TESTIMONY SUBMITTED FOR THE RECORD BY JOHN J. PHELAN, JR.

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BEFORE
THE U.S. SENATE COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS

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WASHINGTON, D.C.

Mr. Chairman, members of the Committee:

On behalf of the New York Stock Exchange, I appreciate the opportunity to appear at this hearing.

My purpose today is to give you the perspective of the New York Stock Exchange regarding the events leading up to and including the week of October 19th, 1987.

I also want to offer some comments regarding the Securities and Exchange Commission's report on the October market break, the report of the Presidential Task Force on Market Mechanisms and the General Accounting Office's preliminary observations on the events of last October.

These studies reflect a great deal of time and effort and deserve serious consideration.

And finally, I'd like to share my thoughts with you about where our equities markets are headed and in which direction I think they should be going.

But before I do all that, I want to provide a basis for my comments by giving you a brief background of the New York Stock Exchange.

The New York Stock Exchange has a varied and broad-based constituency made up of 650 member firms, 1,600 listed companies, 13,000 institutional investors, and more than 125,000 Registered Representatives.

In terms of the investing public, there are 47 million Americans who are direct shareowners in America's corporations, 70 percent of whom hold NYSE listed stock, while 47 percent hold only NYSE listed stock.

Another 140 million people are indirect shareowners through insurance companies and pension funds for a total of 187 million direct and indirect shareholders -- all of whom have a common interest in preserving the fairness and orderliness of our equities markets.

In other words, the NYSE is a market with many constituencies and deeply planted roots in the American economy.

Working with and on behalf of our multiple constituencies, the role of the NYSE is to:

Promote the capital-raising process by maintaining an open, fair and liquid marketplace under normal conditions for the issuance and trading of securities;

Provide investors -- large and small -- with a vehicle for managing their assets through investment; and

Promote effective self-regulation of the market and market participants for the protection of investors and the integrity of the marketplace.

Given that brief profile of who we are and what we do, let's take a look at the week of October 19th and what it meant for the Exchange.

An analogy to help put the NYSE's performance into perspective would be to compare the market to a skyscraper standing erect in the midst of a hurricane with winds reaching in excess of 150 miles-per-hour.

As long as the building withstands that kind of strain, most people are gratified even if the lights flicker.

In a sense, that's what happened to us. We were hit by a financial hurricane of enormous proportions the week of October 19th.

Of course we had problems. But the problems were at the margin, affecting only about 10 percent of our business.

The fact is, we kept our marketplace open and all the individual components of our market -- including our systems and those of our member firms -- functioning so as to provide an investment arena where the smallest and largest users were afforded the opportunity to have their trades executed.

The hurricane that hit us that week -- like any other hurricane -- was the product of several different atmospheric conditions, some more important than others.

The most important of those conditions was the general perception that the market was overvalued.

It was this perception of the market being overvalued -- along with a growing concern over higher interest rates -- that was the catalyst for the storm.

The view that the market had peaked increased the overall level of investor anxiety. As a result, the marketplace became especially sensitive in October to bad news about a variety of troublesome issues. Issues that had been on the public mind for a very long time, but that hadn't affected the market previously.

Issues such as inflation, recession, trade and budget imbalances, debt levels, protectionism and tension in the Persian Gulf, to name just a few.

Which -- if any -- of these issues actually instigated the market break is beside the point.

The critical element was the public perception that the market was overvalued and thus susceptible to a correction.

Whatever element -- or combination of elements -- that set off the correction did so like a hurricane that ripped through our market.

Here are some facts and figures to demonstrate just how strong that hurricane was.

The total NYSE share volume for October 19th through the 23rd was 2.3 billion shares -- or almost as much business as we did all of 1967.

On October 19th, NYSE volume was 604 million shares, more than three times our average daily volume for the year.

The very next day -- Tuesday, October 20th -- we hit a volume of 608 million shares and followed with three more days of extraordinarily high volume without closing.

From January to September 1987, the average number of trades each day was 87,000. In contrast, on October 19th and 20th, there were more than 200,000 trades per day.

In terms of orders, the average number of systems orders received from January to September 1987 was just under 144,000, or 6.1 orders per second.

On October 19th, we received 470,000 orders, or 20.1 orders per second. And on October 20th, those numbers were 585,000 orders received at a rate of 25 orders per second, or four times our previous daily average.

In 1987, program trading orders in our Designated Order Turnaround System, known as SuperDot, averaged about 15,000 per day between January and September. (A description of SuperDot is attached.)

