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PROGRESS TOWARD THE DEVELOPMENT OF A NATIONAL MARKET SYSTEM

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JOINT HEARINGS

BEFORE THE

SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS

AND THE

SUBCOMMITTEE ON CONSUMER PROTECTION
AND FINANCE

OF THE

COMMITTEE ON
INTERSTATE AND FOREIGN COMMERCE
HOUSE OF REPRESENTATIVES

NINETY-SIXTH CONGRESS

FIRST SESSION

ON

THE FUNCTIONING AND ADMINISTRATION OF THE
SECURITIES ACTS AMENDMENTS OF 1975

SEPTEMBER 21, 24, AND 25, 1979

Serial 96–89

Printed for the use of the
Committee on Interstate and Foreign Commerce

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PROGRESS TOWARD THE DEVELOPMENT OF A NATIONAL MARKET SYSTEM

FRIDAY, SEPTEMBER 21, 1979

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS, AND SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCE, COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,

Washington, D.C.

The subcommittees met, pursuant to notice, at 10 a.m., in room 2322, Rayburn House Office Building, Hon. Bob Eckhardt, chairman of the Subcommittee on Oversight and Investigations, presiding.

Mr. ECKHARDT. The Subcommittees on Oversight and Investigations and Consumer Protection and Finance will commence joint hearings regarding the progress toward the development of a national market system.

In 1975, as I think you all know, we passed the Securities Acts Amendments directing the Securities and Exchange Commission to use its authority to facilitate the establishment of a national market system. We felt that the situation that had existed for many years had failed to utilize the present facilities of technology and communication that could create a much more efficient and competitive market.

We, at that time, instead of mandating the nature of a national market system, nudged the SEC and the industry to move toward such a national market system. It was envisaged that ultimately orders for the purchase and sale of stocks anywhere in the country would contact all other orders throughout the country. The result, of course, would be a better marketplace and better prices for investors.

In June and July of 1977, these two subcommittees held hearings regarding the implementation of the market system. We concluded in our report that the SEC had not sufficiently vigorously pressed what appeared to be a somewhat reluctant securities industry to initiate processes toward establishing a national market system.

We are meeting today to see if there has been better progress in the last 2 years, and also to establish what ought to be done.

Today we will hear from people in Government, industry, and the academic community. On Monday we will conduct a roundtable discussion consisting of the exchanges and the National Association of Securities Dealers. On Tuesday, we will hear from the Chairman of the Securities and Exchange Commission and its members.

We have asked these participants to help us assess the progress which has been made over the last 2 years in fulfilling the legisla-

tive mandate. We want to learn whether or not the industry and the Securities and Exchange Commission have fulfilled their responsibility more diligently during the last 2 years than during the 2 years immediately after the legislation was enacted.

The committee hearing is being held jointly by the Committee on Oversight and Investigations, as I said, and the Committee on Consumer Protection and Finance. Mr. Scheuer is the chairman of the latter committee and has a major responsibility, as a matter of fact, the sole responsibility, within our committee of initiating and marking up legislation on a subject matter of this nature.

I recognize Chairman Scheuer at this time.

Mr. SCHEUER. We are going to have to go for a rollcall vote.

Mr. ECKHARDT. All right, there is a rollcall at the present time on the floor of the House. The committee will be recessed for as long as it takes us to get there and back.

[Brief recess.]

Mr. ECKHARDT. The subcommittee will resume its hearings.

Mr. Scheuer.

Mr. SCHEUER. Thank you, Mr. Chairman.

In 1975, after an intensive 4-year study and on the heels of a very severe back office crisis, Congress mandated the establishment of a national market system with more competitive markets and, with the use of modern technology, more efficient ones.

Two years ago, these same subcommittees held joint oversight hearings on the functioning and administration of a national market system.

They revealed that disappointedly small progress had been made.

The principal obstacle, it appeared, was a lack of will on the part of certain segments of the securities industry to take the necessary steps to facilitate the process of transition to a national market system.

The major thrust of our subcommittee's report was that the SEC had failed to step into the breach.

The report embraced the characterization by one of our witnesses that the agency's lack of leadership in the area was "The Greatest Lapse in the Implementation of the 1975 Amendments."

The SEC's failure to provide for specific steps to be taken placed an enormous strain on securities firms by making business planning difficult, if not impossible.

It also subjected the self-regulatory organizations to the risk that whole systems, developed by them largely in response to Government pressure, would have to be discarded if later found unacceptable by the Commission.

The lack of any proposed course left the public uninformed and without perceptible opportunity to influence a matter so fully vested with a national interest as the structure of the securities markets.

Therefore, in addition to exhorting the Commission to fulfill its congressional charge, the subcommittee felt it necessary to provide the Commission with guidance.

Two more years have elapsed, and I do not think it is presumptuous to state that a national market system has not yet been attained.

However, there have been several significant developments including such pilot systems as the Intermarket Trading Systems (ITS), the Cincinnati Exchange, and the composite quotation system.

The purpose of these hearings is to learn more about these components and their roles in the marketplace of the future, and to attempt to evaluate how well the Commission has carried out its responsibilities under the 1975 acts amendments.

The securities industry has been beset by a number of economic adversities.

Among these were the unfixing of Commission rates, in the impact of inflation on equity investing, and the inexorable movement of banks into areas which were once the sole dominion of securities firms.

It is essential to continued reliability of the industry that they become more competitive and efficient.

This can be accomplished through the fulfillment of the promise of a national market system.

Mr. ECKHARDT. We have, on the first panel, two gentlemen who will present different positions from their different agencies.

Donald L. Flexner, Deputy Assistant Attorney General of the Department of Justice. Donald L. Scantlebury, Director, Financial and General Management Studies Division, General Accounting Office. You gentlemen have some persons with you?

Mr. FLEXNER. Yes, sir.

Mr. ECKHARDT. Of course, in the process you might introduce them. On my subcommittee, we ordinarily give the witnesses an oath. Therefore, to be uniform on the matter, do you swear to tell the truth, the whole truth, and nothing but the truth, so help you God?

Mr. FLEXNER. I do.

Mr. DUSSMAN. I do.

Mr. SCANTLEBURY. I do.

Mr. POTTER. I do.

Mr. ECKHARDT. You may proceed in whatever order you prefer.

TESTIMONY OF DONALD L. FLEXNER, DEPUTY ASSISTANT ATTORNEY GENERAL, ANTITRUST DIVISION, DEPARTMENT OF JUSTICE, ACCOMPANIED BY SEYMOUR DUSSMAN, SENIOR TRIAL ATTORNEY, ANTITRUST DIVISION; AND D. L. SCANTLEBURY, DIRECTOR, FINANCIAL AND GENERAL MANAGEMENT STUDIES DIVISION, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY JOSEPH POTTER

Mr. FLEXNER. Mr. Chairman and Mr. Chairman, let me begin by introducing Seymour Dussman, who is a Senior Trial Attorney in the Antitrust Division with long experience and background in the securities industry, and who I am sure can be of assistance to the subcommittees.

Mr. SCHEUER. Can I ask why we didn't have a prepared statement from you?

Mr. FLEXNER. Mr. Chairman, we have been working on our statement up to the last minute. I talked with Congressman Eckhardt the other day and explained to him that because of the tentative nature of our views I thought it might be best if I outlined my

remarks and tried to speak more or less informally and extemporaneously, having prepared for this meeting but without the benefit of a prepared statement. I know it is some disadvantage to the subcommittees.

Mr. SCHEUER. Let me state if you made the arrangement with Mr. Eckhardt, I will leave the matter there. From my point of view, it really frustrates the purposes of the hearing. We have very clear ground rules under which we hold these hearings. The witnesses are supposed to have their statements in 48 hours before with *x* number of copies, and there is absolutely no reason why the Justice Department of all groups, with all your resources, shouldn't have your professional thoughts in a full statement, and it really demeans the whole purpose of these hearings and lessens their opportunity for usefulness when you come here and simply ramble around and give us no inkling in advance as to what your statement is going to be.

Let's just leave it at that. You made your argument with Mr. Eckhardt but I personally find that a very unhappy arrangement and I hope it won't be repeated.

Mr. ECKHARDT. I think I probably should say a word about this. Mr. Flexner asked that he might come a little later in the proceedings, at which time he felt he could be more helpful to the committee by a more complete formal presentation.

I suggested that since these hearings derive considerable benefit from the interchange between persons engaged in the subject matter, and also because our subcommittee was pretty well tied up in its hearings—I believe yours is, too, Mr. Chairman—that I would prefer that he came now.

He did at that time state to me that he would not be able to under those conditions, prepare a formal statement but would afford an outline.

I merely state this for the record.

Mr. FLEXNER. Mr. Chairman, I also asked, and I think I will direct this request to Congressman Scheuer as well, that we be permitted with your indulgence to supplement the record at a later date when we have had an opportunity to finalize our views and hopefully those views will have been presented to the Commission as well. My expectation and hope would be that it would be of benefit to the subcommittees.

Mr. ECKHARDT. Without objection, the record will be held open for that purpose.

[The supplemental statement referred to was not available to the subcommittee at the time of printing.]

Mr. FLEXNER. Thank you.

We are here to help the subcommittees and to define the role of the Government in advancing a national market system. To put it another way, taking account of Chairman Eckhardt's remarks this morning, what does the term "facilitate" mean in respect of the SEC's role? How active should the SEC be and in what direction should it be active in nudging, as the Chairman put it this morning, the industry toward a national market system?

The message that I have prepared to deliver this morning is very simple and I think it is one that is, at its heart, consistent with what the Congress envisioned in 1975. That message is that compe-

tition is the best method of developing innovation in an industry, that through the fostering of competition, competitive alternatives can be developed toward reaching a national market system where the interests of investors will be protected by the competitive process.

It might be helpful for the subcommittees to understand some of what we have learned from our experience in other regulated industries. As you probably know, the antitrust division is a frequent party in proceedings involving other agencies, such as the ICC and CAB, the FMC, just about all of the alphabet agencies in the U.S. Government. Our experience in those proceedings is instructive. We have learned that regulators are not very good at mandating innovation. They are much better, we think, at distorting innovation or retarding it and they usually do that most efficiently when they attempt to dictate innovation. I can give you a number of examples.

The court of appeals recently, in reviewing action by the FMC in respect to conference agreements on intermodal rates, observed that it was naive to expect a cartel to be innovative. Rather, you could expect the cartel to attempt to retard innovation.

We have also observed in its ratesetting functions, the ICC frequently has disapproved rate proposals on grounds that they would injure competing modes and those disapprovals have had the effect of discouraging innovation. One was the famous "Big John" rate case, where a discounted fare reflecting the efficiencies of new modes of competition was disapproved and the injured party was obviously the shipper, who was denied the benefit of lower fares and more efficient service.

Mr. SCHEUER. And the public to whom he would have passed on some part of those savings?

Mr. FLEXNER. Undoubtedly, Mr. Chairman. In other contexts we have seen agencies like the CAB create artificial distinctions between scheduled and charter service and the FCC create artificial distinctions between private line and public message service, and again the result has been a distortion rather than an advancement of the innovative process.

So we approach the question of how an agency should deal with a statutory mission from the standpoint of learned humility. We think that the most efficient way for innovation to reach hoped-for heights is through the competitive process; that technological change which was observed by this Congress in 1975 to have great potential because of advances in communications would itself stimulate competition and that competition in turn would stimulate technological change. And I think we have seen that in the Cincinnati exchange, which I will return to in a few minutes.

So I come to the question of, if we are right in this principle, how does it apply to the SEC in respect to its duties and obligations under the 1975 amendments, and in respect of the national market system?

There is no doubt that the SEC should be vigorous in insuring that it does not adopt rules that unreasonably restrict the development of alternative trading systems. Both the SEC and the antitrust division should be vigilant in insuring that private parties do

not adopt restrictions that hinder the development of new competition.

I would suggest that there is ample evidence, which I reluctantly cite to these subcommittees because I am sure the subcommittees know the statute better than I do, that the statute itself contemplates this kind of approach.

I observe that subsection (a)(1), section 11 of the statute states that Congress found that:

> New data processing and communications techniques create the opportunity for more efficient and effective market operations and that the linking of all markets for qualified securities through communication and data processing facilities will foster efficiency, enhance competition, increase the information available to brokers, dealers and investors, facilitate the offsetting of investors' orders, and contribute to best execution of such orders.

I think that this is an approach to encourage competition that is not only consistent with what Congress intended, but also with the history of the securities industry which saw competition slowly emerge in response to existing cartel conditions.

For example, I think it is pretty clear that third market dealers expanded greatly as a competitive response to the era of fixed commissions. It is also true that the SEC had a role to play in that process because the New York Stock Exchange had a restrictive rule 394 that prevented members of the exchange from utilizing alternative markets in competition with the New York Stock Exchange.

In 1941 the SEC, in its multiple trading case, struck down that flat ban, and after the 1975 amendments, the SEC eliminated a part of that prohibition which affected the ability of members to conduct off-board agency trades with third market dealers. And those actions, albeit slow in coming, were important to the facilitation of competition that was responding initially to an era of fixed commissions.

Now, what does that mean in the present environment? I mentioned previously the Cincinnati exchange. It is clear to us that the Cincinnati exchange promises vigorous competition as a mode of trading compared to the New York Stock Exchange.

The two major prototypes for the national market system presently in operation are Cincinnati and its electronic trading system and the ITS.

A brief comparison of the characteristics of the two systems reveals a number of important differences which demonstrate both the great potential of the Cincinnati exchange as an alternative trading system and the benefits of competition and diversity in achieving the goals of the national market system.

First, brokers and dealers may utilize the Cincinnati exchange system directly from their offices through electronic terminals, while access to the ITS is from the floors of the participating exchanges.

Second, all brokers and dealers may directly enter orders into the Cincinnati system while the entry of quotations into ITS is done by the exchange specialist.

Third, there is automatic execution of orders when a bid and offer match in the Cincinnati exchange; in contrast, a member on one exchange floor who wishes to execute an order through ITS

enters a commitment to trade which can be rejected by the receiving exchange.

While the percentage of rejections has declined over time, we understand that this failure to guarantee execution is a disincentive to utilization of ITS, particularly in active markets.

Fourth, all orders in the Cincinnati exchange are entered in the electronic trading system and are displayed and exposed to each other while only the best bid and offer from each participating exchange is displayed in ITS. Thus all orders on ITS exchanges are not exposed to each other.

Fifth, a broker or dealer may enter a quote between the existing bid and offer prices on the Cincinnati exchange, thereby improving the market, while the ITS permits a member on one exchange floor to trade only at a price entered by another exchange.

These differences indicate to us that at the present time the Cincinnati system has become a viable and constructive alternative to ITS and, as such, furthers the goals of the 1975 amendments.

Mr. Chairman, I think that the one thing that can be pointed to as progress since the 1975 amendments, clearly and without qualification, is the development of the Cincinnati exchange and its use of technology to provide services to investors. And my sense of that development is that it is a natural, an important outgrowth of competition, and is an indication, that with protection and nurturing, the regulatory agency in charge can provide critical stimulants to movement toward the national market system.

There is, however, and it must be noted, a relatively scant percentage of trading volume on the Cincinnati exchange and one really must ask why that is. I think it is worth pointing out that although I cannot give you an answer with absolute certainty, it is clear that part of the reason can be traced to an artificial regulatory impediment, and that is the uncertainty as to the future of the Cincinnati exchange.

Will it continue to receive the sanction of the Securities and Exchange Commission? Will it be subject to recurrent approvals and review on a 6-month basis, or will it be finally sanctioned and seen by the industry as permanent, so long as it is a profitable and efficient method of providing trading services?

We strongly recommend that the SEC approve the application for a 3-year extension of the Cincinnati exchange. Indeed, we would go so far as to say we see no reason, should the Cincinnati exchange seek it, why the sanction should not be on the same basis as applies to any other exchange with which Cincinnati presently competes.

I would conclude at this point, and I am prepared to respond to your questions by saying that the most important thing that the SEC can do, I think at this stage, is to increase its vigilance. The most important thing we can do as the Antitrust Division is increase our presence in determining whether there are restrictions that exist at present that restrain and hinder the development of the kind of competitive alternatives that were envisioned by the Congress in passing the 1975 amendments.

I will conclude now and I would be happy to answer any questions you might have.

Mr. ECKHARDT. Mr. Peake, in the statement that he will later give, raises an example that might constitute an illustration, perhaps a difference between ITS and the situation that would exist if the Cincinnati process were widely utilized. I would like to ask you if there is a difference.

He suggests this situation:

> Should the Commission's proposed price protection rule go into effect, some investors may not always be sure of receiving best execution. With a price-matching system like ITS, assume a customer enters an order on the New York Stock Exchange to buy stock at 20. The bid is the best available, and is entered into the composite quotation system. Another customer enters a sell order at 20 at the Pacific Stock Exchange where the best bid is only 19⅞. The Pacific specialist, seeing the 20 bid from the New York Stock Exchange, decides himself to match it and buys from the selling customer at 20. The first customer, who is already bidding 20, and whose bid caused the Pacific specialist to raise his price, didn't buy his stock. If the market should later rise, he might never buy it, and in any case there would have been a dealer involvement in the trade, a situation that Congress did not wish.

I assume you would agree that that would be true under the ITS system. Would that be the case if the Cincinnati system were in general operation?

Mr. FLEXNER. No, I do not think it would, Mr. Chairman.

Mr. ECKHARDT. So the transaction would be instant and automatic, rather than as a result of some delay in which someone could enter and intervene, is that correct?

Mr. FLEXNER. That is right.

Mr. ECKHARDT. That would illustrate one of the major differences between the two systems, would it not?

Mr. FLEXNER. It would illustrate a major difference and presumably a major and significant competitive advantage enjoyed by the process through which the Cincinnati exchange operates.

Mr. ECKHARDT. Now, I understand that the ITS has reduced the time for execution of the order rather remarkably. I think they say now either they have achieved or can achieve around a 48-second action. But, of course, the problem is whether or not anybody responds within the technological capability of the exchange. And I believe if one utilizes ITS, he is required to await a reasonable time for a response from the other exchange.

I understand that some brokers say that the problem is that in the meantime, in a very active marketplace, to have committed themselves to that delay in, say, the New York Stock Exchange market might inhibit them from making the best ultimate transaction and therefore, under those circumstances, they might not utilize ITS.

Is there any merit to that contention?

Mr. FLEXNER. Mr. Chairman, we have received the same sort of information and our understanding of some of the problems with ITS, I believe, mesh with yours. It does not have some of the advantages of speed and completeness that the Cincinnati exchange has, there is no doubt about that.

Mr. ECKHARDT. Now if the Cincinnati exchange were in operation generally and participated in widely—and I understand that is one of the difficulties, it is a relatively narrow exchange at the present time—would the situation I have described exist?

Would it obviate that situation or would it not? I do not know what the answer would be——

Mr. FLEXNER. Well, I think that clearly the process that you described would always be factored into any choice made by a broker or dealer in deciding where to place his trade. He would always, I would assume, be trying to calculate as quickly and efficiently as he could what the cost in terms of delay to him would be in placing an order with a competing exchange. To the extent that he can be reassured that the cost is small in terms of delay and decrease in information, which I think is the key issue, he would be more inclined to act on the information provided by the other exchange and to place his order in response to that information. So I think that——

Mr. ECKHARDT. It would always be a judgment of weighing of factors of time against exposure, right?

Mr. FLEXNER. I think there would be, yes.

Mr. ECKHARDT. Mr. Lent?

Mr. LENT. Thank you, Mr. Chairman.

I wonder if it would be in order for me to make a short opening statement?

Mr. ECKHARDT. Certainly. I am sorry that the exigencies of the situation prevented me from permitting you to do that.

Mr. LENT. I was unavoidably delayed on the floor at the time. I do want to join in welcoming our witnesses on this somewhat dreary day and want them to know that we appreciate their testimony.

Several things would appear to be quite obvious as we resume our inquiry, last taken up in 1977, into the formation of a national market system. One is that the stock markets continue to be an extremely valuable national asset, providing the liquidity of capital necessary to make free enterprise viable, just under 14 percent of our Nation's Gross National Product is traded on the Nation's exchanges.

Another is that we are not appreciably closer to a realization of a national market system today than we were in 1975 or even in 1977.

And another is that there is plenty of blame to go around for this failure. There is no doubt that the SEC has been less than expeditious in bringing the NMS to fruition. However, in all fairness to the Commission, we in Congress have asked the SEC, a regulator, to become an innovator. Congress neither detailed what the system should be nor did we provide adequate additional resources for them to do the job.

The SEC threw up its hands and asked the industry to figure out what Congress wants. To ask a highly competitive industry to reorganize itself into a computerized system in this context is the functional equivalent of asking some members of the industry to cut their own throats for the common good. And I hope that these hearings will enable the subcommittees to take a more enlightened approach to the mandates of the 1975 amendments.

Now Mr. Flexner, you began your remarks this morning citing several horror stories concerning the agencies, the ICC, CAB, SEC, et cetera, in what appeared to be a somewhat ringing denunciation of agencies in general, and in particular their anticompetitive decisions.

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I am also very much opposed to overregulation, but then you did go on to laud the SEC for disposing of rule 394 and fixed rate commissions. It seems that you are perhaps picking the decisions you like as the measure of an agency's worth. I get the feeling that the SEC knows that the current system works well and is going slow because, as a regulator, it should not jump into any new system, no matter how promising.

Is it possible, and this is my question to you, is it possible the SEC is merely being prudent with a system that is functioning properly?

Mr. FLEXNER. It certainly is.

Mr. LENT. Do you think that is the case?

Mr. FLEXNER. I tried, I think, to explain why I thought that it would be prudent for any agency to avoid trying to dictate a national market system, or something as complicated as a national market system, as an architect or an engineer would blueprint a bridge or a road or a building. The much safer course, I believe, is to encourage and to foster a competitive solution to a difficult problem. So I can't fault the SEC for approaching that problem in a cautious and prudent way.

There may be, however, particular actions that the SEC can and should take which we at the Department are studying and thinking about right now that would be consistent with the approaches I have described. It would not involve blueprinting a national market system by a process of guesswork but, rather, would involve the identification of rules and restrictions that are impeding the progress of competitive forces and the development of alternatives. One particular proposal that we can make at this time is that pertaining to the ability of the Cincinnati exchange to hold itself out as a permanent fixture in the industry as long as what it provides is an efficient useful service, which I think it clearly does.

Mr. LENT. From your testimony today I get the feeling the Justice Department considers the current system to be anticompetitive; is that correct? You called it a cartel I think at one point.

Mr. FLEXNER. No, what I think I was referring to, Congressman Lent, was the era when there were fixed commissions. I would not brand the entire system of exchange trading as a cartel in the sense that it ought to be dismembered. I didn't mean to convey that impression. But clearly the Antitrust Division was for years in opposition to the system of fixed commissions that Congress properly, I think, ended in 1975.

Mr. LENT. Well, in the ITS system the specialist position in a transaction is preserved while in the Cincinnati system, as I understand it, the specialist is eliminated, is that correct?

Mr. FLEXNER. Well, I think it is fair to say that in the Cincinnati situation there are lots of different marketmakers and I do not think the marketmaking function is limited to the specialist in that system.

Mr. LENT. Well, soon to testify is Merrill Lynch, which is the biggest and most profitable brokerage firm in the country, as I understand it. And I do find it interesting that it is one of the very few firms, as I understand it, to embrace the Cincinnati experiment. It has reasons for this which I will not get into in anticipation of that firm's testimony.

But I cannot help but wonder what the industry would be like after a few years of the blackbox Cincinnati trading system. Merrill Lynch is bullish on it, but I wonder if Justice has studied whether it will not, in effect, cause centralization more to the New York Stock Exchange and to the large firms like Merrill Lynch.

If you have not examined it, do you not think this would be a worthwhile inquiry for your Department to make or the SEC to make?

Mr. FLEXNER. I think you have focused on an important question. I cannot tell you what the effect would be and that is why I think it is important that we avoid trying to decide who to anoint as the appropriate focus of a national market system. It may be that the Cincinnati exchange is the national market system in an embryonic stage.

Mr. SCHEUER. Excuse me.

If that is likely to be true and if it has all the advantages that it is cracked up to have, how come it has been so little used?

Mr. FLEXNER. Well, Mr. Chairman, I think Merrill Lynch would be a good party to ask that question of, but I think clearly the fact that there is uncertainty as to the future of that exchange has to affect the determination of brokers and dealers in deciding whether to use it. I also think one way to test that proposition is to extend to the Cincinnati exchange the amount of time that it is seeking.

Mr. SCHEUER. Excuse me; I did not mean to interrupt.

Mr. LENT. I did not know if Mr. Flexner had completed his response.

Mr. FLEXNER. I was saying, Congressman Lent, that it is very possible that the Cincinnati exchange could evolve into a national market system which would essentially entail one market with competing brokers and dealers participating in that market. Assuming that the SEC essentially was not responsible for that in the sense that it mandated that that be the case, I think we would approach it on the assumption that that was the most efficient way for the market to operate, absent some anticompetitive restrictions that would explain that result.

Thus, I think one view of a national market system is that it is an electronic black box, if you will, into which all orders are placed and in which all orders meet one another, where competition is provided among marketmakers, but which contributes only a single market or exchange.

Mr. LENT. Are you troubled by the fact that the largest brokerage house in the country seems to be coming down on the side of that Cincinnati system?

Mr. FLEXNER. No, I am not.

Mr. LENT. You did indicate, however, that you were studying, I think was the word you used, whether—you are doing some sort of study concerning the SEC and the regulatory impediments that might eventually grow into this sort of a system.

Mr. FLEXNER. Yes. We are preparing, and have been for some time preparing comments to submit to the SEC, advising them as to our views as to what particular steps they might take.

Mr. LENT. Can you tell us anything this morning about the direction that study is taking?

Mr. FLEXNER. I really can't and that is why I asked the subcommittee's indulgence in keeping the record open so that we could supplement your record with those views when we are ready to present them.

Mr. LENT. And when do you think you will have those—that additional material available?

Mr. FLEXNER. I am really sorry that I cannot provide you with a precise date at this time.

Mr. LENT. I have no further questions Mr. Chairman.

Mr. ECKHARDT. Mr. Scheuer.

Mr. SCHEUER. No further questions. I found the witness' testimony very interesting, very thoughtful, and I look forward to whatever elaboration you care to give us.

Mr. FLEXNER. Thank you.

Mr. ECKHARDT. Mr. Rinaldo.

Mr. RINALDO. Thank you very much, Mr. Chairman.

I want to compliment the witnesses and apologize for being late, but I had to go back to the district last night and because of bad weather we were flying overhead for 1 hour.

I have listened to some of the comments and questions since I have been here. I would like to make a few comments of my own and then ask a couple of questions.

First of all, I think it goes without saying, and I am sure we all agree, that the most far-reaching segment of the Securities Acts Amendments of 1975 is the call for a national market system. I do not think we all agree as to how much progress has been made. I think we do agree that while the terms in the act were cast in broadly defined goals, the law specified that the operational details of the NMS were best left to the SEC and the securities industry.

I think what we really have seen is in an evolutionary way the stock market is being ushered into the world of high technology. I do not feel we should make the mistake of assessing progress in terms of the installation of sophisticated computers, because that to my way of thinking would be a misguided reading of the 1975 act amendments.

I think progress can only be defined in terms of the extent to which the new system facilitates capital formation, and certainly it goes without saying that as a catalyst in bringing about the new market, the SEC would be well advised to exercise the utmost caution, because certainly the New York Stock Exchange and its regional counterparts are by reputation the best capital delivery system in the world.

And I want to say as one member of this committee, I am not here during these hearings looking for miracles; I am looking for improvement. I am certainly looking for progress. And in assessing that progress, I am concerned with the problems of fragmented markets. I think we all should be concerned about the potential for wider spreads, less liquidity and reduced price protection.

In a fully automated environment I am also concerned with the possibility of electronic manipulation. I feel that should be discussed. When fixed commissions were abolished, the industry witnessed a series of mergers, closings, and bankruptcies. Will this phenomenon be repeated when the technology is on line and completed for exclusive upstairs trading?

The demise of the smaller and regional brokers and dealers will no doubt produce further concentrations in the industry. Now each of the operational pilot programs that may represent the prototype of a national market system has its own set of problems. I am not familiar with each and every one of them, but solutions to these problems do not seem to be that apparent, either. And I think until the problems can be met and until such time as the proper solutions can be provided, the drive for a national market system must be carried out with meticulous care and meticulous attention to detail.

I would like to begin by asking any of the witnesses who would care to comment something that has perplexed me ever since we first went to work on this legislation.

Must rule 390 of the New York Stock Exchange be abolished for a fully automated system to be successful?

Mr. FLEXNER. Let me venture a proposition and that is first, Congressman, that rule 390 does not prohibit participation in the Cincinnati exchange by members of the New York Stock Exchange, which I think is important because, if it did, it would mean that a significant competitive alternative might be without a source of patronage.

Second, it is not clear to me that rule 390 applies to those who trade on the Cincinnati exchange in the sense that I put it earlier on, which is that, as far as I can tell, there is no real specialist system on the Cincinnati exchange, which I think is, after all, the element of the New York Stock Exchange and other exchanges which is sought to be protected.

Mr. ECKHARDT. Will the gentleman yield just a moment at this point?

Mr. RINALDO. Yes.

Mr. ECKHARDT. To clarify this question, when you say there is no specialist system, you mean there is no specialist who exclusively handles particular stocks?

Mr. FLEXNER. That is correct.

Mr. ECKHARDT. You are not saying that there are a number of marketmakers that may compete with each other, as marketmakers do not compete with each other on the New York Stock Exchange?

Mr. FLEXNER. That is correct.

Mr. ECKHARDT. Thank you.

Mr. FLEXNER. An important question which we are examining is whether or not rule 390 has the effect of unreasonably restraining competition that might otherwise occur on exchanges other than the New York Stock Exchange. I can't give you an answer to that question. But it is an important question and it is one that has survived some of the other concerns that earlier forms of 390, rule 394, implicated; that is, whether or not it has as its purpose protecting monopoly power, which was evident in the era of fixed commissions.

We are not yet prepared to give a definitive answer to that question, which I think must be asked and must be answered. But I think those are sort of the basic considerations that would guide our thinking.

Mr. RINALDO. Would someone from the GAO like to comment? I would be very interested in your comments on that question.

Mr. ECKHARDT. May I say that I am ready at any time the subcommittee is ready to recognize GAO. They have not presented their statement.

Mr. RINALDO. I am sorry, I did not know that.

Mr. ECKHARDT. But if you would withhold, I can recognize the GAO witness at this time.

Mr. RINALDO. Yes, I would appreciate that.

I think the question is, at least in my own view, significant enough that I would like additional input as to whether or not rule 390, for example, can continue in effect; whether or not it would have to be abolished, whether or not the answer cannot be given at this point, and we have to wait and obtain further, you might say empirical evidence as a result of the two experiments currently being conducted.

Mr. ECKHARDT. I wonder if, Mr. Scantlebury, you would perhaps like to proceed with your statement at this time and either keep this question in mind or perhaps answer it now. Since it is in juxtaposition with the last response, it might be desirable that you answer it now.

Mr. SCANTLEBURY. This was not part of the examination that we made and we did not consider that issue as a part of our work, so I am not prepared to answer it, sorry, Congressman Rinaldo.

Mr. RINALDO. But doesn't the question get to the intrinsic credibility of examination that you conducted? Do you not feel it is a relevant question and that certainly it has to be answered at some point along the way?

We do have to come to grips with that problem.

Mr. SCANTLEBURY. I guess we do. Do you have any other thoughts on that?

This is Mr. Joseph Potter, our team leader in the review that we made of that.

Mr. POTTER. We can only convey what certain representatives of the industry told us when we were discussing this area with them. It was their view that if the SEC had abolished off-floor trading when it abolished the fixed commission rate, we would have a national market today. That may be an indirect answer to your question.

What they are saying is, you would have a national market if you didn't have off-floor trading restrictions. This is what we were told by various people when we discussed this with them.

Mr. RINALDO. All right. I do not want to be unfair to you gentlemen. I think that is satisfactory at this point. But it would be appreciated, Mr. Chairman, if the record could remain open so that a supplementary, more detailed answer to the question can be provided by the witnesses.

Mr. ECKHARDT. Without objection the record may be left open at this time for that purpose.

[The information requested was not received by the subcommittee in time for printing.]

Mr. RINALDO. At this point I am somewhat concerned about—do we want the two witnesses.

Mr. ECKHARDT. We may go back to either of the two witnesses, but the gentleman may proceed if he wishes.

Mr. RINALDO. All right, fine. Once again, any witness can answer it.

I would like to know whether or not it is possible in the opinion of the people here today to have the ITS and the CSC system existing side by side, or are they incompatible? In other words, does the choice have to be made between one or the other?

Mr. FLEXNER. In our view the answer is clearly yes, they could exist side by side. How you effect that is a different question I do not think there is any incompatibility between the two systems and, to the extent that they provide more information to the market than now exists, that kind of configuration would be desirable.

Mr. SCANTLEBURY. To a great extent there is a considerable amount of duplication that would exist between the two systems. And it is not clear, it has not been made clear how, considering a national market system, how they could react.

Mr. RINALDO. How they would mesh?

Mr. SCANTLEBURY. How they would mesh, right.

Mr. RINALDO. Do you want to comment on that?

All right. I know the witnesses do want to also testify. Let me ask one more question.

In the electronic market, should the function of broker and dealer be segregated? In other words, I ask the question because there could be the opportunity for manipulation.

Mr. FLEXNER. Well, I do not think from a competitive perspective that there would be a reason to make that kind of distinction. There may be consumer protection reasons why you would want to do that, but I do not consider myself competent in that area. But from a competition policy perspective, whether a firm integrated the function of broker or dealer would not be terribly relevant.

Mr. SCANTLEBURY. This wasn't an issue that we considered in assessing the progress on the national market system. It isn't relevant as far as the system itself is concerned.

Mr. RINALDO. I have no further questions.

Thank you.

[The following letter was sent to Mr. Flexner. No response was received at the time of printing.]

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Congress of the United States
House of Representatives
Committee on Interstate and Foreign Commerce
Room 2125, Rayburn House Office Building
Washington, D.C. 20515

October 15, 1979

Mr. Donald L. Flexner
Deputy Assistant Attorney General
Department of Justice
Antitrust Division
Constitution Avenue
Washington, D.C. 20530

Dear Mr. Flexner:

Thank you for your participation in the hearings held by the Subcommittees on Oversight and Investigations and Consumer Protection and Finance regarding the progress towards the development of a national market system. We look forward to receiving your supplemental written comments for the record. In developing those comments, we would appreciate your consideration of and response to the matters outlined below. In addition, in the instances in which you discuss competition, we would appreciate your identifying the nature of the competition that is being analyzed (i.e., price competition, competition for services, etc.).

A. In recent years, a variety of automated order routing or execution systems have been developed by the industry. How would you assess the competitive impact of each of these developments?

-- If a particular system has improved competition, how has it improved competition? Among which market participants has it made such improvements? What is the impact of this improved competition on the securities markets generally? On investors (private investors? institutions?)

-- Do any of these systems have an impact which discourages competition? Between whom?

