital assistants, and pagers or by communicating with their brokers. That process creates investor interest and confidence in our markets and reliable market data is an important component of that trust. Maintaining the public's trust in the quality and reliability of this data is therefore central to maintain trust in our capital markets. The Exchange believes that a meaningful federal misappropriation standard would strengthen the hand of the SROs in our efforts to ensure that the public's trust in the validity and accuracy of market data.

Property Rights in Market Data

Mr. Chairman, you may recall from the March 14 hearing, the testimony concerning the work of the SEC's Federal Advisory Committee on Market Information created by former SEC Chairman Arthur Levitt and chaired by Joel Seligman, Dean of the Washington University School of Law in St. Louis. The Committee has completed its meetings and is now developing its report. While it is premature to comment on the Committee's emerging recommendations, I should note that, the Committee based its work on the premise that the Securities Exchange Act of 1934 recognizes the right of the Exchange to use market data fees as one of several vehicles by which to equitably allocate its charges.

Nevertheless, some have persisted in trying to shift the debate regarding market data to the question of "who owns the quotes." The case law regarding the ownership of market data is clear and supports to this day, the markets' ownership of this data. The Supreme Court long ago recognized exchanges' ownership of market data.[6] Those trying to shift the debate and focusing on this question are obfuscating the real issues: the apportionment of costs of generating market data among broker-dealers and investors.

Those focusing on "property rights" conveniently ignore the fact that those who approve the Exchange's budget and market data (and other) fees are the ones who pay. They bridle at the administrative burdens of equitable, fair and reasonable allocation of fees without proposing an

alternative that is revenue-neutral for the Exchange and does not create "winners" and "losers" among those who pay. Instead, they describe the "root cause" of these necessary burdens as the "exchanges' treatment of market data" as their own "proprietary, licensable, revenue-generating product." Finally, to overcome the well-established case law on proprietary rights, they claim that Congress "nationalized" market data in 1975.

Nothing can be further from the truth. To be sure, Congress began regulating market data in 1975. It mandated that exchanges disseminate market data on fair and reasonable terms and make that data available on terms that are not unreasonably discriminatory. But regulation is not expropriation. These provisions are completely consistent with the Exchange continuing after 1975 to recover a portion of its costs through market data fees – as indeed it has since 1975 under close SEC scrutiny.

Market Data Protection

Four legal theories protect the Exchange from the unauthorized taking and use of the market data:

- The law of torts and, in particular, the tort of misappropriation.
- Contract law, effected through a network of contracts, pursuant to which we authorize the redistribution and use of market data.
- Copyright law.
- Section 11A of the Securities and Exchange Act of 1934 and the rules promulgated thereunder, which, as noted, both explicitly recognizes the Exchange's right to disseminate market data pursuant to fair and reasonable terms and terms that are not unreasonable discriminatory.

The Database Protection Debate

The debate whether to enact legislation for the protection of databases has been ongoing since 1991 with the Supreme Court decision in Feist Publications, Inc. v. Rural Telephone Service Co., Inc., 499 U.S. 340 (1991). The Supreme Court, while eliminating the "sweat of the brow" doctrine, affirmed the copyrightability of a collection of information, so long as the collection demonstrates an adequate

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[6] See Board of Trade of the City of Chicago v. Christie Grain and Stock Company, 198 US 236, 1905; Hunt v. New York Cotton Exchange, 205 US 322, 1907, affirming Christie; and Moore v. New York Cotton Exchange, 270 US

quotient of creativity and selectivity.[7] Since Feist, the source and extent of legal protections for the "valuable contents of collections of information has been uncertain, requiring reliance on a patchwork of different, individual insufficient legal theories."[8]

Fortunately, several of the unique elements of market data discussed above – most particularly, that the Exchange is the creator, and not merely the collector, of market data and that Congress has explicitly confirmed the Exchange's right to use market data fees as a component of its equitable allocation of fees – makes market data less vulnerable than other database collections. The NYSE supports the enactment of a national misappropriation statute that will protect securities market data from piracy. A Federal statute will clarify any ambiguity in the law caused by the Feist decision and will hopefully address the issue of reciprocity with the EU Directive.

While the NYSE was a latecomer to this debate, during the 106th Congress, the NYSE worked with former Chairman Bliley and Congressman Howard Coble on database protection legislation. Both pieces of legislation presented workable starting points and meaningful protection. We hope that any legislation considered by the Financial Services Committee will follow the leads of Congressmen Bliley and Coble in imposing minimal compliance burdens on the markets or vendors and users of market data. Yet, at the same time, any legislation should provide the markets with redress against market data piracy, thereby preserving a revenue stream that our constituents employ to assess themselves in order to finance the markets.

We look forward to working with you, Mr. Chairman, and all of the members of the House Capital Markets Subcommittee, and with your staff to ensure that any legislation regarding the protection of market data strengthens the current protections.

593, 1926.

[7] The "sweat of the brow" doctrine existed in the United States for more than 200 years. Courts developed the "sweat of the brow" doctrine, holding that copyright for a compilation was a reward for the hard work that went into compiling the facts, regardless of originality of selection and arrangement. The courts which followed the "sweat of the brow" test were willing to give the authors of compilations a proprietary interest in facts, and to require later authors to engage in independent research rather than rely upon the facts contained in prior copyrighted works.

[8] Hearing on H.R. 2652, The Collections of Information Antipiracy Act before the Subcommittee on Courts and Intellectual Property of the Committee on the Judiciary, United States House of Representatives, 105th Congress, Statement of Marybeth Peters, Register of Copyrights at 4 (October 23, 1997). See also H.R. Rep. No. 105-225, at 8 (1998).

On behalf of the New York Stock Exchange, I hope my statement is helpful to the Capital Market Subcommittee as it considers this issue. Thank you for the opportunity to present this testimony. We look forward to working with the Committee to insure that the U.S. capital markets remain the envy of the rest of the world. Mr. Chairman, I would be happy to answer any questions.

Testimony

of
Richard G. Ketchum
President
The Nasdaq Stock Market

before the

House Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises

on

Market Data II: Implications to Investors and Market Transparency of Granting Ownership Rights Over Stock Quotes

July 26, 2001

Executive Summary and Introduction

Mr. Chairman, members of the Subcommittee, I am Richard Ketchum, President of the Nasdaq Stock Market. We welcome the opportunity to continue our dialogue before this Subcommittee on the important issues of market data and our long-standing commitment to enhancing the availability and the value of the information we provide. In addition to addressing the questions raised for today's hearing, we also provide further discussion of issues raised at the March 14, 2001 hearing before this Subcommittee on market data.