On October 19th, over 61,000 orders were received on the NYSE trading floor through SuperDot. That's four times the usual number of program orders.

These figures regarding program orders probably are understated because of the way orders are marked.

Indeed, according to the Presidential Task Force on Market Mechanisms, index arbitrage programs and straight sell programs accounted for almost 20 percent of the sales on our trading floor on October 19th.

We, too, believe the numbers of program orders are higher and need to improve our marking of orders in the future.

Should we have been able to predict this kind of activity, and should we have planned for it better? To ask the question another way, was our planning at fault.

I believe the answer is "No."

Prior to October 19th, our planned peak in volume -- otherwise known as the theoretical limit -- for the NYSE and our member firms was between 420 million and 450 million shares, or more than two and one-half times our average daily volume up to that period.

And even at that, there was plenty of skepticism within the industry that we would ever experience a 450 million share day -- much less a 600 million share day -- before 1990.

Yet, despite that skepticism, we developed a five-year plan to increase processing capability to handle peak loads of 450 million shares in 1987, and 600 million shares in 1990.

Moreover, after we hit a then record volume of 303 million shares on January 23rd, 1987, we went back and took an even closer look at our systems, and invested several million dollars more to accelerate improvements in our capacity.

These are a great many figures. But they're important because I believe they demonstrate that in light of the kind of market activity we had seen prior to October 19th, our planning process was reasonable and responsible.

I want to underscore, too, that even though our volume projections did fall short of the 600 million share days we actually experienced, it was the elasticity of processing capability embedded in our planning that enabled us to handle last October's volume.

That elasticity of processing capability -- combined with emergency measures we instituted during the week of October 19th -- got us through a storm of unpredictable proportions.

Some of those emergency measures are part of our basic contingency plan.

For example:

Our fundamental premise during any kind of emergency is that we do everything possible to keep the Exchange open and functioning. That was the premise we operated on when October's financial hurricane hit.

We also allowed the dealer system additional time to open securities and provide for trading halts and indications of interest where there were large imbalances.

We opened our electronic order delivery systems beginning on October 19th at 7:30 a.m. rather than 8:30 a.m.

And we maintained communications liaison with the Securities and Exchange Commission.

As I said, all these steps are part of our basic emergency operating procedures.

What we did in October was to expand on these measures by setting up additional communications links with the White House, Congress, the Federal Reserve, the Treasury Department, member firms, regional exchanges, NYSE board members and key industry executives.

We also freed-up our system's capacity for public and institutional investors by requesting that our member firms refrain from using our automated order delivery system for entry of program trading orders -- specifically those program trading orders having to do with index arbitrage. And that they refrain from doing that kind of trading for their own account.

From previous examinations that we had done, we knew index arbitrage trading utilized some 15 percent of our capacity.

By eliminating it from our systems, we were able to make that capacity available to public and institutional investors.

At the same time, there were several institutions trading through one major member firm that experienced significant problems, and we currently are examining these situations.

Nevertheless, as a result of our efforts, to quote Robert Glauber, executive director of the Presidential Task Force on Market Mechanisms, in a January 18, 1988 interview in <u>Barron's</u>, "The Big Board held together." And as Mr. Glauber went on to point out in that interview, the NYSE did so despite the fact that we weren't configured to handle anything like the volume we actually experienced.

In a January 15, 1988 letter to the NYSE from Benjamin F. Edwards the 3rd, chairman of A.G. Edwards and Sons, Inc., a member firm whose business primarily is retail, Mr. Edwards stated that "Overall, (his) customers were able to obtain executions for record numbers of orders through the facilities of the NYSE." And that A.G. Edwards "believes the great majority of (its) clients, who were investors, felt that they were reasonably served under extremely difficult conditions." (A copy of the letter is attached.)

It should also be noted that in a survey of 302 institutional investors -- representing almost one trillion dollars in assets -- and 294 individual shareowners taken by the Exchange after October's market break, both groups were asked to compare the NYSE's performance with that of a wide range of institutions, including the London and Tokyo Stock Exchanges.

Both institutional and individual investors alike rated the NYSE's performance second only to that of the Federal Reserve.

We are proud of these findings. But, as I said earlier, we did have some problems. By that I mean that in addition to delays that took place at our member firms, the NYSE experienced delays in our delivery and reporting mechanism for market and limit orders.

While those delays taken on an individual basis were significant, they were minor when viewed in relation to the total system traffic that we experienced.