These systems include:

-- The Intermarket Trading System

-- Designated Order Turnaround System operated by the New York Stock Exchange and similar systems on other exchanges

-- The Communication Execution System on the Pacific Stock Exchange

-- The Philadelphia Automated Communication and Execution System

-- The electronic trading system of the Cincinnati Stock Exchange

-- The new system for selecting the best price announced by Merrill Lynch, Pierce, Fenner & Smith, Inc., at the hearings.

-- What will the overall competitive picture of the industry be in the future if each of these systems continues to be used at their current rate of usage? If they are used significantly more than they currently are used?

B. In the past, the Department of Justice has urged the abrogation of the New York Stock Exchange's rule regarding off board trading. At the hearing, you indicated that the Department was not now prepared to answer the question of whether Rule 390 should be removed.

-- What are the specific criteria that the Department of Justice will apply to make the determination of whether or not New York Stock Exchange's current Rule 390 has an anticompetitive impact?

-- If, by the time you respond to these questions, you have made a determination with respect to Rule 390, could you specifically identify the factors that led to your conclusions? In view of the Department's previous position, if the recommendation is that the Rule is not anticompetitive, we will

be interested in knowing in substantial detail what is different about the rule, its application, or the marketplace that leads to such a conclusion.

-- One of the witnesses at the hearings stated that a "focusing rule" of some type (i.e., a rule that forces all orders to a central location to permit offsetting agency orders to meet without the intervention of a dealer) is necessary in a national market environment. However, he criticized the current formulation of the New York Stock Exchange's Rule 390 for precluding a retail firm from becoming a market maker in listed securities. (See testimony of Junius W. Peake, September 21, 1979). Do you have any comments regarding his observation?

C. In some respects, trading systems which have developed encourage, or are premised on, price matching. What impact do such practices have on competition? Does price matching serve a desirable function?

D. What is the role of the market maker today, both the upstairs market maker and the specialist on the floor of an exchange? How would you describe competition among them today?

-- What should their respective roles be? For purposes of insuring fair competition, if market makers are able to compete directly with each other, are there rules which should be applied equally to both?

Thank you for your cooperation. If you have any questions please feel free to contact us, or the Committee staff: Kathryn Seddon, Counsel to the Subcommittee on Oversight and Investigations at (202) 225-5365 or Franz Opper, Counsel to the Subcommittee on Consumer Protection and Finance at (202) 225-7790.

Sincerely,

James Scheuer
Chairman
Subcommittee on Consumer
Protection and Finance

Bob Eckhardt
Chairman
Subcommittee on
Oversight and Investigations

Mr. ECKHARDT. Mr. Scantlebury, please.

TESTIMONY OF D. L. SCANTLEBURY

Mr. SCANTLEBURY. Mr. Chairman, I have a prepared statement. I can read it in its entirety or in part, as you like.

Mr. ECKHARDT. Without objection the entire statement will be placed in the record [see p. 23], and the witness may, if he chooses, select from the statement matters of emphasis and comment on it.

Mr. SCANTLEBURY. Thank you.

The Securities Act Amendments of 1975 had as their purpose to assure that all buyers and sellers of securities, regardless of their geographic location, would have the opportunity to get the best price when they trade securities. The Congress provided the Commission with broad clear power and discretion to shape a system that met congressional objectives.

The congressional objectives for the national market explicitly require that modern data processing and communications technology be used to improve operational efficiency and to enhance competition in the securities industry. Neither the Congress nor the Commission has defined what the market should be in detail. However, according to various industry representatives, a national market system could make information and processing facilities available for securities trading; such facilities could provide all market participants with up-to-the-second information on securities prices throughout the country, enable trading transactions originating in one market to be sent to another to obtain a better price, and temporarily hold orders which are to be executed at prices that are different from current market prices.

As a result of your 1977 joint hearings, your subcommittees concluded that the Commission had not vigorously exercised its authority and directed the Commission to take whatever steps were necessary to put the system into operation. Today, approximately 4 years after the passage of the act, there is not a national market. When will it be completed? No one knows. None of the congressional objectives for the market have been fully met.

How far along is this progress? No one knows. But the Commission states that much remains to be done.

How will the market look when it is completed? No one knows because the Commission has not defined what the scope or structure of the system should be.

In short, the Commission has not developed an overall plan to guide development of a national market and to monitor progress toward that goal. Without a plan, claims of progress or statements concerning the completion of a national market system are not based on objective determinations because there is no way to compare what has been done with what was intended to be done.

Although the Commission has not developed such a plan, various actions have been taken which industry observers consider important steps toward the national market. For example, the intermarket trading system, a communication connection between six stock exchanges, began operation in April of 1978. However, it is acknowledged by the Commission officials that this is only a potential component of a national market system and does not represent significant progress toward such a system; in this respect informa-

tion from 4 of the 10 exchanges, and the over-the-counter market is not included.

Each exchange has to be queried separately because each query can take as long as 2 minutes, as much as 10 minutes is needed to contact all participating exchanges. Commission officials consider this system a more efficient communications device than the telephone but a marginal improvement. They also believe the system does not provide the means for more effective competition among markets.

We were told there were technical problems with the system and when it was demonstrated for us it did not work properly for some of the transactions attempted. The Commission stated that the length of time required to enter the data into the system's computer terminal discouraged use of the system when trading was heavy.

The Commission has also approved the use by the Cincinnati exchange of a fully automated electronic trading system, which of course has already been discussed. In 1978 an independent firm of certified public accountants was commissioned by the Cincinnati exchange to evaluate its system. This evaluation found that orders could be executed within 30 seconds. However, the system has not been extensively tested and the Commission has asked that more use be made of this system. In our visits to several market locations, we found some of the terminals for the Cincinnati system had not been turned on.

In the absence of a Commission plan, however, it is not possible to determine how these two systems could be used together; whether one would be phased out and the other take its place or just how the Commission would bring the various projects together into a cohesive national market.

In order to complete our work in time for these hearings, we did not develop estimates on the savings which would result from a national market. However, the Stanford Research Institute, an independent research organization, conducted a comprehensive review of the securities industry in 1976. One of the conclusions of this study was that the national market which used modern technology efficiently could save market users up to $100 million annually in reduced operating cost. Other estimates place the annual savings at about $50 million.

Lack of a plan creates uncertainty in the industry as to the direction the Commission will take. Over the next 2 years, three of the stock exchanges we visited plan to spend about $18 million to improve their operating facilities. These operating facilities which the industry is developing may have to be altered or discarded if they are not adaptable or do not contribute to the national market system.

The Commission's long experience in regulation influences its national market efforts. To bring about a national market, the Commission is using what has been described as an evolutionary procedure. Under this method the Commission requests, or it could order, industry groups to design system components that will fit into those already in place. We do not believe this piecemeal approach is an effective way to develop a system as significant as the national market.

Using its regulatory approach, the Commission took 6 years to bring about a system component which enabled investors to see prices at which other markets are willing to buy or sell securities. It took the Commission 4 years to get a component established which showed the prices at which listed securities were sold. Industry sources state that both components could have been placed in operation within 9 months.

The Congress found that modern data processing and communications technology provided the means for obtaining a national market. The personnel assigned to the Commission's national market unit do not have the technical skills needed to evaluate industry proposals dealing with sophisticated data processing systems. We believe that with an adequate technical staff the Commission would be in a good position to detect a number of the problems that have come up with the existing system.

The size of the Commission's national market unit also does not appear adequate to perform work on the system in a timely manner. Six attorneys are assigned to the unit. Only 2 of the 18 tasks scheduled in 1978 were completed on time.

The Commission officials believe that 1 year of the on-the-job national market experience is needed to qualify someone to work in this area. In April 1979 only two of the six attorneys met this proficiency standard.

Commission officials advised us that many other persons worked on national market activities. We believe, however, that if the work is to proceed rapidly, more staff should be assigned directly to the national market unit and a project management approach adopted.

Congress wanted national market trading to be conducted with accurate information supplied by neutral sources. As a result, Congress required exclusive processors of security information to register with the Commission. We reviewed the Commission's actions taken to register the Securities Industry Automation Corporation, which is also called SIAC for short. SIAC is the exclusive processor for composite quotations, consolidated last-sale reporting, and intermarketing trading system data, and therefore plays a key role in national market development. The reliability of this processing can affect investor trading decisions. Its determinations as to who may report data through its facilities and in what manner can affect the extent and nature of competition in the national market.

The Commission registered SIAC without independently verifying whether the firm could promptly process reliable and accurate data. Data processing experts told the Commission that findings concerning SIAC's processing data capabilities would require exhausting onsite testing by a team of experts. Such testing was not carried out.

Moreover, the Commission did not assess SIAC's neutrality. The Senate report on the national market legislation states that the Commission is responsible for assuring the neutrality of exclusive processors such as SIAC practice as well as in concept. The New York Stock Exchange, by owning two-thirds of SIAC's stock, is capable of exercising control over all of SIAC's activities.

In September 1978, the American Stock Exchange, which owns the other third of SIAC's stock, told the Commission that the New

York Stock Exchange's vast economic resources and concentration of capital combine to give it unmatched advantages. The Commission has not conducted any evaluation of SIAC's activities and according to what they told us does not plan to do so in the future.

In summary, we believe the proper planning of national marketing activities would provide for prompt and effective completion of an integrated system.

As Chairman Eckhardt pointed out in 1975, he would reserve to Congress the authority to say whether a national market plan meets its approval. In line with this interest in development of an appropriate plan, we have made three recommendations to the Congress in our recent report on the subject.

First, we believe the Congress should require the Commission to develop and submit a national market plan to the Congress by a specified date. As a minimum, the Commission plan should define the system and its requirements, assign responsibility for designing components, and include an implementation schedule.

Our second recommendation is that the Congress give interested parties the opportunities to present their views on the Commission's plan. This action would bring out the good aspects of the plan as well as those where improvement is needed.

Our third recommendation is for the Congress to establish a time frame for designing and implementing the national market. In essence this action would provide the basis for measuring national market progress. Also, such action would better enable the securities industry to plan and prepare for the national market development. Also, to provide greater assurance that the national market system will be developed promptly as desired by Congress, we are recommending that the Commission take action to improve its staffing by establishing a national market project team having enough technically oriented members to carry out its responsibilities.

In addition, we believe the Commission's regulation over processors of national market information should be strengthened. To be responsive to congressional intent, we are recommending that the Commission have SIAC's processing facilities for national market transactions evaluated by a team of data processing experts and an evaluation program be developed to assess the status of SIAC's neutrality.

We are also recommending that any other exclusive processors be subjected to the same evaluations.

That concludes my prepared statement, Mr. Chairman, and we would be pleased to try to respond to any questions.

[Testimony resumes on p. 62.]

[Mr. Scantlebury's prepared statement and attachment follow:]

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

FOR RELEASE ON DELIVERY
EXPECTED AT 10:00 A.M.
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STATEMENT OF
D. L. SCANTLEBURY
DIRECTOR, FINANCIAL AND GENERAL MANAGEMENT STUDIES DIVISION

BEFORE THE
HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
AND
SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCE

ON

THE COMPTROLLER GENERAL'S REPORT: IMPROVEMENTS NEEDED IN THE SECURITIES AND EXCHANGE COMMISSION'S EFFORTS TO ESTABLISH A NATIONAL SECURITIES MARKET

Mr. Chairmen and Members of the Committee:

We are pleased to be here to discuss with you our recent report on management improvements needed to guide the Securities and Exchange Commission's efforts to establish a national market system for trading securities.

In 1975, the Congress passed the Securities Acts Amendments of 1975, which directed the Securities and Exchange Commission to bring about a national market system for trading securities. The purpose of this act was to assure that all buyers and sellers of securities, regardless of their geographic location, would have the opportunity to get the best price when they trade securities. The Congress provided the Commission with broad, clear power and discretion to shape a system that met congressional objectives. These objectives were to assure that:

--securities transactions are executed economically and

efficiently;

--fair competition exists among market participants;

--information on price quotations and securities transactions is available to brokers, dealers, and investors;

--brokers can execute investors' orders in the best market; and

--the opportunity exists, consistent with economic efficiency and best market execution, for investors' orders to meet without the assistance of a dealer.

Further, the congressional objectives for the national market explicitly require that modern data processing and communications technology be used to improve operational efficiency and to enhance competition in the securities industry.

Neither the Congress nor the Commission has further defined what the national market should be. However, according to various industry representatives a national market system could make information and processing facilities available for securities trading. Such facilities could:

--provide all market participants with up-to-the-second information on securities prices throughout the country,

--enable trading transactions originating in one market to be sent to another to obtain a better price, and

--temporarily hold orders which are to be executed at prices that may differ from current market prices.

As a result of your 1977 joint hearings, your Subcommittees concluded that the Commission had not vigorously exercised its authority and directed the Commission to take whatever steps were necessary to put the system into operation.

Today, approximately four years after the passage of the act, there is not a national market. When will it be completed? No one knows; none of the congressional objectives for the market have been fully met. How far along is progress? No one knows, but the the Commission states that much remains to be done. How will the market look when completed? No one knows because the Commission has not defined what the scope or structure of the system will be when it is completed.

In short, the Commission has not developed an overall plan to guide development of a national market and to monitor progress toward that goal. Without a plan, claims of progress or statements concerning the completion of a national market are not based on objective determinations because there is no way to compare what was done with what was intended to be done.

Although the Commission has not developed such a plan, various actions have been taken which industry observers consider important steps toward a national market. For example, the Intermarket Trading System, a communications connection between six stock exchanges, began operations in April 1978. However, it is acknowledged by the Commission officials that this is only a potential component of a national market system and does not represent significant progress toward such a system. In this respect:

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--Information from four of the 10 exchanges and the over-the-counter market is not included.

--Each exchange has to be queried separately. Because each query can take as long as 2 minutes, as much as 10 minutes is needed to contact all participating exchanges. Commission officials consider this system a more efficient communications device than the telephone, but a marginal improvement. They also believe the system does not provide a means for more effective competition among markets.

--We were told there were technical problems with the system, and when it was demonstrated for us, it did not work properly for some of the transactions attempted.

--The Commission stated that the lengthy time required to enter data into the system's computer terminal discouraged use of the system when trading was heavy.

The Commission has also approved the use by the Cincinnati Stock Exchange of a fully automated electronic trading system that relies on a central computer to match buy and sell orders. In 1978, an independent firm of certified public accountants was commissioned by the Cincinnati Stock Exchange to evaluate its system. One of the findings of this firm was that the system had four components of a national market as viewed by the Cincinnati Stock Exchange--a composite quote system, an order-routing system, an intermarket communication system, and a

central limit order file. This evaluation also found that orders could be executed within 30 seconds. However, the system has not been extensively tested, and the Commission has asked that more use be made of this system. In our visits to several market locations, we found that some of the terminals for the Cincinnati system were not even turned on.

In the absence of a Commission plan, however, it is not possible to determine how these two systems could be used together, whether one would be phased out and the other take its place or just how the Commission would bring the various projects together into a cohesive national market.

In order to complete our work in time for these hearings, we did not develop estimates on the savings which would result from a national market. However, the Stanford Research Institute, an independent research organization, conducted a comprehensive review of the securities industry in 1976. One of the conclusions of this study was that a national market which used modern technology efficiently could save market users up to $100 million annually in reduced operating cost. Other estimates place annual savings at about $50 million.

Lack of a plan creates uncertainty in the industry as to the direction the Commission will take. Over the next 2 years, three of the stock exchanges we visited plan to spend about $18 million to improve their operating facilities. These operating facilities which the industry is developing may have to be altered or discarded if they are not adaptable or do not contribute to the national market system.

The Commission's long experience in regulation influences its national market efforts. To bring about a national market, the Commission is using "evolutionary" procedures. Under this method, the Commission requests, or it can order, industry groups to design system components that will fit into those already in place.

We do not believe this piecemeal procedure is an effective way to develop a system as significant as the national market. We recognize that system components can be phased into operation one at a time as they become available. But to be successful, this phased implementation must be guided by an overall plan to assure that the various components will result in an integrated system.

The type of plan we think would be needed to guide development of the system could, for example,

--provide for defining the market system and determining its requirements, including user needs;

--set forth policies to guide the development of the national market;

--determine the components that are to comprise the system and establish milestones for bringing them into the system;

--determine the Commission staffing resources needed to carry out management responsibilities relative to the system; and

--call for the development of management processes to identify problems and monitor progress.

A top Commission official has observed that overseeing the development of the national market has given the Commission new mandates which go beyond its traditional responsibilities and has placed the Commission in an unaccustomed role. We agree with this view.

Using its regulatory approach, the Commission took six years to bring about a system component which enabled investors to see the prices at which other markets are willing to buy or sell securities. It took the Commission 4 years to get a component established which showed the prices at which stock-exchange-listed securities were sold.

Industry sources stated that both components could have been placed in operation within 9 months.

The Congress found that modern data processing and communications technology provided the means for obtaining a national market. The personnel assigned to the Commission's national market unit do not have the technical skills needed to evaluate industry proposals dealing with sophisticated data processing systems. The need for technical advice is shown by the following examples.

--Six years elapsed in putting into operation the composite quotation system which gives the prices at which other traders are willing to buy or sell securities. However, when the system started operating in August 1978, the communication lines lacked sufficient capacity to carry the volume of data created during periods of heavy trading. As a result, twenty minute delays were experienced when

up-to-the-second data was needed to give effect to fast changing market prices.

In November 1978, the Commission Chairman stated that such delays were unacceptable and undermined the usefulness of the system. In March 1979, the Commission re-emphasized the need for further improvement in the timeliness and reliability of the system and expressed concern that revised quotations from certain exchanges were not being disseminated in a timely fashion.

--As I discussed earlier, the Commission approved the Intermarket Trading System in April 1978. In March 1979, the Commission said that the lengthy time required to enter data into the system's computer terminal discouraged use of the system when trading was heavy.

We believe that with an adequate technical staff, the Commission would have been in a good position to detect these problems and take steps to avoid or minimize them.

The size of the Commission's national market unit also does not appear adequate to perform work on the system in a timely manner. Six attorneys are assigned to the unit. Only two of the 18 tasks scheduled in 1978 were completed on time. Commission officials believed that one year of on-the-job national market experience is needed. In April 1979, only two of the six attorneys met this proficiency standard.

Commission officials advised us that many other persons work on national market activities. We believe, however, that if the

work is to proceed rapidly, more staff should be assigned directly to the national market unit and a project management approach adopted.

Congress wanted national market trading to be conducted with accurate information supplied by neutral sources. As a result, Congress required exclusive processors of securities information to register with the Commission.

We reviewed the Commission actions taken to register the Securities Industry Automation Corporation. SIAC is the exclusive processor for composite quotations, consolidated last-sale reporting, and Intermarket Trading System data and, therefore, plays a key role in national market development. The reliability of its processing can affect investor trading decisions. Its determiniations as to who may report data through its facilities, and in what manner, can affect the extent and nature of competition in the national market.

The Commission registered SIAC without independently verifying whether the firm could promptly process reliable and accurate data. Data processing experts told the Commission that findings concerning SIAC's data processing capabilities would require exhaustive on-site testing by a team of experts. Such testing was not carried out.

Moreover, the Commission did not assess SIAC's neutrality. The Senate report on the national market legislation states that the Commission is responsible for assuring the neutrality of exclusive processors such as SIAC, in practice as well as in

concept. The New York Stock Exchange, by owning two-thirds of SIAC's stock, is capable of exercising control over all of SIAC's activities. In September 1978, the American Stock Exchange, which owns the other third of SIAC's stock, told the Commission that the New York Stock Exchange's vast economic resources and concentration of capital combine to give it unmatched advantages. The Commission has not conducted any evaluations of SIAC's activities and does not plan to in the near future.

In summary, we believe that proper planning of national market activities would provide for prompt and effective completion of an integrated system. As Chairman Eckhardt pointed out in 1975, he would reserve to Congress the authority to say whether a national market plan meets its approval. In line with this interest in the development of an appropriate plan, we have made three recommendations to the Congress in our recent report on this subject.

First, we believe the Congress should require the Commission to develop and submit a national market plan to the Congress by a specified date. At a minimum, the Commission plan should define the system and its requirements, assign responsibilities for designing components and include an implementation schedule.

Our second recommendation is that the Congress give interested parties the opportunity to present their views on the Commission's plan. This action should bring out the good aspects of the plan as well as those areas where improvements may be needed.

Our third recommendation is for the Congress to establish a time frame for designing and implementing the national market. In essence, this action should provide the basis for measuring national market progress. Also, such action would better enable the securities industry to plan and prepare for national market development.

Also, to provide greater assurance that the national market system will be developed promptly as desired by Congress, we are also recommending that the Commission take action to improve its staffing by establishing a national market project team having enough technically-oriented members to carry out its responsibilities.

In addition, we believe the Commission's regulation over processors of national market information should be strengthened. To be responsive to congressional intent, we are recommending that the Commission have SIAC's processing facilities for national market transactions evaluated by a team of data processing experts and that an evaluation program be developed to assess the status of SIAC's neutrality. We are also recommending that any other exclusive processors be subjected to the same evaluations.

Mr. Chairmen, this concludes my prepared statement. We shall be happy to answer any questions.

BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

Improvements Needed In The Securities And Exchange Commission's Efforts To Establish A National Securities Market

In 1975 the Congress directed the Securities and Exchange Commission to improve market operations by bringing about a national market for the trading of securities. GAO does not believe it is possible to determine what progress has been made or when the national market will become operational because the Commission has not developed an overall plan.

GAO recommends that the Congress

--require the Commission to develop a national market plan and

--establish a time frame for designing and implementing the system.

The staff of the Commission's national market unit does not have the skills and is not large enough to carry out and evaluate national market activities.

FGMSD-79-59
SEPTEMBER 19, 1979

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-133227

To the President of the Senate and the
Speaker of the House of Representatives

This report discusses management improvements needed to guide efforts of the Securities and Exchange Commission in establishing the national securities market called for in the Securities Acts Amendments of 1975. In 1978, the securities markets--stock exchanges and the over-the-counter market--accounted for the trading of 12.4 billion shares of stock valued at $285.4 billion.

Copies of this report are being sent to the Director, Office of Management and Budget and to the Chairman, Securities and Exchange Commission.

Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

IMPROVEMENTS NEEDED IN THE SECURITIES AND EXCHANGE COMMISSION'S EFFORTS TO ESTABLISH A NATIONAL SECURITIES MARKET

D I G E S T

In 1975 the Congress sought to assure that all buyers and sellers of securities, regardless of their geographic location, would have the opportunity to get the best prices when trading securities. In amendments to the Securities and Exchange Act, the Congress gave the Securities and Exchange Commission the responsibility for overseeing the development of a national market for trading securities.

GAO does not believe it is possible to determine what progress has been made toward establishing a national market or when the national market will become operational because the Commission had not developed an overall plan which would provide a basis for measuring progress. (See pp. 7-8.)

The Commission said that it has made progress in developing the national market. For example,

--it has given temporary approval for an industry group's system that transmits order information among six stock exchanges and

--it has approved an automated electronic trading system that uses a central computer to receive and match orders.

However, the Commission had no overall plan, so it is not possible to determine whether the two systems would be used together, whether one would be phased out and the other take its place, or how the Commission would act to develop a cohesive national market. (See pp. 8-10.)

Progress would be more rapid and costs would be reduced for investors and the securities industry if Commission efforts were guided by an overall plan.

Time did not permit GAO to make its own estimate of the savings which would result from a national market system. However, some data on this issue is available. For instance, in 1976 the Stanford Research Institute estimated that a national market that efficiently used modern technology would save up to $100 million annually. Others estimate the savings to be at least $50 million. (See p. 10.)

The Commission is using evolutionary procedures to bring about a national market. Under these procedures, the Commission directs the industry to design and operate components that fit with those already in place. GAO believes that these procedures are successful only when guided by a plan. (See p. 11.)

The Commission's national market efforts are influenced by its long experience in regulation and generally result from rulemaking initiatives. GAO reviewed actions which had been taken on Commission rules intended to assure the national dissemination of securities price data. Using its rulemaking approach, the Commission took 6 years to bring about a system component which enabled investors to see the prices at which others are willing to buy or sell securities. It took the Commission 4 years to establish a component which showed the prices at which securities were sold. Industry sources stated that both components could have been placed in operation within 9 months. (See pp. 11-13.)

The staff of the Commission's national market unit does not have the skills and is not large enough to carry out and evaluate national market activities.

None of the unit's personnel possess a ready data processing capability. GAO believes that if the unit had this capability, it would have been better prepared to prevent technical problems that developed. For example, delays of up to 20 minutes were experienced in a component which provides

information on the prices at which others are willing to buy or sell securities. The delays were attributed to inadequate processing capacity during periods of heavy trading. Because up-to-the-second information is needed, the 20-minute-old price information was of little or no value. (See pp. 14-15.)

In June 1975 the unit consisted of six attorneys. In April 1979 the staffing was the same. The Commission in 1979 asked the Congress for additional national market positions. Because the national market was a top priority project, GAO believes the Commission could have allocated more positions to the national market unit. (See pp. 15-16.)

REGISTRATION OF EXCLUSIVE INFORMATION PROCESSING FIRM

The Congress considered the likelihood that, as securities markets shifted from independent, self-contained units to a national system, the economies of scale would bring about exclusive securities information processing firms--firms which process securities information under exclusive arrangements with stock exchange or other market groups.

The Congress mandated that national market trading be conducted with accurate information supplied by neutral sources in a fair manner. It required the Commission to regulate firms which process securities information for those who use the national market.

The Commission registered the Securities Industry Automation Corporation as an exclusive processor of national market information without independently verifying whether the firm could promptly disseminate reliable and accurate data. Moreover, because of the importance of having exclusive processors operate in a fair manner, GAO believes the Commission should have taken steps to assure the firm's neutrality. (See pp. 19-21.)

RECOMMENDATIONS TO THE CONGRESS

The Congress should:

--Require the Commission to develop and submit a national market plan to the Congress by a specified date.

--Give interested parties the opportunity to present their views on the Commission's plan.

--Establish a time frame for designing and implementing the national market.

RECOMMENDATIONS TO THE COMMISSION

The Commission should establish a national market project team staffed with enough technically-oriented members to carry out its responsibilities. It should have the Securities Industry Automation Corporation's processing facilities for national market transactions evaluated by a team of data processing experts and develop an evaluation program to assess, on a continuing basis, the Corporation's neutrality. GAO further recommends that any other exclusive processors be subject to the same evaluations.

COMMISSION COMMENTS NOT OBTAINED

GAO's review was self-initiated. Subsequent to undertaking this review, congressional hearings were scheduled on the subject for mid-September. Consequently, GAO was unable to give the Commission the normal 30 days to prepare written comments and, therefore, asked it to comment orally. However, the Commission said that suitable oral comments could not be prepared in the short time available.

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ABBREVIATIONS

GAO	General Accounting Office
SIAC	Securities Industry Automation Corporation

CHAPTER 1

INTRODUCTION

The Securities Exchange Act of 1934 established the Securities and Exchange Commission to regulate the securities markets. In 1978, these markets--stock exchanges and the over-the-counter market--accounted for the trading of 12.4 billion shares of stock valued at $285.4 billion. The value of these shares is equal to 13.5 percent of the gross national product.

The Securities Exchange Act of 1934 was passed to prevent the recurrence of manipulative activities that were characteristic of the speculative atmosphere in the 1920s. The act did not attempt to impose uniform methods for the trading of securities nor deal with the problems of market communications and coordination.

When the act was passed, the markets' practices, rules, and methods of handling securities transactions varied widely. Communication among markets was limited and imperfect, and little effort was made to coordinate trading among the markets. For about its first 40 years, the Commission took the securities markets essentially as it found them and attempted to establish and preserve a high degree of openness and fairness in the markets through its regulation.

Over the decades, structure and operating procedures of the securities markets changed little, but by the early 1970s, the Congress began to study their structure.

MARKET STRUCTURE THE CONGRESS STUDIED

The Congress studied two types of securities markets--the stock exchanges and the over-the-counter market. (Included in the over-the-counter market is the "third" market.)

Stock exchanges

A stock exchange provides a "trading floor" for a continuous auction of securities among exchange members. Companies pay stock exchanges for the privilege of "listing" their securities on the exchange. A listing permits use of an exchange's facilities when trading the security. An exchange can request that the Securities and Exchange Commission approve its listing of a company's security.

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For a fee, stock exchange members act as agents in executing customers' buy and sell orders on the exchange. Members also buy and sell orders on the exchange for their own inventory. A customer wishing to buy or sell a stock contacts a sales agent of a brokerage firm. The customer's order is generally transmitted to the firm's floor broker, who takes the order to a designated location where that particular stock is traded. The broker can accept the quoted market price from a specialist trading in the particular stock or, if other floor brokers are present, can attempt to get a better price. When the price is agreed upon, the trade is executed and recorded and the customer receives a report of the trade. Information on the quantities and prices of trades for that exchange are then disseminated to the public.

The map on the following page shows the location of the ten stock exchanges regulated by the Commission.

Over-the-counter market

The over-the-counter market operates without a physical trading floor. The market operates through a communications network which connects many brokerage firms throughout the country. Typically the firms buy and sell securities for their own inventories for later resale to their customers. For the most part, this market trades securities that are not listed on the exchanges.

A customer wishing to buy an over-the-counter security contacts a firm trading in this market. The firm, using a device similar to a television screen, determines the quoted price being asked by other traders. The transaction is completed over the phone at the quoted price or possibly at another price after further negotiation. Unlike the stock exchange, information on the quantities and prices at which trades were executed in the over-the-counter market are not immediately disseminated to the public.

The third market

The third market is not a separate marketplace in a physical sense. The term refers to over-the-counter trading in securities listed on an exchange by persons who are not members of that exchange. Securities are traded in the third market because investors believe that a better price, reduced costs, or faster execution may be obtained outside the exchange where the security is listed.



LOCATION OF STOCK EXCHANGES

WHAT THE CONGRESS SOUGHT TO REMEDY

After studying the market stuctures, the Congress concluded that legislation was needed to make the securities markets more efficient and competitive. Prices of securities traded in the markets--the exchanges and over-the-counter--were based on the information known in that particular market. For example, a broker on an East Coast stock exchange with a customer's order to purchase a particular stock could not determine the price that someone was offering to sell that stock in Midwest exchanges or the over-the-counter market.

Stock exchange rules also prevented the broker from conducting business with parties outside certain exchanges. Consequently, trading in a given security was fragmented among the various exchanges and the over-the-counter market and relied heavily upon paper records and manual processing. Under these circumstances, investors had no assurance that their brokers obtained the best price for their orders or that brokerage costs for their orders were reasonable. The Congress recognized that greater use of modern communications and data processing technology would allow up-to-the-second price information to be disseminated to all markets and would lower processing costs as well.

THE CONGRESS CALLS FOR A NATIONAL MARKET SYSTEM

On June 4, 1975, after 4 years of study, the Congress enacted the Securities Acts Amendments which added Section 11A (15 U.S.C. 78k-1) to the Securities Exchange Act. The amended act directed the Commission to facilitate the establishment of a national market system for the trading of securities. Neither the Congress nor the Commission has defined what the national market should be. However, according to various industry representatives a national market system could make information and processing facilities available for securities trading. Those facilities will

--provide all market participants with up-to-the-second information on securities prices throughout the country,

--enable trading transactions originating in one market to be sent to another to obtain a better price, and

--temporarily hold orders which are to be executed at prices that may differ from current market prices.

The congressional objectives for the national market explicitly require that modern data processing and communications technology be used to improve operational efficiency and to enhance competition in the securities industry. The Congress also directed the Commission to regulate those who process securities information.

The Commission was directed to "facilitate the establishment of a national market system for securities." The Congress intentionally provided the Commission with broad, clear power and discretion to shape the system. The Congress gave the Commission extensive power to develop and regulate the national market system and the activities of the persons involved in that system. It directed the Commission to be bold and effective and to act quickly.

CONGRESSIONAL CONCERN OVER NATIONAL MARKET PROGRESS

Beginning in 1977, the chairmen of the Senate and House subcommittees directly involved with the Commission's administration of Federal securities laws expressed concern about the Commission's progress in creating a national market system. As a result of joint hearings, two House subcommittees concluded that the securities industry had failed to move toward a national market and that the Commission had not vigorously exercised its authority or exerted leadership to bring a national market system into being.

The House subcommittees directed the Commission to exert leadership and to take whatever steps were necessary to put the system into operation. A Senate subcommittee chairman reached similar conclusions.

In 1978, the Commission stated that national market system development had been impeded by the securities industry. The Commission views its role as that of monitoring and encouraging the industry progress, of acting as a catalyst.

SCOPE OF REVIEW

The objective of our review was to evaluate the management exercised by the Commission in establishing a national securities market.

We interviewed officials of the Commission and other Government agencies. We also visited five stock exchanges, observed trading operations, and obtained exchange officials' views regarding the national market. We also met with officials of the over-the-counter market. We interviewed officials of trade associations, large and small brokerage firms,

and firms which process securities trading data. We held discussions with members of the academic and consulting communities, former members of panels created to provide the Commission with advice relative to the national market, and individuals who, as congressional staff members, observed the deliberations leading to the national market legislation. In all, we interviewed 120 individuals.

We reviewed the Securities Acts Amendments of 1975 and the related legislative history, Commission and industry reports and statements, and the Commission's internal national market management records.

Because the national market must use data processing and communications technology, we obtained the advice of a consultant with more than 20 years of experience in planning and developing large-scale computer systems and whose past assignments included automating systems for a Canadian stock exchange.

Our review was performed primarily in Chicago, Cincinnati, Los Angeles, New York City, and Washington, D.C.

Our review was self-initiated. Subsequent to undertaking this review, congressional hearings were scheduled on the subject for mid-September. Consequently, we were unable to give the Commission the normal 30 days to prepare written comments, and therefore, asked it to comment orally. However, the Commission said that suitable oral comments could not be prepared in the short time available.

CHAPTER 2

LACK OF OVERALL PLAN MAKES PROGRESS DIFFICULT TO MEASURE

The Securities and Exchange Commission does not have an overall plan to guide development of a national market system and to monitor progress toward that goal. Consequently, we do not believe it is possible to determine the Commission's direction or how far along it is in reaching the goal of a national market.

We are concerned that, without an overall plan, components of such a system that may be individually approved by the Commission will not be compatible with each other, and therefore the desired results will not be achieved. Moreover, we believe that a plan would enable the Commission to promptly carry out its congressional mandate for establishing such a system. Prompt establishment of such a system is important because estimated annual savings of up to $100 million for the securities industry and investors can be achieved once such a system is in place.

The Commission's normal regulatory approach does not seem well suited to the role it needs to play in establishing this system. It is using evolutionary procedures to bring about the national market one step at a time. Further, the Commission has assigned too few people to the task, and the staff assigned does not have the skills needed to carry out its responsibilities.

NO BASIS FOR MEASURING PROGRESS

To measure progress, it is necessary to have a means of comparing actions taken with stated objectives. Although the Commission has stated that significant progress is being made in establishing a national market, without an overall plan or specific objectives, it is not possible to measure this progress.

The Congress provided the Commission with general objectives for a national market. Those objectives should assure that

--securities transactions are executed economically and efficiently;

--fair competition exists among market participants;

--information on price quotations and securities transactions is available to brokers, dealers, and investors;

--brokers can execute investors' orders in the best market; and

--the opportunity exists, consistent with economic efficiency and best market execution, for investors' orders to meet without the assistance of a dealer.

Further, the Congress found that modern automatic data processing and communications technology provided the means for establishing a national market.