The Nasdaq Stock Market is the largest electronic, screen-based market in the world, capable of handling trading levels of at least four billion shares a day. Nasdaq lists over 4,000 companies, has the largest dollar volume of trades of any financial market, and trades more shares per day than any other U.S. market. Since commencing operations in 1971, Nasdaq has been an engine of growth in our economy and has become a cornerstone of the American capital markets. Millions of jobs have been created in the United States by companies listed on Nasdaq. In addition, the creation and development of our marketplace has benefited many that interact with Nasdaq – including our issuers, market participants, and the investing public.

Under the thoughtful leadership of Congress and the U.S. Securities and Exchange Commission ("SEC"), the U.S. capital markets are the envy of the world. The continued success of our nation's capital markets, however, is not guaranteed. Many other markets abroad are continuously seeking ways to provide issuers and market participants with alternatives to our capital markets. In our view, excessive regulation of our securities markets would hamper this nation's ability to continue as a global leader.

A vital aspect of our capital markets – and relevant to this hearing – is market data. Today, American investors enjoy wide access to the highest quality, most current, and lowest cost market data of any major nation. In fact, Nasdaq's market data today is distributed to over 550,000 industry professionals and millions of investors, and investors have enjoyed a 75% decrease in our market data fees over the past two years. In fact, a full month of Nasdaq's market data costs a maximum of $1, less than a single ATM transaction.

We believe that a database of market data, like any other valuable database, would benefit from greater protection mechanisms. The value of market data is in its integrity. If unauthorized

parties can misappropriate it, and perhaps change it, that integrity is jeopardized to the detriment of investors here and worldwide. This is magnified in the ever-expanding Internet-based environment in which we live, and complicated by the challenge of applying a variety of intellectual property principles to modern databases.

In this regard, we supported the efforts in the last Congress contained in Title II of H.R. 1858, the "Consumer and Investor Access to Information Act of 1999," to the extent it would have filled a gap in Section 11A of the Exchange Act, by clarifying that piracy of real-time market data is a violation of our federal securities laws. While greater certainty in our ability to enjoin piracy is welcome, Nasdaq believes that the enactment of H.R. 1858 could have abrogated potentially important related rights in market data. There may be circumstances in which copyright, trade secret, and unfair competition and/or misappropriation rights and remedies, in addition to those that would have been available under H.R. 1858, may properly need to be asserted by market information processors. Accordingly, we would have concerns with legislation that would only codify the view of some that Nasdaq should only have very narrow enforcement and contractual rights and no other proprietary interests in its market data. We stand ready to assist this Subcommittee in addressing these concerns, should it choose to proceed with these or similar provisions.

If markets – like Nasdaq – are to continue seeking innovative ways to ensure unparalleled market integrity through greater market transparency of high quality market data to investors, our ability to limit the flow of this valuable market data to parties who have contracted for its use must be apparent and consistent with relevant existing rights. For the following reasons, we also believe that Nasdaq, as with any exchange or SRO, (1) has a right to protect its market data; and (2) should be able to establish prices for its market data consistent with basic free market principles:

- Nasdaq's market data is created within our marketplace and is shaped by our regulatory framework and internal quality controls.
- Nasdaq adds layer-on-layer of value to our market data – from creating a market structure designed to promote liquidity and transparency, supported by quality market participants subject to stringent marketplace rules, to developing and maintaining sophisticated automated market surveillance tools to monitor trading and issuer activity.

- Investors enjoy broad access to our quality market data at fair and reasonable prices. All indications are that individual investors are pleased with the broad access to market data they now enjoy.
- Allowing markets to charge fees for market data in a manner that reflects the value of such market data (as opposed to a strict cost-based justification), recognizes the market's right to protect the data, and the "value added" qualities a market brings to the data.
- The markets operate in a highly competitive environment, which acts as a natural "regulator" of market data fees. There is healthy competition among exchanges and SROs for trading volume, which culminates in the ultimate value of a particular market's quote and trade data. Additionally, market data fees drive demand for other competitive products and services that the market produces, thus ensuring that market data fees are fair and reasonable.

Part I of this testimony describes the current debate being advanced by some market participants on how much markets charge for market data. Part II describes the basic characteristics of market data and, more specifically, certain data products offered by Nasdaq. Part III illustrates Nasdaq's role in creating quality market data. In particular, how the quality of the market data Nasdaq produces results from many interrelated functions of our market – from the way in which the market is structured to the extensive market surveillance tools we employ to ensure the integrity of our market and our market data. Part IV discusses how Nasdaq provides market participants and investors with wide access to our high quality market data. Part V addresses how markets should determine the appropriate fees to charge for their market data. Finally, Part VI describes how the dialogue on market data should focus on how competitive forces ensure the fairness and reasonableness of fees – as opposed to cost-based government intervention.

Part I – The Current Debate

Recently, various market participants have vigorously debated the subject of market data. In particular, the debate focuses on how much exchanges and self-regulatory organizations ("SROs") charge for the market data they provide to the marketplace. For instance, certain market participants claim that market data should be deemed part of the public domain, and regulation should dictate that markets collect, consolidate, and disseminate that data – but at no

charge or on a cost-justified basis. This essentially is a commercial argument raised by certain market participants and data vendors to advance their business interests.

In response to these claims, the SEC published a concept release on the subject.[1] The SEC Market Data Concept Release elicited many comments – from SROs, broker-dealers, vendors, and investors. The response to the concept release made it clear that the issues surrounding market data fees were complex and varied and required a more in-depth study. As a result, SEC Chairman Arthur Levitt established the SEC Advisory Committee on Market Information – chaired by Professor Joel Seligman, Dean of the Washington University School of Law (the "Seligman Committee") – to evaluate Section 11A of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the current framework for market data. The Seligman Committee has been tasked with recommending how the current framework for market data should be adjusted to advance the objectives of a national market system ("NMS"). As a member of the Seligman committee, Nasdaq has been an active participant in this dialogue. In particular, Nasdaq submitted a white paper to the Seligman Committee proposing alternatives to the current structure for the collection and distribution of market data that encourage competition.[2] The paper is consistent with the charter of the Seligman Committee, and focuses on the regulatory and technical structure surrounding the distribution of market data. The Seligman Committee is expected to report its recommendations to the SEC in September 2001.