Regarding the delays, by October 20th -- when we hit 608 million shares -- our systems showed improvement. And by the 21st, even though we still were experiencing extraordinarily high volume, our systems showed significant improvement.

In short, in a period of only 48 hours, we adjusted to volume levels that were more than three times our daily average. No other system in the world can make that kind of claim.

To put it another way, the events of October 19th should not be taken out of context. The conditions we faced were extraordinary in the extreme. It's true we had difficulties. But it's also true that our achievement was unsurpassed.

As a result of the October market break, there was a lot of attention focused on the issue of comparison and settlement.

Following the execution of a trade, brokers for both the buyers and sellers submit the details of the trade -- such as price and number of shares -- for comparison and settlement.

It is important to note that the NYSE is able to tell any customer who questions a trade whether or not there was a delay in the stock at the time the order was placed, and if there was a delay, at what price range the customer can expect the trade to have been executed.

It is also important to note that uncompared trades involve settlements between brokers and not public customers. And that all confirmed public transactions were cleared and settled within the normal 5-day settlement cycle.

Following the market break, a lot of concern also has been expressed that as volume continues to grow and the use of index arbitrage increases, professional trading may at times crowd out public trading — whether it be individual or institutional.

While that did not happen during the week of October 19th, it is a complex problem that needs to be closely examined.

The NYSE has never before discriminated between one kind of order over another, but to the extent that there is a potential for such crowding out, we are considering all the options available to us to deal with the issue.

SPECIALIST SYSTEM

Much of what I've discussed so far involves electronic systems. But our systems are more than just electronic.

One of the important human elements is the specialist.

The fact is, during the market break of October 1987, the specialist system performed better than any other system across the country or around the world.

Indeed, Nicholas Brady, Chairman of the Presidential Task Force on Market Mechanisms, in a January 12th, 1988 interview in the New York Times said of the specialist system — in much the same way that Churchill said of democracy — that while it's not the best system, "it's the best we've invented."

Also, the SEC in its report on the market break stated that: "Although there were some instances of questionable individual performance...specialists as a whole met their market making obligations."

In my view, that's saying a great deal in favor of the specialist system, especially when it's said by people charged with investigating the market break.

Our evaluation of the performance of our specialists did surface some cases where Exchange standards were not met.

In two such cases, the NYSE took away the stocks of Gould and Company and J.P. Morgan and Company from the specialists firms M.J. Meehan and Company and Spear, Leeds and Kellogg, respectively. In both instances, the NYSE reallocated the stocks to other specialists.

We expect more disciplinary actions resulting from the week of October 19th, and when appropriate, additional stocks will be taken away from other specialists that failed to meet Exchange standards. For we agree with the Securities and Exchange Commission that reallocation of stock is an effective tool in improving specialist performance, and we intend to do more of it in the future.

Nevertheless, overall the NYSE specialist system performed the way it is intended to perform. And we believe the reason it did so is because our specialists have an assigned responsibility. (The NYSE specialist job description is attached.)

How well NYSE specialists fulfill their assigned responsibility is determined by evaluating their performance against a particular set of standards. Indeed, the NYSE is the only market with specific standards for judging specialist performance.

These standards have been in place for many years. They have been reviewed and approved by the Exchange board of directors as well as filed with and approved by the Securities and Exchange Commission (SEC). Moreover, the Exchange annually discloses the performance of the specialist system based on these standards.

What are some of those standards, and how did NYSE specialists perform in the face of the financial hurricane that hit the market in October?

One is the specialist participation rate.

The specialist participation rate measures the number of shares a specialist buys and sells as a dealer for each stock assigned to him, and expresses that participation rate as a percentage of total shares bought and sold.

On October 16th, 19th and 20th, the specialist participation rate for all specialists was 13.1 percent, 17.5 percent and 18.1 percent, respectively, compared to 11.7 percent for the first nine months of 1987.

What this shows is that specialists' purchases and sales for their own account during October 19th and 20th increased substantially at a time when market volume was more than three times the previous daily average.

Another measure is the stabilization rate.

The stabilization rate measures the percentage of purchases and sales made against the trend in the market by a specialist in each of the stocks assigned to him. The higher the percentage, the better.

The specialists' stabilization rate for all stocks on October 16th, 19th and 20th was 91 percent, 94 percent and 94 percent, respectively.

In comparison, the stabilization rate was 90 percent during the first nine months of 1987, clearly indicating that on all three October dates, the specialists' dealings against the trend of the market were consistently better than the average experience for the period leading up to the market break.