The Commission has stated that none of the national market objectives has been fully met and that much remains to be done.

ACTIONS TAKEN BY THE COMMISSION TO ESTABLISH THE NATIONAL MARKET

The Commission has advised us that it is taking many actions to establish the national market system, and industry observers consider the following actions as important steps toward achieving that goal.

Intermarket Trading System

An industry group developed the Intermarket Trading System, which was a communications connection for six stock exchanges. In April 1978, the Commission temporarily authorized the exchanges to implement the system which cost about $720,000.

In September 1978, the commissioners were informed by their staff that it would be difficult if not impossible to effectively monitor the operations of the system without the industry group incurring significant additional cost. The Commission requested system changes to improve monitoring, and industry representatives estimate that the requested changes, which are still under consideration, would cost about $100,000. In March 1979 the Commission issued a statement questioning whether the system could continue to be used in a national market without substantial improvement because of the system's slow response time. Despite this, in August 1979 the Commission extended the Intermarket Trading System's authorization until 1982.

Cincinnati Automated Trading System

In April 1978, the Commission temporarily approved the Cincinnati Stock Exchange's experimental use of a fully automated electronic trading system. The system uses a central computer, rather than the facilities of an exchange trading floor, to match buy and sell orders. Because little use had been made of the system, which has been described as an exchange without walls, the Commission requested the industry to make more use of it.

On December 15, 1978, the Commission extended the experiment for another year. Two weeks later, however, the Commission informed a White House regulatory council that in the national market, brokers and dealers will likely continue to meet on exchange trading floors to match buy and sell orders. If that is the case, the automatic trading of the Cincinnati system could be ruled out.

Composite quotation and consolidated last-sale reporting components

As a result of Commission rules to provide security price information from all markets to market participants, two market components have been developed by industry groups--composite quotations and consolidated last-sale reporting. Composite quotations give the prices at which others are willing to buy or sell a security. Consolidated last-sale reporting gives the prices at which trading transactions actually took place. In 1972 the Commission recognized the need for these two types of price information, several years before the passage of the national market system legislation.

The two systems involve collecting, transporting, comparing, and displaying data. The systems are based on uncomplicated applications of data processing and communications technology, and industry sources stated that both components could have been put in operation within 9 months.

However, implementation of consolidated last-sale reporting was not completed until April 1976, and composite quotations became effective in August 1978.

HOW THESE ACTIONS FIT INTO A NATIONAL MARKET SYSTEM IS NOT CLEAR

Because the Commission does not have an overall plan, it is not possible to determine how the individual components being created will eventually form a national market system. For instance, the Intermarket Trading System links only 6 of

10 exchanges and does not include the over-the-counter market. Furthermore, it has been found to be too slow; as much time as 10 minutes is required to communicate with all participating exchanges. How this system would fit into an overall national market system linking all exchange and over-the-counter markets is not predictable without an overall plan.

The Cincinnati Automated Trading System operates differently--instead of linking individual markets by computer, it is centralized. If implemented, the Cincinnati System would appear to make both the Intermarket Trading System and the component for consolidated last-sale reporting unnecessary. Without an overall plan, we cannot judge whether these systems would be used together, whether one would be phased out and the other take its place, or just how the Commission would bring the various projects together into a cohesive whole.

EFFECTS OF NOT BEING ABLE TO DETERMINE STATUS OF NATIONAL MARKET SYSTEM DEVELOPMENT

We are unable to accurately assess the effect of the Commission's approach to establishing a national system, but we believe that the agency would progress more rapidly if it had an overall plan.

Time did not permit us to estimate the savings which would result from a national market system. However, some data on this issue is available. For instance, in 1976, the Stanford Research Institute conducted a comprehensive review of the securities industry. The sponsors of the review included stock exchanges and firms in the securities, financial, and business fields. The Institute concluded that a national market system which used modern technology efficiently would save participants up to $100 million annually. Other estimates have placed the savings at $50 million annually.

Another effect of operating without a plan is the uncertainty that is attached to which direction the Commission will take in establishing a national market. This uncertainty increases the risk that the operating facilities, which the securities industry is developing at considerable expense, may have to be substantially altered or discarded. Over the next 2 years, three of the stock exchanges we visited are expected to spend about $18 million to improve their operating facilities.

WHY THE COMMISSION HAS NOT DEVELOPED AND FOLLOWED AN OVERALL PLAN

We believe that the Commission's lack of an overall plan can be attributed primarily to three factors.

--The Commission's approach is basically a regulatory one which may not be the most effective for this task.

--The staff assigned does not have the skills needed to do the job.

--The staff assigned appears too small to accomplish the necessary tasks to move ahead quickly.

The Commission's approach is basically regulatory

The Commission is using "evolutionary procedures" to bring about a national market. Under these procedures, the Commission requests--or, if necessary, can order--industry groups to design and operate system components, each of which is intended to fit with those already in place.

In June 1978, 3 years after the act was passed, a top Commission official said that the eventual national market system could not be foretold. He found the notion of a final national market to be misleading if it conveyed the impression that the system, like a construction project, would be finished at some predetermined point.

We recognize that system components may be placed into operation one at a time as they become available. However, to be successful our experience has shown that such procedures will rarely be effective unless guided by an overall plan which fits the various components together.

A top Commission official has observed that overseeing the development of the national market has given the Commission new mandates which go beyond its traditional enforcement responsibilities and has placed the Commission in an unaccustomed role. We agree with this view because creating a national market requires the effective use of systems management techniques and processes; in contrast, regulating existing markets relies upon rulemaking.

Commission attorneys draft rule proposals for consideration of the commissioners. After being approved by the commissioners, a rule proposal is published to allow affected parties to present their viewpoints so they may be considered in the rule's development. The Commission generally does not

independently validate the information submitted by the industry and public, but instead relies on the regulatory approach in which responding parties attempt to persuade the Commission on the merits of their positions and to rebut opposing positions. Such proceeedings frequently require a great deal of time. For instance, 6 years elapsed before composite quotations pertaining to stock exchange securities were developed in 1978. The following chronology shows the steps that were followed.

Date	Event
Mar. 8, 1972	The Commission proposed a rule for composite quotations.
Aug. 14, 1974	The Commission revised its rule proposal.
Mar. 11, 1975	The Commission deferred further consideration of the proposed rule. (The national market legislation was enacted in June 1975.)
July 29, 1976	The Commission proposed a rule revision.
June 14, 1977	The Commission issued a revised rule proposal.
Jan. 26, 1978	The Commission adopted a rule effective May 1, 1978.
Apr. 26, 1978	The Commission changed the rule's effective date to Aug. 1, 1978.
Aug. 1, 1978	The Commission rule became effective.

Four years elapsed before consolidated last-sale reporting for the same type of securities was developed in 1976. The following chronology sets forth some of the regulatory delay encountered in developing the component.

Date	Event
Nov. 8, 1972	The Commission adopted a rule requiring industry groups to file a plan.
Jan. 3, 1973	The Commission granted a delay for the plan's submission.
Mar. 2, 1973	The Commission received a plan and then requested public comments.
June 13, 1973	The Commission requested a plan revision.
Apr. 22, 1974	A revised plan was submitted to the Commission.
May 10, 1974	The Commission approved the plan. Phase I implementation was to begin Oct. 4, 1974.
Oct. 3, 1974	The Commission granted a delay in implementation.
Oct. 18, 1974	Phase I implementation began.

We believe that project management is the appropriate approach for overseeing the development of a national market system. Under this approach, an overall plan would be established to guide Commission efforts and those of the securities industry. For example, such a plan would

--provide for defining the market system and determining its requirements, including user needs;

--set forth policies to guide the development of the national market;

--determine the components that are to comprise the system and establish milestones for bringing them into the system;

--determine the Commission staffing resources needed to carry out management responsibilities relative to the system; and

--call for the development of management processes to identify problems and monitor progress.

The project management approach would, in our view, result in a much earlier and far more effective completion of the system.

Staff assigned does not have appropriate skills

The national market unit is staffed with six attorneys who are tasked with dealing with regulatory aspects of the system's development. They lack the technical expertise needed to carry out such responsibilities as evaluating industry proposals dealing with the sophisticated communications and data processing facilities. For example, the operation of a particular component intended for incorporation in the national market was delayed, according to an industry group, because of technical problems. The Commission was skeptical about the group's assertion, but lacking technical expertise, found it necessary to accept the group's explanation for the delay.

Believing that gross misrepresentations would be challenged by other industry groups or the public, the Commission began to publish the technical representation made by industry groups. Little technical comment has been received.

In January 1977, the commissioners were asked by their staff to approve the use of outside consultants to assist the staff on technical matters. The request was disapproved without explanation. The Commission staff pointed out that in April 1979, the Commission obtained, under a 2-year fellowship, the services of an attorney with a computer background. His experience has been as a corporate lawyer dealing with the legal issues of computer-related matters. This addition to staffing, in our opinion, does not give the Commission a ready or appropriate technical capability for dealing with the securities industry in the course of developing a national market.

The following examples show how advice from technical staff would have placed the Commission in a better position to evalute industry proposals concerning national market components.

Inadequate transmission line capacity. Six years elapsed before a composite quotation component was developed for the national market. This system component gives the prices at which traders are willing to buy or sell securities listed on stock exchanges. When the component was placed into operation in August 1978, the communication lines lacked sufficient capacity to carry the full volume of quotation data that was

generated during periods of heavy trading. Delays of as long as 20 minutes were experienced. Since up-to-the-second data is needed, such delays undermine the usefulness of the information. We believe that with adequate technical staff the Commission would have been in a good position to detect this problem before the system was implemented and provide for appropriate corrective measures.

Inefficient transmission of order data. In April 1978, the Commission approved the implementation of the industry-designed Intermarket Trading System--a computer-based communications network connecting 6 of the 10 stock exchanges. The trading system enables a member of one exchange to send order information to another exchange. The Commission is now aware that the lengthy time required to enter data into the computer terminal discourages the system's use when trading is heavy. We believe that with adequate technical assistance, the Commission could have advised the industry that faster data entry procedures were needed.

Inadequate safeguards over data processing. An electronic trading network, sponsored by the Cincinnati Stock Exchange and approved by the Commission in April 1978, allows participants to enter buy and sell orders through computer terminals. The orders are then automatically matched by a central computer and the trades electronically executed.

The computer facility of the Cincinnati Stock Exchange is located in Jersey City, New Jersey. We found that basic protective safeguards over data processing operations were lacking. Power failures had occurred there, but the facility lacked a back-up power source. Anyone could walk into the installation and shut down the system because the main power source switch was unguarded. The operating and back-up computers were located side by side in the installation exposing them to the same risk.

Adequate technical staff could have been able to detect and point out these security problems to the Commission for correction.

Staff appears too small to move ahead rapidly

The Commission's national market unit is staffed with attorneys. In 1975, when the market system legislation was enacted, the unit had six; in April 1979, the authorization also was six. This staffing level appears to be inadequate. For example, of 18 regulatory tasks scheduled to be performed by the unit in 1978, only two were completed on schedule.

The attorneys' efforts are channeled into rulemaking and related regulatory activities. Commission officials believe that to become proficient in national market activities, an attorney needs 1 year of experience to absorb background and development perspective. In April 1979, only two of the six attorneys met this proficiency standard. In addition to the working-level attorneys, we were told that one attorney took his management-level position with the intention that he would remain in it for only 2 years. He has left the Commission's employment.

Other circumstances have also contributed to inadequate staffing of the national market system unit. In fiscal 1979, the Commission

--took away a market system position and assigned it elsewhere in the agency,

--gave low priority status to filling a national market unit vacancy, and

--assigned a national market unit attorney for about a year to a 30-person task force that was not related to national market development.

For its fiscal 1979 budget, the Commission requested 14 additional positions for national market activities. These positions were to be used to respond to a conclusion of two congressional subcommittees--that is, the Commission should exercise greater initiative in establishing a national market. Because this was a priority project of the Commission, we believe it could have allocated more positions to the national market unit.

Commission officials advised us that many persons throughout the Commission also worked on national market activities but were not counted in the numbers cited above. These persons, however, have other tasks for which they are primarily responsible or else they perform supervisory and review functions. We believe that more staff must be assigned directly to the tasks of the national market unit if the work is to proceed rapidly.

CONCLUSIONS

The Commission does not have a plan to guide the creation of a national market. The Commission relies on a regulatory approach which uses evolutionary procedures to bring system components on-line one at a time. To be effective, this approach requires planning which the Commission has not done.

Additionally, the Commission's staff is inadequate either in terms of numbers or skills.

RECOMMENDATIONS TO THE CONGRESS

In view of the estimated savings that such a system may realize and the congressional mandate requiring its prompt development, we recommend that the Congress:

--Require the Commission to develop and submit a national market system plan to the Congress by a specified date. At a minimum, the Commission plan should define the system and its requirements, assign responsibility for designing components, and include an implementation schedule.

--Give interested parties the opportunity to present their views on the Commission's plan.

--Establish a time frame for designing and implementing the national market.

RECOMMENDATION TO THE COMMISSION

We recommend that the Commission establish a national market project team staffed with enough technically-oriented members to carry out its responsibilities.

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CHAPTER 3

IMPROVEMENT NEEDED IN THE COMMISSION'S REGULATION OVER PROCESSING OF NATIONAL MARKET INFORMATION

The Congress mandated that national market trading be conducted with accurate information supplied by neutral sources. Therefore, it required the Commission to regulate, through a registration process, firms which will process securities information for those who use the national market. The Commission registered the Securities Industry Automation Corporation (SIAC) as an exclusive processor of national market information without an adequate basis for determining that the firm could promptly disseminate reliable and accurate data or that information would be made available to market participants on a fair basis. SIAC is currently the exclusive processor for consolidated last-sale reporting, composite quotations, and Intermarket Trading System data.

REASONS FOR REGISTERING INFORMATION PROCESSING FIRMS

The Congress considered the likelihood that, as securities markets shifted from independent, self-contained units to a national market system, the economies of scale would bring about exclusive securities information processing firms--firms that collect, process, prepare, or distribute securities information under exclusive arrangements with stock exchanges or other market groups. Section 11A of the Securities Exchange Act requires exclusive processors to register with the Commission. Before it can approve a registration request, the Commission must find that the processor can promptly disseminate reliable data to the public.

The Congress also intended that an exclusive processor of national market information should operate fairly. Recognizing the competitive advantages that one market group might have over others if it had a controlling interest in an exclusive processor, the Congress gave the Commission broad powers over exclusive processors. Congressional intent, expressed in a Senate report on national market legislation, states that any exclusive processor is, in effect, a public utility, and thus must function in a manner which is absolutely neutral with respect to market centers, market makers, and private firms. The Senate report states that the Commission is responsible for assuring the neutrality of the processor in practice as well as concept.

EVALUATIONS MADE TO REGISTER SIAC

SIAC was created in 1972 by the New York and American Stock Exchanges to operate data processing and communication systems. In 1976 it was registered with the Commission as an exclusive data processing firm. SIAC plays a key role in disseminating information to market participants as the exclusive processor for last-sale reporting, composite quotations, and Intermarket Trading System data. The reliability of its processing affects investors' trading decisions. In 1978, SIAC processed stock transactions with a market value of $225 billion. How SIAC determines who may report data through its facilities and in what manner can affect the extent and nature of competition in a national market.

Evaluation of data processing efficiency

The Commission approved SIAC's registration in January 1976 without independently verifying the firm's data processing capability. Before the Commission can approve the registration of an exclusive processor, it must find that the firm can assure prompt, accurate, and reliable data processing. Data processing experts told the Commission that findings regarding SIAC's data processing capabilities would require exhaustive, on-site testing by an independent team of experts.

The Commission's staff recognized that it did not have the expertise to evaluate SIAC's data processing operations. The staff reasoned, however, that SIAC performed unique functions; consequently even a team of experts would lack standards to judge SIAC's data processing efficiency. The staff resolved questions about SIAC's capabilities by making limited inquiries of the firm's headquarters.

When the Commission asked for public comments regarding the registration of SIAC as an exclusive information processor, it received 10. None challenged the accuracy and adequacy of SIAC's information processing and the Commission staff concluded that the lack of challenge indicated users' satisfaction with SIAC's data processing efficiency.

The staff recommended that the Commission use SIAC's past performance--July 1972 through January 1976--as an indication of a minimum competence in data processing rather than as an affirmation of an appropriate degree of data processing efficiency.

We did not evaluate SIAC's processing operations and therefore do not know whether its capabilities meet the

requirements of the act. Under the act, the Commission was responsible for the evaluation before it could approve SIAC's registration.

Evaluation of organizational independence

When it approved SIAC's registration request, the Commission was aware that the New York Stock Exchange had a controlling ownership interest in SIAC. By virtue of its ownership of two-thirds of SIAC's stock, the New York Stock Exchange is capable of exercising control over all of SIAC's activities. The New York Stock Exchange is a dominant force in the securities industry, accounting for about 85 percent of trading volume, and members of that exchange hold between 31 and 60 percent of the director positions on the governing boards of seven other exchanges. In September 1978, the American Stock Exchange told the Commission that the New York Stock Exchange's vast economic resources and concentration of capital combine to give it unmatched advantages and that most securities firms are subject to its pervasive influence.

The legislation does not prevent a market group from owning a controlling interest in a registered exclusive processor. A Senate report, however, expresses concern over the potential competitive market advantage the group will possess in such a relationship. According to the report, the act imposed responsibility on the Commission to assure the neutrality of exclusive processors. Commission staff concluded, however, that the lack of public comment challenging SIAC's processing gave some indication of the fairness of its activities. The Commission has not conducted any evaluations of SIAC's activity and does not plan to in the near future.

The following discussion regarding efforts of the Midwest Stock Exchange to obtain access to a SIAC-operated facility indicates that the Commission needs to take a more active role in overseeing operations of exclusive processors.

In February 1977, the Midwest Stock Exchange asked SIAC for access to an order-routing facility. This facility, operated by SIAC for the New York and American Stock Exchanges provides for the routing of orders from a broker's office to a specialist on the exchange floor and reporting back to the broker on completed trading transactions. In replying to the Midwest's request, SIAC stated that it lacked authority to permit access to the facility by any exchange other than the New York and American Stock Exchanges.

On March 22, 1977, the Midwest Stock Exchange asked the Commission to review SIAC's denial of access at the earliest possible date. The Commission has not yet made a decision on the Midwest Exchange's request. Commission staff said that the Commission is holding the Midwest's March 1977 request in abeyance because in February 1979 the New York Stock Exchange made a proposal, still under consideration, which would allow Midwest access to the SIAC facility.

CONCLUSIONS

In approving SIAC's registration, the Commission did not independently verify SIAC's data processing capability. Moreover, because of the importance of having exclusive processors operate fairly, we believe the Commission should have taken steps to assure SIAC's neutrality.

More than 2 years have passed without the Commission requiring a resolution on the Midwest's request for access to SIAC-operated facilities. This delay does not of itself indicate, and should not be construed as indicating, that SIAC has acted unfairly in the handling of the Midwest's request. However, it clearly demonstrates the need for a Commission program to closely monitor the operations of exclusive processors, given the market group's great dependence on the neutrality of such processors.

RECOMMENDATIONS

We recommend that the Commission have SIAC's processing facilities for national market transactions evaluated by a team of data processing experts. We further recommend that the Commission develop an evaluation program to assess, on a continuing basis, the status of SIAC's neutrality. We also recommend that any other exclusive processors be subjected to the same evaluations.

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Mr. SCHEUER. Mr. Scantlebury, you have testified on page 4 that, according to the SEC, the ITS is a little more efficient than the ordinary garden variety telephone. Do you agree with that assessment?

Mr. SCANTLEBURY. That was the view of Commission officials. We, of course, haven't used the system. They indicated it was an improvement but not as much as they believed was needed to be an effective national market.

Mr. SCHEUER. They don't seem to feel that the ITS improves competition at all. Do you agree with that assessment?

Mr. POTTER. I think in that particular area, what we are looking at is the ITS currently only involves six stock exchanges and does not include the over-the-counter market. There have been some discussions to bring that into the ITS system. With more people coming into the system it is possible that that response time could also increase, as was pointed out before. You can wait as long as 2 minutes after a commitment is put into the system to get a response.

Mr. SCHEUER. The Commission also recommended that ITS be interfaced with the Cincinnati system. Do you think this can be done and do you think if that is done we can compare the cost effectiveness of the two systems?

Mr. SCANTLEBURY. I think what you need to do with that is to take some knowledgeable data processing people, let them look at how the two systems operate and make a determination as to what could be done along that line. We didn't do that in the course of our work. It would be quite a job to do and it would be hard to give you an answer without looking at that. That is one of the things we think SEC should consider in developing a plan.

Mr. SCHEUER. Thank you, Mr. Chairman.

Mr. ECKHARDT. We have stated from time to time that we in Congress have not been satisfied with the progress toward a national market system. Mr. Rinaldo, I think was discussing some of the questions as to what had been done to now. Mr. Lent, I think, also discussed that. I suppose we could say that since the 1975 act, we have seen a broader exposure of information concerning bids and offers on several exchanges, so that there is more information available across the various exchanges.

We have seen an improved opportunity for access to another marketplace by a broker acting through one exchange, and we have seen the technology presently available used for these two purposes.

I am a little concerned about whether or not at the same time, we have achieved a sufficiently effective routing system to the extent of the technical ability that is now at hand. Would you comment on that question?

Mr. POTTER. On page 4 of our testimony we noted that the report of the certified public accounting firm that evaluated the Cincinnati Stock Exchange pointed out that Cincinnati does have an order routing system.

Mr. ECKHARDT. Yes, within those who participate in it. So if we should desire to move to a national marketplace, which operated on the general principles of Cincinnati, we would satisfy that requirement?

Mr. POTTER. You would.

Mr. ECKHARDT. On the other hand, we might sacrifice something that has been urged to me as important, and that is some of the more or less brim fire judgments and the activity that exists in an exchange. What some of the New York Stock Exchange people, who are advocates of something like the ITS system, talk about is the value of "the crowd." A totally automated market might sacrifice some of the values that have been associated with what is called an auction market.

Would you comment on that?

Mr. SCANTLEBURY. If a plan was developed you could consider some of these aspects. You know the automation that is involved in this. The technology is available. You could plan for this feature in different ways. If there were some aspects of the existing system that needed to be preserved, you could build your data processing system to accommodate them.

So what you really need is for somebody to set down what the necessary elements of a system are so people can work toward a system that will provide for all those different things that are considered necessary.

Mr. ECKHARDT. You say in your testimony that such a system, according to information you have received from somewhat unidentified sources, could be accomplished in 9 months. That is the consolidated quote system?

Mr. SCANTLEBURY. That was, yes.

Mr. POTTER. The two components that we are referring to are the composite quote and consolidated last sale reporting. According to Commission documents, industry sources believed the consolidated last sale reporting could have been put on line within 3 to 6 months.

The composite quote, according to a very knowledgeable individual in the security industry, could have been put on line within 6 to 9 months.

Mr. ECKHARDT. I suppose it could be said that a completely automated nationwide system, could also be established within a reasonably definable period of time, as far as the technical capability that is available is concerned. We might say that it would be more than 9 months but within perhaps two or three times that period of time. Would that be a reasonable estimate?

Mr. SCANTLEBURY. I haven't had our data processing people assess that, but from my own knowledge, I would say that would certainly be a reasonable period of time if you just set a project team and tell them that this is the problem, that we now need to solve it with the technology that is available to us today. I think that would be——

Mr. ECKHARDT. That is more or less what you are recommending, as I understand it?

Mr. SCANTLEBURY. Well, no, our recommendation is more along the line that we believe that——

Mr. ECKHARDT. Well, I am taking it too far. You are not saying that it should be established in that way, but you are saying that we should establish some policy in advance and then direct a schedule toward that policy. That ultimately could bring about a solution to this problem in a reasonably definable period of time?

Mr. SCANTLEBURY. I believe so, yes. I think if this work continues without very much guidance as to what is expected in the end, it is very possible that you will wind up with a lot of different systems that are not at all compatible. That is what happened in a lot of organizations. They have developed data processing systems for different parts of the organization. When they try to merge them in some way, so data can be exchanged, they find it can't easily be done.

Mr. ECKHARDT. I think you certainly are correct. I don't doubt that there would be much dispute that the technology could be established for a system with several conceivable organizational structures within a relatively short period of time—or at least within a time that is definable in terms of a couple of years, somewhere in that neighborhood.

The question is, Do we know enough until we experiment with things like Cincinnati, and with things like ITS, do we know enough to make a prior determination that the mold of such systems should be of a certain nature? We may be approaching that. We certainly didn't have that information nor do I think we should have attempted to create that mold in 1975. I don't think we had it in 1977 when we considered the question. Whether we have it now or not is one of the reasons for these hearings.

Mr. SCANTLEBURY. I think that the question is very important, how should the system be configured? You are talking about all the factors that may enter into the discussion, for example, about some of the existing relationships with regard to the people who are involved in the different exchanges and brokers and the system. Technology is not a problem. The problem is to construct a system that will be acceptable to the various industry groups. If a plan were developed by the Securities and Exchange Commission and given to people to comment on, you could find out where the problems were. In the final analysis not everyone could be satisfied but at least there would be some knowledge as to what the national market system was and the direction of its progress. The Congress could then look at the plan and see whether it met the objectives of the act.

Mr. ECKHARDT. Well, I might draw an analogy. Even in a time when it is necessary to act very quickly, for instance, in wartime, we took a considerable period of time in experimenting with a number of competitive bombers. On the other hand, the Germans had only one. We did the same thing with fighter planes. We never got as good a fighter plane as the Messerschmit, and the Japanese Zero, until the end of the war, which was a P-51. But on the whole, the experimentation along several lines, and what might be considered delay, was in the long run a better decision. We did not formulate and place in a preconceived mold a plan which might not have been the best one.

Of course, there is always the question of how long you can continue to engage in such experimentation without devising a course of action, and I suppose that is what we are really discussing here.

Mr. SCANTLEBURY. I think that is correct. The question is whether you get to that point quicker by letting it go on in the method which exists—and perhaps coming up with some different sys-

tems—or whether you would get to your goal quicker by having some general direction provided in terms of a plan—a plan which we would conceive as specifying length of processing time, tolerable error rates, and other requirements which should be provided to those who are engaged in developing the system.

Mr. SCHEUER. There is a basic difference of opinion here between the Justice Department and GAO. The Justice Department in effect is saying, well, create the economic environment where market forces will produce experimentation and investment and research and development and so forth. In effect they are saying let a thousand flowers bloom.

Mr. FLEXNER. That is, I think, a fair statement.

Mr. SCHEUER. Right. You are saying SEC should put together a plan and request everybody to get moving toward the plan.

Now, do we know enough to know what that plan should be, or do we need more of this vital energetic resourcefulness where the market forces are sort of improving incrementally toward more highly refined, more sophisticated plans, applying technology in different ways.

Is the SEC in a position to put all that knowledge together and produce a plan and say everybody should get on board?

Mr. SCANTLEBURY. Well, it would seem to me that the problems are not those of making data processing systems that will work, but of developing a data processing system that will fit around what are deemed to be to most desirable features of a national market system as far as the interests of all parties involved. It seems to me that what we are doing is developing a lot of different data processing systems. The relationships should be spelled out better. As to linking all markets, you could get that done and arrive at a system much sooner—by any plan that you worked out—by relying on market forces alone or, as was said, by letting a thousand flowers bloom.

Mr. SCHEUER. You might do it sooner? Would you do it better or as well? What is going to be the opportunity cost, to put it in economic terms—what is going to be the cost of loss of opportunity and loss of the development if we impose a plan that is restricted by the parameters of our current knowledge, rather than letting some of those thousand flowers bloom?

Mr. SCANTLEBURY. May I give you an analogy?

Mr. SCHEUER. Sure.

Mr. SCANTLEBURY. In the Federal Government, going back quite a few years, almost every agency in the Government decided that it needed to devise its own payroll system and every agency had a very good reason and for years——

Mr. SCHEUER. They couldn't conform?

Mr. SCANTLEBURY. Why they couldn't conform to anybody else. The fact is practically all Government employees are paid the same, but one agency couldn't use another agency's payroll system because there certainly was something different—the cost systems were different, and so forth. There were countless systems developed in the Government. After a number of years most of the agencies have decided that, yes, we must come down to one system for the entire agency. In some agencies they had a number of different payroll systems.

There is a general movement toward one system that will do the job. We could have had that years ago and saved a lot of money if people had been willing to work together and to agree on the necessary parameters of a system. In those cases we did have a thousand flowers bloom but a lot of them now are being thrown away.

Mr. ECKHARDT. But now let's get down to specifics. If we should make a choice now, one of the possible choices would be between an intermarket trading system, which essentially places the emphasis on the relationship between the exchange markets and maintaining the system within the markets, or something like the Cincinnati system, which would be more or less an automated market system, which undoubtedly would have to include, as Cincinnati does, within its own operation, a consolidated limit order book.

Now, these are somewhat different approaches. It is not just a question of what kind of acounting system will be used to accomplish a very similar objective, it is a question of what will generate the fairest, broadest, most active trading system in the United States.

Are you prepared to tell us which direction we should take?

Mr. SCANTLEBURY. No sir, we are not. This we think would be something that the Securities and Exchange Commission in developing a plan is probably—as far as the Government is concerned—the organization best able to determine that direction and to design a plan. The plan can be as specific or as flexible as they see fit without inhibiting features that they might think would be desirable.

Mr. ECKHARDT. That sounds like a good preface to our going into other witnesses who might make such recommendations.

Mr. Lent.

Mr. LENT. Thank you, Mr. Chairman.

Mr. Scantlebury, in reading your report, at Roman numeral IV, you indicate that your agency undertook this study on its own initiative and that it occurred on such a schedule so as to not allow the SEC an opportunity to respond to the report, and I find this somewhat curious. Of all the things needing investigation, I wonder why your agency focused on this particular subject, and in such a manner as to exclude SEC response?

Mr. SCANTLEBURY. Well, what happened was, as we customarily do, we had made a survey of the activities of the SEC and of areas in which we felt that we might direct our audit effort beneficially. At the conclusion of our survey, in which we had identified a number of areas that we might do audit work, we visited with the various committee staffs who are interested in the SEC. They told us in these discussions that the progress on the national market system was the highest priority item that they saw on the list of areas we had identified. So we chose to look at system progress. The timetable was such that in order to have our review completed in time for this hearing, as requested by the committee, we gave SEC a chance to read the report and offered to meet them to obtain their comments on it. Customarily we give 30 days for an agency to comment, but in this case we could not. We offered to get together and talk about the report, but they declined.

Mr. LENT. I see. It does seem unfortunate that inasmuch as the report does come down pretty hard on the SEC, and its lackluster performance, so-called, that they were not given an opportunity to respond.

Now, I would just like to follow up on my colleague's question, Mr. Rinaldo, about the compatibility of the two systems that we are discussing here this morning. I believe that you stated, in response to his question, that you thought they could exist side by side but that it would be duplicatory.

If you look at page 5 of your prepared statement, you express the inability to determine how the two systems would mesh, "in the absence of a Commission plan. However, it is not possible to determine how these two systems could be used together, whether one would be phased out and another take its place, or just how the Commission would bring the various projects together into a cohesive national market."

So my question is, Can you reconcile the statement in your written comments where you indicate you see no way that they could be meshed and response to Mr. Rinaldo earlier wherein, I think my recollection is correct, you indicated you thought they could co-exist?

Mr. SCANTLEBURY. We didn't really mean that we had made a determination that they couldn't coexist, we just are saying that the Commission has not made any determination as to how it would use these two together based on the functions they perform. It appears if they did exist side by side there would be some duplication involved.

Mr. ECKHARDT. We will have a break here for a moment.

Mr. LENT. I have no further questions.

Mr. SCHEUER. Mr. Chairman, in deference to our timetable, I am not going to ask any more questions but I would like unanimous consent to submit some questions in writing for the record.

Mr. ECKHARDT. Without objection, the same privilege will be extended to all members.

Thank you for your attendance. We will break now for a few minutes to answer the rollcall.

[Brief recess.]

Mr. ECKHARDT. The subcommittee will resume its hearings.

We have Mr. William Schreyer of Merrill Lynch, Pierce, Fenner & Smith.

Mr. Schreyer, you are accompanied?

Mr. SCHREYER. Yes, I am.

Mr. ECKHARDT. Would you introduce them?

Mr. SCHREYER. I certainly will.

I would like to introduce Wallace Sellers on my immediate right, vice president for corporate affairs in Merrill Lynch; Mario Nigro on my left, who is our director of corporate systems; and Leopold Korins at the end of the table, who heads our sales support group and who has had extensive experience on the New York Stock Exchange and as an upstairs market maker.

Mr. ECKHARDT. Gentlemen, do you swear to tell the truth, the whole truth, and nothing but the truth, so help you God?

[All say "I do."]

Mr. ECKHARDT. You may proceed.

TESTIMONY OF WILLIAM A. SCHREYER, PRESIDENT, MERRILL LYNCH, PIERCE, FENNER & SMITH, INC., ACCOMPANIED BY WALLACE O. SELLERS, VICE PRESIDENT FOR CORPORATE AND PUBLIC AFFAIRS, MARIO NIGRO, DIRECTOR, CORPORATE SYSTEMS DIVISION, AND LEOPOLD KORINS, SALES SUPPORT GROUP

Mr. SCHREYER. Mr. Chairman, it is a pleasure to come here today to offer our views on the national securities market. We have recently discussed them at length in a letter to the Securities and Exchange Commission. We offer a copy of that letter for the record of these hearings. [See p. 73.] I will try to summarize our position in the next few minutes.

Since the Securities Act Amendments of 1975 were enacted, the securities industry has been beset with changes. One change that has not occurred is the establishment of a national market system. There are two basic reasons for this lack of progress.

First, despite a high mortality rate in the industry during the past 4 years, the survivors have a significant stake in the current system and have no great incentive to make drastic changes in it.

The second, and more important, is that despite torrents of words and showers of papers on the subject, no one in any position of authority has yet defined what a national market is. Congress set forth the goal of the market and left it to the SEC to use its judgment in fostering it. The SEC left it to the industry to bring it into being through evolutionary and competitive forces. The industry, composed of rugged individualists with differing interests, has agreed on very little except the preservation of the current system.

Well, what is wrong with the current system of trading securities? In truth it works and works well. It could, however, be improved for the short term and it is possible that it could break down over the long term if improvements are not carried out. With all of its virtues, the current exchange environment suffers from three basic defects. It is still to a significant degree noncompetitive; it is inefficient, and it is expensive to operate.

Let us discuss these points one at a time. In some respects the securities industry is one of the most competitive on Earth. In other respects it is still very much a closed shop.

One of the anticompetitive elements, fixed commission rates, was eliminated by the 1975 amendments. Before that, we saw the phenomenon of third marketmakers who provided the first real competition to exchange members in two centuries. When commission rates became unfixed, the resulting competition brought great pressure to bear on the less efficient member firms and caused a shrinkage in the industry. Paradoxically it enabled the remaining exchange members to compete more effectively with the third market makers, who suffered a great deal of pain in the process. Through all of this, one area which has remained largely immune to competition is the market making franchise held by specialists on the exchanges.

Second, the current system is inefficient because it is still largely manual. Despite the advances in computer and communications technology over the last decade, the trading process remains a system where papers are shuffled and orders and reports are han-

dled manually. There are unnecessary duplications of facilities which require separate staffs and elaborate communications links.