This Subcommittee also has taken an interest in the subject of market data.[3] Nasdaq, along with other market centers and market participants, testified before this Subcommittee on March 14, 2001.[4] Before setting forth our view that it is appropriate for Nasdaq to be compensated for our market data, we think it is worthwhile to present a description of market data to frame the debate.

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[1] *See Regulation of Market Information Fees and Revenues*, Exchange Act Release No. 42208 (December 9, 1999) ("SEC Market Data Concept Release").

[2] Nasdaq's white paper is available on the SEC web site at <http://www.sec.gov/pdf/nasdmi.pdf>.

[3] Hearing on "Public Access to Stock Market Data—Improving Transparency and Competition," U.S. House of Representatives Committee on Financial Services, Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises (March 14, 2001), at <http://www.house.gov/financialservices/031401tc.htm>.

[4] The testimony of Edward S. Knight, Executive Vice President & General Counsel of The Nasdaq Stock Market is available on the web site for the House Financial Services Committee at<http://www.house.gov/financialservices/031401kn.pdf>.

Part II – Market Data Defined

Market data consists of quotation and trading information generated by a particular market. Market data comes in many different varieties. Market data is typically distinguished by the type of information (*i.e.*, quotes and trades), the depth of quotation information (*i.e.*, the best bid or best offer or enhanced information like Nasdaq's full quotation montage), and the time of dissemination (*i.e.*, real-time, delayed, and historical).

Individual pieces of quotation or trade information, in isolation, are not useful to market participants or the investing public. Individual bits of information input into Nasdaq are only useful when presented within the context of the overall market at a specific point in time. Nasdaq arranges and consolidates these individual bits of information in a manner that enables the data to interact within our marketplace, and allows participants to find the other side of their trade. Stated another way, trade information that broker-dealers (or more directly, their customers) provide to Nasdaq is the raw material; it is not the refined product – the real time market data to which we add layer-upon-layer of value through rigorous quality controls.

Quotes represent the buying and selling interest of market participants. In particular, each Nasdaq market maker and exchange specialist posts the highest price that it is willing to buy a particular security (bid) and the lowest price that it is willing to sell a particular security (offer). The quotes also reflect any investor orders that market makers or specialists may be holding. Trade information, on the other hand, represents the most recent sale price for a particular security.

Quotes are further distinguished with respect to the depth of the quotation information. A particular market (such as Nasdaq) may have a best bid or offer ("BBO") that is representative of the trading interest on that market. A market may also have bids and offers below the BBO that represent additional trading interest of market participants. We commonly refer to this type of enhanced quotation information as the "Nasdaq Montage" or "Nasdaq Book." Lastly, if multiple markets trade the same security, then the BBO from each market is consolidated to determine the national best bid or offer ("NBBO") for that security.[5] A reliable and widely disseminated

[5] The NBBO is a reflection of the best price at which market participants are willing to trade at a single point in time, and, as such, is among the most vital pieces of market information to market participants, including exchanges, broker-dealers, and institutional and retail investors.

NBBO ensures that customers are informed of the best prices and sizes available in the marketplace, and can evaluate the quality of executions they receive. In addition, the NBBO assists broker-dealers in complying with applicable rules and regulations, including compliance with their best execution and short sale obligations.

The NBBO continues to be important in today's decimal trading environment.[6] As trading in decimals expands, however, market quotation information below a particular market's BBO or the NBBO will become increasingly important to broker-dealers and investors. Accordingly, Nasdaq continues to explore innovative ways of creating, packaging, and disseminating enhanced information so that market data vendors, broker-dealers, and investors will have access to whatever enhanced information suits their respective interests.

Market data is also categorized based on the time of dissemination. For example, market data may be disseminated instantaneously (or "real-time") or on a delayed basis (typically 15 to 20 minutes from the posting of the quote or the execution of the trade). In addition, market data may be disseminated on a historical basis to reflect daily, monthly, or yearly trends in particular securities. Nasdaq has chosen not to charge for delayed market data. For real-time and historical market data, Nasdaq considers the value that the particular data product will bring to the marketplace when determining the appropriate fees.

Nasdaq makes significant investments in the research and development of our market data products.[7] To that end, we continually explore ways to develop innovative data products, based on real-time and historical data, to assist investors and market participants in making informed investment and trading decisions.

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[6] *See Market Information: Searching for Consensus*, SEC Commissioner Paul R. Carey, Twenty-Eighth Annual Securities Regulation Institute, January 25, 2001. In his speech highlighting the issues being considered by the Advisory Committee, Commissioner Carey noted that even in a decimal trading environment, "the inability to discover the best prices in the national market would be a major step backward."

[7] *See* Exhibit A.

Part III – Creating Quality Market Data – Nasdaq's Role

The success of our marketplace culminates in the high quality market data we deliver to investors, which we create, consolidate, and disseminate at substantial expense. Our open market structure is designed to promote liquidity and transparency, and is supported by quality market participants subject to stringent marketplace rules, and sophisticated automated market surveillance tools to monitor trading and issuer activity. Leveraging such a sophisticated market environment, we strive to create and deliver quality market data to the market participants and investing public who find it so essential to their investment decisions.

As the SEC stated in the SEC Market Data Concept Release,[8] the value of a market's information depends on the quality of the market's operation and regulation.

> Information is worthless if it is cut off during a systems outage (particularly during a volatile, high-volume trading day when reliable access to market information is most critical), tainted by fraud or manipulation, or simply fails to reflect accurately the buying and selling interest in a security. Consequently, there is a direct connection between the value of a market's information and the resources allocated to operating and regulating that market.[9]

To that end, reliable, accurate, and timely market data results from a complex set of actions by Nadsaq's core operations, as described below. The investments made by Nasdaq in our market, regulatory, and technological infrastructure facilitate universal access to valuable market data at reasonable cost to all market participants and investors.