A third standard is quotation spread.

The quotation spread is the difference between the price at which a stock is bid and the price at which it is offered. The narrower the spread, the better.

While the quotation spread widened somewhat as would be expected during the period under review, principally with one-eighth point spreads declining and one-half point spreads increasing, compared to performance during the previous September, trade-to-trade variations -- otherwise known as continuity -- compared favorably.

Continuity reflects the change in price from one trade to the next. The more liquid a stock is the more it trades at minimal price variations.

For October 16th, 19th and 20th, there was no change in price between one sale and the next 57 percent, 50.6 percent and 46.4 percent of the time, respectively, compared to 57.9 percent of the time for the preceding month of September.

There was one-eighth of a point change in price between one sale and the next 29.4 percent, 22.6 percent and 20.5 percent, respectively, compared to 32.8 percent of the time for the month of September, clearly indicating a liquid market for the period under review.

And finally, there's the standard known as market depth.

Market depth extends the concept of continuity to a sequence of trades, reflecting actual change in price on each 1,000 shares of volume. The more volume that occurs at no change or at a small variation, the better the depth of the market.

Examining the standard of market depth, the figures compare favorably with the continuity figures, with no change in price variation per 1,000 shares of volume 52.9 percent, 47.2 percent and 42.4 percent of the time on October 16th, 19th and 20th, respectively, compared to 52.9 percent of the time for the entire month of September.

What all this suggests is that when evaluated against well-established, proven measures of specialist performance, NYSE specialists did a commendable job in the midst of extremely volatile market conditions never before experienced.

That, too, was the conclusion of Peter T. Buchanan, President and Chief Executive Officer of the First Boston Corporation, a major member firm, who in a letter to the NYSE, dated January 29, 1988, wrote that "the specialist community did a commendable job in extraordinary circumstance...." (A copy of the letter is attached.)

It is interesting to note at this point, that following the events of October 1987, the National Association of Securities Dealers is beginning to institute standards for dealer activity similar to those we've had in place for years.

In examining specialist performance for the period under review, the the issue of capital adequacy of specialists has been raised.

Specifically, would the condition of the market during the week of October 19th have been better than it was if specialists had more capital?

Simply stated, the answer to that question is "No."

The Brady Commission itself stated in its report that "no realistic amount of capital could have stemmed the tide of the October break...."

We agree with that conclusion.

Additional capital during the October market break would only have led to more selling at prices above equilibrium.

The fact is that the specialist is not the buyer of last resort. Dealers can't hold markets up; they can only cushion them. Specialists aren't in the marketplace to prop up the price.

Rather, they are there to help make sure whichever way the market moves, it does so in an orderly fashion depending on market conditions. And no amount of capital would have enabled them to do more during the week of October 19th.

Nor should we have expected them to do more.

Dealers are not nor should they be required to stand in front of a roaring financial "locomotive." To demand that they to do so clearly would jeopardize the the existence of the dealer system. And that would serve neither the interests of the dealers themselves nor the interests of the investing public who rely on a continuous auction market.

Taking a longer term view beyond the specific events of October 19th, the conclusion is equally as clear that as we move toward one market and volume, volatility and risk increase, pressure on the specialist system will intensify.

That means that over time, we must strengthen the specialist system.

The way to do that is by:

Increasing the amount of capital in the system;

Enhancing the buying power of specialists by improving their ability to borrow money; and

Taking stocks away from those specialists who fail to meet Exchange standards.

We intend to take all these steps to make what we believe to be the best dealer system even better.

While we agree with the Brady Commission's conclusion regarding specialist capital during the week of October 19th, we disagree with the Commission's use of net buying and net selling activity over half-hour intervals as a standard for measuring specialist performance.

No equities market system anywhere judges dealer performance by such a standard. Quite simply, it ignores the minute-to-minute shifts of supply and demand, and obscures the extent of a dealer's contribution to market continuity and depth.

In our judgment, it's absolutely necessary that a dealer be allowed to reliquify at all times during the day. So rather than net buying and selling, the important measure is the number of times a dealer moves in and out of the market.

As I stated earlier, when judged against those criteria, the specialist system performed extremely well under very difficult circumstances.

DELAYED OPENINGS AND TRADING HALTS

What I want briefly to address next is the subject of delayed opening and trading halts.

In view of the enormous amount of selling pressure, there was a higher number of delayed openings and trading halts in individual stocks on October 19th and 20th, as the Exchange tried to reflect to the public — both individuals and institutions — disparities between supply and demand.