As I said, these inefficiencies are bearable now under current conditions and with the present volume of trading, 30-million-share days on the NYSE with occasional peaks of 60 million. If a sustained period of high volume were to occur, we could see a recurrence of the problems associated with the paper crunch of the late 1960's, or the near-disaster at the options exchanges of April a year ago. The point is that these things do not have to happen. We do have the technology to automate to a far greater extent than we presently have. In our opinion, the need is absolutely imperative.

Third, the system is expensive because these inefficient aspects I just mentioned make it people-intensive and cause the cost of execution to be out of proportion to the effort which is needed to provide it. You might ask why we, the largest and one of the most profitable brokers in America, find these costs worrisome. The answer to that is that the securities business has always been cyclical.

In order to conduct business efficiently during periods of high volume, large firms must establish computer communications and other costly support systems. When volume turns down, these fixed costs can be a substantial drain on earnings. Many firms, including our own, have sought to cushion the impact of these costs during periods of relative inactivity by diversifying into other areas of the securities business.

What is particularly disturbing is that some costs are attributable to some attitudes of regulatory agencies which often appear indifferent, if not hostile, to the concept of cost-benefit analysis. The predictable result of this shortsightedness has been a trend toward diversification outside of the securities business by some firms in part to try to earn the profits necessary to enable them to continue their securities activities.

Now let me get back to the element of competition. The Securities Acts Amendments spoke of fostering "fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets." This seems to imply that "competition" means the same thing in these various contexts. In fact, there are many different forms of competition, and the failure to recognize this can lead to a great deal of confusion when we discuss national market concepts.

Brokers and dealers compete with one another for a customer's order. They do this by offering services, advice, or in some cases discounted execution costs to attract and keep a customer. This kind of competition is basic in an industry and does not really concern us here. Exchange markets also compete for a customer's order, but they attempt to serve the broker, who now has control of the order rather than the customer himself. The most obvious way of doing this is by offering the best price, by insuring that there are well-capitalized marketmakers who are willing to take risks in order to maintain deep and liquid markets.

There is another way exchanges compete. They provide efficient facilities so that the cost of executing and clearing a transaction is low. These costs can be a significant factor in times of high volume. This situation can also pose a dilemma for a broker with a substan-

tial order flow. He may have to choose between a market center with a smooth and efficient processing system but less able marketmakers, and another market center with superior marketmakers but inadequate floor facilities. It is plain that a "best execution" rule which assumes that the best quotation always provides the best execution is not helpful. It should also be clear that the customer, who wants to buy or sell stock, has gained very little from this type of competition.

I want to repeat here what we have said over and over again; we feel that a basic element of a national market is competition among orders. We maintain that efficient and liquid markets come from the interaction of all orders with one another. Marketmakers will continue to be needed during periods of imbalance and for transactions of unusual size, and anyone who wishes to risk his capital in that fashion should be permitted to do so. But when competition between market centers tends to fragment order flow instead of centralizing it, we believe that neither the investor nor the market itself is served.

At present we see little progress toward resolving these questions. The Intermarket Trading System, or ITS, which links the New York with some regional exchanges, is a communications device and nothing more. It is as far from the concept of an automated, efficient marketplace as a tom-tom is from a communications satellite.

The Cincinnati system does have some of the elements of what we envision a national market to contain—firm bids and offers, automatic execution and public protection. We wish that more would use it so that we could have a worthwhile test of these concepts.

Now I am going to add something that was not in our submitted testimony because frankly, up until just a couple of days ago, I wasn't sure I was prepared to do this, but now I find we are.

Merrill Lynch has always been willing to experiment in areas which might further a national market system. In this connection I am pleased to be able to announce here today to these subcommittees that we have developed a prototype of an electronic routing system.

Mr. ECKHARDT. You have not announced this before?

Mr. SCHREYER. This is just being announced right now and will be released to the press any time now, I gather.

This system will take a customer's order, scan the consolidated quotation system for the best market, whether exchange or a third market, and send the order to that location for execution, all within a fraction of a second. We believe that we are the first firm in the industry to develop this capability. It will be important not only to our customers, but to market makers on regional exchanges and the third market who now will have a fair opportunity to compete for our order flow.

I might add that, contrary to some estimates that you may have heard, considering the cost and complexity of such a project, we were able to develop our system in less than a year and at a cost of less than $100,000. Although we believe that this is a significant achievement, we do wish to caution against expecting too much of such a system.

We plan to start with a limited test with a small number of securities. For one thing, we do not know how the markets will react to a shift in our order flow. We have developed our routing system out of concern for our customers' interests and we want to be very sure that those interests are protected. We have been disappointed with the pace of progress in the development of a national market and, while we do not consider our routing system to be a cornerstone of the national market, we do believe that it demonstrates that the automated features of the market which we have been advocating are technologically feasible.

We consider this a long step forward and a demonstration of our commitment to progress and experiment as we move towards the market of the future.

To sum up, the Congress recognized when it adopted the 1975 amendments to the Securities Act that the securities market is an important national asset which must be preserved and strengthened. The Congress also foresaw that the archaic manual systems which had characterized the reporting, trading and clearing function would not be adequate for the heavy trading which is bound to come as our economy grows.

We do have modern technology available to us in the form of advanced computer and communications devices, but these have not been exploited to the fullest. Merrill Lynch believes it is imperative that we move forward now while we have the opportunity to prepare for the vast increases in volume which lie ahead.

We think all of us, the SEC, the industry and the self-regulatory organizations must agree on the definition of the national market and cooperate in its construction. In our view a national market must have the following elements:

1. All orders come together so that they have the opportunity to interact;

2. Automatic execution, particularly for active, liquid issues with narrow spreads;

3. Locked-in trades with automatic comparison and clearing so that stock certificates can be immobilized or eliminated to a substantial degree;

4. Fair and equal opportunity to compete for all who have the capital and willingness to make markets;

5. Full limit order protection so that the public customer has an incentive to come into the market;

6. Finally, market information, such as firm bids and offers, sizes, and transaction reports, is promptly and accurately available to all.

We believe that the SEC should define the national market as one which contains these elements. It would then be a simple matter to direct the self-regulatory organizations and the industry to build a system which incorporates those defined elements. In our judgment, these things can be done and need to be done if our markets are going to be able to meet the challenge of the future.

I appreciate your attention and my colleagues and I will be pleased to answer any questions.

Let me just say one thing: The GAO's comments about a project team reminded me that back after the time of the paper crunch of the sixties we formed an ongoing project team. We have had a

turnover of people and so forth, but we still have an ongoing national markets project team of which three of the gentlemen, my colleagues at the table, are active, ongoing day-to-day participants.

Mario Nigro to my left is our corporate systems computer expert and Lee Korins spent many years on the floor, knows it intimately, as well as upstairs. So we now welcome any questions you might like to ask.

[Testimony resumes on p. 80.]

[Attachment to Mr. Schreyer's prepared statement follows:]

One Liberty Plaza 165 Broadway New York New York 10080 212 766-8756

William A. Schreyer
President

Merrill Lynch
Pierce
Fenner & Smith Inc.

June 14, 1979

Mr. George A. Fitzsimmons, Secretary
Securities and Exchange Commission
Room 892
500 North Capitol Street
Washington, D.C. 20549

Development of a National Market System
Release 34-15671 File S7-735-A

Off-Board Trading Restrictions
Release 34-15769 File 4-220

Price Protection for Public Limit Orders
Release 34-15770 File S7-778

Dear Mr. Fitzsimmons:

Merrill Lynch has commented extensively on a national market system (see, for example, the Proposal for a National Market System, October 1975; the Proposal for a Consolidated Limit Order Book, July 1977; the statement of Roger Birk before the SEC proceedings regarding off-board trading restrictions, August 1977). We have not commented recently in the belief that our views were widely known and understood. The Commission's Status Report (the March release no. 34-15671, File S7-735-A) and its proposals regarding off-board trading restrictions (34-15769, File 4-220) and price protection for public limit orders (34-15770, File S7-735-A) raise such fundamental issues, and in our view resolve them so inadequately, that we feel compelled to address these questions once more. In order to place these matters in their proper perspective, it might be helpful to review once more some of the background of the national market.

Congress had two basic concerns when it enacted the 1975 amendments to the Securities Acts. One was that the securities markets had become encrusted with anti-competitive practices which were neither necessary nor acceptable in a modern society. The other was that the trading process - which includes order entry, execution, settlement and clearing - was essentially a manual process, little changed

in two centuries. The system had come to the brink of collapse in the late sixties, and has shown periods of severe strain even today. The Congress felt that the application of modern communications and data processing technology was essential if the markets were to continue to perform their vital and historic function of assisting the economy in fulfilling its capital needs. Congress was wise enough to know that it did not have sufficient technical knowledge to design a national market system, and thus deferred to the Commission and the industry. The Commission in turn has been understandably, and properly, reluctant to impose any particular system of its own design. Instead, it "...expected that the securities industry would assume primary responsibility for the development of facilities necessary to achieve the objectives set forth by Congress in Section 11A of the Act." (p. 3 of the March release). Unfortunately, the industry has not been able to agree on the design of the facilities and in our view we are still not on the path to, much less close to reaching, a true national market system.

We suggested during the off-board trading proceedings that no one had yet said what a national market system is. Without consensus, there is no way that the industry can construct facilities necessary to build one. It is somewhat like building a house where the architect, the plumber, the carpenter and the electrician each has his own conception of what the house should look like and performs his tasks without regard to what the others are doing.

Without a blueprint for the national market, industry attempts to design what the Commission terms "facilities" at best will be ineffectual compromises among the conflicting interests of the exchanges, the brokers, the dealers, and the other disparate participants in the industry. Faced with this situation, the Commission is forced to foster innocuous and peripheral measures which have the potential for imposing substantial additional costs upon an industry already suffering from unsatisfactory returns on equity without contributing in any significant way to the efficiency and cost savings which the concept of a national market was intended to create.

In our statement during the proceedings regarding off-board trading restrictions, we said: "There is one thing which a national market system most emphatically is not. It is not simply a communications link among existing market centers. Such a link does nothing to solve the problems of order routing, best execution and limit order protection. It does nothing to accomplish the objectives of the '75 Act Amendments for 'economically efficient execution of securities transactions; ...(and) the practicability of brokers executing investors' orders in the best market." In that same statement we offered a definition of a national market. We said: "We suggest that a central market is a <u>system</u> which is

automated to the most efficient degree; which allows for fair and full competition among all qualified market makers; which permits all bids and offers to meet, and which provides for full protection of limit orders."

The Commission has never indicated whether it agreed or disagreed with this analysis. Regardless of whether this or some other definition is decided upon, we believe that it is essential that there be a common understanding of what we are striving to achieve. We can all agree on the objectives set forth by Congress in Section 11A of economically efficient executions, fair competition, availability of market information, execution in the best market, and the opportunity for investors' orders to meet without the intervention of a dealer. We do not always agree on the meaning of these goals. (For example, what precisely constitutes the "best market" for a customer's order? or an "economically efficient execution"?). It is our judgment that the industry cannot achieve these objectives until there is, if not agreement on, at least acceptance of, what they mean. If the industry cannot or will not agree, then the Commission, using the authority which was clearly granted to it by Congress, must be the final arbiter.

Congress stated explicitly in Section 11A that "the securities markets are an important national asset which must be preserved and strengthened." It is incongruous to speak of preserving and strengthening the securities markets if the economic incentive to participate in those markets does not exist. We think that the Commission should be concerned about deteriorating profit margins on the part of securities firms. The cost savings which should flow from a true national market would contribute both to the health of the industry and the vigor of its competition. On the other hand, some proposals which have been advanced in the name of developing a national market system also seem designed to preserve institutions which might otherwise have no economic reason for existence. These costs are also borne, indirectly and to varying degrees, by other participants in the industry and ultimately are passed along to customers.

Perhaps the clearest way to develop these thoughts would be to discuss in some detail some of the concepts outlined in the March release. On p. 7, the Commission discusses the "firm" quote rule and suggests that "...a functioning consolidated quotation system, long considered a cornerstone of a national market system, has become operational, and quotation information for reported securities is now an integral part of the nation's securities markets." In our comment at the time the rule was proposed, we suggested that the exceptions to firmness which were permitted by the rule rendered it largely ineffective. It is possible that the Commission believes that the consolidated quotation system fulfills the requirement for enabling all bids and offers to meet. We do not. Under

the current system, a quotation is nothing more than an advertisement, much like a supermarket advertises prices ("firm offers") in a newspaper. To take an offer, a buyer has to go to the market which advertised it and effect a transaction. Under existing procedures, this is cumbersome, expensive and risky.

The release goes on to discuss ITS and the Cincinnati experiment (p. 9 et seq.). In our view, ITS can be considered successful in only one respect: it has apparently persuaded some that with additional enhancement it can be one of the foundations of a national market. ITS is nothing more than a relatively expensive communications link and contributes nothing of value to the concept of an efficient and automated marketplace. The Cincinnati experiment, on the other hand, does provide what we consider to be two essential elements of a national market: firm bids and offers and automatic execution. The limited participation thus far makes it difficult to assess its efficacy, and the fact that it is derivative of another market prevents us from gauging its ability to provide an efficient pricing mechanism. Nevertheless it offers, to a degree which ITS cannot, an opportunity to experiment in a controlled environment with some important concepts.

The missing element in all the talk of a market linkage is order flow. We have repeatedly pointed out that efficient markets are created by competition among orders, not competition among market places. When all orders come together and have the opportunity to interact, then the marketplace has achieved its optimum efficiency and liquidity. Devices which do no more than display bids and offers which are available in another location do not contribute to these objectives. And the construction of elaborate routing systems to enable orders to chase around the country after markets that may or may not be firm, liquid or deep, rather than being funneled into a common point of execution, appears to us to be an expensive folly. Intra-day, order-by-order routing systems make sense only if the capability for automatic execution exists at the point of destination. Furthermore, the routing system concept is aimed at only one of the situations where better prices are occasionally overlooked. It is entirely possible for an order to be executed in an active market under a competing marketmaker system while a better bid or offer is available at the opposite side of the crowd. It is not entirely clear why the occasional missed market on a regional exchange is of greater concern than this situation. In any case, we have contended, and still contend, that there is a far more efficient and less costly means of eliminating these market anomalies than the construction of routing systems and limit order files.

Any brokerage firm which does a major public business bears two significant expenses. One is floor brokerage and the other is the process which includes comparisons and clearance. Both are essentially

manual operations and therefore subject to errors, and particularly so during periods of high volume. As the volume of trading increases year-by-year, the ability of a manual system to cope with it will lag behind. Surely this is what Congress had in mind when it found in Sect. 11A(a)(1)(B) that: "New data processing and communications techniques create the opportunity for more efficient and effective market operations." And yet today, four years after the adoption of these amendments, these operations of our markets are essentially unchanged.

We would now like to turn to the specific proposal for price protection for public limit orders. As the Commission has indicated (p. 21 of the March release) ITS is clearly inadequate for insuring nationwide limit order protection. However, there exists at the present time a feasible means of experimenting with the concept through the facilities of an automated system which openly displays its markets, identifies public and dealer orders, has firm bids and offers, and provides automatic execution and a mechanized audit trail. This is, of course, the Cincinnati exchange. The Commission has no need to wait until 1981 to make proposed Rule 11AlC-3 effective. It can declare it effective immediately and monitor the results in a limited and controlled environment.

We do, however, have some difficulties with the rule as proposed. First, we believe that the definition of an associated person is too restrictive. Although there is not a perfect analogy to Section 11(a), we do point out that Rule 11a1-2, the so-called "look through" rule, was adopted to correct the unintended result of prohibiting execution of public orders from customers of a non-clearing member or of a subsidiary or affiliate of a broker/dealer when the orders happen to be cleared on an undisclosed omnibus basis with the member. That situation would be equally unfair in a limit order file.

Second, we see no reason why registered representatives and other employees of a broker/dealer, or officers of a non-securities affiliate of a broker/dealer, should have their orders excluded from a limit order file. When acting for their own accounts, they are as much a part of the public as any other individual and have no privileges which would give them a special advantage over customers. We believe that orders for natural persons should be considered to be public orders.

Third, we see no reason why proprietory orders of broker/dealers should be excluded from a limit order file. Public orders can be given priority over dealer proprietory orders but there are times when a public customer could get a better price by trading with a dealer and he should not be deprived of that opportunity, nor should dealers be deprived of the opportunity to add to or liquidate inventories if they are willing to better the current market.

Finally, as our comments earlier in this discussion made clear, we believe that an essential element of any limit order file is automatic execution. A broker, either on a trading floor or upstairs in his trading room, should not only be able to see a market but should also be able to execute from that bid or offer at the indicated size. Once hit or taken, the bid or offer should then be withdrawn automatically until the market maker chooses to reenter it. Any other system is simply a continuation of the present unsatisfactory manual operation which is both inefficient and expensive.

In the March release, the Commission stated its belief that the use of controlled limit experiments in certain circumstances may be both prudent and instructive. We believe the limit order file issue offers a unique opportunity for just such a test with virtually no risk or expense to the investment community through the facilities which the Cincinnati Stock Exchange already has in place.

Proposed Rule 19c-3 presents a different set of problems. It is certainly not as disruptive as abrogation of Rule 390 for currently listed securities would be. Although we support generally the use of controlled, limited experiments with various national market concepts, we do not expect any great insights to be gained from this one. The over-the-counter market is not a prototype of a national market system. All orders do not meet; it does not provide automatic execution; it does not offer full protection of limit orders. Adding an exchange market in the same securities will be merely a variation on the kinds of problems we now see with the manual and clumsy communications devices which link the exchange markets. In short, we will have markets existing side-by-side, not one integrated market with direct market-maker competition.

We assume that if the Commission adopts 19c-3 it will not act upon any of the four alternative "overreaching" rules which it proposed in connection with proposed Rule 19c-2 in June 1977. We stated at that time (see Aug. 1977 statement of Roger E. Birk at SEC proceedings) that we believed the rules to be unnecessary. We believe today that the rules would be disruptive of the experiment the Commission proposed to conduct.

We recommend that the Commission do the following:

1) Test the efficacy of a limit order file on a limited controlled basis by making proposed rule 11A1C-3 effective for the securities presently traded on the Cincinnati Stock Exchange;

2) Use its authority to set forth definitively the characteristics of a national market;

3) Direct the SRO's and the industry to develop the systems and procedures to implement the market as defined.

In summary, while there have been changes in the industry in the past four years, those changes have not always represented progress toward realization of what we believe to be the Congressional objectives for a national market system. A primary reason for that, in our judgment, has been the lack of a concrete definition of specifically what the system is. As a result, the Commission's initiatives have been devoted to devices which are at best marginally useful and in some cases may be counterproductive by adding costs to an overburdened industry instead of eliminating outmoded manual procedures which are clearly not cost-effective. The industry is little further along toward the goal of applying modern communications and data processing techniques to the trading process than it was in 1975. It is questionable how much longer we can afford such inaction.

Very truly yours,

William A. Schreyer
President

WAS:jmz

Mr. ECKHARDT. Gentlemen, I have a little scheduling problem here. We next have Professor Lorie, who has tried but cannot find other transportation out past 3 o'clock. We have discussed it with Mr. Peake, who is the other witness.

I should like to break for lunch in half an hour, or perhaps sooner. Would it be too much of an inconvenience for you to remain in attendance so that we could have our questions after the lunch hour?

Mr. SCHREYER. I think we would——

Mr. ECKHARDT. We will reconvene at about 2:30.

Mr. SCHREYER. Do you suppose I could be out of here? I have an important session at around 3 o'clock.

Mr. ECKHARDT. Here?

Mr. SCHREYER. Well, in Washington.

Mr. ECKHARDT. I think that would be possible.

Well, we would probably not have more than 20 minutes of questions.

Mr. SCHREYER. Yes, fine.

Mr. ECKHARDT. And I suspect that some of the other persons at the table could remain to take care of additional questions. In that event, I would like to call Professor Lorie at this time.

Professor Lorie, do you swear to tell the truth, the whole truth and nothing but the truth, so help you God?

Mr. LORIE. I do.

Mr. ECKHARDT. You may proceed.

TESTIMONY OF JAMES H. LORIE, ELI B. AND HARRIET B. WILLIAMS PROFESSOR OF BUSINESS ADMINISTRATION, GRADUATE SCHOOL OF BUSINESS, UNIVERSITY OF CHICAGO

Mr. LORIE. Mr. Chairman, I would like to thank you for adjusting the schedule to my problems of getting out of town. I also appreciate the chance to talk to you today.

I would like to make a tiny correction in my written submission on page 2, the fifth line from the bottom. We need a dash to make the sentence comprehensible. After market system we need a dash. The rest of the sentence refers to eliminating rule 390.

Mr. ECKHARDT. That will be done. The statement will be so corrected.

Do you intend to read your statement?

Mr. LORIE. No, sir, I would like not to read it and to talk a moment or two about some of the main points and to supplement the statement by responding to some of the questions which have been raised this morning.

Mr. ECKHARDT. Without objection, the entire statement will be placed in the record. [See p. 84.] You may proceed in a manner in which you prefer.

Mr. LORIE. Thank you.

I endorse almost without question the statement of Merrill Lynch. I hadn't heard it before and I don't always agree with them, but in their main conclusion I think they are absolutely right.

The progress toward the development of a national market system has been slow and disappointing, and inexcusably slow and disappointing. The New York Stock Exchange is the only private agency which has the power to bring into being a national market

system, but they cannot be expected to do so without more effective leadership and coercion from the EEC, and the reason is clear.

It is a membership corporation. A system having the characteristics which Merrill Lynch mentioned, and which I agree are essential and achievable, would seriously jeopardize the interest of the specialists and other members of the floor community. The governing board of the New York Stock Exchange cannot be expected to disregard those very important interests. They have gone about as far as they can go.

The intermarket trading system is a marginal improvement over the preceding system. It does enhance to a limited degree competition among specialists. It is quantitatively unimportant. It will be enhanced. The turn around times will be reduced to perhaps 20 seconds, and upstairs market makers will probably be integrated into the system to some degree.

But with all of these enhancements, it will not have the characteristics which will be needed. It will not be an automatic execution system. It will not provide systemwide limited order protection. It will not insure that the best deal is made on behalf of investors.

Now, it is not enough to complain—I have done that, I have complained. I think the progress isn't adequate. I think we know how to make better progress.

I don't admire the suggestion of GAO that the SEC try to design a system and impose it on an industry. The problems are much too complex for that solution.

What can the SEC do that it has not done which would advance this cause? Well, let me suggest some things.

The objective of their actions, keep in mind, should be to create a system, as everyone endlessly says, in which all orders meet and in which the seller puts the highest bid and the buyer gets the stock at the lowest offer, regardless of the size, location, character or personality of customer, or the historical business relationship.

The system known as the Peak-Mendelson-Williams system has all of the desired characteristics. So does the system proposed originally by Merrill Lynch in the fall of 1975, in a publication called "A Proposal for a National Market System." So does the Cincinnati experiment.

The Cincinnati experiment is small scale, rudimentary, and inadequate as a test of the Peak-Mendelson system, but it should be encouraged.

There have been, incidentally, some questions this morning as to why if it is so marvelous, it hasn't flourished? Mr. Flexner from the antitrust division says it has not flourished because its life expectancy has been brief and uncertain. The SEC has treated it as a suspect experiment. That is one of the reasons.

Another reason is that it has not attracted the order flow. The users of that system, prior to the Merrill Lynch announcement at least, had to compare deals on the various exchanges through the intermarket trading system, and perhaps on the third market, and in Cincinnati.

So the potential of that system under existing circumstances can never be realized.

What can the SEC do? I think the SEC, first, should give the Cincinnati experiment the right to exist forever, subject only to the requirement that no unexpected adverse side effects occur.

Second, even more important, the SEC should reiterate its support for and insist on a system which gives strict price and time priority.

This morning, Representative Rinaldo addressed a question to Mr. Flexner as to whether a system having the characteristics of Peak-Mendelson-Williams, or the Cincinnati experiment, would lead to domination by Merrill Lynch or the largest brokerage firm.

We do not know, of course, but in my opinion a system such as the Cincinnati experiment or the Peak-Mendelson-Williams systems would destroy the advantages of size, would destroy the advantages of location, would destroy the advantages of personality or historic business relationship.

I think that Merrill Lynch's importance in a system such as we described would probably be somewhat less than at present, although I think that they and the other members of the community would benefit from this creation of such a system.

I mentioned two things the SEC should do. A third thing is they should stop their endless equivocation about rule 390. Some one asked this morning whether the SEC had not been prudent in going slow? Well, prudence may turn into paralysis, and I think we are in danger of seeing that. They have been deliberating about the desirability of rule 19(c)(3). They should pass rule 19(c)(3) immediately. It is a very modest test of the effect of abolishing rule 390.

About 60 stocks a year get added to the New York Stock Exchange list and in 2 or 3 years we will have 150 stocks perhaps, which are not subject to the rule 390. I think we would find that markets for those stocks are not impaired and that efficiencies are not diminished.

I think we will find something else extremely important. I believe that the NASD, in response to the passage of 19(c)(3), would enhance NASDAQ's system so as to provide automatic execution capability which will be another prototype of a national market system having the characteristics which Merrill Lynch specified as desirable and achievable.

The fourth thing which SEC should do is to require that there be an interface between ITS and the Cincinnati system so that when Cincinnati has the best deal it will get the order flow.

The fifth thing they should do is bring NASD into the intermarketing trading system. They have not. The New York Stock Exchange has not expressed opposition in principle to the integration of NASD into the system, but they clearly have not been working strenuously to bring about that result. I think they have been delaying. I think that they have not lent their efforts. I do not blame them for this, incidentally. I blame the SEC for not requiring it.

I don't believe the New York Stock Exchange, as someone said earlier, can be expected to take the leadership in the euthanasia of the floor community. They have to be coerced and the proper coercive agency is the SEC. The SEC has been timid and vacillating and I think deserves a little nudge, as some one said, from this committee.

Well, I have listed five things that can be done. I endorse the statement of Merrill Lynch. I say something they are not free to say; namely, that a system such as they describe would be more strenuously competitive and less subject to the domination of large firms than the system we now are living with.

Thank you for permitting this interjection of my views in the orderly progress that had been underway. I would be glad to try to answer your questions.

[Mr. Lorie's prepared statement follows:]

TESTIMONY BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS AND THE SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCE (UNITED STATES HOUSE OF REPRESENTATIVES) ON PROGRESS IN THE DEVELOPMENT OF A NATIONAL MARKET SYSTEM

September 21, 1979

James H. Lorie
Eli B. and Harriet B. Williams Professor of Business Administration,
Graduate School of Business, University of Chicago

I am here to present my views on the progress in developing a National Market System such as was mandated by the Securities Acts Amendments of 1975. I do not represent any firm, association, or other organization.

The progress on the development of the National Market System has been slow and disappointing. One development has been improvement in the quotation systems for common stocks, but the improvement is not important. Quotation systems are useful, but they do not solve the major problems.

A second development has been the creation of the Intermarket Trading System (ITS). This system is an improvement over previous systems. It places the regional exchanges in a better position to compete with the New York Stock Exchange. The system is important to some regional market makers and to some regional exchanges, but the quantitative importance of ITS is slight. The volume of stocks traded is only about 3 percent of the total trading volume of stocks listed on the New York Stock Exchange, and the New York Stock Exchange's market share seems not to have been significantly affected. There will be improvements in ITS: The turn-around time will be reduced; additional stocks will be added; and, probably upstairs market makers will be integrated into the system. The system will then be a quotation system with a brief turn-around time for market makers in the stocks which are included. Nevertheless, the system will still be only a quotation system. An enhanced ITS will represent the most advanced development of the existing trading mechanism, but it will fall far short of the promise of an alternative system.

I refer to system such as the one operated by the Cincinnati Stock Exchange. This system is theoretically far superior to any system currently in existence and to ITS with all conceivable enhancements. The theoretical superiorities include the following:

a. The system provides a more efficient system of communication.

b. The system eliminates the problems associated with lack of firmness of quotes, best execution, and order routing.

c. The system provides strict price and time priority, a condition which almost everyone admires and advocates in the absence of serious adverse side effects.

d. The system totally eliminates the advantages of being on the floor of an exchange or anywhere else and thus enhances the ability of distant broker-dealers to compete in financial centers.

e. The system has the promise of being much less costly to operate than current systems which rely on lengthier chains of communications and are less automated.

Despite the great promise of systems such as that operated by the Cincinnati Stock Exchange, the SEC has not made it easy for such systems to be adequately tested to see whether their promise can be fulfilled in practice. Initially, the SEC gave the Cincinnati "experiment" only a one year license to operate. That license was extended for 13 months near the end of the first year. Now, the SEC appears willing to grant a 3-year extension. Under such conditions, there is not much incentive for the operator of the system or for broker-dealers to make the investments necessary to give the system a rigorous test with active stocks and large volumes of trading.

It is not hard to understand why the New York Stock Exchange should oppose the Cincinnati experiment, since important interests of the New York Stock Exchange would be jeopardized should the Cincinnati experiment succeed. It is much harder to understand why the SEC has given such tentative support to the Cincinnati experiment. That experiment provides the opportunity to learn very important things about the operation of a National Market System under almost ideal conditions. The system has been designed by private initiative and would be operated with private capital under the surveillance of a self-regulatory organization and the SEC itself. Because the system involves automatic execution through computers, there are ideal opportunities to scrutinize the trading and to detect any adverse effects or practices. One would have thought that the SEC would lend maximum support to an experiment involving a system with such great promise for dramatic improvement over existing systems and the potentiality for creating a National Market System, meeting all the criteria of the Congress, the SEC, and independent students of the subject.

The SEC should do two things: (1) Give the Cincinnati Exchange the right to operate its system forever unless there are serious adverse consequences, and (2) Give vigorous support to price and time priority. Price and time priority correspond to most notions of equity, but, more importantly price and time priority are extremely important in enhancing competition. Price and time priority provide the only certain and completely impersonal mechanism for ensuring that the broker-dealer with the best "deal" will get the business. Price and time priority eliminate the advantages of size, location, historical relationships, or personality. The terms of the transaction are all that matter. Although the SEC should not try to create or mandate the creation of a system with price and time priority, the SEC should not be an obstacle to the creation of such a system.

There is another route for the evolution of the true National Market System--eliminating Rule 390 of the New York Stock Exchange. The SEC has under serious consideration its Rule 19-c-3 which would freeze the application of Rule 390 to currently listed securities. Passing Rule 19-c-3 would be a minimum first step towards the elimination of Rule 390, which is in its essence anti-competitive. There are indications that, if Rule 19-c-3 is adopted by the SEC, the NASD will develop a system having a great deal in common with the Cincinnati system. That is, there would be a quotation system with the capacity for automatic execution. Such a system would provide an additional test of the necessity for Rule 390 itself as well as an additional test of a system in the Cincinnati mode. I am unaware of any compelling arguments why Rule 19-c-3 should not be passed at once. That rule, like the Cincinnati system, provides a small scale experiment of the effects of eliminating an anti-competitive rule and stimulating the development of a system which has all of the desired characteristics of a National Market System.

Mr. ECKHARDT. I haven't had an opportunity yet to question Merrill Lynch with respect to the system they have got, so some of the things that I ask here will have to be somewhat tentative.

Mr. LORIE. Yes, sir.

Mr. ECKHARDT. And I know your answers will have to be somewhat tentative.

But it would seem to me that a brokerage house as big as Merrill Lynch could in effect set up a system in which it could bring into that system many marketplaces and come pretty close to doing what a national system interlocked and automatic like, for instance, the Cincinnati system, if it were extended nationally, could do.

If that were the case, with respect to a large individual brokerage house like Merrill Lynch, it would seem to me that it would make it almost necessary, if we were not to move to almost a complete monopoly by such a big house, to bring into effect some kind of a system, some kind of an exchange operation, which would afford some of the reaching capability to other brokerage firms not capable of putting into effect the sophisticated system that Merrill Lynch is talking about.

Am I wrong about that?

Mr. LORIE. Well, let me respond.

I think that we all should recognize that a security market is a natural monopoly. That is what we tacitly acknowledge when we say all the buy and sell orders should meet within the same system. There should be only one system and it is important that there be access to the system by all qualified broker dealers.

So if Merrill Lynch were to design and build a system which permitted its customers orders to meet, and they came to acquire a dominant position in the industry, it would be the function of the SEC to see that that system, that communciation system—that is what we are talking about, the communication system—were made equally available to all qualified broker dealers.

Now, picture such a system, Mr. Chairman, for just a moment. All the bids and offers with volume and prices are freely available to everyone in the system. All broker-dealers can see all the bids and all the offers, not the identity of the bidders and others, but volume and prices.

If a little broker-dealer in Tacoma, Wash., wanted to interject a superior bid or offer into the system, that little broker-dealer in Tacoma, Wash., would know that it would be first in line when the stock moved to that bid or to that offer.

Merrill Lynch with all of its size and all of its clout and all of its resources could never get ahead of them. The importance of price and time priority is that it places a little fellow in Tacoma, Wash., on the same footing as Merrill Lynch.

If he has the best deal, he gets the business. Now he doesn't. He might get it or he might not get it, but he has no assurance that if he has the best deal, he will get the business.

Now, the use of this system will be very, very cheap. It will be like making a phone call. It will be possible to inject a bid or an offer into the system without a lot of capital.

I really don't think that we should fear the dominance of a Merrill Lynch. There always is recourse to antitrust procedures

and so on if I am wrong. But people who have looked at this thing carefully think that the most competition-enhancing thing in the world would be to enforce strict price and time priority in a system which permits it.

We know what that system is. You asked this this morning, whether we knew enough now to specify the system that should be put in place? Well, we know enough theoretically. We know of a system which is technologically possible which answers all the questions, firmness of quotes, best execution, enhancement of competition, all of the regulatory issues.

What we do not know is whether the promise, whether the theory of this system, will be borne out in practice. And the reason we don't know it is that the SEC in part has gotten in the way of experiments which will provide that answer.

They have not encouraged Cincinnati adequately. They have not abolished 390 even partially so that the NASD could build its prototype.

We need to see whether in practice the promise of the system which Merrill Lynch has outlined and Mr. Peak and Mr. Mendelson and Mr. Williams have outlined, which we built a prototype of, now called the Cincinnati system—we need to create the conditions which permit them to provide an adequate test and the SEC is the proper agency to do that.

Mr. ECKHARDT. Well, now, if the recommendations you have made, which I gather are recommendations for an interim system——

Mr. LORIE. Yes, sir.

Mr. ECKHARDT [continuing]. Include the ITS, encompass Cincinnati, and enveloping NASD, would such a system achieve the ultimate goals that you have described here? Would it be only a transition toward an ultimate goal?

Mr. LORIE. In my view, if those actions of the SEC were taken, we would find the NASD and the Cincinnati systems accommodating an ever-increasing volume of trading.

At the present time, I think the Cincinnati exchange handles about 100,000 shares a day on average. It gets up to 200,000 occasionally. It does that very well. But that is not an adequate test.

I think given the actions I have recommended, that the volume would grow, the NASD system would be enhanced to provide automatic execution, and we would have a system operating with sometimes millions of shares a day instead of hundreds of thousands of shares a day, and we would see whether the promise of these systems is fulfilled in practice.

If it is, if the promise is fulfilled in practice, then I think we are in a position to say this is the way it is going to go.