Market Structure

SRO-operated markets – like Nasdaq – play an integral role in the proper functioning of a NMS, and without their participation, market information simply would have no value whatsoever. Some market participants have suggested that SRO-operated markets have "unique access" to market data. We believe that, to the extent SRO-operated markets have "unique access" to market data, it is only because the market data was borne out of the proper functioning of such markets. Said another way, market information is not a by-product of trading activity in our market; it is the foundation of Nasdaq's role as a "market." Because Nasdaq actively brings

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[8] *See* SEC Market Data Concept Release, *supra* note 1.

[9] *Id.* at Section I.

together order, quote, and last sale information and provides transparency in a manner that drives the interaction and execution of orders, broker-dealers actively seek out our market to provide quality executions for their customers' trading interest.[10]

Nasdaq's competing market maker structure and open architecture have facilitated the capital formation of thousands of U.S. companies and have contributed to the success of a broad range of market participants, including broker-dealers, ECNs, and online trading firms – all of which serve the American public in their investing needs. Nasdaq's market structure is designed to encourage multiple dealers that are geographically dispersed and linked through our sophisticated computer network to compete for investors' orders. In some cases, over 100 market makers commit significant amounts of capital and post firm two-sided quotations for a particular security in a manner that facilitates the price discovery process. In this way, our market structure enables market participants to obtain quality executions for their customers. In addition, our open architecture encourages other market participants, including ECNs, to provide additional liquidity and transparency.

Nasdaq's market structure is also supported by stringent marketplace rules that create the framework for the production of quality market data. For example, Nasdaq market makers must meet special capital requirements and display continuous two-sided firm quotes[11] in all securities in which they choose to make a market. Market makers also commit to (1) provide automatic execution for investors' orders[12] and (2) protect and display customer limit orders and provide customers with quality executions consistent with their best execution obligations. ECNs were integrated into Nasdaq in 1997 as part of the implementation of the SEC's order handling rules, and provide an additional source of liquidity to Nasdaq. ECNs display either one-sided or two-sided quotes, which reflect actual orders that reside on their trading system.

In addition, Nasdaq employs sophisticated technology to conduct systemic review of all quotation and trade data submitted into Nasdaq's systems to ensure that our market participants

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[10] *See* Sharon Brown-Hruska and Jerry Ellig, *Financial Markets as Information Monopolies*, 23 REGULATION, at 31.

[11] *See* Rule 11Ac1-1 under the Exchange Act ("SEC Firm Quote Rule") and Nasdaq Stock Market Rule 4613(b).

[12] Nasdaq's new small order execution system – SuperSoes – was implemented as a pilot on July 9, 2001. Full implementation is expected by the end of July 2001. SuperSoes increases the maximum order size to 999,999 shares for automatic execution.

are acting in a manner that is consistent with the rules and standards of practice established by Nasdaq.[13] To that end, Nasdaq's market structure enables the interaction of buying and selling trading interest in a liquid and transparent trading environment. In addition, our market structure maintains a stable and orderly market, which, in turn, enhances investor trust in our market and the market data we create.

Market Surveillance

Just as our overall market structure enhances market data quality, our sophisticated market surveillance systems also serve an important role. Our market surveillance systems – supervised by the MarketWatch Department and Market Regulation Department – reinforce the accuracy, reliability, and timeliness of Nasdaq market data. In other words, Nasdaq market surveillance systems continually validate the individual bits of information submitted by market participants into our systems.

MarketWatch

The mission of The Nasdaq MarketWatch Department is to facilitate regulatory oversight of Nasdaq on a real-time basis, to maintain a level playing field for investors and protect the integrity of the marketplace. MarketWatch is composed of two sections – StockWatch and TradeWatch. These sections work together to monitor news, market activity, trade reporting, and to prepare and track the impact of regulatory changes or major events to Nasdaq.

StockWatch conducts real-time surveillance of issuer activity in Nasdaq. To accomplish this task, StockWatch continually reviews press releases issued by Nasdaq-listed companies for material news and monitors price and volume activity in Nasdaq securities on a real-time basis using automated surveillance systems. These functions allow StockWatch to provide an orderly market and to protect investors as well as Nasdaq-listed companies. Nasdaq rules require issuers

[13] For example, Nasdaq Stock Market Rule 4613(e) prohibits a market maker, absent extraordinary circumstances, from "locking" or "crossing" the best bid or best offer in a particular security. In other words, if the BBO is 10 bid – 10.02 offer, then market makers are prohibited from quoting (1) an offer that is equal to ("locks") or less than ("crosses") the current inside bid (10); and (2) a bid that is equal to ("locks") or greater than ("crosses") the current inside offer (10.02). If a market maker "locks" or "crosses" the current inside BBO, then Nasdaq rejects the quotation data and informs the submitting market maker. In response, the market maker may either (1) submit a conforming bid or offer; or (2) override the system parameters and re-submit the bid or offer that locks or crosses the market. This is one of many examples of how Nasdaq helps to ensure that the market data we create and provide to market participants and investors is based on individual pieces of information that have been examined for accuracy and reliability in the quality control process.

to give StockWatch advance notice of news events to permit StockWatch to assess press releases for materiality and in certain circumstances, implement a trading halt. During the trading halt, Nasdaq does not collect or disseminate quote or trade data. Such a pause benefits existing and potential shareholders by allowing for the equal distribution of material news among all market participants and by making sure trading is based on publicly disclosed information. Nasdaq's authority in this area is broad-reaching and is essential to the operation of a marketplace that offers proper investor protection.

TradeWatch uses the Surveillance Delivery Real-Time (SDR) system to conduct real-time monitoring of trading activity in Nasdaq. The SDR system, an award-winning technology innovation,[14] analyzes market information and generates specific alerts through an integrated database with proprietary alert parameters. TradeWatch analysts review alerts to make sure that certain price and volume information reported by market participants is accurate, thereby reinforcing integrity in the marketplace. TradeWatch resolves locked/crossed markets and real-time trade reporting issues in accordance with applicable marketplace rules. TradeWatch also evaluates erroneous trades and works with market participants to correct Nasdaq's trade data to ensure its accuracy. TradeWatch also facilitates immediate resolution of index calculation problems caused by trade reporting errors.