The purpose of delaying an opening or interrupting trading is to widely publicize significant order imbalances in individual stocks.

This public disclosure process -- adopted in the early 1970's -- is specifically designed to give investors the opportunity to enter or cancel orders in securities that are experiencing large imbalances in supply and demand, and thus set a new price prior to the commencement of trading.

It's also important to note that decisions to delay the opening or halt trading in particular stocks are not the result of individual specialists operating on their own.

Quite the contrary. Decisions of that nature are made by the NYSE officials on the trading floor. These officials are designated by the NYSE board of directors and are responsible for on-the-spot administration of our trading rules and policies.

In short, the trading halts and delayed openings that occurred during the week of October 19th -- though greater in number than usual -- were part of our consistent policy to get as much sunlight into the marketplace as possible to the benefit of each and every investor.

One of the reasons our lights merely flickered without going out when the financial hurricane struck on October 19th is the fact that we regularly reviewed our systems and planning models. And wherever possible, accelerated implementation of our overall capacity expansion.

Since October 19th, we've taken a number of additional initiatives designed to increase our trading capacity.

NYSE INITIATIVES

The following steps that we've taken relate directly to a number of specific points raised about our automated stock trading systems in the General Accounting Office's preliminary report on the market break.

Specifically:

- . In November 1987, the DOT's system memory was increased and several of the system's data files were separated to allow more efficient processing. Further system enhancements are scheduled to be completed by July 1988 to improve DOT's processing capability even more.
- . In January 1988, program changes were completed in the Limit Order System to reduce system bottlenecks discovered during the October market break. A major upgrade of the system with more efficient computers is targeted for April 1988 and is expected to result in a 50 percent increase in capacity.
- . The NYSE had begun to completely replace our Automated Pricing and Reporting System prior to October 1987, but only a small fraction of the new system was operational by the week of the 19th. We are moving ahead with an entirely new system; replacement is expected to be completed by the end of this month.
- . The ability of the NYSE's Universal Floor Device Controller to store and process data has been increased. To add additional capacity, major portions of data normally routed through the Universal Floor Device Controller will be re-routed to other systems over the next three months.

A problem associated with the Universal Floor Device Controller during the week of October 19th was a backlog of orders directed to printers on the trading floor. January 19, 1988, we opened our expanded Blue Room, adding 30 more printers for an increase of 20 percent. Seventeen more printers will be added to the trading floor by the end of this month. In addition, we currently are working to double the speed of all existing printers.

At the same time, we also have increased the number of electronic display books on the trading floor by more than 25 percent, reducing the overall need for printers. It's expected that by the end of 1988, we will have doubled the number of electronic display books compared to the October 1987 level.

- . The capacity of the NYSE's Post Support System to store and process orders has been increased through the use of additional computer power for the system.
- . Enhancements in the NYSE's Universal Floor Controller and its printers that currently are underway will reduce the potential for delays in the Exchange's link with the Intermarket Trading System.
- As of November 1987, the computers running the Consolidated Tape System have been replaced. As a result, the system now has the capacity to efficiently process a peak volume of 600 million shares.
- . Computer enhancements were made to the As-Of-Status-System on October 24th and 25th, 1987, and we believe the problem has now been solved.

On a broader scale, the Exchange is planning to have the capacity to handle a peak of 600 million shares by June of this year, and we believe that if we were to experience a 600-million-share day now, we would be able to process it with significantly fewer delays than we experienced last October. We intend by early April of this year to run the October 20th requirements through our system to verify our capabilities.

Beyond this, we are planning to have the capacity over the next 18 months to two years to process a billion shares.

In setting that goal, we recognize that the Exchange is only one component of an overall trading network. And that all components need to work together if that goal is to be achieved.

Accordingly, the NYSE recently announced the formation of an Operations Advisory committee, headed by NYSE President Robert Birnbaum and made up of experts in trading operations from member firms of various sizes.

The purpose of the committee is to evaluate problems encountered during peak processing periods and to recommend synchronized corrective actions that would enhance the entire process.

Much of the fallout from the events of October 19th has to do with the relationship between the equity markets and the futures and options markets -- otherwise known as the derivative products markets. This relationship, in which activity in one market can influence events in another market, must be looked at more closely.