Mr. ECKHARDT. In that event, I assume it would be possible, if you envelop within ITS the NASD and Cincinnati, it would be possible as a matter of somewhat, shall I say, evolutionary growth, for Cincinnati to become so pervasive——

Mr. LORIE. Yes.

Mr. ECKHARDT [continuing]. That you would in effect bring in such things, for instance, as an automatic limit order system, which it has internally, I understand. You might achieve a national marketplace by something of an evolutionary process.

Mr. LORIE. I think it is a distinct possibility, and I think that we should try very hard to create conditions in which that test can be carried out. It is being done with private capital at risk and under competitive conditions, and I think the Government through the SEC should try to bring about that test.

Mr. ECKHARDT. Of course, in a system as you envision, one might afford a means of accomplishing what has been argued for as a values of the crowd. It might be possible that some of the aspects of ITS with respect to the actual physical communication of a broker in one market with another might be retained.

So you would really have a test there on the basis of a pragmatic experiment, would you not, as to which course would be the best?

Mr. LORIE. I have heard informed and responsible people argue about the great advantages of the crowd, and if the crowd provides a great advantage, it will continue to exist. It doesn't need artificial protection, doesn't need government sponsorship.

If ITS were to encompass Cincinnati and NASD and the crowd continued to be valuable, or were valuable, the crowd would persist.

I happen to think that in a system such as Merrill Lynch described, we would have a highly automated system in which the crowd was not very important, but I don't need to decide that, no one needs to decide it.

Mr. ECKHARDT. At any rate, this could be decided pragmatically?

Mr. LORIE. Correct.

Mr. ECKHARDT. In the proposal that you are making?

Mr. LORIE. Yes, sir.

Mr. ECKHARDT. Thank you very much, Professor.

I think we will break at this time so that we can come back a little bit earlier. We will come back at 2:20.

Mr. LORIE. Thanks for letting me speak at this time.

[The following letter was sent to Mr. Lorie. His response was not received in time for printing and is retained in the subcommittee files.]

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Congress of the United States
House of Representatives
Committee on Interstate and Foreign Commerce
Room 2125, Rayburn House Office Building
Washington, D.C. 20515

October 15, 1979

James H. Lorie
Eli B. and Harriet B. Williams
Professor of Business Administration
Graduate School of Business
University of Chicago
1101 East 58th Street
Chicago, Illinois 60637

Dear Professor Lorie:

Thank you for your participation in the hearings held by the Subcommittees on Oversight and Investigations and Consumer Protection and Finance regarding the progress towards the development of a national market system. The hearings were useful to the Subcommittees in understanding recent developments related to the implementation of the Securities Acts Amendments of 1975.

As a supplement to the record, we would appreciate your comments regarding the following matters. To facilitate printing of the record, we would appreciate receiving your answers by November 12, 1979.

- In your prepared statement, you listed several theoretical advantages associated with the electronic trading facilities of the Cincinnati Exchange. One advantage was that "the system eliminates the advantages of being on the floor of an exchange" and thus it enhances the ability of broker dealers to compete. Are there advantages to an investor's order being represented on the floor of an exchange which are not and/or should be duplicated in the Cincinnati system? What are those advantages?

- Your testimony emphasized the importance of the development of a national market system incorporating notions of price-time priority. Your recommendation was that although the Securities and Exchange Commission not try to "create or mandate the creation of a system with price and time priority, the Securities and Exchange Commission should not be an obstacle to the creation of such a system." In your view, what kinds of actions on the part of the Securities and Exchange Commission would be obstacles to the creation of such a system?

Thank you for your cooperation. If you have any questions please feel free to contact us, or the Committee staff: Kathryn Seddon, Counsel to the Subcommittee on Oversight and Investigations at (202) 225-5365 or Franz Opper, Counsel to the Subcommittee on Consumer Protection and Finance at (202) 225-7790.

Sincerely,

James Scheuer
Chairman
Subcommittee on Consumer
Protection and Finance

Bob Eckhardt
Chairman
Subcommittee on
Oversight and Investigations

Mr. ECKHARDT. The subcommittee will be recessed until 2:20.

[Whereupon, at 1:20 p.m. the subcommittee recessed, to reconvene at 2:20 p.m. the same day.]

AFTER RECESS

[The subcommittee reconvened at 2 p.m., Hon. Bob Eckhardt, presiding.]

Mr. ECKHARDT. You told us that the ultimate goal of any system ought to be the bringing together of the best of bids and offers that may be available anyplace within the entire securities industry. How do you accomplish this through the system that you are putting in place?

Mr. SCHREYER. The new system that we would hope to have in place within the next 2 to 4 weeks would, when an order is received, electronically scan the composite quotation system and then route instantaneously the order to whichever exchange or third market maker has the highest bid.

It depends on whether it is a buy or sell order. The gentleman on my left, who was assigned this task less than 12 months ago to develop it, maybe you would like to respond to some of that?

Mr. NIGRO. Congressman, again the best price selector that we announced today and the Cincinnati, are in effect two approaches to the question of bringing all orders together. In the case of Cincinnati, we hopefully would bring orders together in the pure sense of the word.

We also have to recognize, however, that as long as there are market centers, and no national market collection of orders is taking place, that we do need to protect our customers' interests by sending orders to the best market and to do that we have developed the other method.

Mr. ECKHARDT. How can you determine the depth of the market? For instance, what orders may exist in the specialist book?

Mr. SCHREYER. The size of the bids and offers are shown. Well, we are starting off, I believe, with the——

Mr. KORINS. We are starting off initially, Mr. Chairman, with 100 share orders, so we will initially be reacting to the best quota-

tion which is for a unit of trading. Once we get beyond this experimental phase then we will look at the CQS, consolidated quotations, and we will react based on the size of the order that our customer gives us as to where the best quotation is for that particular size.

Now, again, this system will not have the depth of the market that we can display in a Cincinnati environment. We will still only be reacting to the size of the quotation.

Mr. ECKHARDT. You can't look at the total depth?

Mr. KORINS. We cannot look at the total depth.

Mr. ECKHARDT. As you do in Cincinnati and say, in New York?

Mr. KORINS. Well, again, in New York you must physically go to the specialist locations in order to inquire about the depth of the market. So we will hopefully, by developing this system, bring market makers and other specialists around the country to a level of awareness as to what their quotes in size can possibly attract, and as a result we would expect that the quotations during this experimental period will show much greater size than some that are being displayed right now.

Mr. ECKHARDT. Suppose a smaller brokerage firm is dealing in stocks listed on the New York Stock Exchange and their customer's order is a limited order in a specialist book on the New York Stock Exchange. That person might conceivably be at a disadvantage as to your customer. I am not saying that this is necessarily critical of your system because you are in competition with all other brokers and you want to give the best services you can. But would that not create something of a disadvantage to another broker that did not have this capability? He would only be operating in the situation where his customers order would only be in the book of the specialists?

He might actually not achieve the best transaction, ultimately, or at least as good a one as you might be able to offer to your customer, is that right?

Mr. KORINS. That is a distinct possibility, Congressman, but we would expect that the smaller firms will be leaving orders with specialists, and that those quotations, when they are the best bid or offer, that we will react through our system and be able to meet that customer on the New York or any other exchange if that order is being displayed as part of the quotation.

Mr. ECKHARDT. If you perfect your system to the point where it derived substantial advantage to your customers as above others, is it conceivable that the SEC might require you to share your facilities with other brokerage houses?

Mr. SCHREYER. I really haven't given that any thought.

Mr. ECKHARDT. I thought there was some implication of that in Professor Lorie's statement. I am not sure that I understood it entirely.

Mr. SCHREYER. Well, in order to rearrange the schedule I rearranged a meeting and went up and did that, so I did not hear Professor Lorie's statement to that effect.

Mr. ECKHARDT. Another way to afford equality of access to the marketplace by all persons would be to further perfect the entire market system. For instance, Professor Lorie was suggesting that, amongst other things, the ITS system should include the Cincinnati

exchange. In effect, if the Cincinnati exchange was thereby strengthened and broadened it would create a system in which something like a limited order book would be electronically controlled and ultimately would afford everybody something like the same advantages that your system seems to have envisaged. Would that be true?

Mr. KORINS. It would. Again, I think that we should keep in mind that we are operating in two distinctive systems. In one case we are trying to give our customers access to various market centers, any one of which might be reflecting better bids or offers than possibly one major center at a given period of time, and do it in a more effective manner than going to a floor of one of the exchanges and then transmitting that order from one floor to the other.

On the other side of the coin, we are dealing with a system that we think is the ultimate in the development of a national market system, the Cincinnati system, which in effect will give all customers orders priority on a time basis and price basis so that any of the conflicts that exist now between competing centers will not be evident in that kind of environment.

Mr. ECKHARDT. Now, prior, or say at the present time, there are, of course, certain advantages I would assume, at least as to certain factors in the New York Stock Exchange to maintain the present system without a wide reach to the entire marketplace, because, after all, the New York Stock Exchange is by far the biggest exchange in operation.

So there are some incentives not to change, I would assume, at the present time. For instance, an automated consolidated limit order book would be of some disadvantage to specialists on the New York Stock Exchange. Of course if the present system continued without the types of improvements that have been suggested here—and I use improvements in quotes, I think we have to decide here whether they are—if they were not put in effect to a certain extent, it would also benefit you with a new and comprehensive device to reach all the marketplaces. But there would also, it seems to me, be an incentive on the part of the rest of the securities industry and of the exchanges to broaden and deepen and extend automation within something of a public system. I use public in a very broad sense, including the existing exchanges. Would that be correct?

Mr. SCHREYER. That sounds correct to me. You know, it boils down to such basic things, as I said in my testimony, the present system which has been in place for 200 years works pretty well and we know that we have got 30 million share days and we are handling that and we have had days up to 60 million at a time, one or two, and we have handled that reasonably well. But as we look down the years ahead and see what we believe is going to be growth of markets and the volume, all I know in very simple terms, is that men in nice brown jackets carrying pieces of paper running around just isn't going to do the job. We found that back in the paper crunch days of a few years ago. My friend on my right was one of the men in the brown jackets going around with pieces of paper.

So we are just saying that the Congress, we feel, was quite correct in the act of mandating the national market system. It is the law, and that we feel very strongly that we will participate in any experiments, such as Cincinnati or now this, which is an experiment, to get where we think we all want to get.

The function of the specialist is primarily that of a market maker, and even though these will be called evolutionary and maybe revolutionary changes, at some point the market making function, which is the primary one, we hope would continue in a slightly different manner.

Mr. ECKHARDT. Some have criticized the movement toward a national market system in which transactions could be conducted automatically and these would be something like a consolidated limit order book. As a system for creating an internalization within large brokerage houses, such as yours. It would seem to me that perhaps the failure to develop a national market system with the financial and technological reach that you are describing here with this new system, would tend more toward an internalization than if a national market system were put into effect by the SEC.

Would you comment on that?

Mr. SCHREYER. I will give a brief comment and would like to ask Mr. Korins to comment on it also.

There has been a lot of testimony and written comments about the problems of internalization. As I think I mentioned earlier, I talked so much about it lately I have forgotten where I mentioned it, internalization exists in all other markets:

The U.S. Treasury bond market, the municipal market, the corporate bond market, the over-the-counter markets, and they all seem to work. It also takes place in our odd-lot program and perhaps takes place also in the execution of very large orders. It is only in between the very largest orders and the very small ones that there seems to be some mysterious evil about intermingling them. But in a Cincinnati market environment, which is automated, and price and time priority are the rule, if our order happens to meet one of our customer's orders it is purely coincidental and only because we do a certain volume. That takes care of the problem of internalization.

Maybe I had better turn it over to Lee, because I think that is a question of interest to everybody.

Mr. KORINS. Well, I think as you develop a Cincinnati-type system, or a national market system, that internalization no longer becomes a factor, because, as we saw in Cincinnati, it is a case of a customer's order meeting another customer's order, or that customer's order meeting another broker-dealer's order, and only by chance can the Merrill Lynch customer's order meet the Merrill Lynch order acting as a dealer.

I think when you develop that type environment you have effectively put aside the question of internalization because in actuality you are giving every broker dealer who has a willingness to participate an opportunity to have access to your order flow and if he chooses to participate and his order is there prior to any other broker dealer, then he in effect will be trading with your customer or any other customer in the system. So that as the national

market develops, I think the question of internalization becomes a very moot question.

Mr. ECKHARDT. I believe you stated that this program, this system, that you intended to put into effect, costs something less than $100,000. We have heard a lot of opposition to the development of a broader system on the basis of cost and complexity.

Your figure there, I understand, is for something that would be less than would be necessary to bring about a truly automated national market place Yet it would indicate that the cost of moving toward a much broader national base for securities dealing would not be all that expensive.

Would you comment?

Mr. SCHREYER. That has been our experience. Less than a year ago, I asked the gentleman on my left, who is part of our national market system committee or project team if he thought this could be developed. He said, yes. We asked:

How much money do you need? He came back with an estimate and we said go ahead, let's see if we can develop it. So I think it might be interesting to you to have Mario Nigro, who heads our corporate system division, comment on the background of this and give his answer to your question.

Mr. NIGRO. Congressman, I think that, first of all, we should be quick to say that the system that we are installing, the one that costs less than $100,000, is not a national market system. It is not even Merrill Lynch's share of a national market system. We think it is the type of system that would have to be in a national market system.

I think what we wanted to do was No. 1, do something better for our customers, and also indicate that we were willing to take a different approach to experimentation to plumb the depths of markets outside of our traditional primary markets.

I think as far as the question of total cost of the national market, I think some of the estimates that have been given are too high, some are too low. I think the key feeling we have is that the savings from a national market could be substantial. I think the best job of estimating those savings was done by Stanford Research.

Now, even if they are even 50 percent wrong, we think that those savings on an annual basis would make in national market a good investment for the industry and its clients. While we do not wish to say that this is the national market system even for Merrill Lynch, it is just another step, but we think it shows that perhaps there has been too much stress put on the difficulty of the problem, the costs, et cetera. We think perhaps a fairer consideration of those costs and difficulties might come up with a different answer.

Mr. ECKHARDT. If I understood Professor Lorie's testimony, he was indicating that the inclusion of NASD and Cincinnati within ITS would move us more or less by pragmatic means toward a national market system. Would you agree with that?

Mr. NIGRO. I think we do agree with that and frankly, one of the reasons that we talk about the best price, is the probability of some movement toward inclusion of the NASD in the ITS and our ability to trade securities in that kind of environment.

Mr. ECKHARDT. Though the system that you are describing would obviously give you a benefit, would you still desire a broader national market system and would that be more to your benefit?

Mr. SCHREYER. Very definitely. As we said, this is just one step, in our attempt to accommodate the mandate that has been laid out of a national market system. If we do develop a process that can represent the best interests of our clients by going automatically to the exchanges with the best bid or lowest offer, that is another step, but an industrywide system of the same nature we would very much advocate and hope the industry will do it.

Mr. SELLERS. We just might say that the best price selector is somewhat at the other end of the pole from a Cincinnati type environment. In one case, in Cincinnati, the ultimate logic of that type of a system would be that all orders would go into a single facility and would meet in that place. The best price selector, of course, assists regional exchanges and the third market to compete with the primary markets in stock and is really sort of a different direction.

I think in the GAO testimony they talk about the two different ways of doing it. Once you have our best price selector which is hooked up with Cincinnati, of course, then you can do it either way. At the moment, Cincinnati is not represented in the CQS. It can be done, and it will be shortly.

Mr. ECKHARDT. Well, I understand GAO to be recommending that we at a governmental level, actually through SEC and ultimately, of course, with acquiescence of Congress, make a decision with respect to the process by which we establish a national market system.

I rather drew from Professor Lorie's testimony that something of a prod to the SEC to further articulate the existing systems like Cincinnati, NASD, and ITS would perhaps be a better approach to it. What would be your recommendation?

Mr. SCHREYER. Well, Wally, we have talked about this a number of times.

Mr. SELLERS. We certainly think that there should be an extension of Cincinnati. I think that would be one step that I am surprised has not already been taken because, I think one of the problems with participants in Cincinnati has been the lack of knowing that it will extend beyond January.

Mr. ECKHARDT. Do you think there is any other reason why Cincinnati has not been joined in by more participants?

Mr. SCHREYER. I think the reasons might include the expense of the machinery, although the expense is not great. I think the long history and the pace of development of Cincinnati with uncertainties whether the previous organization that ran it would be able to continue it for an indefinite period of time. People have to be assigned to it. And I also think reluctance on the part of many to admit that they want to go the route of an electronic system. But I would say that——

Mr. ECKHARDT. You mean some are holding off because they don't want it to be a success?

Mr. SCHREYER. No; I think they want the market system to be a success but they have perhaps legitimate doubts whether an electronic system is the way it ought to be done. I don't know. I think

the fact it was an experiment and hasn't yet been continued, which was mentioned before, could be a vital reason. I would hope to see that many more member firms experiment. That is the only way we are going to find out whether it works.

Mr. ECKHARDT. Professor Lorie's suggestion would not necessarily determine that a totally electronic system should be utilized, it would permit all of the existing systems to come into play.

Mr. SCHREYER. Yes sir.

Mr. ECKHARDT. In order to determine which was the most successful without necessarily making an ultimate determination of which direction we should go?

Mr. SCHREYER. Yes; I think if there were more experimentation, more participation in Cincinnati, so we get a true real experiment, and if our new system is then developed by the industry, you would have two perfect experiments to see which works the best. But I think the critical thing that we testified on is that the SEC should define precisely what elements should comprise a national market system and then tell the industry this is what we want, six or seven or eight, whatever it turns out, and give us a time then to develop the system that meets those elements.

Mr. ECKHARDT. To what extent was your new system dependent upon agreement by others in order to put in place the various elements that would be necessary to establish your system?

Mr. SCHREYER. We have them all, don't we?

Mr. NIGRO. Of course, we are participants in all the markets that would be connected to our new system, including the third market dealers. The only technical requirement we had was that we had to get agreement from SIAC, who runs the composite tape system, so that they would provide us with the quotations, and we have accomplished that.

Mr. ECKHARDT. You have accomplished that. Did you have difficulty in accomplishing that objective, any delay?

Mr. NIGRO. No.

Mr. SCHREYER. Another interesting thing to watch when we begin this system, is to see if the market makers and all exchanges step up their activity base to meet our order flow. It will be an interesting experiment.

Mr. ECKHARDT. Mr. Opper, Chairman Scheuer indicated he has a number of questions that you would like to ask at this time. Would you like to proceed?

Mr. OPPER. I think most of the areas have been fairly well covered by the chairman's questions and your responses.

Merrill Lynch espouses price and time priority. In January of 1978, the Commission had called for the implementation of that concept. Now they seem to have receded from it and their position seems to be that only price priority ought to be offered and only to public orders.

How is this different from price-time priority for all orders and does the Commission's proposal have any significant effect on competition or fairness in the markets?

Mr. KORINS. Well, we think that the basic element in developing an automated execution system has to be a price and time priority. While we are participating through our best price selector in a national market experiment we will not be able to determine a

time priority in that type environment. When we can put together a fully automated execution system, which we feel is the ultimate, then best price and time priority will have to be a basic element of that system, in our view.

Mr. OPPER. I am not sure that I really have a response to that question. Do you see any advantage in solely price priority for public orders?

Mr. KORINS. No; I really don't see any great advantage to just price priority for public orders because at many prices throughout the day there are numerous public orders represented in varied market centers around the system and until you have a basis on which to determine priority you really haven't guaranteed the public customer an execution. He might well be sitting somewhere where his order just never gets executed.

Mr. OPPER. If Merrill Lynch is the only broker to offer a guaranteed best price, how might this affect the decision of fiduciaries such as banks and investment advisers and mutual fund managers?

Mr. SELLERS. At the moment, of course, it is very much an experimental system so we don't think it has any impact at the present time. Once we cover most stocks or all stocks then it perhaps might have some effect. Actually, it will not be very difficult for other firms to duplicate.

Mr. SCHREYER. When the markets get some depth and liquidity to them it will be a meaningful system. Then that might be a question.

Mr. OPPER. Just to review finally one other aspect of your testimony concerning the ability of the present market system to handle 60 million share days. I understand your statement is we can handle the 30 million share days effectively?

Mr. SCHREYER. Yes, sir.

Mr. OPPER. And occasionally we can handle reasonably well 60 million share days. But the projections are that in the future we are going to see a greater incidence of 60 million share days, and it is your strong feeling that the present market simply will not be able to handle this kind of order flow?

Mr. SCHREYER. The question is where do you choke? I don't know what the choking or breaking point is. All we know is the human body can just take so much during the course of market hours and if someday looking ahead, we have international, global marketplaces, which are going on 24 hours a day, how is it going to keep up. Technology has to step in there.

We can handle 60 million share days and indeed we have run two, I believe, maybe only one, simulation exercise, on a Saturday with all our equipment, with everything going. We have handled without a problem 100 million share days on that given Saturday and on a simulation basis but we just believe that some point with sustained volume, with "X" level much higher than where it is now, 50 million, 60 million, something may break down, and that is why we think this is the time to get the marketplace in order structurally.

Mr. OPPER. Thank you very much.

Mr. ECKHARDT. Mr. Stewart, do you have any questions?

Mr. STEWART. No questions, Mr. Chairman.

Mr. ECKHARDT. Well, we thank you very much for your participation here and we particularly appreciate your breaking the story about your new system for the first time in our committee.

Mr. SCHREYER. Thank you very much. We appreciate it and we appreciate your interest. Thank you.

Mr. ECKHARDT. Without objection, the record will be held open for any additional comments you might have.

Mr. SCHREYER. Fine, thank you.

[Testimony resumes on p. 105.]

[The following letter and response were received for the record:]

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ACTING CHIEF CLERK AND STAFF DIRECTOR

Congress of the United States
House of Representatives
Committee on Interstate and Foreign Commerce
Room 2125, Rayburn House Office Building
Washington, D.C. 20515

October 15, 1979

Mr. William Schreyer
President
Merrill Lynch, Pierce, Fenner
and Smith, Inc.
1 Liberty Plaza, 165 Broadway
New York, New York 10006

Dear Mr. Schreyer:

Thank you for your participation in the hearings held by the Subcommittees on Oversight and Investigations and Consumer Protection and Finance regarding the progress towards the development of a national market system. The hearings were useful to the Subcommittees in understanding recent developments related to the implementation of the Securities Acts Amendments of 1975.

As a supplement to the record, we would appreciate your comments regarding the following matters. To facilitate printing of the record, we would appreciate receiving your answer by November 12, 1979.

- In your testimony, you listed six characteristics which a national market system should have. What are the specific benefits of each of these characteristics to the public investor? To Merrill Lynch as a corporation?

- One characteristic of a national market system you identified was "automatic execution, particularly for active, liquid issues with narrow spreads." Are there issues for which automatic executions would not be appropriate? If so, what kinds of issues? Would the nature of the transaction (such as size or some other characteristic) make a difference?

- Another characteristic was "fair and equal opportunity to compete for all who have the capital and willingness to make markets." The argument has been raised in recent Securities and Exchange Commission proceedings that there should be "equal regulation" of market makers. What recommendations do you have with respect to the regulatory environment in which market makers compete? What obligations, if any, should be imposed on market makers?

- One characteristic of a national market system is that information be "promptly and accurately available to all." What are current inadequacies of available market information?

- In your letter of June 14, 1979 to the Securities and Exchange Commission regarding the national market system, you stated with respect to the firm quote rule, "in our comment at the time the rule was proposed, we suggested that the exceptions to firmness which were permitted by the rule rendered it largely ineffective." (Page 3 of the letter). What has been your experience with the firm quote rule?

- You question the ability of the current system to cope adequately with high volume days on a substained basis. What is your expectation as to the likelihood of such high volume days occurring on a substained basis. How soon are they likely to occur?

Thank you for your cooperation. If you have any questions please feel free to contact us, or the Committee staff: Kathryn Seddon, Counsel to the Subcommittee on Oversight and Investigations at (202) 225-5365 or Franz Opper, Counsel to the Subcommittee on Consumer Protection and Finance at (202) 225-7790.

Sincerely,

James Scheuer
Chairman
Subcommittee on Consumer
Protection and Finance

Bob Eckhardt
Chairman
Subcommittee on
Oversight and Investigations

One Liberty Plaza 165 Broadway New York New York 10080 212 766-8756

William A. Schreyer
President

Merrill Lynch
Pierce
Fenner & Smith Inc.

October 29, 1979

The Honorable James Scheuer
The Honorable Bob Eckhardt
Congress of the United States
House of Representatives
Committee on Interstate &
Foreign Commerce
Room 2125
Rayburn House Office Building
Washington, D.C. 20515

Gentlemen:

We are pleased to respond to your request for supplementary information concerning our testimony regarding the development of a National Market System. We will discuss your questions in the same order in which they appear in your letter of October 15th.

1. The benefits of the six characteristics which we suggest that a National Market System should have.

   a) The Interaction of All Orders. The interaction of all orders would prevent the possibility of a public customer's order in one market center remaining unexecuted while transactions at prices inferior to his bid or offer were occuring in other markets. The current practice of transporting a block to another exchange for execution in order to avoid having part of the block given up to limit orders in the primary market would not exist in a true national market system. From a market efficiency standpoint the interaction of all orders would insure that prices reflect all supply and demand and thus are truly representative at all times. At present, temporary anomalies in prices can exist due to temporary imbalances of orders in different market centers.

b) Automatic Execution. This would greatly reduce the cost of executing an order particularly for small and medium-sized orders, and provide more efficient mechanisms for comparing and settling transactions. It would greatly reduce errors and enable markets to function more smoothly in periods of high volume and active trading.

c) Locked in Trades. This is simply an extension of the process which would begin with automatic execution. It would vastly reduce the paper work of the current manual systems and thus reduce errors and increase efficiency.

d) Equal Opportunity for Market Maker Competition. Increased opportunity for competition would tend to reduce spreads and improve the quality of market making. It could also reduce the costs of execution for agency orders.

e) Limit Order Protection. This would enable a customer to leave a limit order in force with the knowledge that he would receive an execution whenever his order was first in line and a buyer was willing to pay his price or a seller willing to take his offer. It would rule out the possibility of the stock selling through his limit in another market center while his order remained unexecuted. This would encourage public investors to enter limit orders and thus contribute to the depth of the markets.

f) Accurate Market Information Availability. Both firm bids and offers and timely transaction reports would make the public customer more confident in his ability to obtain a reasonable price for his order and thus be more able to make informed investment judgments in periods of high volume. They would also increase the investor's belief in the fairness and integrity of the market place.

We believe that the benefits to the public investor from the foregoing elements are self-evident. They would improve the quality of the markets, reduce costs and errors and give the public customer confidence that his order is not at the mercy of the professional or institutional trader. The benefits to Merrill Lynch are similar to those which accrue to a public customer. A reduction in the cost of execution and clearing transactions as well as a reduction in errors can be used to reduce charges to customers, provide additional services or offset increased costs due to inflation or other reasons. Additional opportunities to make markets would, we hope, increase our opportunities for profit. It is important to note, however, that none of these benefits would apply exclusively to Merrill Lynch, but would be available to all participants in the market.

2. Automatic Executions. We are happy to have the opportunity to clarify our comments concerning automatic execution for active, liquid issues. We believe that automatic execution, that is, the act of consummating a transaction electronically between a buyer and a seller at an agreed upon price, should be the ultimate goal for all securities in a National Market System. However, automating the auction process by means of a computer or "black box" may not be suitable for all securities. For those companies with a large capitalization whose securities trade almost continually in small orders, the automatic auction process works very well as the Cincinnati system has demonstrated. An intervention of a market maker is rarely necessary except where orders of block size are concerned. In securities where the turnover is low and spreads tend to be wider, an investor may not be willing to place his order at the market and would wish to have a broker work the order. This can be done within the context of a system such as Cincinnati and in any case the execution itself could be automated. In the case of large blocks and other imbalances the intervention of a market maker who is willing to assume a position, either long or short, may be essential. A computer, of course, cannot make trading judgments, but it can reduce or eliminate the clerical functions which follow an execution and thus enhance the ability of a broker or a market maker to make the trading judgments which are their primary function. We have never suggested that an automated trading facility would eliminate the need for market makers. We do contend that most of the routine and clerical functions that are now performed manually can be done more cheaply and efficiently through automation.

3. Equal Opportunity for Market Makers. It is certainly true that there are different restrictions on market makers operating in different market centers - the NYSE, regional exchanges, and in the over-the-counter markets. Under the present system such restrictions may be unavoidable. In the context of a National Market System such differences would be unnecessary and would in fact be indefensible. We believe that all persons who are able and willing to make markets should be able to do so and should be subject to the same rules. We would favor the least possible restrictions on market makers because we believe that the rigors of competition would be the most efficient policeman. A market maker should of course have capital requirements which are sufficiently high to prevent under capitalized individuals and firms from exposing their customers or other dealers to excessive risks, and should also be required to make

firm bids and offers and timely transaction reports. Once they hold themselves out as market makers in a particular security they should not be permitted to drop out for a specified period of time except for legal reasons, such as during an underwriting. Naturally rules prohibiting fraudulent and manipulative activities would remain in place. Other than that we see no reason for special obligations.

4. Availability of Market Information. The availability of market information has improved since the implementation of the consolidated quotation system and the consolidated tape. There are still difficulties with the speed with which transactions are reported and these are largely due to the current manual system of reporting which in turn results from the current system of trading. A computerized trading system on the Cincinnati model would greatly improve the speed and the accuracy of transaction reports.

5. The Firm Quote Rule. One indication of the working of the firm quote rule is the number of rejects on the Intermarket Trading System. We are pleased to note that the percentage has been declining steadily as ITS continues to function. As we phase in the Merrill Lynch best price selector, we will be watching carefully the performance of market makers in other market centers as they react to orders which we send based on their quotations. If we discover that market makers back away from their quotes we will no longer direct our orders in response to their quotations. We believe that as systems such as ours are used with greater frequency both by Merrill Lynch and in time by other brokers that competition will force market makers to stand by their quotes or else be cut off from order flow. We therefore would not favor any tightening of the firm quote rule at present. We are disturbed, however, by the use of the "Autoquote" system by some regional market makers. This device, which automatically changes a regional specialist's quote whenever the NYSE market changes, contributes nothing to competition, and could in fact be uncompetitive.

6. Heavy, Sustained Volume. Since our testimony we have experienced the heaviest volume in the NYSE's history for a single day. We believe that Wall Street generally handled that volume with a minimum of disruption. Our long range plans are based on an increasing amount of yearly volume on the exchange. It is of course impossible to predict when another such surge as October 10th will take place or whether it will be sustained

for a week or more. We are convinced that over the next five years the average volume of trading will rise steadily above current levels and that there will be peak periods which will reach 100 million shares. We are currently conducting an internal study of the effects the record-breaking volume of October 10th would have had if it had continued at that pace for several days. We would be pleased to provide you with the results of that study when it is completed.

We hope that the foregoing is fully responsive to your request. If you would like further clarification of any of these points, we would be happy to provide it.

Very truly yours,

William A. Schreyer
President

WAS:jmf

Mr. ECKHARDT. Mr. Peake. Mr. Junius Peake, securities industry consultant.

TESTIMONY OF JUNIUS W. PEAKE, SECURITIES INDUSTRY CONSULTANT

Mr. PEAKE. Thank you, Mr. Chairman.

Mr. ECKHARDT. Mr. Peake, I have already leaned on your testimony in some of my questions. We certainly appreciate your participation here and your very fine statement. We, of course, have already gone over it. If you wish, we will put your statement in the record, without objection, and permit you to proceed orally, if that is the way you would prefer it.

Mr. PEAKE. Thank you very much.

Mr. ECKHARDT. Do you swear to tell the truth, the whole truth and nothing but the truth, so help you God?

Mr. PEAKE. I do.

It has been 8 years since I first appeared before this committee and it is nice to be back.

You have had my written testimony and I put a copy of my oral testimony over on the side for the reporter, but I would like to just briefly review some of the things in it.

Section 2 of the Securities Exchange Act of 1934 spells out the need for regulation, in part, as follows:

> Transactions in securities . . . are affected with a national public interest which makes it necessary . . . to remove impediments to and perfect the mechanisms of a national market system for securities.

The purpose of these hearings is to measure progress toward the system's perfection. It is my judgment that progress has been slow, and that much work remains to be done.

Economists would require of a perfect national market system that all participants—the competitors in the economic game called

capitalism—have an equal opportunity to vie for profit on a fair field of competition, with equal access and information for all.

On that fair field, all bids and offers should be able to interact, with best bid always being able to meet best offer, and with fullest competition among market makers. That "fair field" can now be built.

The Congress found, and rightly so, that "The securities markets are an important national asset which must be preserved and strengthened."

I hope it was the intent of Congress to preserve the best features of the present market system rather than to preserve the existing facilities at all costs. In the Commission's approach to the development of a national market system so far, there has been too great an effort to keep the old mechanics of trading intact, rather than making proper use of the new technology.

The development of the system—for a system it is—has not taken an orderly path. The Commission should have created a task force to supervise the design and implementation of the system.

Instead, they looked to the market center operators to design the national market system, despite the fact that it was not in some participants' economic interests to operate within a neutral system. The result of their approach, which should have come as no surprise, has tended to keep the existing system intact, while using automation only to tinker around the edges.

Also, the securities industry itself is not a single industry, but rather is a loosely linked group of separate industries each with its own economics, and in which there exist members dependent in large part on the structure and inefficiencies of the present system.

In my written testimony I discuss at some length the issues which I believe are central to the creation of a national market system, and will confine my remarks to a brief summary.

The first issue is access. In any economic scheme, imposing controls over those who can participate in the endeavor gives advantages to those with access over those without it.

With today's levels of communication technology there is no justification to restrict access to the national market system other than by rules which insure the system's integrity.

The next issue is marketmaking. The marketmaker's function is an economic one. The system should be designed in a fashion which maximizes marketmaking competition. This can best be done by establishing a "first-come, first-served" or price-time priority rule which gives all marketmakers a chance to interact with all orders.

The present system provides franchises to specialists. The introduction of a computer-based price-time priority system does not require the end to a system of franchises should policymakers so decide. And as an aside, in response to a question Mr. Lent asked this morning, it is entirely possible for there to be a specialist system within a Cincinnati-type trading system. What is needed is merely to determine a method of awarding franchises.

The next is the issue of fragmentation. Permitting anything less than all bids and offers to meet centrally is fragmentation. Fragmentation of order flow is harmful to efficient pricing.

There is no technological reason why fragmentation should continue, even if limited to multiple market centers. A unitary com-

puter-controlled auction, in which all bids and offers can interact with each other and in which executions can occur on a price-time priority basis, eliminates fragmentation.

Without a price-time priority rule, internalization, can occur. This issue has been raised as a spectre by some commentators and so must be understood.

Internalization is the practice of a dealer using its own order flow, and buying from one customer on the bid, and then selling to another on the offer without exposing all bids and offers to a central pricing mechanism. This occurs on the over-the-counter market and on exchanges with derivative pricing systems, such as PACE, COMEX and MAX. These latter systems permit internalization by specialists.

A single auction rule of systemwide price-time priority will eliminate harmful internalization, while guaranteeing that each bid or offer can be displaced by a superior one.

The issue of cost has not been discussed very thoroughly. A private study, referred to earlier made by SRI International in 1977, reported that a fully automated system would save investors more than $130 million a year. Unfortunately, there have been no other studies, nor are the costs of the present system fully known.