Market Regulation

NASD Regulation's Market Regulation Department also contributes to the quality control process. Market Regulation operates in three units: Quality of Markets; Compliance and Surveillance; and Trading and Market Making Examination/Market Integrity.[15] Through a variety of sophisticated surveillance techniques and programs, Market Regulation seeks to ensure the protection of investors and the preservation of the integrity and fairness of Nasdaq by monitoring market participants' compliance with NASD/Nasdaq rules. If rule violations are found and documented, Market Regulation will prosecute the matter to ensure that appropriate sanctions are

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[14] A distinguished panel of judges at the 2000 Computerworld Smithsonian Awards selected Nasdaq as a Computerworld Smithsonian Laureate in the Finance, Insurance and Real Estate category for the SDR system.

[15] NASD Regulation was established in 1996 as a separate, independent subsidiary of the NASD. It was created as part of a major restructuring of the NASD, a major feature of which was to separate the regulation of the broker-dealer profession from the operation of The Nasdaq Stock Market. Nasdaq has contracted with NASD Regulation to perform its regulatory functions.

imposed. Market Regulation also works closely with the SEC and other law enforcement agencies. Market Regulation has the responsibility of monitoring and regulating the quoting and trading activity of over 5500 NASD member firms. As a national securities exchange, Nasdaq will continue to contract with NASD Regulation to perform its regulatory functions.

The sheer volume of stock trading activity made possible by technology requires swift detection of market abuses. To assist Market Regulation staff, technology has become the key in monitoring the market effectively. The StockWatch Automated Tracking System℠ (SWAT℠) is an automated system that creates an individual "profile" for every security, based on its historical price and volume information, industry-wide trends, and the publicly disseminated news of a particular company. The Research and Data Analysis Repository℠ (RADAR℠), in use since November 1995, provides immediate access to market data and other related information, dramatically increasing the speed and flexibility with which large quantities of data are analyzed.

Technological Infrastructure

Nasdaq invests hundreds of millions of dollars to develop and maintain the technological infrastructure that makes the operation of The Nasdaq Stock Market possible. Nasdaq's investments in its technological infrastructure have enabled our systems to keep pace with the explosive growth we have experienced over the last seven years. Nasdaq systems have processed significant market activity on an average daily share and quote basis from 1994 to 2000. Specifically, our average daily share volume and average daily quote traffic over this period has increased 574% and 439%, respectively:

Year	Average Daily Share Volume	Average Daily Quote Traffic
1994	296,000,000	98,692
1995	404,000,000	158,021
1996	549,000,000	222,609
1997	654,000,000	549,258
1998	791,000,000	1.02 million
1999	1,054,000,000	2.09 million
2000	1,700,000,000	4.33 million

To support this unprecedented growth, we have assembled and maintain the computer networks, communications systems, and all other systems necessary to operate Nasdaq, both at our Trumbull, Connecticut and Rockville, Maryland sites.[16] In the event that the Trumbull facility – Nasdaq's primary market facility – goes offline, the Rockville site stands ready to support the operation of the market.

Part IV – Access to Market Data

For the investing public to benefit from the development of the high quality market data products generated because of Nasdaq's market role and our rigorous quality control procedures, they must have access to the data. In enacting the Securities Act Amendments of 1975 ("1975 Amendments"),[17] Congress authorized the SEC to facilitate the creation of a NMS, the heart of which was to be communications systems that would disseminate consolidated market information. Thus, the creation of a NMS was premised on investors having access to consolidated information from all markets.[18] Today, American investors enjoy wide access to the highest quality, most current, and lowest cost market data of any major nation. In particular, investors have access to unlimited real-time and delayed market data from Nasdaq and the other exchanges through an ever-increasing number of media and distribution outlets. In the SEC Market Data Concept Release, the SEC recognized the broad access to market information that investors enjoy. The SEC stated:

> All participants in the U.S. markets have access to a consolidated real-time stream of market data for any of the thousands of equity securities and options that are actively traded … Under this regulatory framework, the SROs have developed and funded the systems that have been so successful in disseminating a highly reliable, real-time stream of consolidated market data throughout the United States and the world.[19]

Nasdaq has long recognized the importance of market data to investor's decision-making process, and has sought to disseminate its market data to the broadest population of industry professionals and investors. In fact, Nasdaq's market data today is distributed to over 550,000

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[16] Exhibit B describes Nasdaq's state-of-the-art electrical and mechanical facility infrastructure.

[17] Pub. L. No. 94-29, 89 Stat. 97 (June 4, 1975).

[18] S. Rep. No. 94-75, 94th Cong., 1st Sess. 9 (1975) ("Senate Report").

[19] SEC Market Data Concept Release, *supra* note 1, at Section I.

industry professionals and millions of investors. Nasdaq remains committed to offering broad access to our valuable market data.

Nasdaq has taken proactive steps to lower the individual investor's cost of access to our real-time market data, by 50% in 1999 and by another 50% in 2000 to a cap of $1 per month per user, while continuing to realize the value that the data holds to industry professionals and individual investors. The monthly fee for unlimited real time data costs less than the service charge for a single ATM transaction. A full year's worth of market data costs less than many Americans pay for a single online trade or a single month of Internet access. Moreover, the low cost of market data to firms is evidenced by the fact that many firms bundle it for no charge for their active customer accounts.

Nasdaq's market data fee structure encourages a highly liquid trading environment that benefits issuers, market participants, and investors alike. In fact, all indications are that individual investors are pleased with the broad access to market data they now enjoy and we hear no evidence of investor outcry with respect to access or cost. Notwithstanding this fact, the debate – fueled by a small group of vocal market participants – continues on how markets should determine the appropriate fees to charge for their market data.

Part V – Charges for Market Data

Markets should be able to charge fees for market data that, in today's competitive landscape, reflect the value of that market data. Such fees recognize the "value added" qualities a market brings to the data. Value-based pricing is also consistent with the framework created by Congress when enacting the 1975 Amendments, and the practice of the SEC in implementing that framework.

The debate regarding market data centers around whether market data should be provided at cost or priced based on the value it brings to the marketplace. Markets should be able to charge fees that, in a competitive landscape, reflect the value of that market data. Forcing markets into rigid, utility rate-making would be a departure from the current approach that focuses on the fairness and reasonableness of fees and vigilant SEC oversight. As described

below, Congress clearly contemplated that markets would be able to charge for their market data, so long as the charge was fair and reasonable, and not unreasonably discriminatory.