GENERAL OBSERVATIONS

The SEC, the Brady Commission and the GAO have all concluded that the equity, futures and options markets are linked and should be treated as a single market for equity and equity related products. Whether or not we are one market now, we are -- at a minimum -- headed toward one market and we must plan for that time in the future when there will be no question that we are one market.

This is a position that was echoed by former U.S. Attorney General Nicholas Katzenbach in his independent study of the long-term impact of program trading on financial markets. That study -- entitled "An Overview of Program Trading and Its Impact On Current Trading Practices" -- was undertaken by Mr. Katzenbach at the request of the New York Stock Exchange. (A copy of the study is attached.)

What this means is that we need to begin to focus more on the interface between the equities and derivative products markets. One, to enable us to better understand how these two markets are coming together.

And two, to permit each of us to become more aware of how we can better adjust to the consequences of the evolving integration of our securities markets.

Specifically, how we can more effectively balance the capital-raising function of our equities markets with the need to manage assets. And how we can determine more clearly what role speculation should play in the marketplace.

Part of the basic problem is that as the derivative product markets are used to shed risk, there's an inadequate appreciation, even among the most sophisticated investors, that risk cannot be taken out of the system. Risk remains in the system and a substantial portion of it reverberates back to the original market.

Index arbitrage is a prime example of what I'm talking about.

I've discussed arbitrage in general on a number of different occasions in the past.

I've pointed out that risk arbitrage between equities after a merger or acquisition has been announced has not caused problems for our markets.

I've testified on previous occasions that anticipatory arbitrage -- involving the purchase of equities in expectation of an unannounced merger or acquisition -- can lead to insider trading abuses.

Index arbitrage is another kind of arbitrage. But unlike traditional arbitrage, index arbitrage does not deal in price discrepancies between equivalent items. Instead, it depends on the yield spread between an index futures contract and its underlying securities.

Its potential returns are enormous, and it is engaged in regularly by a small number of institutions and approximately a dozen of our own member firms.

In contrast, the public at-large, the investing public, a great many of our listed companies and the vast majority of our member firms have the perception that index arbitrage -- which often is referred to generically as program trading -- intensifies market volatility to the detriment of the marketplace as a whole.

Indeed, as of January 28, 1988, we've received 248 letters from the public at-large expressing opposition to program trading. We've also received 130 letters from member firms opposing program trading. (Copies of letters are attached.) There's also been a number of advertisements by Advest, Merrill Lynch and Shearson Lehman Brothers highly critical of program trading. (Copies of the ads are attached.) These firms have substantial retail and institutional divisions and the opinions expressed in those ads no doubt reflect the views of their retail and institutional customers.

Let me point out that while the term program trading includes a variety of sophisticated trading strategies, we interpret the opinions that we've received regarding program trading to refer specifically to index arbitrage.

Accordingly, the immediate question before the Exchange is how to continue to experiment with the link that index arbitrage forms between the equities and futures and options markets, examining whether in fact it makes both markets more efficient, and at the same time, deal with the professional and public perception that index arbitrage makes the markets more volatile.

One of the ways we are attempting to address this question is by controlling the amount of risk rebounding back into our market as a result of selling in the futures market, thereby trying to level off one component of volatility.

Specifically, we are experimenting with taking index arbitrage out of the system whenever the Dow Jones Industrial Average moves up or down a given number of points from the previous day's close.

On January 14th, we initiated a pilot using 75 points and are considering 50 points as the operative range of movement in the Dow.

The overwhelming majority of participants in our experiment believe it has been a very positive step in the right direction, and that it should be extended further. All of this, of course, would have to be approved by the SEC.

Let me add, this kind of approach is, in effect, a circuit-breaker that can be very effective, as evidenced by our experience last October when we took index arbitrage off the system for capacity reasons.

It is asserted in the report of the Brady Commission that the October 20th temporary ban on index arbitrage through the NYSE's systems and the October 21st request by the Exchange that member firms temporarily refrain from index arbitrage for their own accounts exacerbated the market's volatility. We disagree and believe that as these restraints on program trading were applied, volume slowed down and volatility decreased. (See attached chart on volatility and volume.)

In addition, aggressive buying by member firms in the futures market during October 20th and 21st, helped bring that market into balance, indicating that both markets can stabilize themselves when disconnected as well as when they are connected.

It should also be pointed out that in our survey of 302 institutional investors, it was also found that 55 percent of the institutions surveyed were unaware of our decision to place limits on index arbitrage and thus were not at all affected by it. Moreover, 95 percent of those institutions who did know of our decision to limit index arbitrage bought as much or more stock as they would have even if we hadn't limited index arbitrage.