The question of competition is next. A single system will provide maximum opportunities for all bids and offers to compete and meet. Multiple market centers which trade the same securities add middlemen and their costs to the system, while contributing nothing of value to the investor. Today's technology has obsoleted the need for these middlemen. Requiring them to compete unnecessarily adds only costs.

The legislation calls for best execution of investors' orders in any linkage system. Only a system which connects directly all bids and offers and operates on a price-time priority basis can guarantee best execution. Price-matching systems, like ITS, cannot do so, and I think, Mr. Chairman, the section of my written testimony that you read this morning indicates that.

A national market system should be flexible enough to handle all securities. I question the need to exclude any securities from the benefits of auction trading, fully competitive marketmaking, total interaction of all bids and offers, freely accessible quotations, immediate trade reporting, low-cost and error-free oprations. The Commission has proposed to exclude many securities from the national market system. A computer-based system would make these exclusions unnecessary.

The next issue, off-board trading, is solved simply by the imposition of a price-time priority rule. Unlike the NYSE's rule 390, a price-time priority rule focuses all bids and offers, while permitting all investors and marketmakers an opportunity to have their interests protected fully, regardless of their physical location.

The concerns which have been expressed over price-time priority have centered on the issue of exchange trading and its possible disruption should such a rule be implemented. These concerns are groundless. The visual arena—for that is what a price-time priority rule would create—would merely replace the auditory arenas of exchange floors. Even those arenas are now partly visual, since

derivative pricing systems, the DOT system of the NYSE and the ITS system, all use visual stimuli rather than auditory stimuli.

The national market system should accommodate bids, offers, and their resultant executions only. Order-handling apparatus and facilities which get to the bids and offers should be subject to maximum competition and should not be part of the national market system.

I have attached as an appendix to my written statement a paper which my colleague, Prof. Morris Mendelson, and I have written on this subject [see p. 145].

The odd-lot investor has received short shrift up to now in all proposals for a national market system.

A computer-based national market can accommodate bids and offers of any size with equal ease, from 1 share to 1,000,000 shares. I cannot envision that any Member of Congress would endorse a national market system in which the small investor received inferior facilities and a second-rate system when it was not necessary. The legislation does not provide for separate systems for different sized transactions in the same securities.

Finally, there is the issue of our Nation's continued preeminence in the world capital markets. For us to keep our lead requires continuous modernization. Some foreign countries have been devising ways to build better market structures. We cannot afford to lose our superiority because of a wish to retain old facilities.

You have asked me for my assessment of the ITS system and the Cincinnati's electronic system.

ITS is merely a teletype-like message delivery system which interconnects exchange floors and is used primarily by specialists to lay off their excess trading positions at other exchanges. ITS creates the illusion, rather than the reality, of a modern, automated system. It adds to existing costs. It replaces nothing. In short, it is not an element of a national market system.

The Cincinnati system shows promise, particularly if given a fair chance. It has price-time priority, direct inputs of bids and offers from exchange floors and brokerage firms, fully competitive marketmakers, locked-in trades, and economical, error-free operations. However, brokers using this high technology system must also interconnect manually with exchange floors. The present interconnections are Rube Goldberg-like in operation. Evaluating the Cincinnati under these conditions is like evaluating a telephone system which is interconnected with smoke signals.

All that is needed to create a national market system is for the Commission to promulgate a price-time priority rule which can be phased in over time. The SEC's past approach has been like attempting to mount a jet engine on a Sopwith Camel and has behaved about as well.

Since there is no consensus on the design of a national market system from members of the multiple securities industries, I would not look for a solution from that sector.

In sum, after 4½ years since the legislation and 8 years since the House began the hearings which led to the Securities Acts Amendments of 1975, we have no national market system and have not even progressed very far down the path to one.

Thank you for inviting me. I will be delighted to answer questions.

[Testimony resumes on p. 155.]

[Mr. Peake's prepared statement and attachments follow:]

TESTIMONY OF JUNIUS W. PEAKE, SECURITIES INDUSTRY CONSULTANT

Messrs. Chairmen and members of the Subcommittees:

I am pleased and honored to have been invited once again to appear before a Congressional body to state my views on matters concerning the securities industry.

Section 2 of the Securities Exchange Act of 1934 spells out the need for regulation, in part, as follows:

> "...transactions in securities...are affected with a national public interest which makes it necessary...to remove impediments to and perfect the mechanisms of a national market system for securities..."

The purpose of these hearings is to measure progress towards the system's perfection. It is my judgment that progress has been slow, and that much work remains to be done.

Every investor, broker, dealer and issuer of securities, as well as the Congress, should thoroughly understand the issues involved, since the shape of the national market system will determine for decades to come the costs of buying and selling securities and the efficiency with which trading is performed, as well as our Nation's role in the capital markets of the ever-shrinking world.

Economists would require of a perfect national market system that all participants - the competitors in the economic game

called capitalism - have an equal opportunity to vie for profit on a fair field of competition, with equal access and information for all.

On that fair field, all bids and offers should be able to interact, with best bid always being able to meet best offer, and with fullest competition among market makers.

The national market system should be constructed with a view towards achieving the economist's dream. As you weigh the arguments presented at these hearings, I suggest that you measure the proposed systems against the model, which is very similar to the legislative mandate contained in Section 11A of the Securities Exchange Act.

Some witnesses may argue that the primary intention of the legislation was to preserve "stock exchange trading." I do not believe that to be the case. The Congress found, and rightly so, that "The securities markets are an important national asset which must be preserved and strengthened."

I hope it was the intent of Congress to preserve the best features of the present market system, while using modern communications and data processing techniques to strengthen them. The major reason for the lack of progress toward a national market is that there has been too great an effort to keep the old mechanics of trading at all costs while new technology promises a superior system.

Any business organization which starts to develop a major new system will first appoint a task force to manage the project. The Commission should have created such a task force to supervise the development of the specification for a national market system.

Instead, the project has been allowed to drift, without the requisite leadership from the Commission. The market center operators, who also have self-regulatory power under the SEC's oversight, were left to design the system - a system which, if built to Congressional specifications, would seriously impair the power and prestige of some market center participants.

To expect competitors to cooperate and build a system which neutralizes the existing advantages held by some of them is naive. The result, which should not have been unexpected, has been to keep the existing system intact, while using computers only to tinker around the edges.

Further, the securities industry is not a single industry. It is composed of different industries, each with its own economic goals and biases. For example, to ask specialists to join with wire houses to build a system in which both can compete equally is unrealistic; why should the specialists be expected to give up their present advantages?

Only when a board is created which serves a diversity of interests, yet whose members are committed to achieving the Congressional objectives, will the national market system be

built. The public interest should be well represented on that board. Congress passed legislation so that a national market system would be built for investors, yet their interests appear to have been neglected.

Access

The issue of access is central to the design of the national market system. In any economic scheme, determining the identities of those who will have the right to engage in a particular activity will measure the amount of their advantage. At present, the securities industry has a highly structured "caste system" that severely restricts access to many of its facilities and functions. The most visible privileged member is the exchange specialist: In return for making certain transactions to smooth price movements in his assigned securities, he is given a monopoly position to act as sole market maker and holder of the book of unexecuted orders in his stocks. Needless to say, the holder of such a franchise, who pays no fee other than a standard exchange membership, is not anxious to become just another market maker.

In calling for a national market system, Congress stipulated "fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets." Obviously, if one class or group has access to necessary market facilities on more favorable terms than

others, competition is not "fair." There is no justification, given today's level of technology, for limiting access to a favored few.

I recognize, of course, that access to any trading system must have controls. Objective standards of competence and financial stability must be imposed as conditions to join the system, and the creation of these standards would be an excellent task for the system's governing board - if there were one. Since over-the-counter brokers and dealers are required by law to be able to compete fairly with exchange members, the concept of paying for a membership on a market facility should be dispensed with, but rather should be available to any broker/dealers who are qualified and apply.

Market Making

I have selected as my definition of a market maker: "One who stands ready to buy and sell securities when a public order imbalance occurs."

Under my definition, the market maker acts as warehouser and jobber, the traditional roles. I would impose neither the "affirmative" and "negative" obligations of the specialist called for in stock exchange rules, nor the "bona fide continuous two-sided market making" required by the NASD in the over-the-counter market. The role of a market maker is functional, rather than legal.

Since market making is an economic function that requires capital and the perception of a profit opportunity, every dealer's capital should have an equal opportunity to seek profit. I suggest that the national market system be so designed.

Market makers should also be permitted to trade in any securities of their own selection, free from all restrictions. I am convinced that a system that permits all to commit capital to the market making function freely, and which allows them full market information and complete interaction with all order flow, will promote lower transaction costs, narrower spreads and more liquid markets. The reasons for my conviction include the fact that prices for services are consistently lower with full competition than without.

Since, under this sytem, each bid or offer will compete with every other bid or offer, the present fight for order flow will become unnecessary. As a result, being of a large size will no longer be an advantage to a firm, and the rush to merge in order to enlarge order flow should abate.

The creation of a price-time priority system is not dependent upon the elimination specialists, but it need not preserve the specialist system as it currently operates.[1] Within the present

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[1]For a discussion of this matter, see Corporate Equities and the National Market System: Federal Reserve Bank of New York Quarterly Review, Winter 1978-79 Volume 3 No. 4, Page 24, by William C. Melton, attached as Appendix A.

system, the specialist receives a monopolistic franchise that provides him with an external source of income - floor brokerage - to support his market-making function. But the specialist's subsidy, if required, could be established by other methods. Assuming the function of the specialist is to supply the liquidity needed to make the secondary market system work, then all shareholders of his assigned stocks are beneficiaries of his services. The specialist might be compensated more appropriately by issuers, who would pay a standard fee for liquidity services on behalf of their shareholders, or by a small fee levied on each transaction made in the security. These are merely two alternatives to the present method, certainly not recommendations.

I believe that competition, fairly conducted, is the best regulator. Those who believe that market-making franchises are required to provide the "fair and orderly" markets called for by the law should have an obligation to demonstrate that (a) franchises are needed, (b) an equitable method for their award can be established and (c) an appropriate method of subsidization can be developed.

Fragmentation

Much has been said and written about the potential evils of "upstairs" market making and fragmentation. One scenario runs as follows:

> With unfettered market making off-board, large national brokerage firms will intercept their own public order flow and "internalize" it by trading, as principal, in many of the most popular securities; buying at the bid price, less a commission, and selling at the offer price, plus commission. The firm would go at risk for the intervals between the arrival of counterbalancing orders and would offset excessive long or short positions with transactions in the central arena.

This scenario postulates (a) fragmentation of order flow, with large firms intercepting their own orders prior to their reaching the central pricing mechanism, (b) over-reaching, which is dealing at an unfair price with a customer, (c) unnecessarily wider spreads in the markets for securities, (d) a rapid consolidation of firms, (e) a reduction of investor confidence as markets deteriorate and (f) the demise of our capital markets within a very few years. A properly designed system will prevent all this from occurring.

But, if fragmentation is harmful, how can the present system of multiple market centers, each with something less than all the others, be defended? Is a little fragmentation in stock exchange market centers "good" while a lot of fragmentation in a larger number of market centers - otherwise known as dealers - "bad?" Having fewer than <u>all</u> orders competing is both unncessary and contrary to the spirit of the legislation.

Fragmentation can be eliminated only by a unitary system. While a single stock exchange would be a unitary system, it would also have a single market maker - and Congress called for fully competitive market makers. Fortunately, the technology now exists to construct a market mechanism in which all orders can interact and which also permits fully competitive market making. Computers have the speed and power to queue, display and match like-priced orders of investors, large and small, from all over the Nation, and throughout the world.

In a unitary computer controlled auction, bids and offers can be executed on a strict price-time priority basis: "First-come, first-served" has been a traditional American measure of fairness since time immemorial. Now that the technology is available to unite the entire universe of customers and dealers, restricting order interaction to anything less is unnecessary and undesirable.

Also, those who are opposed to upstairs market making should logically raise similar objections to all forms of derivative pricing schemes, since these also accomplish fragmentation of order flow. Derivative pricing is using the price of one transaction, bid or offer to determine the price of another. Examples of derivative pricing systems include Comex, Max and Pace, trading systems developed by the Pacific, Midwest and Philadelphia exchanges, which base execution prices on sales or quotations elsewhere; these transactions are denied the benefit of integration with a national auction.

The national market system should be constructed in such a manner that all buy and sell interests, whether odd-lot or block, can interact. The only system which will create this national auction is one in which each bid and offer is exposed to all others within a single price-time priority sequence, thus permitting maximum displacement opportunities. The only way to build that system is with an integrated communications and computer environment that guarantees the priorities.

Internalization

A companion issue to that of fragmentation is the concern about the possibility of internalization of order flow, especially by wire houses. It is important to understand this issue, since internalization is put forth as something to be avoided at all costs.

In any system lacking a price-time priority rule, or another rule that forces orders to a central location, or in the absence of laws requiring the segregation of the dual functions of broker and dealer, a firm with substantial order flow has the opportunity to buy from one customer on its bid, less a commission, and sell to another on its offer, plus a commission. Statistically, buy and sell orders in a security could be expected to balance out over a period of time, and the firm would thus make a dealer's spread in addition to the commission on each trade.

A rule that forces all orders to a central location would permit offsetting agency orders to meet without the intervention of a dealer; a focusing rule of some type is necessary to meet the mandate of the Act. NYSE Rule 390, however, effectively precludes a retail firm such as Merrill Lynch from becoming a market maker in listed equities, except as a block positioner. It does so by giving the NYSE specialist first crack at all order flow, leaving Merrill Lynch and others only those orders the specialist does not want to accept - a very unattractive prospect. On the other hand, a rule that establishes a system-wide, price-time priority for each bid or offer removes the problems associated with Rule 390, prevents internalization and makes fragmentation impossible.

A trading system that incorporates a national order queue with a strict price-time priority sequence will reduce broker-dealer conflicts of interest to the minimum. It will do so because a brokerage firm will be allowed to deal as principal with its customers only if it has the best price, or has entered the first bid or offer at a price equal to another order.

Assume, for example, that the minimum price differential is, as at present, 1/8, and that the market for a given security is 1300 shares bid for at 24-3/8, 400 shares offered at 24-5/8. Assume further that all bids and offers on the "book" of orders are those of public customers. If a firm's client enters an offer to sell 500 shares at 24-1/2, that firm can purchase those

shares for its own account in a true national market system only if it betters the existing bid of 24-3/8. If it does so, its customer will have received, not only the best possible price for his security, but a better price than was previously available. If the customer's broker buys the shares at 24-1/2, the broker will not be able to resell them at a price higher than 24-1/2 (i.e., 24-5/8) until the shares already offered at that price, 400, have been executed. Thus internalization of order flow will be possible only if the customer's broker has the best price in the market at all times, and no other bidders or offerers choose to trade at those prices, or at better prices. In that case so-called "internalization" is in the customer's best interests.

Any rulemaking to resolve conflicts between the brokerage and dealer functions should be made independently of the construction of a national market system, and not done so as a reason to continue the status quo. The present system of maintaining a specialist who is the sole person to see all orders and deal with order flow actually contains greater possibility of abuse than does an automated market system.

Cost

Cost, and its impact on a national market system, has received too little attention. Congress wanted the national market system to provide "economically efficient" transactions. The

costs of seeking out a better price should not exceed the benefits received. No system or linkage of systems can be properly considered to form a national market system unless this condition is met.

The present system is expensive: It has multiple market centers trading the same securities, multiple self-regulators supervising the same brokers, and even duplicative and costly facilities to clear and settle transactions. A study made in 1977 by SRI International (formerly Stanford Research) reported that a fully automated system would be much less costly, saving more than $130 million per year over the present system. So far, no other analyses have been made, nor are there even figures available on the total cost of the present system.

Competition

Some argue that a single system will be less efficient than multiple linked systems if only because it will stifle competition. I ask, "Competition for what?" Is it competition for customer orders, competition for securities, or competition for the creation of new investment vehicles? None of these requires duplicative linked market centers. In fact, a single system with total order interaction will provide maximum opportunities for innovation. It will do so because it will perform the true function of a marketplace - providing a neutral meeting ground for

buyers and sellers - in the most efficient manner possible with today';s technology. Competition will be for services and products, rather than for the location in which to offer them.

Another means by which to measure the fairness of competition in a national market system is to ask how much of an edge certain participants in the system should receive, if any, over other participants. As I discussed earlier, restrictions on access functions within a financial system constitute advantages for those with the privileges over those without.

Best Execution

A properly designed national market system will assure that every single transaction executed through the system receives "best execution." This does not mean that an agent, such as a broker, could hit all bids or take all offers until the client's order is filled without accountability, but means rather that, at the moment a transaction is executed, there can be no possibility of execution occurring elsewhere at a superior price. It might be well to state here the obvious fact that there is no single "best" price for both buyer and seller: A better price for the buyer is a worse price for the seller, and vice versa.

Should the Commission's proposed price protection rule go into effect, some investors may not always be sure of receiving "best execution." With a price-matching system like ITS, assume

a customer enters an order on the New York Stock Exchange to buy stock at 20. The bid is the best available, and is entered into the Composite Quotation System. Another customer enters a sell order at 20 on the Pacific Stock Exchange, where the best bid is only 19-7/8. The Pacific specialist, seeing the 20 bid from the New York Stock Exchange, decides to match it and buys from the selling customer at 20. The first customer, who was already bidding 20, and whose bid caused the Pacific specialist to raise his price, didn't buy his stock. If the market should later rise, he might never buy it, and in any case there would have been a dealer involvement in the trade, a situation that Congress did not wish. Any system without full price-time priority falls short of the Congressional mandate for "best execution."

Qualified Securities

A national market system should be flexible enough to accommodate all securities. I am puzzled by the Commission's proposed rule, which will qualify only a limited number of securities for trading in the system, and will do so on an arbitrary basis. I question the need to exclude any stocks from the benefits of auction trading, fully competitive market making, total order interaction, freely accessible quotations and prompt trade reporting, if a system with all of those characteristics can be built.

Off-Board Trading Restrictions

The New York Stock Exchange's Rule 390, and similar rules of other exchanges, were created to deliver as much business as possible to their franchised market makers, the specialists, and to furnish work for their other floor members. These rules are anticompetitive, but they do serve the function of concentrating certain clusters of bids and offers in central locations.

Rule 390 and its fellows should be abrogated, but they must be replaced with a different kind of focusing rule, which should require price-time priority. This rule alone would force the creation of the national market system, without favoring any exchange, and would permit full integration of the over-the-counter markets.

The Trading Arena

The largest volume of criticism of the Commission's January, 1978 statement was levied against their proposal for the construction of a neutral central limit order file. The New York and Midwest Stock Exchanges wrote lengthy objections to the development of such a single file, arguing, among other things, that a computer-based system could not handle all of the complicated face-to-face bargaining that goes on in the present system.

The arguments, however, are only rhetoric. All trading arenas, whether over-the-counter, exchange "crowds" or commodity pits and rings, permit only declared bids and offers to have standing in the trading process.

All complex orders, such as scale, percentage, switch, or contingent, are merely instructions to the brokers to enter bids or offers when certain conditions have been met, and are dealt with outside the actual market arena. All limit orders are bids and offers.

As a result, with the introduction of an automated system, the "crowds" would be converted from auditory, as at present, to visual; the need for physical trading arenas would end.

There is no truth to the assertions that trading of securities can only be done in a face-to-face environment. Federal, municipal and corporate bonds do not trade that way. Currency markets, the most volatile in the world, also trade via telephones. There is a broad over-the-counter stock market. A "visual crowd" system would combine the proven features of an exchange auction system with the great benefits of competitive market makers.

My colleague, Professor Morris Mendelson and I have recently completed an article on this issue, and it is attached to my statement.[2]

The exposure of the myth that exchange floors are still essential is the greatest concern of their floor members. Much as the wizard's magic was exposed as illusion when Dorothy's dog Toto pulled back the curtain concealing the Wizard of Oz, so will the construction of a modern integrated data processing and communications market system show that the daily extravaganza known as the exchange trading floor is unnecessary, wasteful and inefficient.

The national market system design does not need to accommodate order handling apparatus, but rather should be limited to bids, offers and trades.

Other Issues

An issue that has so far received little comment is the standard unit of trading in a national market system. The traditional unit is 100 shares. The present system, which depends to a large extent upon the quickness of brokers in a crowd, and their ability to retain numbers and prices in their heads, cannot include

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[2] The ABC's of Trading On a National Market System: The Financial Analysts Journal Sept/October 1979, attached as Appendix B.

odd lots in the auction process. With today's technology, this treatment of small customers is unnecessary and costly. I cannot envision that any member of Congress would endorse a national market system that gave the small investor inferior attention or facilities. The only system that can provide all investors with the same treatment is one in which there is absolute price-time priority for all bids and offers, whether for one share or one million shares. The legislation does not allow for separate systems for different sized transactions in the same securities.

Finally, there is the issue of our Nation's continued pre-eminence in the world capital markets. It is frequently said, and correctly, that we have the finest capital markets in the world. However, for them to remain so requires continuous modernization. New technology creates new opportunities, while also causing difficulty for those who stay too long with the obsolete. That is the nature of our capitalistic system.

Some foreign countries have been looking at our market structure with a view toward improving on it. We cannot afford to settle for a second-best system, even if it is presently superior to all others. Otherwise we may lose the preeminence we have enjoyed for so long. That we cannot afford to do.

Impact on Market Participants

I have attempted to deal with some of the issues surrounding the movement toward, or perhaps lack of movement toward, a national market system. I believe that an automated system will benefit all investors, if given a chance. It will permit lower transaction costs, narrower spreads, more liquidity, the reality of an equitable system, greater participation in the market making function, and more current and complete market information.

With competitive market making, spreads should narrow and liquidity increase, especially with the greater individual investor participation made possible by eventual lower transaction costs. A more efficient system will permit the securities industry to control overhead costs and will allow for the creation and continued existence of small and diversified firms. Investor confidence will be enhanced, bringing about an environment that will enable corporations to maximize their ability to raise new equity capital.

An efficient national market system will inevitably benefit firms doing a public business. First, it will reduce the cost of supporting the market structure. Second, it will allow them to become market makers in listed equities if they choose. Third, it will increase their clientele base as investor confidence in a fairer market system builds. Finally, it will enable them to offer new services to their clients - services they are unable to offer today because of the present system's inadequacy.

Specialists, of course, will lose their monopolies in any fully competitive market maker system. On the other hand, public policy may determine that their roles as franchise holders should be continued.

Floor brokers will face the severest hardships under any national market system. While some argue that bargaining must be face-to-face, rather than via terminals, the inexorable displacement of floor brokers' functions, which are mostly clerical in nature, will continue.

With a single market facility for the trading of all securities, the only raison d'etre for multiple self-regulation will be that already espoused for the regulation of securities, such as municipal bonds, traded by more than one industry. If regulation is organized by function, rather than by membership, there will be fewer regulators than there are today. The Commission's job will thus be simplified.

Recommendations

You have also asked for my assessment of the potentials of the ITS system and the electronic system operated by the Cincinnati Stock Exchange, for fulfilling the Congressional mandate.

ITS is merely a teletype-like message delivery system which interconnects exchanges and is used mostly by specialists to lay off their excess trading positions at other exchanges. ITS creates the illusion, rather than the reality of a modern automated system. It adds to existing costs, and replaces nothing. It also makes executions more complicated and difficult. In short, it fails to meet any of the requirements of the Act.

The Cincinnati Stock Exchange's electronic trading system has real potential, particularly if it can be properly used as a ready-made test bed to demonstrate the benefits of a system which has all the essential features of a national market.

It has price-time priority, direct input of bids and offers from exchange floors and brokerage firms, fully competitive market makers, locked-in trades and error-free operations.

At present, however, brokers using this high technology system must also interact with multiple exchange floors and their manual systems. To judge Cincinnati's effectiveness while it is hooked up in Rube Goldberg-like fashion to the old system is like requiring that a telephone system be evaluated while interfaced with smoke signals.

You have also asked me for my views on the additional steps the Commission and the industry should take to achieve the objectives of the Act.

I believe that the Commission should pass a rule which will create the fair field of competition known as the national market system. That rule would require system-wide price-time priority. Rather than attempting to design components to interconnect the pieces of the existing system, the SEC's rule should merely state the performance standards of the new system, and leave it to those with a financial interest to find the best design. The Commission's present approach is equivalent to requiring installation of a jet engine on a Sopwith Camel and then announcing that they have built a modern airplane.

After the last oversight hearings your Subcommitte Report endorsed price-time priority. So did the Commission in its release in January 1978. I believe that the Commission should re-examine this issue carefully, with a view to reinstating it as a policy.

Since I do not believe there is a single securities "industry," I do not look to the brokerage firms, specialists or market center operators for a definitive solution. Their self-interest will always come first, as it has so far.

In sum, there is no national market system and, at the present rate of progress, there will not be one for many years to come. While I recognize the realities of the present environment, I continue to hope that there will be a systems development approach to the problem - for you have asked for a system to be created.

Thank you for your courtesies. I shall be pleased to answer your questions.

Corporate Equities and the National Market System

The last decade has witnessed more fundamental changes in the structure and organization of the market for corporate equities than any comparable period since the 1930's. Responding to widespread concern over the progressive fragmentation of the equities market during the 1960's and early 1970's, the Congress and the Securities and Exchange Commission (SEC) initiated a period of rule-making and legislative activity that culminated in the abolition of fixed minimum commission rates on "Mayday" 1975 and the enactment shortly afterward of the Securities Acts Amendments of 1975, which mandated development of a national market system (NMS). The key features of the NMS as envisioned in the 1975 legislation are nationwide interaction of buy and sell orders and competitive market makers.

Though the Congress mandated the establishment of the NMS, it specified only broad criteria and left the determination of operational details to the SEC and the securities industry. Currently, two very different NMS prototypes are in active competition for their support. Both trading systems have in common that they rely heavily on electronic communications systems, but they differ greatly in their implications for the mechanics of trading. (See box on pages 14-15 for a brief description of trading in the secondary market.)

This article would not have been possible without the assistance of Ernest Bloch, Donald Calvin, Thomas Doherty, William Freund, Kenneth Garbade, Christopher Keith, Andrew Klein, Morris Mendelson, Junius Peake, Donald Stone, Donald Weeden, Jack Weeden, and Le Manh Tri, none of whom bear any responsibility for the views expressed herein.

The Intermarket Trading System (ITS), promoted by the New York Stock Exchange (NYSE) and much of the securities industry and put in operation on a pilot basis in April 1978, provides an electronic linkage between the New York, American, Philadelphia, Pacific, Midwest, and Boston exchanges. ITS currently permits orders for about 300 listed stocks to be routed from the floor of one participating exchange to the floor of another. It has recently been supplemented by the Composite Quotation System (CQS), which allows instantaneous display of quotations for the stocks.

The Multiple Dealer Trading System (MDTS)—familiarly referred to as the "Cincinnati experiment"—is a fundamentally different trading system. MDTS is an integrated electronic display and execution system operated under the sponsorship of the Cincinnati Stock Exchange. It is an outgrowth of the Regional Market System (RMS), an essentially similar system which connected specialists on the floors of several regional stock exchanges. MDTS supplanted RMS on May 1, 1978, when any broker-dealer firm which was a member of the Cincinnati Stock Exchange was allowed for the first time to install MDTS terminals in its own "upstairs" offices. Currently, forty stocks are traded on MDTS by five broker-dealer firms as members of the Cincinnati Stock Exchange as well as by specialists on the Boston, Midwest, and Pacific stock exchanges.

No final commitment has been made by the SEC and the securities industry to either of the two NMS prototypes, and their supporters continue to debate their relative merits. To understand the controversy, it is useful to review briefly the pressures which led to the

The Secondary Market for Corporate Equities

The secondary market for corporate equities performs a central role in the nation's economy by providing liquidity—*i.e.*, the ability to buy and to sell securities quickly without causing significant price changes. The existence of a secondary market encourages potential savers to invest in new and outstanding corporate equities, thus facilitating the process of capital investment by business firms. Equally important, as the market values the shares of different firms, it facilitates the flow of capital to firms with superior performance and disciplines poorly managed firms.

Trading

There are several ways in which buyers and sellers may find appropriate trading partners. The classic procedure for concentrating buyer and seller interest is a public auction in which buyers and sellers (or brokers representing them) may make bids and offers for securities. If the auction is held at a designated time, as in a "call" market, all buyers and sellers make bids and offers for a security simultaneously, after which auction trading ceases until the next auction. The advantage of concentrating buying and selling interest at a specific time is that possible price distortions resulting from a temporary imbalance of buy and sell orders are minimized, thus enhancing the liquidity of the market.

A public auction can also be organized on a continuous time basis—as is done on United States stock exchanges—so that buyers and sellers may enter orders at any time during the trading day. An important advantage of a continuous auction market relative to a call market is that it permits much more time for auction trading, thus allowing investors greater flexibility in reacting to events and executing transactions. However, the longer the trading day during which orders may be brought to the market, the more the order flow is spread out over the day, and the more likely it is that a temporary imbalance of buy and sell orders may exist at some point during the day. In such a situation, the market price would tend to be deflected momentarily from its longer term level. To the extent that this occurs, market liquidity would be impaired.

However, the price pressures created by such momentary imbalances open up opportunities for professional securities dealers—often referred to as "market makers"—to profit by standing ready to buy when there is an excess of sell orders and to sell when there is an excess of buy orders. They will profit by maintaining an offering price sufficiently higher than their buying price (their bid-asked spread) to compensate them for the risk involved in allowing their inventory of securities to act as a buffer against temporary order imbalances. The result of dealer activity will be reduced price volatility and thus a more liquid secondary market.

Dealers will not be willing to participate in all transactions. For example, some securities are not widely held and are seldom traded, so that it is uneconomic to provide dealer services for them. Also, some offerings of well-known and widely traded securities may be so large that no individual dealer would be able to take the opposite side of the trade. In such cases, direct negotiation—generally through a broker—is necessary for the buyer or seller to find a trading partner.

The exchange auction procedure

In the United States, by far the greatest volume of stock trading takes place on stock exchanges and, as the table indicates, the New York Stock Exchange is the premier stock exchange. Stocks listed on the NYSE are the most widely held and the most actively traded. Though many of them are traded on regional exchanges and in the "third market",[1] the NYSE remains their primary market.

The NYSE auction trading procedure is designed to ensure fair, orderly, and liquid markets by incorporating certain features of call and dealer markets to supplement the continuous public auction. When trading is opened, all the buying and selling interest which has accumulated since the previous close of trading is represented in what resembles a call market. If an imbalance of orders exists for a stock, the stock specialist will try to solicit matching orders to resolve the imbalance. Failing that, he will resolve the imbalance by buying or selling for his own account.[2]

After the opening, trading is conducted in a continuous auction market designed to maximize the likelihood that public buy and sell orders will be executed directly with each other to minimize the public's total costs of trading. Were the public to trade only with a dealer, their costs of executing matched buy and sell transactions would be increased by the amount of the dealer's bid-asked spread. Trading by dealers for their own accounts is kept to a minimum by the priority of execution assigned to public orders. A specialist, for example, will have priority of execution only if his bid price is higher, or his offering price lower, than that of any public order on the exchange. In the event of an imbalance of incoming orders, it will be impossible for all public orders to execute against each other, and the specialist will be able to trade for his own account. In doing so, specialists on the NYSE and the Ameri-

[1] The so-called "third market" is the group of dealers who trade NYSE-listed stocks off the floor of any exchange.

[2] Broad guidelines for trading by specialists are contained in NYSE Rule 104, "Dealings by Specialists".

Market Value and Volume of Sales of Stock on United States Securities Exchanges, June 1978

Stock exchange	Value (millions of dollars)	Volume (millions of shares)
American	1,566	97
Boston	136	5
Cincinnati	19	1
Midwest	1,095	39
New York	20,557	744
Pacific	641	27
Philadelphia	398	14
Intermountain	*	*
Spokane	*	1

* Less than 0.5 million.

Source: Securities and Exchange Commission.

can Stock Exchange—but not on regional exchanges—have an "affirmative obligation" to ensure continuity of transaction prices. On the NYSE, about 90 percent of specialists' transactions achieve this purpose.[3]

When an investor decides to sell some stock, he generally contacts a brokerage firm to assist in the transaction. The firm will probably transmit the order to its broker on the floor of an exchange where it can be executed. Since the investor is remote from the market, he must give his broker instructions as to how the order is to be executed. For example, if the investor is primarily interested in selling the stock immediately, he will give the broker instructions to sell the stock "at the market". To execute such a "market" order, the floor broker will take it to the position on the exchange floor where the stock is traded and execute it at the best obtainable price by trading with either a member of the "crowd" or the stock specialist.[4] With a market order, the investor gains certainty of execution, but he cannot be completely certain what the market price will be when his order is executed. Alternatively, the investor may be more interested in avoiding trading at an unacceptable price than in assuring that the trade will take place. In such a case he can give his broker a price-limited, or "limit", order, which will be executed only at the specified price if obtainable.[5] If a limit order cannot be executed immediately, it may be held by a floor broker in the crowd in front of the position where the stock is traded on the exchange floor, or the floor broker may leave it with the specialist, who will enter it in a book which he maintains. Either way, when the limit price of the order is reached by the market, the order generally will be executed in whole or in part.[6]

Large block transactions

Large block transactions—usually defined as a transaction involving at least 10,000 shares of stock—typically require the assistance of broker-dealer firms to locate suitable trading partners and to assist the buyers and sellers in negotiating the terms of the trade.[7] The reason is that the inflow of orders to the exchange floor is generally too small to execute the trade in a reasonable period of time, and specialists typically do not have sufficient capital—and are not sufficiently indifferent to risk—to execute such transactions on a dealer basis. In addition, NYSE rules do not allow specialists to communicate directly with public buyers and sellers as do block positioners. When the trade has been negotiated, it is "crossed" on the exchange.[8] Because of their size, block transactions initiated by sellers usually take place at a discount from the auction market bid price. NYSE Rule 127 requires that blocks crossed on the NYSE must allow public limit orders held in the crowd or by the specialist in the order book to participate in the transaction at the negotiated or "clean-up", price. In this way, the block trading procedure is integrated with the auction market on the exchange floor. The integration is not complete, however, as only public limit orders must be allowed to participate, and they are limited to 1,000 shares or 5 percent of the block, whichever is greater. Moreover, since some regional exchanges have very few limit orders for NYSE-listed stocks left with them, brokerage firms may send block transactions to these exchanges and effectively avoid allowing public limit orders to participate.

[3] NYSE, *Annual Report of the Quality of Markets Committee* (1977), page 16.

[4] On some exchanges, electronic communications facilities allow some orders to be transmitted directly to the specialist, who represents them to the crowd and executes them as a broker. On the NYSE, this system is called Designated Order Turnaround (DOT) and handles about 40 percent of total transactions.

[5] A large variety of limit orders exists, depending on how the price is specified, the length of time for which the order is valid, etc. These are defined in NYSE Rule 13, "Definitions of Orders".

[6] This is true of all limit orders except the "fill or kill" order, which must be executed in its entirety immediately upon receipt or canceled.

[7] Several broker-dealer firms popularly known as "block houses" specialize in this kind of activity.

[8] A "cross" is the execution by a broker of two or more matched orders. The orders may not be crossed without first representing them to the crowd and the specialist to determine whether any other limit orders have priority to participate in the trade.