Nasdaq's role as a market and our internal quality controls (described in Part III) create the value of the market data that we produce. These value-added qualities that a market brings to its market data reinforces a market's right to protect the data and the notion that a market should be compensated for it. In that regard, market data fees should be related to the value of the market data. For example, markets have chosen to provide delayed quotation and transaction information for free. We also provide real-time quotes for each market maker and ECN in Nasdaq NM and SmallCap securities and real-time last sale information – at a cost to non-professional investors that is one-fifth of what it had been one year ago.

Charging for access to our market data products is not only consistent with basic free market principles, but, as noted above, it is also consistent with the framework created by Congress when enacting the 1975 Amendments. For example, Congress enacted Section 19(b) of the Exchange Act that authorized the SEC, among other things, to oversee SRO fees. In particular, Nasdaq submits proposed fees to the SEC as a proposed rule change. The SEC review of such filing includes a public comment period, during which anyone has the right to express his or her views. The SEC considers the opinions collected through the comment period. This process is exhaustive, but it ensures that the SEC can carry out its oversight responsibilities granted to it by Congress with respect to market data fees.

In addition, Congress amended the Exchange Act to facilitate the establishment of a NMS. Section 11A(c)(1) provides the SEC with rule-making authority to ensure that market data is provided on terms that are "fair and reasonable" and "not unreasonably discriminatory." Congress did not provide any specific guidance to be used in determining whether market data fees were set in a manner consistent with this standard.[20]

Rather than focusing on the nature or level of market data fees, Congress was concerned about the potential for exclusive processors to engage in anti-competitive or discriminatory practices vis-à-vis particular markets, broker-dealers, or vendors. This is reflected in the legislative history that discusses the SEC's rule-making authority under Section 11A(c)(1). For

[20] *See* Appendix B to NYSE's April 10, 2000 submission to the SEC in response to the SEC Market Data Concept Release.

example, the Senate Report's analysis of Section 11A(c)(1)(C) – the source of the "fair and reasonable" standard – describes the standard as "reasonable and non-discriminatory."[21] Moreover, in describing Section 11A(c)(1)(D), the Senate Report addresses potential anti-competitive or discriminatory behavior, but not the nature or determination of fees charged for market data.[22] In fact, nowhere in Section 11A of the Exchange Act or the related legislative history does it suggest that SROs should be precluded from charging fees for their market data, or that such fees must be justified only on the basis of cost.

It is important to note that Congress in 1975 was able to clearly reflect its intent to establish a cost-based pricing approach in another context. Specifically, Congress established a cost-based justification requirement in the context of eliminating fixed commission rates.[23] Section 6(e)(1)(A) – which applied until November 1, 1976 – allowed an exchange to impose a "reasonable" schedule or fix "reasonable" rates of commissions if the SEC found it to be in the public interest. Section 6(e)(1)(B) – which became effective after November 1, 1976 – prohibits a schedule or fixed commission rates unless the SEC makes a finding that the rates "*are reasonable in relation to the costs of providing the service for which such fees are charged...*" (emphasis added). This illustrates that (1) Congress knew how to draft statutory language requiring cost-justification when it intended to do so and (2) the term "reasonable," without more, does not signal that rates must be cost-justified.

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[21] *See* Senate Report, *supra* note 18, at 104. Specifically, the Senate Report states that "[t]he Commission would be required to assure that all securities information processors, i.e., vendors have access for purposes of distributing, or publishing, *on reasonable and non-discriminatory terms,* the securities quotation information and transaction information collected, processed, or prepared for distribution or publication by any exclusive processor of such information." *Id.* (Emphasis added).

[22] The Senate Report states that "[t]he SEC would be required to assure that all exchange members, brokers, dealers, and securities information processors as well as such other persons as the SEC deems appropriate, have access on reasonable and non-discriminatory terms to quotations and reports of transactions published by any [SRO] or securities information processor. The SEC would thus be directed to remove present and future anti-competitive restrictions on access to basic market information, e.g., by eliminating rules giving members of an exchange an exclusive right to particular information." *Id.*

[23] Section 6(e)(1) of the Exchange Act permits an exchange to impose fixed commission rates or schedules, if the SEC makes certain findings.

The understanding that Congress did not intend to require a cost-based justification of market data fees, is also supported by the manner in which the SEC has reviewed market data fee proposals. The SEC most often has reviewed market data fees as proposed rule changes by the NASD under Section 19(b) and by the various NMS plans under Rule 11Aa3-2(c) of the Exchange Act. In the SEC Market Data Concept Release, the SEC noted that it "has relied to a great extent on the ability of SROs and [NMS plans] to negotiate fees that are acceptable to SRO members, information vendors, investors, and other interested parties."[24] The SEC also noted that "[a]s a means to arrive at fair and reasonable fees, the negotiation process is buttressed by the public notice and comment procedures that accompany proposed rule changes."[25]

The SEC also has recognized that market data revenues "enable the SROs to fulfill their self-regulatory functions" and "play an essential role in the Exchange Act regulatory scheme."[26] Certain market participants, however, believe that markets' pricing models should be limited to their direct costs for processing and disseminating market data. While Nasdaq recognizes the need to balance a value-based pricing approach with the need to ensure that the fees are reasonably related to the cost of producing the data, Nasdaq, as with other SROs, finds that the quality of the market shapes the quality of the market data coming from that market. Therefore, it is very difficult to separate the cost of market data from the cost of the market that creates it.

Nasdaq is a multi-product marketplace that generates revenues and costs from several interrelated core operations – involving issuer listings, transactions, trade reporting, and market data. Accordingly, our focus in determining fees has been to examine the value of the service or product it is providing, and then to analyze how to spread or allocate costs in a fair and reasonable and non-discriminatory manner. In that regard, we strongly believe that regulatory services and technology should continue to be funded from a broad revenue base, which includes revenues from listings, transactions, trade reporting, and market data, in a way that does not create financial disincentives to fund and perform those services.

As a crucial component of this broad revenue base, market data revenues are a stable, broad-based and equitable source of funding that helps to ensure the health and safety of the

[24] *See* SEC Market Data Concept Release, *supra* note 1, at Section III.C.