This is further indication that disconnecting the two markets as we did last October did not aggravate the market decline, and that the institutions surveyed were value buyers rather than transaction buyers on the dates in question.

I want to emphasize that we understand that there are no magic answers to the question of market volatility, and that the approach I've just mentioned is only one of a number that we're looking at.

This does not mean that we believe that derivative products per se should be abolished. What it does mean is that as we move toward one market, we have to ensure that that transition is managed. Addressing the question of volatility associated with index arbitrage through the use of circuit breakers is one way to manage the transition.

A more important problem than the public perception problem of index arbitrage has to do with program trading related to the selling of basket of stocks, either independently or in conjunction with futures.

As pointed out in the SEC's study, wave upon wave of basket selling by institutions at times can cause a great deal of illiquidity in the market.

How we handle that illiquidity and what we do if a great number of institutions start to do this kind of activity is really a more serious issue than index arbitrage. For it really addresses the sudden need for liquidity, both in the futures market and the equity market.

This problem alone could at some time in the future lead to a repeat of last October, and is one for which we have no ready answer.

One would think that somehow we would have to slow down the liquidation process, and that the institutions themselves need to better understand that there is no instant liquidity in times of severe stress. In addition, we need to find a way to strengthen the dealer system, which should lead to easy access by the specialists into the options and futures markets to allow them to hedge their positions when they come under stress. All of this speaks to the issues of capacity, volatility and liquidity, issues we are working and which need the attention of everyone concerned.

I want to say at this point that we have neither the authority nor the inclination to ban program trading of any kind. We believe that product and technology innovation is beneficial and essential.

At the same time, we also believe change in our markets should be evolutionary, not revolutionary. And that just because we have the technology to do something doesn't mean we should do it without regard to its impact on the marketplace and its participants.

Congressman Markey, in hearings held by his Subcommittee last December, offered the modern day automobile as an analogy.

Practically every automobile manufactured today is technologically capable of reaching speeds of at least 120 miles-per-hour.

Nevertheless, the Congressman correctly pointed out that we don't allow people to drive their cars that fast. Instead, we impose speed limits and sometimes even put governors on the automobiles themselves.

We do this not because we're against innovation, but because we want to serve the best interests of the public.

The same is true of our securities markets. For we, too, have to manage the speed of change so that the marketplace has an opportunity to adjust to it in a way that benefits all concerned.

Accordingly, I would like to see developed a financial version of an environmental impact statement that can provide guidance, or even an early warning, regarding the potential consequences of new financial instruments, new trading technologies and new forms of risk management.

One way to proceed might be to require all member firms to provide an annual or semi-annual report to the NYSE on the potential financial and operational impact of new and current investment vehicles on both the firms and the Exchange.

The reason is that the risks of some products has outpaced the ability of the system to handle them. That clearly was the case with portfolio insurance and basket selling during the week of October 19th.

Better communication between equity and futures and options markets is a critical factor, as well.

Accordingly, we think the equity and futures and options markets should establish a single repository of information including data across all markets. Such a repository would give us a clearer picture of the direction and scope of each market and of the marketplace as a whole.

As I mentioned earlier, we are planning to have the capacity to handle one billion shares by late 1989. One concern in this regard is that it is becoming increasingly difficult to determine what the upward limit of our capacity should be. For that in part depends on the program trading activities of market participants.

The kind of repository I've suggested could give us a better handle on that kind of information, and in that way help us get a clearer idea of our future capacity needs and those of the entire system.

The NYSE also is supporting a proposal to include the commodities markets dealing in index futures as associate members of the Intermarket Surveillance Group (ISG), which helps facilitate regulatory responsibilities between different markets. (A description of the ISG is attached.) The CFTC could be invited to participate as an observer just as the SEC currently is an observer.

This would give each market a better opportunity to keep the other better informed about what's going on in its own marketplace and what it means for the markets in general.

That's not all. The NYSE is going to initiate an audit of our trading systems every 12 to 18 months to further ensure their proper operation. And we are going to share the audit findings with the SEC.

Of course, the SEC currently oversees our capacity planning policy on a regular basis and is aware of our peak capacity.

We also have discussed the issue of planning and capacity with committees of both the Senate and House of Representatives.

But given the dynamic change in capacity as a result of the continuing integration of our markets and the introduction of new trading vehicles, we think it is appropriate to have an independent audit of our systems by outside experts on a regular basis.