Congressional mandate for the NMS and then to consider how trading takes place in the two systems.

Growth of institutional trading

The principal stimulus to the development of proposals for the NMS was the strain on the equities market caused during the 1960's and early 1970's by the increase in the institutional share of trading.[1]

An important source of institutional dominance in equities trading was the steady decline in holdings of equities by the household sector (individuals, personal trusts, and nonprofit corporations). Flow-of-funds data indicate that households have been net sellers of corporate equities in every year since 1962. There are several reasons for this persistent withdrawal of households from direct participation in the market. First, in the 1950's and even more so in the 1960's, the view was widely held that professional management of an equities portfolio could lead to significantly better performance, and hopes for improved returns undoubtedly stimulated many individuals to invest in shares of mutual funds rather than to purchase corporate equities directly. Another advantage of mutual funds was the enhanced liquidity provided by the right of redemption of mutual fund shares. Also, households' investments in life insurance and contributions to private pension funds increased dramatically during this period, and the attractiveness of such tax-exempt sources of income may well have displaced direct investment in equities to some extent.

Paralleling the decline in net purchases of equities by households during the 1960's was the rapid increase in net institutional purchases of such securities. Private pension funds and state and local government retirement funds in particular increased the portions of their portfolios that were allocated to equity investments. In addition, during the late 1960's and the early 1970's, institutional investors generally increased the turnover of their portfolios, which also contributed to their dominance in equities trading.

Institutional dominance was not reduced by the general reduction of turnover in institutional portfolios that began around 1972. Institutions currently account for about 45 percent of total volume on the NYSE and about 55 percent of total value. The institutional share of public trading—*i.e.*, total trading less trading by NYSE member firms for their own accounts—is about 60 percent of volume and 70 percent of value (Chart 1). Large block transactions—which are almost exclusively accounted for by institutional trades—now account for almost a fourth of total volume (Chart 2).

Market fragmentation

Historically, a variety of restrictions on price competition governed the NYSE. The most important of these was the requirement of fixed minimum commission rates, which precluded competitive pricing of commission rates and enabled the NYSE membership to function as a cartel. Other restrictions enhanced the value of membership in the NYSE by preventing free entry and by discouraging members from sending orders to be executed off the NYSE. Rules designed to channel transactions to the NYSE floor were in the public interest to the extent that they served to encourage a steady inflow of orders, permitting specialists to maintain tight bid-asked spreads and thus fostering a more liquid securities market than might otherwise have existed. But these gains were offset insofar as they were achieved at the cost of commissions paid by the investing public, which were higher than justified by the costs of executing their transactions.

In general, the survival of cartels tends to be jeopardized by the incentive that individual members of the cartel have to lower their prices in order to increase their sales at the expense of the other members of the cartel. Undoubtedly something like this would have happened to the NYSE, except for the fact that the NYSE, as a self-regulatory organization under the supervision of the SEC, had the power to promulgate rules for its members and to enforce compliance. For example, during the 1950's, when some NYSE member brokerage firms began to send orders off the exchange to the third market in order to lower net execution costs for their customers, the NYSE adopted Rule 394 to discourage this practice.

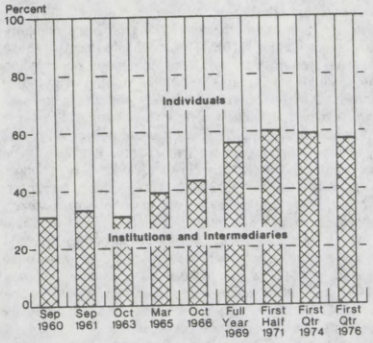
Such internal discipline would have been inadequate to preserve the cartel, however, if other market centers had been capable of executing transactions at significantly lower net costs than those of the NYSE. Such competition was inhibited, however, by the considerable economies of scale involved in making markets in securities. As noted in the box, the larger and more uniform the inflow of orders, the more liquid the market. The result is that, if an existing market center already has a large order flow, its costs should be substantially lower than those of a new market center contemplating competition. Compounding this disadvantage to new marketplaces is the fact that investors value certainty of execution and thus may have an incentive to send their orders to the largest market, even if dealers in another market center charge somewhat lower commissions.

The fixed-rate commission structure of the NYSE

[1] The major institutional investors include private pension funds, state and local government retirement funds, mutual funds, bank-administered trust funds, and insurance companies.

Chart 1

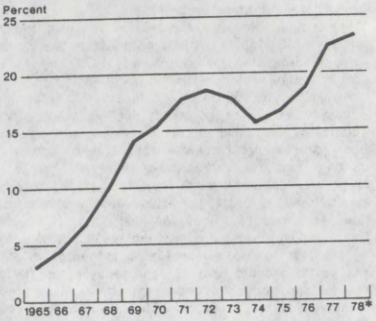
Distribution of Public Share Volume on the New York Stock Exchange



Source: New York Stock Exchange.

Chart 2

New York Stock Exchange Block Transactions as a Percentage of Reported Volume



*First eleven months of 1978.

Source: New York Stock Exchange.

which was in place throughout most of the 1960's provided for a minimum commission determined according to the value and volume of shares involved in the order. Although brokers could charge more than the minimum commission, in practice almost all transactions were executed at the minimum rates. While the calculation of the minimum commission was complex, the important feature was that the commission charge per share did not decline as the number of shares in the order increased, even though the per share costs of executing large transactions are generally far less than those for small transactions.[2]

Institutions are peculiarly inclined to trade in blocks because their holdings of individual stock issues are frequently so large that a realignment of their portfolios can be achieved in a reasonable period of time only if large amounts of certain issues are bought and sold. As a result, institutional investors were generally confronted with a commission-rate schedule that levied commission charges far in excess of the actual costs of execution of their transactions.

Institutions responded to fixed commission rates by trying to lower their net execution costs in a variety of ways, some of which caused problems for market efficiency and raised serious questions of equity. Since NYSE member brokerage firms could not compete for institutional commission business by lowering their rates, they competed by providing free a variety of ancillary services, such as research and marketing of mutual fund shares, in return for commission income. For example, a mutual fund might direct a brokerage firm executing its order to "give up" part of the commission to another brokerage firm to pay for the services of the latter to the mutual fund.[3]

Another strategy for reducing net execution costs was for an institution to establish a brokerage subsidiary on a regional exchange—a practice that was prohibited on the NYSE and the American Stock Exchange (ASE) by rules of the exchanges. The subsidiary would either execute the parent's transaction on

[2] An exception was the minimum commission rate for odd lots (transactions for less than 100 shares), which was substantially higher than that for one or more round lots of 100 shares.

[3] On December 5, 1968, the SEC ordered that "directed give-ups" of commissions be abolished and that a volume discount be initiated for commission rates on the portion of orders exceeding 1,000 shares and that negotiations be permitted for the amount of commission in excess of $100,000. Later, on April 5, 1971, negotiated rates were permitted on the portion of orders exceeding $500,000, and in April 1972 the breakpoint for negotiated commissions was lowered further to $300,000.

the regional exchange and earn the commission itself or, more likely, a NYSE member firm could execute the parent's transaction on the NYSE and later send the subsidiary an agreed-upon amount of commission business for execution on the regional exchange to reciprocate for the parent's commission business. Such reciprocal brokerage arrangements created potential conflicts of interest for institutional managers and brokerage firms.

Another way for investors to reduce their net execution costs was to send orders to the third market. During the 1950's, a number of broker-dealer firms which were not members of the NYSE began making markets in stocks listed on the NYSE, thus competing with the NYSE specialists. These third-market firms were not bound by a fixed minimum commission rate, and investors could sometimes realize considerable economies by routing transactions to the third market.

To the extent that investors sent their transactions off the NYSE and ASE to reduce their net execution costs, the equities market was fragmented, and several undesirable consequences were produced. First, transactions on the regional exchanges and in the third market were not recorded on the NYSE and ASE tapes and thus were not immediately disclosed to the investing public. Second, public orders on the NYSE floor, for example, had no opportunity to participate in transactions routed off the NYSE, even if their bid or offer prices were better than those at which the trades were made in the other markets. When this occurred, the classic auction principles of price and time priority were violated.

Much of the impetus for the development of the NMS derived from a growing conviction in the Congress, the SEC, the securities industry, and among the investing public that a truly national secondary market was necessary to avoid the inequities and inefficiencies associated with market fragmentation.

Response of the Congress and the SEC

The Institutional Investor Study Report, submitted to the Congress by the SEC on March 10, 1971, was a milestone in the early discussion of the NMS. The voluminous report examined in detail the impact of institutional investors on the equities market and reached several conclusions of major importance for succeeding developments. The first of these was the SEC's conclusion that fixed-rate commissions on orders of *institutional size* were the source of many difficulties in the market, including market fragmentation and the growth of reciprocal brokerage arrangements. In addition, the report concluded that "institutional trading overall has not impaired price stability in the market", thus tending to support the view that small trades and institutional trades can be transacted in the same marketplace without serious consequences for small investors. Most importantly, in the letter of transmittal of the report, the SEC for the first time advocated development of a central market system (CMS), and thus departed from its historical position of tending to favor competing but separate marketplaces. The SEC stated the goal of the CMS concisely:

> our objective is to see a strong central market system created to which all investors have access, in which all qualified broker-dealers and existing market institutions may participate in accordance with their respective capabilities, and which is controlled not only by appropriate regulation but also by the forces of competition.

About a year later, on February 2, 1972, the SEC issued its Statement on the Future Structure of the Securities Markets (the Structure Statement) in which it identified several problem areas in the securities markets, endeavored to refine its concept of a CMS, and put forward a preliminary program for its implementation. Of principal concern to the SEC were the growth of trading in large blocks, the dispersion of trading to many market centers, the growth of reciprocal brokerage practices, and the increasing amount of trading in listed stocks which was not reported publicly.

The CMS was defined as a system of communications among all market centers, including exchanges and over-the-counter markets, and a set of rules governing their interaction. The two basic objectives of the CMS were (1) to centralize all buying and selling interest in order to maximize the opportunity for public orders to meet each other without recourse to a dealer and (2) to maximize market-making capacity in order to provide the greatest possible liquidity for large transactions. Accordingly, the Structure Statement contemplated that both broker and dealer markets would remain integral parts of the trading system.

The implementation of the CMS was felt to require, among other things, development of a nationwide disclosure system to make available information in trading and quotations in all market centers and the elimination of artificial impediments to trading in the best markets. The disclosure system comprised a composite tape reporting trades of major securities occurring in all markets and a composite quotation system reporting firm quotations of all market makers. Among the impediments to trading which the Structure Statement viewed as inconsistent with the CMS were fixed-rate commissions and rules preventing member firms from sending orders to other market centers. It was also contemplated that, to stimulate competition be-

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tween market makers, it might be necessary to make the order book public rather than to allow a specialist to have exclusive knowledge of it.

The Structure Statement perceived (correctly, as it later turned out) that the elimination of fixed commission rates would redirect existing competition into price channels, thus lowering commission rates for transactions of institutional size and making outright institutional exchange membership less desirable.

Of some interest in light of later developments, the Structure Statement advanced the view that, since evidence indicated block trades caused some short-term price volatility and since the burden of this volatility was borne by the investing public in the form of reduced liquidity, public orders in the CMS should be allowed to participate in block transactions.

The SEC soon implemented many of the proposals contained in the Structure Statement. In early 1972, proposed rules for a consolidated tape, including all transactions in NYSE-listed shares, and for a composite quotation system to collect quotations for such shares from all market centers were released. Several committees were appointed to make recommendations concerning other proposals, and rules were issued to control the abuse of reciprocal brokerage and the establishment of brokerage subsidiaries by institutional investors to evade established commission rates. In addition, at the urging of the SEC, the NYSE adopted Rule 127, which subject to certain limitations (see box on pages 14-15) allowed public limit orders on the NYSE to participate in a large block transaction at the "clean-up" price, thus integrating the floor action more effectively with large blocks crossed on the NYSE.

On March 29, 1973, the SEC issued its Policy Statement on the Structure of the Central Market System (the Policy Statement). This release reiterated many of the views expressed in the Structure Statement but, building on information obtained through committee reports and hearings, it also proceeded to outline the kinds of rules that would be necessary in the CMS. The SEC proposed two such trading rules, an auction trading rule and a public preference rule. The auction trading rule proposal would provide price priority for all public limit orders throughout the system. The effect of this rule would require that any broker putting together a cross would have to clear the order book of all eligible limit orders in *all* marketplaces in order to allow them to participate in the transaction, thus eliminating market fragmentation. The Policy Statement advanced the view that this rule would create a greater incentive for the insertion of limit orders, thus enhancing the stability of the market. The public preference rule would accord preferential treatment to public orders by preventing any broker-dealer in the CMS from participating as principal in any CMS transaction unless his purchase price was better than any public bid or offer in the system. The object of this rule was "to provide the maximum opportunity for public orders to meet" without the intervention of a dealer. Taken together, these rules were felt to be adequate to preserve the public auction procedure within the CMS.

In addition, the SEC emphasized the importance of the principle of best execution— *i.e.*, the obligation of a broker to seek the best possible price for his customer—in an agency auction market. The existing market structure fell far short of attaining best execution in the SEC's view, because a variety of inefficiencies or impediments to trading—such as NYSE Rule 394—either prevented best execution or could be used to rationalize a broker's failure to obtain it. In the CMS, information on quotations in all market centers would be readily available and all obstacles to achieving best execution on the basis of that information would be eliminated. The SEC stated that it would abolish Rule 394 if the NYSE did not do so first. In its place was to be a broader rule confining virtually all trading in listed securities to the CMS.

Extensive Congressional hearings led to passage of the Securities Acts Amendments of 1975, the most fundamental and far-reaching piece of securities legislation enacted since the 1930's. The Amendments provided that, after the date of enactment (June 4, 1975), "no national securities exchange may impose any schedule or fix rates of commissions, allowances, discounts, or other fees to be charged by its members". An extension of the cutoff date to May 1, 1976 was, however, provided for minimum fees for floor brokerage and odd-lot dealer activities. This provision thus mandated negotiated commissions, both for institutional customers and small investors. However, the SEC had already moved to abolish fixed minimum commission rates effective on Mayday 1975, and by the date of enactment of the 1975 Amendments, commission rates were beginning to decline from their pre-Mayday levels.

The part of the legislation concerned with the NMS noted that securities markets are an important national asset which must be preserved and strengthened and that electronic communications technology created an opportunity for more efficient and effective operations. Furthermore, it stated that

> The linking of all markets for qualified securities through communication and data processing facilities will foster efficiency, enhance competition, increase the information available to brokers, dealers, and investors, facilitate the offsetting of investors' orders, and contribute to the best execution of such orders.

The Amendments directed the SEC to facilitate the establishment of the NMS and to designate securities appropriate for trading in it. The legislation also directed the SEC to establish a National Market Advisory Board to study the means available for implementing the NMS and to make recommendations. The SEC was directed to review all off-board trading rules and to amend any such rules found to impose a burden to competition not necessary or appropriate for the furtherance of the purposes of the Exchange Act. In addition, the SEC was authorized to regulate information processors, and its authority to regulate broker-dealers generally, including those in the third market, was significantly enhanced.

Implementation of the 1975 legislation

The 1975 legislation laid out only broad goals for the NMS, leaving a variety of issues to be resolved by the SEC and the securities industry. Among the most important is the question of whether the NMS is to be structured as a linkage of existing exchange floors or as an electronic trading system with no inherent dependence on any exchange floor. While the Congress clearly contemplated that the exchanges and the third market would continue to compete, the legislation did not mandate any specific design for the NMS. In essence, the Congress expressed a preference for nationwide implementation of public auction trading principles, for competition in all aspects of the market, and for the development of an electronic communications system to facilitate attainment of these objectives.

Following passage of the 1975 legislation, the SEC continued to press for enhanced disclosure of transaction and quotation information. The composite tape, rules for which had been proposed earlier, was actually put in operation on a full-scale basis on June 16, 1975. More difficulty was encountered with the composite quotation system. Vendors who developed display systems for the quotations experienced considerable difficulty in marketing them, since the quotations generally were "subject to change"—*i.e.*, not necessarily current and not binding—and thus of little use for trading purposes. The SEC responded to this problem by establishing a requirement that all quotations supplied must be binding. Following this initiative, the system finally commenced operation for a selected list of about fifty NYSE-listed stocks on August 1, 1978.

The SEC has also proposed that nationwide limit order protection be incorporated in the NMS to prevent the price and time priority of limit orders in one market center from being violated by transactions taking place in another market center. Nationwide limit order protection requires that certain information concerning the limit orders held anywhere in the NMS be communicated to broker-dealers when necessary and that orders be capable of being executed against any limit order in the system. The only way of satisfying these requirements strictly is to establish a central limit order book (CLOB), in effect an electronic file of all outstanding limit orders for a stock, irrespective of the geographical location of the broker-dealer who entered them. However, as will be seen shortly, the strict price and time priority of limit orders in a CLOB poses serious problems for the existing exchange auction procedure, and accordingly other proposals have been advanced to attempt to achieve a measure of nationwide limit order protection without recourse to a CLOB. More than any other feature, it is the strategy for implementing nationwide limit order protection which distinguishes the alternative designs that have been proposed for the NMS.

Rule 390

In June 1977 the SEC released its proposal for abolition of restrictions on off-board trading by member firms. This proposal was consistent with the SEC's stated intention to promote competition in the securities industry by removing anticompetitive barriers. Earlier, the SEC had mandated that Rule 394 be modified to allow member firms to send agency orders out of the NYSE to third-market dealers. Effective March 31, 1976, this was done, and the modified Rule 394 was renamed Rule 390. The objective of the modification was to facilitate competition for orders by the third market, as mandated by the 1975 Amendments. The June proposal was designed to remove barriers to executing principal orders off the exchanges as well. However, the June proposal generated considerable concern, especially in the securities industry, since it in effect sanctioned removal of what was felt to be a critical regulation channeling order flows into the public auction markets and preventing large retail firms from siphoning off order flows to be executed on an "in-house" basis.

As noted earlier, in the Policy Statement the SEC advocated confining all trading in listed stocks to the CMS. Such a rule would clearly prevent "in-house" order execution. The problem was that the National Market Advisory Board had not been able to agree on a design for the NMS, and the industry had made little progress toward its implementation. The SEC, bound by its Congressional mandate, proposed to abolish Rule 390 in advance of the establishment of the NMS, and it was the absence of Rule 390 during the (possibly lengthy) transition to the NMS which would create an opportunity for "in-house" order execution and would present several problems. First, to the extent that buy and sell orders were merely crossed in house without being sent to the exchange floor, the order flow on the

exchange would be reduced as would the liquidity of the public market. Second, in the absence of rules requiring strict observance of nationwide limit order protection, price and time priority might be violated for some investors. In addition, broker-dealer firms might be tempted to engage in "overreaching", *i.e.*, executing agency orders on a dealer basis at less than the best obtainable terms. The existing Rule 390, it was argued, avoided these problems. The SEC's June release presented only proposals designed to mitigate the occurrence of such problems during the transition to the complete NMS. Thus it was not surprising that, in hearings held during the summer of 1977, considerable criticism was directed at the proposal to remove Rule 390 without implementing at a minimum some sort of interim procedure to forestall its potentially undesirable effects.

In January 1978 the SEC reacted to the criticism of its June release by backing off somewhat from its earlier demand for removal of Rule 390. Whereas the June release had called for the removal of Rule 390 by January 1, 1978, the January release postponed implementation of the removal. The SEC emphasized its view that a variety of configurations might be consistent with the attainment of the objectives of the NMS and that it did not intend to assume the role of designing the system. At the same time, the SEC clearly interprets its mandate from the Congress as requiring that it ensure that the industry develop a trading framework conforming to the NMS within a reasonable period of time.

Evaluation of the reforms

The reforms imposed on the equity market by the SEC to date have already had significant impacts on the structure of the market. First and most importantly, the repeal of fixed-rate commissions has led to a substantial reduction of commissions primarily for institutions. As the table indicates, commissions for very large trades by individuals have declined roughly in line with the commissions paid by institutions, but the commissions paid by individuals on small trades of one or several round lots have scarcely changed. This disparate pattern undoubtedly reflects both the relative costs of executing individual and institutional orders and the fact that institutions are more aware of the opportunities for negotiating commission reductions than are most individuals.[4]

Since the introduction of fully negotiated commission rates, a considerable number of broker-dealer firms have merged. However, the influence of negotiated commission rates on this process is not entirely clear. Industry concentration—as measured by the share of total commission revenues accounted for by the ten largest firms—was increasing even before Mayday, so that any additional impact due to negotiated commission rates is difficult to quantify. Concentration in the securities industry still remains far below that in most other industries in the United States. Accordingly, most of the recent concern about concentration in the securities industry has not focused on the existing

[4] The data in the table probably understate the impact of negotiated commission rates in at least two ways. First, the changes are measured from commission rates prevailing immediately prior to Mayday 1975, but at that time commissions on orders of $300,000 or more were already negotiable. Accordingly, the impact of negotiated rates on commissions on large transactions is probably understated. Second, the surveys on which the table is based did not cover the small brokerage firms that have been most actively soliciting individual commission business on a "no frills" basis and offering very competitive discounts.

Commission Rates on Institutional and Individual Equity Transactions

Size of trade (shares)	Institutional: Commission rates* (cents per share) April 1975	Institutional: Commission rates* (cents per share) December 1977	Institutional: Percentage change April 1977 December 1977	Individual: Commission rates* (cents per share) April 1975	Individual: Commission rates* (cents per share) December 1977	Individual: Percentage change April 1975 December 1977
Less than 200	60.0	40.4	−32.7	50.0	48.7	− 2.6
200 to 999	46.0	25.4	−44.8	33.0	30.8	− 6.7
1,000 to 9,999	28.0	14.0	−50.0	20.0	16.1	−19.5
Over 10,000	15.0	8.9	−40.7	9.0	5.7	−36.7

* Commission rates are averages of those charged by firms surveyed.

Source: Securities and Exchange Commission.

industry structure, but on the consequences for future industry concentration of various proposals being advanced to implement the NMS.

Alternative designs for the NMS

Basically there are two competing designs for the NMS currently being implemented on a pilot basis. The SEC has given its sanction to both as possible prototypes for fulfilling the Congressional mandate but has refrained from designing a system itself and imposing it on the securities industry.

Intermarket Trading System

The design favored by the NYSE and much of the securities industry is an electronic linkage of existing exchanges. Such a linkage would preserve the exchange floor as the prime locus of the auction process, while facilitating the flow of orders from brokers and specialists on one floor to specialists on another. Its essential components are (1) CQS mandated by the SEC and implemented on a pilot basis on August 1, 1978 and (2) ITS, which started on a pilot basis on April 17, 1978. CQS is an electronic system designed to display to broker-dealers on an exchange floor the best quotations with size for listed stocks in different market centers. As a display system, it contains no execution capability. Also, since CQS displays only the best quotations in different market centers, specialists continue to have exclusive knowledge of limit orders in their order books, and a broker still must be physically present on the floor to know of limit orders being held in the crowd. This is inconsistent with nationwide protection of limit orders. Accordingly, the NYSE recently informed the SEC of its intention to develop an electronic market center limit order file (MCLOF) to replace the NYSE specialists' limit order books currently in use and to integrate it into ITS. The NYSE MCLOF—and similar files possibly developed for other market centers—would facilitate protection of limit orders in all market centers and would integrate them more effectively with block trades. In addition, it is planned that brokerage firms will be able to insert limit orders directly into the MCLOF without their being carried by floor brokers, an innovation which should reduce substantially the expense of floor brokerage and speed transmission of orders to the market.

Currently the ITS trading procedure is as follows. Upon receipt of an order, a broker on the floor of a participating exchange checks the CQS display screen showing quotations on the various markets. If the quotation on his exchange is as good as or better than any other on the display screen, the broker would execute it on his exchange. If the display screen shows that a better quotation is posted on another exchange, the floor broker may decide to send the order there.

To do this, he enters a commitment for the bid or offer, stipulating the amount of shares and the price, in an ITS terminal located on the exchange floor and transmits it to the specialist on the other exchange. In principle, the price placed on a buy order must be the offering price quoted for the destination market on the CQS display, and a sell order must carry the bid price quoted for the destination market; the broker cannot enter a price between the quoted bid and offer. The specialist can either fill the order or cancel it. He might cancel it if there has been some sort of malfunction or if he was in process of changing his quotation. Any commitment not accepted within two minutes is automatically canceled by the system.[5] While an order commitment is in ITS, the sender may not retrieve it to execute it on his own floor. Currently, the average time elapsed between submission of order commitments and receipt of return messages is slightly less than one minute.

The time delay results largely from the separation of the order execution system from the quotation display system. Due to this delay and the irretrievability of an order commitment once entered, a floor broker might want to avoid using ITS in a fast-moving market, where a two-minute delay in receiving notice of a canceled commitment (due, perhaps, to a change of quotation by a specialist) might result in an order execution substantially inferior to what would have been obtained if other exchanges had been ignored.[6]

The implementation of means to facilitate the flow of orders between different market centers would appear likely to increase the relative attraction of the NYSE and the ASE. If this happened, the ITS market linkage might actually make itself obsolete as the NYSE and the ASE became increasingly better markets relative to their competitors. No doubt the regional exchanges would attempt to provide bid-asked spreads equally as good as those on the primary exchanges, but with reduced order flows this would be more and more difficult. Indeed, the limited experience with ITS so far suggests that considerably more orders flow to the NYSE from the other participating exchanges than flow to them from the NYSE. If this tendency should gather momentum, the viability of specialists for NYSE-listed stocks on regional exchanges might be seriously impaired. The potential contradiction between implementation of procedures to facilitate the flow of orders

[5] In addition, the sender of the commitment may specify a shorter time limit if desired.

[6] At present, about 30 percent of commitments entered in ITS are returned canceled. The NYSE is actively seeking to reduce the cancelation rate.

to the best market and the maintenance of separate market centers has not yet been resolved by proponents of market linkage systems.

Similarly, once instantaneous display of alternative firm quotations becomes widespread, it should become increasingly difficult to tolerate much slower forms of order execution, such as those currently in place on exchange floors. This conflict between instantaneous information display and slower execution capability may increase pressure for the implementation of an integrated electronic display and execution system.

Multiple Dealer Trading System

Such a system, known as a "hard CLOB", integrates the display of the electronic order book with the capability of executing orders.[7] At present, the only hard CLOB operating in the equities market is the Cincinnati Stock Exchange's MDTS. A broker-dealer with access to the system can enter his own quotations and limit orders into the system, and he can "hit" bids and offers displayed on the system essentially instantaneously. Assuming that all transactions in listed securities were required to be executed through the system, broker-dealers with sufficient capital and expertise to make markets could do so without also having to be capable of generating an inflow of retail orders. This feature of a hard CLOB could be important to increasing competitive market-making capabilities.

Another advantage of a hard CLOB is that it is extremely easy to impose priority rules of the type proposed by the SEC. For example, price and time priorities are almost implicit in the operation of the electronic execution system. Priority differentiations according to order size and other characteristics would be somewhat more difficult to agree on, but whatever system was implemented would be compatible with the hard CLOB. The advantage thus rests, not with the precise formulation of the priority rules, but with the ease with which a hard CLOB permits them to be enforced.

Similarly, a hard CLOB facilitates regulation of specialists and other market participants, since their activities leave a clear record for any future audit. In addition, rules governing reconciliation of differences in the process of settlement could be simplified, since the process of entering and hitting bids and offers provides a single, definitive record. Also, no rule is required concerning the posting of nonfirm quotations. Thus, from the standpoint of reducing the complexity and expense of rule making and regulation, an electronic execution system integrated with an electronic display system has much in its favor.

Such a system has not been without its critics, however. Many market participants have sharply criticized the notion of a "black box" which would supplant the "crowd" of floor brokers in front of the specialist posi-

[7] The first full statement of the rationale for and operation of a hard CLOB was presented in Junius W. Peake, Morris Mendelson, and R. T. Williams, Jr., "The National Book System: An Electronically Assisted Auction Market", submitted to the SEC on April 30, 1976.

Glossary of Abbreviations

CLOB	Central Limit Order Book. An electronic file of all outstanding limit orders, irrespective of the market center in which they were inserted. Sometimes referred to as CLOF (Central Limit Order File). A "hard CLOB" integrates electronic order execution capability with the CLOB.
CMS	Central Market System. The SEC's designation for its proposed restructuring of the equities market; supplanted in 1975 by the NMS.
CQS	Composite Quotation System. A display system for quotations for certain NYSE-listed stocks in different market centers.
DOT	Designated Order Turnaround. A system for electronically transmitting smaller market and day limit orders from brokerage firms directly to specialists on the NYSE floor.
ITS	Intermarket Trading System. An electronic linkage of six stock exchanges allowing orders to be sent from the floor of one exchange to the floor of another.
MDTS	Multiple Dealer Trading System. A hard CLOB sponsored by the Cincinnati Stock Exchange.
MCLOF	Market Center Limit Order File. An electronic file of limit orders held in a market center.
NMS	National Market System. The designation of the restructuring of the equities market mandated by the Congress in the Securities Acts Amendments of 1975.
RMS	Regional Market System. An electronic trading system which linked several regional exchanges; supplanted by MDTS.

tions on the floor of an organized exchange. There is some truth in this view. For example, on the NYSE limit orders may be held in the specialist's order book as well as in the crowd, but it would be very difficult for an electronic system to recognize the priority of orders not entered into the system. Similarly, instead of a broker representing a market order in the floor crowd, the order could be entered into the hard CLOB at a price which would match that of the best contra order stored in the system or, if the price of the best contra order stored in the system did not appear sufficiently favorable, the broker could attempt to improve on the execution of his customer's order by entering it into the system at a better price. If the order were not hit in a reasonable period of time, the broker could reprice the order to hit the best contra order. Thus, market orders must be priced *provisionally* in the form of limit orders to be entered into a hard CLOB; like the exchange floor, however, market orders are priced *definitively* when they are executed. Because orders may quickly be inserted and retrieved (if unexecuted), other, more complex trading strategies may also be implemented through the broker-dealer's entering of bids and offers into the system. The "crowd action" of a dynamic auction market would continue to exist, but it would operate through electronic terminals and not through direct, face-to-face contact on an exchange floor.

Another issue raised by the hard CLOB is the role of specialists. MDTS does not preclude the existence of specialists. Indeed, it enhances opportunities for market makers to compete because the order book is public and orders may be hit irrespective of the geographical location of market makers. The problem is that exchange specialists currently derive a substantial amount of commission income by executing limit orders left with them. In MDTS, execution of such orders is automatic and there are no commissions to be earned. Thus specialists may have less of an incentive to accept an affirmative obligation to preserve price continuity in the market unless some other means of compensating them is developed. Whether such compensation is necessary—and if so, how best to provide it—is an important policy issue, but there is no logical inconsistency between payments for specialist services and hard CLOB.

MDTS has been hampered by a regulatory problem. Its initial authorization from the SEC was for the eight months ending January 31, 1979. During this time, the possibility that the authorization might not be extended naturally inhibited broker-dealer firms from making the financial commitments necessary to initiate trading on MDTS. The SEC's recent extension of the authorization to January 31, 1980 should substantially alleviate that problem. Nevertheless, the possibility that authorization might not be extended beyond January 1980 will probably continue to discourage expansion of capacity beyond the fifty stocks which MDTS currently can handle.

Implications of the NMS

As should be apparent, the development of the NMS has important implications for the organization and structure of the nation's capital markets. Implementation of the NMS thus far has increased the visibility of trading activity in NYSE-listed stocks by the printing of all transactions on the composite tape and also has increased the visibility of quotations available in different markets by their dissemination through the CQS display system. The ability of investors, or brokers representing them, to act on this information has been enhanced by the electronic linking of exchange floors, as through ITS, and by integrated electronic trading as in MDTS. The same systems also improve the ability of market makers to compete and thus should improve the liquidity provided by the market. Though these systems are not yet fully developed, further enhancements —such as the MCLOF being developed by the NYSE— are in the offing. These innovations, though clearly given momentum by the regulatory activity of the SEC and the 1975 Congressional mandate, should be seen as part of a general trend toward use of electronic communications and data-processing facilities as a means of securing faster, more accurate communications and order execution while reducing costs.[8]

An example of this trend is the Designated Order Turnaround (DOT) system of the NYSE, which allows member brokerage firms to send smaller market and day limit orders directly from their offices to specialists on the NYSE floor and thus avoid the expense of using floor brokers to carry them. Though not an integral part of the NMS, DOT represents one way the NYSE has automated the order delivery process in order to reduce the costs of order execution.

The results of this and similar innovations should be increased operational efficiency in the capital markets. In addition, to the extent that trading rules are built into the software of automated trading systems, they may decrease significantly the burden of regulation, while creating a detailed audit trail which would make investigation of suspected abuses easier than it is today. Furthermore, the development of facilities to implement nationwide limit order protection— whether through a CLOB or a set of MCLOFs—should

[8] For a discussion of recent innovations in the Government securities market, see Kenneth D. Garbade, "Electronic Quotation Systems and the Market for Government Securities", *Quarterly Review* (Summer 1978) pages 13-20.

tend to reduce further the kind of market fragmentation that contributed to the original interest of the Congress and the SEC in the NMS.

One of the most interesting opportunities created by electronic trading systems is that of substantially reducing the "remoteness" of the investor from the market in which his order is executed. At present, an investor contemplating a sale of shares, for example, cannot see prices currently available in the market but only reports of recent transactions. As described in the box on pages 14-15, the investor must accordingly rely on a broker to execute his order. To ensure that the execution conforms to his wishes, the investor may choose among a variety of different kinds of orders. However, if the market were not remote from the investor, his ability to "call the shots" would be greatly increased, and the order execution process could probably be simplified considerably.

Whither the NMS?

In the 1975 Amendments, the Congress laid down only very broad goals for the NMS and generally left detailed operational questions to be resolved by the SEC and the securities industry. Within this broad framework, the development of the NMS is essentially open ended, with no specific trading system mandated as the target toward which the securities markets are evolving. As a consequence, the SEC's task of enforcing implementation of the NMS is difficult. The SEC has wisely refrained from attempting to design a system and to impose it on the industry, and has instead proceeded to implement the NMS by prodding the industry to develop trading systems that possess the essential features of the NMS as mandated by the Congress. This approach has occasionally given rise to considerable controversy—especially in connection with the proposed removal of NYSE Rule 390—but the result has been to set in motion a variety of innovations which have transformed and will continue to transform the procedure of stock trading.

At present, it is not possible to predict in detail how the future equities market will operate, although two prototypes—ITS and MDTS—are now in operation. However, some general trends can be discerned. The trend toward automation of routine aspects of the trading process is likely to continue as the securities industry endeavors to improve service and to reduce costs. For example, the National Securities Clearing Corporation is progressing toward replacing physical transferal of stock certificates with an automated book-entry system, thus greatly speeding the clearing process and reducing its costs. In the order execution process, systems such as DOT are likely to be enhanced to carry a greater volume of transactions in the near future, and the NYSE MCLOF is scheduled to be implemented on a pilot basis during 1979 as an interim step toward nationwide limit order protection. An important feature of the MCLOF is that broker-dealer firms will be able to insert limit orders directly into it and thus to reduce floor brokerage expense and the time delay between the receipt of orders by firms and their representatives on the exchange floor. With this capability, only a minor modification would be required to allow firms to execute orders electronically by inserting a bid, for example, which matches an existing offer in the MCLOF. Should this occur, the system would then possess the essential features of a hard CLOB—integrated display and execution of orders. In other words, the NYSE—responding to pressures from the SEC to implement the NMS objectives of disclosure, access, and limit order protection and from its members to reduce operating costs—is rapidly automating many features of equities trading, and a real possibility exists that the trading system may develop into a hard CLOB despite the NYSE's avowed intention to avoid replacing the exchange floor with a "black box".