[25] *Id.*

[26] *Id.*, at Section IV.

securities markets. In particular, market data revenues provide a crucial source of funding that: 1) enables Nasdaq to maintain the capacity, redundancy, and reliability of our order, trade, and quotation processing systems that are second to none,[27] and 2) allows NASD Regulation to perform extensive and exhaustive market oversight to create a protected trading environment for investors. Nasdaq is able to fund such important endeavors, and at the same time, investors have enjoyed a 75% reduction in market data fees over the last two years.

To date, this framework has served our markets well and has allowed competitive forces to shape the landscape of market data fees, while providing a regulatory backstop in the event that it does not. Moreover, Nasdaq becoming a for-profit entity does not change this analysis. We are still subject to SEC oversight of market data fees, and more importantly, we have the same competitive incentives (discussed below) to develop innovative market data products, and make them available at fair and reasonable prices. The development of a specific set of criteria that dictates market data fees jeopardizes the foundation on which our NMS was built and will only cause the pendulum to swing further away from competition and closer to excessive regulation – a result that runs afoul of what Congress intended in 1975.

Part VI – Competition...Not Cost

Rather than focusing on what markets charge for market data, the focus should be on competition. Specifically, Congress in 1975 sought to balance its desire to allow competition to shape a NMS with an understanding that, in the environment of the 1970s, SEC involvement would be needed to achieve the goal of providing investors and broker-dealers with consolidated market information. Congress recognized that competition initially might not be sufficient to ensure the automated dissemination of consolidated market information that would form the heart of a NMS. Accordingly, Congress gave the SEC "pervasive rulemaking power to regulate securities communications systems."[28]

Using this authority, the SEC adopted a number of rules under which the exchanges and SROs have been required to act jointly in disseminating market information. It is under this regulatory framework that the exchanges have acted jointly to develop and fund systems that

[27] *See* discussion of Nasdaq's Technological Infrastructure in Part III, *supra*.

[28] H.R. Rep. No. 229, 94th Cong., 1st Sess. 93 (1975).

successfully disseminate a highly reliable, real-time stream of consolidated market information throughout the U.S. and the world.

There are many examples – past, current, and pending – that illustrate the flexibility of the 1975 Amendments to allow for greater competition among markets. As described below, Nasdaq competes with other markets for listings, transactions, and market participants – the success or failure on these fronts greatly impact the value of our market data. For example, since Nasdaq commenced operations in 1971, Nasdaq, the NYSE, and other exchanges have competed vigorously to attract quality issuers to list on the respective markets. Nasdaq currently lists for trading the securities of over 4,000 companies. Between 1990 and 2000, over 88% of companies having initial public offerings on primary U.S. markets have chosen to list on Nasdaq.[29]

In addition, Nasdaq faces competition for transactions. The 1975 Amendments authorized the SEC to grant exchanges unlisted trading privileges in over-the-counter (OTC) stocks. This paved the way for Nasdaq and exchanges to compete for transactions in Nasdaq-listed securities. In 1985, the SEC granted exchanges unlisted trading privileges (UTP) in certain Nasdaq National Market (NM) securities.[30] In 1987, the Chicago Stock Exchange, commenced trading in 25 Nasdaq NM securities.[31]

To further this competitive trading environment, in 1990 the SEC approved the Unlisted Trading Privileges Plan ("Nasdaq/NMS/UTP Plan") governing the collection, consolidation and dissemination of quotation and transaction information for Nasdaq NM securities.[32] In addition, alternative trading systems, including ECNs, have entered the competitive arena for transactions in recent years. Several of these ECNs are transforming themselves into national securities exchanges. For example, Island ECN has an exchange application pending with the SEC and Archipelago will operate its equity-trading platform as an exchange pursuant to its acquisition of the Pacific Exchange ("PCX"). As exchanges, they will be eligible for a share of the revenue

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[29] Approximately 25% of Nasdaq-listed companies are eligible for listing on the NYSE, and many of the remaining companies are eligible for listing on the AMEX. In 2000, 25 companies moved from Nasdaq to the NYSE, while one switched from NYSE to Nasdaq.

[30] Exchange Act Release No. 22412 (September 16, 1985).

[31] Exchange Act Release No. 24407 (April 29, 1987).

[32] Exchange Act Release No. 28146 (June 26, 1990).

generated by the sale of Nasdaq market data products. Accordingly, this development will enhance the level of competition among markets for order flow in Nasdaq-listed securities.

In addition, Nasdaq has an application pending with the SEC to become a registered national securities exchange. As an exchange, the trading environment for Nasdaq-listed securities will open itself up further to new potential competitors – including other existing exchanges, and ECNs that also choose to register as national securities exchanges. All of these market centers will provide new choices for market participants to trade, and for the investing public to place their orders to obtain a quality execution in Nasdaq-listed stocks.

Accordingly, Nasdaq will face increasing competitive pressures with respect to transactions in Nasdaq-listed securities. Nasdaq fully supports the increasing levels of competition that we will face as the NMS continues to evolve. However, Nasdaq also believes that for a competitive environment to thrive, each competitor should operate on a fair and level playing field, one that encourages innovation. As such, each competitor should be able to price its voluntary products and services based on value, as applied using supply and demand, and free of regulatory oversight – to the greatest extent possible.

Nasdaq believes that the increased competition characterized by today's market environment will continue to drive innovation and quality. In turn, these competitive forces will dictate the fairness and reasonableness of market data fees. We recognize that because of certain regulatory requirements – like the SEC's Vendor Display Rule – competitive forces cannot fully supplant SEC oversight with respect to fees charged by a market for its particular BBO. For voluntary, enhanced market data (*e.g.*, market data below the BBO), however, a truly competitive environment can flourish.

By unleashing competitive forces with respect to enhanced market data, exchanges and SROs will be encouraged to innovate and create enhanced execution, market data, and other services, thereby increasing the value of their respective markets and market data.[33] In turn, each market's desire to attract trading interest, in part, by creating innovative ways to package and disseminate enhanced market data, will help to ensure that market participants and investors will

[33] For example, in conjunction with SuperMontage, Nasdaq has developed an enhanced market data product – called the Prime Feed – that will disseminate on a real-time basis, all individual attributable quote/order information at the three best price levels displayed in the Nasdaq Order Display Facility.

have access to whatever enhanced data suits their respective needs, at prices that are fair and reasonable.