This would help bring a fresh view to our thinking about the subject as well as give the Exchange and the SEC another structured document on which to focus regarding the issue of capacity.

In addition, we believe that as well as intermarket circuit-breakers, each market should put intramarket circuit-breakers in place that are triggered when risk and illiquidity become too great. And these should be articulated beforehand so that every market knows exactly what those circuit-breakers are and under what conditions they go into effect.

And finally, we agree in principle with the Brady Commission's recommendations that one agency should have the authority to set margin requirements in all equity and equity-like products, and that clearing systems should be unified to reduce financial risk.

Moreover, we believe there should be one regulator for all equity related products. Failing that, we would agree with the Brady Commission recommendation on one intermarket regulator.

But until we have one regulator in place, the NYSE recommends that the SEC and the CFTC form as soon as possible a joint advisory committee composed of their respective staffs and representatives from the major exchanges to begin immediately to focus on areas of common concern.

Until we arrive at one regulator, such a joint committee would be an effective interim step.

We are doing everything possible to increase our capacity so that by the end of 1989, we'll be able to process one billion shares. At the same time, we believe that as our different marketplaces evolve into one market, it is critical that all of us determine the proper balance between the needs of business to raise capital and the interests of effective asset management.

In striking that balance, we must work together to moderate the pace of change so that we can better control the flow of risk within and across our markets and -- most importantly -- create an environment in which all participants have confidence in and access to the marketplace.

As we move toward one market, it's the responsibility of each of us to address this important issue head on.

We at the New York Stock Exchange take this responsibility seriously. We believe that by working together, we can start to get ahead of the problems, understand and manage the transition to more closely related markets, and assure that we continue to have securities markets to sustain prosperity in America.

We look forward to working with the Congress, this committee, the SEC, the CFTC the futures and options exchange and others to ensure fulfillment of that goal in the future as we have in the past.

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COMMENTS REGARDING THE SEC REPORT ON THE OCTOBER MARKET BREAK

I want to make some specific comments regarding the report of the SEC on last October's market break.

Since our statement for this committee was prepared prior to the release of the SEC's report, I am including my remarks about the report as an addendum.

Most of the points I will touch on have already been covered in detail in my testimony. However, the SEC's study on the events of last October is for us the most important study of all. The SEC is our regulator. It understands our business better than anyone else, and its observations and comments on the overall performance of the market as a whole are of particular interest to us. Accordingly, despite some repetition, a few words regarding the SEC's report are called for.

Although we haven't had an opportunty to study all 900 pages of the report, we fundamentally are in agreement with the commission's conclusions and recommendations and -- as chairman Ruder testified on Wednesday -- the NYSE and the SEC immediately are forming a task force for the purpose of examing ways to implement many of those recommendations as quickly as possible.

Here are some specific areas of agreement:

As our testimony indicated, we endorse the SEC's recommendation that there be a joint effort by the SEC, the CFTC and the major equities and futures exchanges to discuss and consider issues and problems of mutual concern.

We agree with the SEC's conclusion that trading capacity needs to be increased, and have as our goal the capacity to handle one billion shares by the end 1989.

In this regard, we have stated that we plan to initiate an audit of our trading systems by outside experts every 12 to 18 months, and will share those audit findings with the SEC. While the SEC currently reviews our capacity planning policy and is aware of our peak capacity, an audit of this sort would give the commission another structured document against which to examine our systems' capacity.

We generally agree with the SEC's conclusion regarding the NYSE's specialists' performance during the period of the market break that overall specialists met their market obligations.

As for those specialists who failed to meet NYSE standards, we have agressivewly reallocated two stocks and will reallocate more in the future. Accordingly, we agree with the SEC that the process of reallocation should be facilitated and intend to work with the commission in developing criteria for doing so.

We also share the SEC's concern regarding volatility in the market. We agree that volatility can be moderated and have recommended the implementation of circuit-breakers to help control volatility associated with index-arbitrage.

On a broader basis, we agree with the SEC's assessment that as demand by a growing number of institutions for instant liquidity in billions of dollars worth of stocks continues, the system will be confronted with pressures in terms of volume, volatility and liquidity never before experienced.

In our judgment, it will take a great deal of work to develop ways to relieve those pressures over both the short and long term so that our system is given the opportunity to adapt to the changing needs of the marketplace and its participants in a manner that's beneficial for all concerned.

We intend to work with the SEC to help our system adjust to the new demands being place on it in a way that's good for the system, for the investing public, for the public at-large and for our country as a whole.

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