Economic theory holds that true competition among markets should "regulate" market data fees. As described above, Nasdaq is a multi-product marketplace that generates revenues and costs from several interrelated core operations – involving issuer listings, transactions, trade reporting, and market data. The source of competition is also the organic and intrinsic interrelationship of these core operations. Accordingly, Nasdaq must analyze the impact that fee changes relating to any one service will have on the others. For example, if Nasdaq attempted to raise our market data fees beyond the value of the data to market participants and investors, market data revenue may rise (though this is not certain, at least beyond a short-term period of adjustment to the change),[34] but the revenue from other services would likely fall. In particular, market participants and investors would likely conduct fewer transactions in Nasdaq-listed securities because they may not have ready access to the data on which to base their investment decisions – leading to a decline in transaction and trade reporting revenues.[35]

Further, the decline in trading volume, and the lack of widely disseminated market data for a specific issuer, would over time make Nasdaq less attractive to issuers because of the apparent decline in liquidity and investor interest for their securities and a higher cost of capital – leading to a decline in listing revenues (and related transaction revenues generated from trading activity in these issuers' securities). Accordingly, the decline in Nasdaq's revenues from listings, transactions, and trade reporting may be far greater than any increase in market data revenue. Nasdaq must recognize that demand for its data is price-sensitive and that competition for transactions and listings constrain the price we can charge for our market data. We have demonstrated this over the last few years by steadily lowering our market data fees.

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[34] For example, if Nasdaq increased the price of real-time market data to levels exceeding the value market participants and investors attach to the market data, some may choose simply to access delayed market data at no charge – as opposed to paying excessive fees for real-time market data. Of course, this would result in a decline in market data revenues.

[35] Market participants and investors may seek out alternatives to Nasdaq-listed securities, such as similarly situated NYSE-listed securities, exchange-traded, or traditional mutual funds.

Conclusion

Markets – like Nasdaq – have been the engines of growth in our economy, and the foundation of what is the world's most vibrant capital market. As we move into a new phase of the evolution of our market structure, we must ensure that the core policy goals established by Congress in 1975 – including broad public access to consolidated market data, the maintenance of stable and orderly markets, and the ability to promote competition – are preserved and encouraged to the greatest extent possible. This flexible framework can continue to encourage competition and innovation among markets, resulting in the development of quality market data that investors can trust. These competitive forces will also ensure that investors have broad access to our market data at value-based prices, which are fair and reasonable. By unleashing these competitive forces, the ultimate beneficiary is the investing public.

Thank you for the opportunity to testify. We look forward to working with you as you consider the various aspects of market data issues. I will be happy to answer any questions you may have.

EXHIBIT A

Nasdaq Market Data Products

- Nasdaq offers real-time quotation information through the Nasdaq Level 1 Service℠. The Nasdaq Level 1 Service includes:
- Consolidated real-time quotation information reflecting the national best bid and best offer ("NBBO") for all Nasdaq National Market ("NM") securities and Nasdaq SmallCap securities.
- Real-time values for the Nasdaq Composite® Index, Nasdaq/NM Composite® Index, and eight industrial sub-indexes.
- Real-time market maker quotes and NBBO information for OTC Bulletin Board® (OTCBB) securities.
- End-of-day market summary statistics such as most active issues and new high/lows for The Nasdaq Stock Market.
- Daily net asset values and associated data for over 8,000 money market and mutual funds are reported to the Mutual Fund Quotation Service℠ (MFQS℠).
- In addition, Nasdaq offers real-time transaction information through the Nasdaq Trade Dissemination Service℠ (NTDS℠). NTDS includes:
- Real-time price and volume data for each trade in Nasdaq NM and SmallCap securities.
- Real-time trade price and size data for each trade in OTCBB domestic, foreign, and American Depositary Receipt (ADR) securities.
- Trade price and size data for other over-the-counter securities transactions that are reported via the Automated Confirmation Transaction Service℠ (ACT℠).
- End-of-day summary data (such as high/low/closing prices and volume) for all Nasdaq and OTCBB securities.
- Real-time values for the Nasdaq-100 Index® and Nasdaq-Financial Index®.
- Nasdaq also provides enhanced data products to market participants, vendors, and investors. For example, Nasdaq has developed an enhanced quotation data product called the Nasdaq Quotation Dissemination Service℠ (NQDS℠). NQDS includes:
- Real-time quotes for each market maker and electronic communications network ("ECN") in Nasdaq NM and SmallCap securities.
- Real-time quotation information reflecting the NBBO for Nasdaq NM and SmallCap securities.
- Nasdaq has developed a historical data product in response to requests from market participants to increase the availability of Nasdaq-verified trading data through NasdaqTrader.com. This product offering – called Nasdaq PostData℠ – will allow market participants to view such data and make informed choices regarding their trading partners. Nasdaq plans to offer the PostData℠ product from the Secure Data section of the Nasdaq Trader web site, pending approval by the SEC. Nasdaq PostData℠ – will contain the previous day's share and block volume statistics posted by participating market makers, ECNs, and order-entry firms for all Nasdaq-traded securities.

EXHIBIT B

Nasdaq Facility Infrastructure

Nasdaq's electrical and mechanical infrastructure features the following:

- A 45-watt per square foot capability.
- Two utility power feeds from separate geographical locations/substations.
- Dual internal electrical infrastructure design capable of supplying two power sources to the data center floor.
- Four Rotary uninterruptible power sources (UPSs) Systems (N+2) design (1500 kilovolt total capacity).
- Four batter strings (one per UPS) capable of supplying fifteen minutes of backup at full design load.
- A Battery Monitoring System for all UPS, generator and station batteries.
- Three 1450 kilovolt diesel generators capable of supporting the data center through a long-term outage indefinitely without interruption at 3000 kilovolt. These generators are fueled via two underground 15,000-gallon main tanks with an additional underground 6,000-gallon tank used for fuel deliveries and fuel analysis before being pumped to the main tanks.
- An electrical monitoring system (EMS) monitors over 800 electrical points within the infrastructure. The power distribution system is depicted on a color graphical display PC and will show electrical component alarms and system status as they occur. Alarms are also saved in a historical file for archival and trouble shooting purposes.
- An infrastructure simulation system, based on the design of the EMS system and our electrical infrastructure, is available to provide training, troubleshooting and simulated electrical procedures and switching scenario validations without interfering with the primary electrical distribution system.

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