Irrespective of the actual course of future enhancements of ITS, there will be continual comparisons between it and a hard CLOB, as represented by the MDTS. The reason is that both systems are providing their users with concrete information concerning the comparative speed and economy of order execution through the two systems. By encouraging experimentation with such prototypes, the SEC has performed the useful service of shifting the focus of the continuing NMS debate from the arena of largely impressionistic arguments over the advantages of the floor crowd versus a "black box" to concrete comparison of the relative merits of two operating systems: one using electronic communications and processing facilities to link exchange floors and the other using comparable facilities to allow trading from "upstairs" offices as well as on exchange floors. If the future pace of change in the equities market continues at anything like the rate observed during the last few years, a fully developed NMS should be attained before long. Along the way numerous questions of detail must be resolved by the SEC and the securities industry. It already seems safe to say, however, that the trading system which ultimately emerges will differ significantly from that which has traditionally characterized the equities market.

William C. Melton

by Morris Mendelson and Junius W. Peake

The ABCs of Trading on a National Market System

▶ The Securities Acts Amendments of 1975 call for the development of a national market system for securities. Proposals designed to meet this requirement generally fall into one of two categories. The first envisions a network of conventional stock exchanges connected by electronic means (e.g., the Intermarket Trading System, or ITS). The second envisions a computer-assisted market mechanism that would replace the "auditory" trading arenas of traditional exchanges with one nationwide "visual" trading arena.

The New York Stock Exchange (NYSE) has asserted that a computer-assisted market mechanism could not handle the myriad orders currently handled on conventional exchanges. Within either arena, however, orders have no standing. Before any order can be executed, the agent must translate it into a bid or offer at a specific price. Thus, whether the trading arena is the traditional stock exchange floor or a computer-assisted market, it need not accommodate orders — only bids and offers.

One of the prime specifications of the '75 Act is that the national market system enable brokers to execute investors' orders in the best market. Under current NYSE rules, only the best bids and offers on the specialist's book are broadcast to other exchanges and to the public. Furthermore, participants on the floors of traditional exchanges find it difficult to mix monitoring of ITS display screens with their trading and time consuming to execute an order on another exchange via ITS. In the computer-assisted visual trading arena, the best bid would always have the opportunity to meet the best offer.

The securities industry is understandably hesitant to accept alternatives that depart radically from the current system of exchange floors. Yet now is the time to find out, through experimentation, whether the visual arena is workable. ▶

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THE Securities Acts Amendments of 1975 ('75 Act) called for the Securities and Exchange Commission to facilitate the development of a national market system for securities.[1] Since that time, there have developed two distinct types of proposals intended to achieve the aims expressed by Congress. The first type maintains the network of stock exchanges, floors and trading crowds, interconnecting them by message delivery systems. The second proposes an integrated trading facility that would permit investors, brokers and dealers to enter, execute and report transactions from any point in the country or the world on the auction principle of "first come, first served," or price/time priority. The conceptual and political struggles to determine the shape of the trading system for the next several decades are important for all investors, whether institutional or individual. They are important because the efficiency of the U.S. capital markets determines the cost of transferring ownership and raising new funds. *(Footnotes at end of article)*

This article examines two different types of trading arenas and their associated "crowds." The traditional arena is the auction on the stock exchange floor, with its associated "auditory crowd." The second type is the visual arena of the electronically assisted auction market with its "visual crowd," as exemplified by the Peake-Mendelson-Williams (PMW) National Book System.[2]

The Trading Arena

Every secondary market execution system has some type of trading arena. Whether concentrated—as on exchange floors or commodity pits or rings—or diffused—as in the government bond market or the

over-the-counter stock market—or electronic—as in the PMW system—all trading arenas have common elements such as order handling apparatus, price discovery mechanisms, execution facilities and participants. Business in all arenas is governed by rules and conventions and access to all arenas—whether geographic or electronic—is limited by policy to maintain the financial integrity required when large sums of money are exchanged by a shout, a phone call or a signal from a computer terminal.

In any trading arena, orders must be differentiated from bids and offers. Orders are instructions delivered to sales representatives by investors. Orders include instructions on whether to buy or sell, how much to buy or sell in terms of shares or dollars, what to transact (the name of the security), price or other conditions to be met and the time in force (a function of the design of the particular trading system). Bids and offers specify only quantity, name of security and price.

Orders are entrusted to participants in the trading arena, who act as agents and represent those orders in the auction process. However, in the trading arena—that is, in the auction itself—orders have no standing. (This fact may be demonstrated best by reference to Rules 70, 71 and 72 of the New York Stock Exchange (NYSE), which relate exclusively to bids and offers. These rules are reproduced in the appendix to this article.) Before any order can be executed, the agent must translate it into a bid or offer for the given stock at a specified price. When it appears that the objectives specified in a customer's instructions can be met, it is the responsibility of the agent to participate in auctions, making the bids or offers that will best achieve those objectives.

Historically, the auction market has proved to be the most efficient method of trading when the number of participants is large and most trades are small. An auction market protects the nonprofessional investor against a variety of unfair trading practices. The essence of an auction market is a displacement process.[3] When a bid or offer is made, either can be displaced by a better one. The displacement process permits the meeting of the best bids and offers, thereby protecting the pricing mechanism and facilitating the matching of public orders without the intervention of a dealer.[4]

Accommodating Orders in the Trading Arena

All organizations develop codes to economize on communications and to minimize misunderstandings. In the securities markets a number of trading strategies have been codified. These strategies take the form of different types of orders. Currently, the NYSE recognizes 21 kinds of orders divided into two types—"market" and "limit." Exhibit I displays them, and the appendix furnishes their definitions.

Under NYSE Rule 13, a limit order (or limit price order) is "an order to buy or sell a stated amount of security at a specified price, or at a better price, if obtainable after the order is represented in the Trading Crowd." No distinction is made between orders at prices close to or away from the current price; they are all limit orders. Given a current market of 50 bid, offered at 50¼, a limit order to buy could be entered at 50, 50⅛ or 50¼. An order could also be entered at 48 or 47½. So long as the amount and a specified price are entered, the order is a limit order. A market order is defined by the NYSE as "an order to buy or sell a stated amount of a security at the most advantageous price obtainable after the order is represented in the Trading Crowd."[5]

Of the 21 different types of exchange orders, 10 are variants of the limit order, eight are time in force constraints and only three require price discretion. A "not held" order limits the liability of the broker and an all or none order is not used for stocks; that leaves the market order, which like any other type of order must be transformed into a specific bid or offer within the trading crowd to have standing and be capable of execution. In the trading arena, bids and offers emanat-

EXHIBIT I: Orders Accommodated on Exchange Floors

Limit Orders	Time in Force Orders	Other Orders
(Price is either already on the order, or will be established when certain predetermined conditions are met.)	(Neither quantity nor price affected by their terms.)	(Requiring some price discretion.)
Alternative Order—Either/Or Order	At the Close Order	All or None (not used for stocks)
Do Not Reduce or "DNR" Order	At the Opening or at the Opening Only Order	Market Order
Do Not Increase or "DNI" Order	Day Order	Not Held Order
Limit, Limited Order or Limited Price Order	Fill or Kill Order	
Percentage Order	Good 'Til Canceled Order (GTC) or Open Order	
Scale Order	Immediate or Cancel Order	
Sell "Plus"—Buy "Minus" Order	Orders Good until a Specified Time	
Stop Order	Time Order	
Stop Limit Order		
Switch Order-Contingent Order		

ing from market orders, limit orders or any other type are indistinguishable.

If the national market system is to realize the objectives of the '75 Act, brokerage firms must be free to compete for the orders of customers who wish to use a variety of trading strategies. At the same time, as noted, all orders given to an agent, no matter how complicated, must be converted into bids or offers to have any standing and be capable of being executed. This is so whether the participants in the trading arena constitute an auditory or a visual crowd, and is important because, whatever form the national market system mandated by Congress takes, it need accommodate only bids and offers within the trading arena—never orders.

Any attempt to design an arena that can do more than accommodate bids and offers will unnecessarily complicate the auction process and is likely to prove costly and counterproductive. An understanding of this is essential to the appraisal of the NYSE's position that a computer-assisted market mechanism cannot handle the myriad types of orders used on exchange floors and that limit orders represent but a small portion of the order flow.[6]

Trading in the Auditory Crowd

To be executed, orders must be sent to the marketplace. The mechanics of relaying orders to the marketplace vary from firm to firm. Some firms can transmit the order directly from the branch office to the floor of the exchange at which the stock is traded. In such cases, the information is captured at the head office. Other firms must send the order to the head office, where it is relayed to the exchange. Still others send the order to a correspondent firm, which takes over the responsibility of sending the order to the marketplace. Large orders, or blocks, will in all cases be sent to the firm's trading desk, where a cross is arranged and then sent to the trading arena.

The participants on the floors of U.S. stock exchanges constitute the auditory crowds of persons at particular locations, or "posts." Crowds consist of the following classes of exchange floor members—agents, who execute orders that contain minimal price discretion; principals, who use the information in agency orders to trade at an anticipated profit; and franchised specialists, who act as both agents and principals. The most conspicuous participant is the specialist, who represents the orders on the book that have been left with him for execution. He also trades for his own account under broad guidelines.[7] Floor traders or Registered Competitive Market Makers are members who act as principals to buy or sell securities for investment, to hedge option transactions or to arbitrage between classes of a convertible security or in connection with a tender or exchange offer. They "go where the action is." All other members act as agents for institutional and individual investors.

A number of factors determine whether an order will be retained by the firm's broker, given to an independent floor broker or surrendered to the specialist. If the investor is an important customer of the firm, the broker may wish to retain control of the execution. Since specialists and independent floor brokers receive floor brokerage fees for executions, the profitability to an originating firm is reduced when it surrenders orders. If he has more important orders to execute, the firm's broker may entrust executions to independent floor brokers when the orders are market orders or are priced sufficiently close to the market to be executed quickly. If the limit prices are further away from the market, the firm's broker may surrender the orders to the specialist. Because surrendering orders to specialists requires conveying information to them without any *quid pro quo*, brokers may be reluctant to use that alternative if they have other choices. Finally, the priority of an order in execution may depend on who holds the order.

Each exchange has its own rules with respect to priority, parity and precedence. These rules determine which bids and offers are to be executed and in what sequence. To prevent sweetheart deals and to provide the displacement process with maximum scope, no bid or offer has standing unless it has been declared. On the floors of U.S. stock exchanges, bids and offers are shouted aloud. The highest declared bid and the lowest declared offer—whether from an agent acting on behalf of an investor or a participant in the trading arena acting for his own (or his firm's) account by making bids or offers for securities when he spies a profit opportunity—have priority and constitute the market for the security. When these match, one or more trades will be consummated, depending upon the number of shares offered and bid for by each participant, and the auction will expire, with bids and offers that have not resulted in trades—except for limit orders in the specialist's book—dying. The orders that gave rise to these unexecuted bids and offers may be held for later execution if the prices or conditions contained in the instructions to the agent are reached within the time limits specified.

Price priority is the general rule on exchange floors. If more than one member in the crowd has called the best price, time priority, if it can be established, determines which bid will be executed first. In the case of simultaneous bids, if only one can match the size of the offer, it has precedence.[8] If several bids of sufficient size to satisfy the offer are made simultaneously, the bids have parity, and they can match for the offer or split it among themselves. When no single bid is large enough to absorb the offer, orders are executed in order of size, largest first.

The specialist can combine orders on his book to establish precedence, but if he does achieve an execution, the orders must still be executed in the sequence in which they were received. The specialist's book is subject to strict time priority. The timing of an entry in his book, however, does not determine its priority vis a vis orders in the crowd. Since priority among highest bids and lowest offers is determined by the time at which standing was established on the floor, if a member in the crowd bids the highest price first, his order is executed first. As a practical matter, the specialist is often able to establish standing first, often because he initiates the attempt to achieve an execution. In spite of this, a firm's broker may wish to retain control of an order to achieve a quicker execution. If he surrenders the order to the specialist, the order will not be executed until all the previous orders on the specialist's book at that price have been executed. If the firm's broker retains the order, he stands a chance of establishing priority over those on the specialist's book by bidding first. Nevertheless, the specialist plays an important role in auditory crowds, since many floor brokers representing brokerage firms must give him orders that they cannot execute quickly.

The Intermarket Trading System

An effective auction market requires a large pool of potential bids and offers at the auction site; the greater the number of participants and bids and offers, the more effective the marketplace. While each exchange floor has a crowd for each security, on all but the primary exchanges the crowds are ephemeral and consist of specialists and occasionally brokers with orders.[9]

In the strictly auditory crowd that has prevailed on U.S. exchange floors until very recently, only the actual participants in the auction knew of the bids and offers that were made. Those not on the floor of the exchange neither heard of nor had access to them. Various attempts have been made to enlarge the auditory arena by interconnecting current exchanges by electronic means. Under the Intermarket Trading System (ITS) sponsored by all the exchanges except Cincinnati, each trading crowd is connected to its counterpart at the other exchanges by a teletype-like device and video screen.[10] These devices are used to send "commitments to trade" to other floors if the displayed bids or offers elsewhere are superior to those that exist locally. The exchanges view ITS as a "cornerstone" of the evolving national market system, in spite of the fact that displayed bids and offers have no standing on the floor.

It is obvious that, under ITS, being in the crowd on the exchange floor still conveys certain advantages over being on a secondary exchange, or at a brokerage firm. This advantage is reinforced by the practice, under present rules, of broadcasting only the best bids and offers on the book and for the specialist's own account to other exchanges and to the public. Other bids and offers held by the crowd are not displayed on quotation devices.

Also, because of the nature of the auditory crowd, ITS has encountered some difficulties in protecting limit orders. It is difficult to trade actively and monitor ITS screens simultaneously. It is also time consuming to attempt to execute an order on another exchange through the ITS system. When trading is active, even a minute is a long time. Consequently, members of the crowd will often trade at prices inferior to the best prevailing in the system. This is discouraging to investors and encourages firms to send their orders to the primary markets, despite the existence of ITS.

Trading in the Visual Crowd

Obviously, the right of access to a trading arena is valuable: Those without the right must hire someone with access to represent them, and those with access can interact with bids and offers more rapidly than those not in the arena. From the point of view of the investor, a system that makes access easy and cheap is superior to one in which access is limited and costly. The visual trading arena would move the auction process from a single geographic location (or from limited geographic locations) to the offices of broker/dealers around the nation; a simple usage-based access fee would admit a firm to the crowds in all securities.

Briefly, the system would consist of a central computer in which all bids and offers would be deposited. A summary of the number of shares bid and offered at each price could be viewed on CRT screens at any firm that had access to the system. Any broker or dealer qualified by objective criteria could enter bids and offers. Both upstairs traders and brokers (corresponding to current floor brokers) would be free to enter bids and offers for both their firms and their customers, from any location they found convenient. The brokers and traders monitoring the screens and entering bids and offers would constitute an electronic, or visual, crowd. The members of this crowd would signal via their keyboards instead of their voices. As in the auditory crowd, only declared bids or offers would have standing and could be executed.

In addition to the brokers and dealers who could execute through the system, others, such as financial institutions and individual investors, could see the bids and offers and watch the executions occur simultaneously with the "members" in the crowd. Although there is a rough congruence between the electronic arena on the one hand and the geographic arena with its quotations systems on the other, the electronic arena would be more accessible to the ultimate investor

Handling Orders in a Visual Crowd

A visual crowd permits some streamlining of the mechanisms for handling and executing orders. For purposes of illustration, it is best to distinguish between small orders requiring no discretion, medium size orders calling for skillful execution and block orders involving the trading desk.

Consider the block orders first. Computer-assisted trading would involve no innovation until the actual cross. At that point, the broker in the visual crowd with a cross to execute could immediately determine how much stock would have to be given up to the book. A trader trying to assemble the contra side would also have that information. The broker could then enter both buy and sell sides into the system, just as he would on an exchange floor, except that he would use a keyboard instead of his voice. As soon as the computer recognized the existence of matching bid and offering prices, it would notify the relevant parties that the executions had taken place. Bids and offers at the cross price or better that were resident in the system when the cross was entered would have time priority over the bids and offers of the cross itself.

In the case of medium size orders, the sales representative who received an order from an investor would use the firm's facilities to transmit the order to one of the firm's brokers for execution. That broker would display the electronic book, but his discretion as to when to enter the arena and at what price would be bounded only by the nature of the order he had received. To be sure, the tactics he would use would differ slightly from those used on exchange floors, since the priority of the bids and offers he would make would be determined strictly by the time he entered the price queue.

The greatest simplification might occur for the orders for which no discretion is required—such orders as are currently handled by DOT, COMEX and PACE.[11] These orders could be entered directly into the firm's computer system by the sales representative and thence into the electronic book.

In any case, the agent in the visual crowd would not be faced with the problem of relegating orders to floor brokers or specialists. In the visual crowd, all the "converted" orders would be entered as bids and offers into the central file. These bids and offers would have their origin in a mix of orders comparable to those now held at the stock exchange posts.

Execution Flexibility

The price investors are willing to pay depends upon the price at which the securities are trading; after a sale has been consummated, brokers may not wish to honor the unexecuted bids they made in the auction just completed. In an auditory crowd, there is no way of withdrawing bids selectively and leaving the remaining bids (other than those on the specialist's book) standing. There is no mechanism by which time priority can be preserved from one trade to the next short of surrendering all orders to the specialist. Even if some mechanism could be found for withdrawing certain bids, thus preserving the standing of the rest, determining their sequence would be impossible. Thus, by its nature, an auction with an auditory crowd is transitory. As soon as a sale is consummated, the auction ends, and all bids and offers in the crowd are automatically removed from the floor.[12]

In a visual trading arena, all bids and offers displayed on the CRT screen would show size. When the price of a bid and an offer matched—i.e., when a bid and offer met—a trade for the smaller of the two quantities would be executed automatically.[13] Participants in the system would be free to enter bids and offers between the highest resident bid and lowest resident offer to attempt to execute an order at a better price than the one already available. In addition, brokers would stand ready to change any bids in the light of new offers, provided such changes were consistent with the specifications of the orders left with them by investors. Similarly, traders could alter their bids and offers as they saw fit. Any executions would be instantly reported to buyer and seller and displayed for the investing world to see.

The auction process in a visual trading arena would be virtually continuous as long as any bid or offer remained in the file. Entries would be more than simple orders or mere "commitments to trade": If a broker were to accept a bid by entering an offer at a matching price, an execution would occur without pause for affirmation of the bid. The trading arena would shift from exchange floors to a central file. Keeping track of the sequence in which bids and offers were made would become routine, and bids and offers could be withdrawn selectively without disrupting the trading process. Parity would be irrelevant because there could not be simultaneous bids or offers, and precedence would be irrelevant because splitting trades would cease to be troublesome.[14]

The visual auction would guarantee the essence of the auction trading principle: The best bid would always meet the best offer. The visual crowd would therefore need no "best execution" rule.

The Legislation

The provisions of the '75 Act gave rise to the development of a national market system. Section 11A (a)(1)(C) specifies that the system

(1) should assure economically efficient execution of securities transactions,

(2) should provide for fair competition among brokers and dealers, among exchange markets and between exchange markets and markets

other than exchange markets,

(3) should make information with respect to quotations for and transactions in securities equally available to brokers, dealers and investors,

(4) should make it practical for brokers to execute investors' orders in the best market and

(5) should assure an opportunity, consistent with points one and four above, for investors' orders to be executed without the participation of a dealer.

The visual trading arena would meet all these criteria. It would be fast, cheap and efficient. Neither a separate quotation system nor a complex order routing system would be necessary, since the system would integrate all markets. Bids and offers would be able to compete instantly, equally and fairly regardless of their origin since, once entered into the system, they would be instantly reflected in the summary displays and capable of being executed. Transactions would be automatically and immediately reported in sequence. All brokers, dealers and investors would have equal, simultaneous access to all data. The best bid would always have the opportunity to meet the best offer.

Since investors' bids and offers would be entered in the system by brokers, the participants in any particular trade could be investors on both sides of the trade, dealers on both sides or some combination of the two. The combination would depend upon whether a public priority rule were adopted or, barring that, upon the sequence in which the bids and offers were entered in the price file. In either case, the maximum opportunity for investors' orders to be executed without the participation of a dealer would clearly exist. The visual trading arena would meet all the objectives set down in the '75 Act.

The auditory trading arenas have served the economy long and well. The exchanges have nevertheless found it difficult to modify their systems in a way that will bring the market into compliance with the new law. The visual trading arena appears to have no comparable problems, yet the industry is understandably hesitant to accept an unknown. While the authors cannot guarantee that a visual trading arena will work as effectively as they expect, they feel that the only way to assess the effectiveness of a visual arena is to test it.

The Cincinnati Experiment is a step in the right direction.[15] The unwillingness of many in the brokerage community to participate in the experiment is unfortunate. No market structure is static: Forces currently at work are undermining the viability of the exchanges as trading arenas for equities. Now is the time to experiment with alternative forms of auction markets. If the exchanges run into insurmountable difficulties, and the visual arena turns out to be a viable alternative, the auction market will be preserved. If it turns out to be superior to the existing system, so much the better for the investing community and the brokerage firms that have to execute their orders. ■

Footnotes

1. 15 U.S.C. Sec. 78k-1(a).
2. In the spring of 1976, the authors of this paper, in collaboration with R.T. Williams, Jr., submitted a proposal for an electronically assisted auction market to the National Market Advisory Board, a board created by the SEC, pursuant to the Securities Acts Amendments of 1975, to study and make recommendations to the SEC regarding the steps it found appropriate to facilitate the establishment of a national market system. For a comprehensive description of the National Book System, see Morris Mendelson, Junius W. Peake and R.T. Williams, "Towards a Modern Exchange: The Peake-Mendelson-Williams Proposal for an Electronically Assisted Auction Market," in *Impending Changes for Securities Markets: What Role for the Exchanges?*, E. Bloch and R.A. Schwartz, eds. (Greenwich, CT: Jai Press, 1979).
3. That is, out of the universe of orders to be executed in that particular auction market. The very best bid and very best offer in the economy will not always be matched unless there exists a mechanism for achieving a confluence of all orders.
4. It need not do so. On the London Stock Exchange, for example, brokers simply seek the best dealer on the contra side.
5. Some market orders are handled by the DOT system—a communications system that permits brokerage firms to send orders directly from the office to the specialist at the NYSE. The NYSE's common message switch will direct the order to the appropriate post, where a card with the appropriate information will be produced and handed to the specialist. The specialist will then represent the order and, if it is a market order, see to it that the order is immediately executed. He will then mark the card accordingly and return it to a clerk, who will feed it into the system. The card, when produced, will include sufficient information in machine-readable form so that the system can recognize the order and report on the disposition of the order to the firm that sent it. Market orders are limited to 299 shares.

   Under rule 123.46 (reprinted in the appendix to this article), groups of market orders received "simultaneously" are executed according to a complex schedule based primarily upon future transactions of non-DOT orders.
6. See NYSE Letter to the SEC, May 31, 1978, p. 28.
7. For example, see the appendix for NYSE Rule 104.
8. NYSE Rule 72. The rule is the same for offers.
9. The primary exchange, usually the New York Stock Exchange, is the one with the majority of bids and offers.
10. In this paper, the Cincinnati Stock Exchange is always an exception to statements about exchanges.
11. COMEX is an automated execution system operated by the Pacific Stock Exchange. Member firms may enter orders into the system at their offices. When market orders are received at the exchange, they are automatically executed at the best bid or offer in the Consolidated Quotation System. The specialist and the firm are immediately notified of the execution. Executions are limited to 300 shares.

    PACE is a system similar to COMEX operated by the Philadelphia Stock Exchange. It executes orders at the bid or offer at the NYSE or on the PSE, whichever is

more favorable to the investor. Executions are limited to 399 shares.

12. NYSE Rule 72(I)(e).
13. The meaning of "effecting executions" should be clear. It means that when a broker/dealer finds an offer resident in the system attractive enough to accept and enters a bid at the offerer's price, the computer will automatically generate all the records associated with an execution, thus notifying the parties to the trade that they have in fact traded the specified number of shares at their agreed upon price. Many of the economies of the PMW system arise from the fact that, in the process of generating executions, the central computer can automatically notify the firms involved in the trades, the clearing and depository organizations and all the devices used for dissemination of trading information by direct links to the computers of all the relevant organizations. The PMW system generates the ultimate in the "locked-in trade," and is capable of producing an unparalleled audit trail that should vastly simplify regulation.

    While the above is in terms of a response to an offer, it should be obvious that an execution may result by the entry of an offer in response to a resident bid.
14. Parity is a term that indicates that two or more bids (or offers) have been made at the same time. In a computer system, this is not possible; one order must come first. Precedence is the practice on exchanges of favoring larger bids (offers) over small ones under certain circumstances when no bid (offer) has priority.
15. An electronic trading arena embodying most of the features of the PMW system and operated by the Control Data Corporation for the Cincinnati Stock Exchange.

APPENDIX

Definition of Orders
Rule 13

All or None Order: A market or limited price order that is to be executed in its entirety or not at all but, unlike a fill or kill order, is not to be treated as canceled if not executed as soon as it is represented in the Trading Crowd. The making of "all or none" bids or offers in stocks is prohibited and the making of "all or none" bids or offers in bonds is subject to the restrictions of Rule 61.

Alternative Order – Either/Or Order: An order to do either of two alternatives — such as, either sell (buy) a particular stock at a limit price or sell (buy) on stop. If the order is for one unit of trading when one part of the order is executed on the happening of one alternative, the order on the other alternative is to be treated as canceled. If the order is for an amount larger than one unit of trading, the number of units executed determines the amount of the alternative order to be treated as canceled.

At the Close Order: A market order that is to be executed at or as near to the close as practicable.

At the Opening or at the Opening Only Order: A market or limited price order that is to be executed at the opening of the stock or not at all, and any such order or the portion thereof not so executed is to be treated as canceled.

Day Order: An order to buy or sell that, if not executed, expires at the end of the trading day on which it was entered.

Do Not Reduce or "DNR" Order: A limited order to buy, a stop order to sell or a stop limit order to sell that is not to be reduced by the amount of an ordinary cash dividend on the ex-dividend date. A do not reduce order applies only to ordinary cash dividends; it should be reduced for other distributions, such as when a stock goes "ex" a stock dividend or ex rights.

Do Not Increase or "DNI" Order: A limited order to buy, a stop order to sell or a stop limit order to sell that is not to be increased in shares on the ex-date as a result of a stock dividend or stock distribution.

Fill or Kill Order: A market or limited price order that is to be executed in its entirety as soon as it is represented in the Trading Crowd, and such order, if not so executed, is to be treated as canceled. For purposes of this definition, a "stop" is considered an execution.

Good 'Til Canceled Order (GTC) or Open Order: An order to buy or sell that remains in effect until it is either executed or canceled.

Immediate or Cancel Order: A market or limited price order that is to be executed in whole or in part as soon as such order is represented in the Trading Crowd, and the portion not so executed is to be treated as canceled. For the purposes of this definition, a "stop" is considered an execution.

Limit, Limited Order or Limited Price Order: An order to buy or sell a stated amount of a security at a specified price, or at a better price, if obtainable after the order is represented in the Trading Crowd.

Market Order: An order to buy or sell a stated amount of a security at the most advantageous price obtainable after the order is represented in the Trading Crowd.

"Not Held" Order: A "not held" order is a market or limited price order marked "not held," "disregard tape" or "take time," or that bears any such qualifying notation. An order marked "or better" is not a "not held" order.

Orders Good Until a Specified Time: A market or limited price order that is to be represented in the Trading Crowd until a specified time, after which such order or the portion thereof not executed is to be treated as canceled.

Percentage Order: A limited price order to buy (or sell) 50 per cent of the volume of a specified stock after its entry. There are three types of percentage orders:

(a) *Straight Limit Percentage Orders* – Such an order is elected when a transaction has occurred at the limit price or a better price. Unless otherwise specified, only volume at or below the limit subsequent to the receipt of the order will be applied in determining the elected portion of buy orders. Conversely, only volume at or above the limit will be calculated in determining the elected portion of sell orders.

(b) *Last Sale Percentage Orders* – The elected portion of an order designated "last sale" shall be executed only at the last sale price or at a better price, provided that such price is at or better than the limit specified in the order.

(c) *"Buy Minus"-"Sell Plus" Percentage Orders* – The elected portion of an order to "buy minus" shall be executed only on a "minus" or "zero minus" tick. Orders of this type must also be qualified further by designating a limit price. The elected portion of an order to "sell plus" shall be executed only on a "plus" or "zero plus" tick. Orders so designated are handled in the same manner as an order to sell short. Orders of this type must also be further qualified by designating a limit price.

If so instructed by the entering broker(s), percentage orders to buy will be converted into regular limit orders for

transactions effected on "minus" or "zero minus" ticks. Conversely, if so instructed by the entering broker(s), percentage orders to sell will be converted into regular limit orders for transactions effected on "plus" or "zero plus" ticks.

Scale Order: An order to buy (or sell) a security that specifies the total amount to be bought (or sold) and the amount to be bought (or sold) at specified price variations.

Sell "Plus" - Buy "Minus" Order: A market order to sell "plus" is a market order to sell a stated amount of a stock provided that the price to be obtained is not lower than the last sale if the last sale was a "plus" or "zero plus" tick, and is not lower than the last sale plus the minimum fractional change in the stock if the last sale was a "minus" or "zero minus" tick. A limited price order to sell "plus" would have the additional restriction of stating the lowest price at which it could be executed.

A market order to buy "minus" is a market order to buy a stated amount of a stock provided that the price to be obtained is not higher than the last sale if the last sale was a "minus" or "zero minus" tick, and is not higher than the last sale minus the minimum fractional change in the stock if the last sale was a "plus" or "zero plus" tick. A limited price order to buy "minus" would have the additional restriction of stating the highest price at which it could be executed.

Stop Order: A stop order to buy becomes a market order when a transaction in the security occurs at or above the stop price after the order is represented in the Trading Crowd. A stop order to sell becomes a market order when a transaction in the security occurs at or below the stop price after the order is represented in the Trading Crowd.

Stop Limit Order: A stop limit order to buy becomes a limit order executable at the limit price, or at a better price, if obtainable, when a transaction in the security occurs at or above the stop price after the order is represented in the Trading Crowd. A stop limit order to sell becomes a limit order executable at the limit price or at a better price, if obtainable, when a transaction in the security occurs at or below the stop price after the order is represented in the Trading Crowd.

Switch Order – Contingent Order: An order for the purchase (sale) of one stock and the sale (purchase) of another stock at a stipulated price difference.

Time Order: An order that becomes a market or limited price order at a specified time.

Executing Orders on Exchange Floors

Rule 70: Below Best Bid – Above Best Offer

When a bid is clearly established, no bid or offer at a lower price shall be made.

When an offer is clearly established, no offer or bid at a higher price shall be made.

Rule 71: Precedence of Highest Bid and Lowest Offer

The highest bid and the lowest offer shall have precedence in all cases.

Rule 72: Priority and Precedence of Bids and Offers

I. *Bids.* Where bids are made at the same price, the priority and precedence shall be determined as follows:

Priority of first bid. (a) When a bid is clearly established as the first made at a particular price, the maker shall be entitled to priority and shall have precedence on the next sale at that price, up to the number of shares of stock or principal amount of bonds specified in the bid, irrespective of the number of shares of stock or principal amount of bonds specified in such bid.

Precedence of bids equaling or exceeding amount offered. (b) When no bid is entitled to priority under paragraph (a) hereof (or when a bid entitled to priority or precedence has been filled and a balance of the offer remains unfilled), all bids for a number of shares of stock or principal amount of bonds equaling or exceeding the number of shares of stock or principal amount of bonds in the offer or balance, shall be on a parity and entitled to precedence over bids for less than the number of shares of stock or principal amount of bonds in such offer or balance, subject to the condition that if it is possible to determine clearly the order of time in which the bids so entitled to precedence were made, such bids shall be filled in that order.

Precedence of bids for amounts less than amount offered. (c) When no bid is entitled to priority under paragraph (a) hereof (or when a bid entitled to priority or precedence has been filled and a balance of the offer remains unfilled) and no bid has been made for a number of shares of stock or principal amount of bonds equaling or exceeding the number of shares of stock or principal amount of bonds in the offer or balance, the bid for the largest number of shares of stock or greatest principal amount of bonds shall have precedence, subject to the condition that if two or more such bids for the same number of shares of stock or principal amount of bonds have been made, and it is possible to determine clearly the order of time in which they were made, such bids shall be filled in that order.

Simultaneous bids. (d) When bids are made simultaneously, or when it is impossible to determine clearly the order of time in which they were made, all such bids shall be on a parity subject only to precedence based on the size of the bid under the provisions of paragraphs (b) and (c) hereof.

Sale removes bids from Floor. (e) A sale shall remove all bids from the Floor except that if the number of shares of stock or principal amount of bonds offered exceeds the number of shares or principal amount specified in the bid having priority or precedence, a sale of the unfilled balance to other bidders shall be governed by the provisions of these Rules as though no sales had been made to the bidders having priority or precedence.

Subsequent bids. (f) After bids have been removed from the Floor under the provisions of paragraph (e) hereof, priority and precedence shall be determined, in accordance with these Rules, by subsequent bids.

* * *

II. *Offers.* Where offers are at the same price the priority, parity and precedence shall be determined in the same manner as specified in the case of bids. An orrer may be transferred from one member to another and, as long as that offer is continued for the same account, it shall retain the same priority, parity and precedence it had at the time it was transferred.

Dealings By Specialists

Rule 104: No specialist shall effect on the Exchange purchases or sales of any security in which such specialist is registered, for any account in which he, his member organization or any other member, allied member, or approved

person, in such organization or officer or employee thereof is directly or indirectly interested, unless such dealings are reasonably necessary to permit such specialist to maintain a fair and orderly market, or to act as an odd-lot dealer in such security.

Functions of Specialists

Regular specialists: Any member who expects to act regularly as specialist in any listed stock and to solicit orders therein must be registered as a regular specialist.

The function of a member acting as regular specialist on the Floor of the Exchange includes, in addition to the effective execution of commission orders entrusted to him, the maintenance, in so far as reasonably practicable, of a fair and orderly market on the Exchange in the stocks in which he is so acting. This is more specifically set forth in the following:

(1) The maintenance of a fair and orderly market implies the maintenance of price continuity with reasonable depth, and the minimizing of the effects of temporary disparity between supply and demand.

(2) In connection with the maintenance of a fair and orderly market, it is commonly desirable that a member acting as specialist engage to a reasonable degree under existing circumstances in dealings for his own account when lack of price continuity, lack of depth or disparity between supply and demand exists or is reasonably to be anticipated.

(3) Transactions on the Exchange for his own account effected by a member acting as specialist must constitute a course of dealings reasonably calculated to contribute to the maintenance of price continuity with disparity between supply and demand, immediate or reasonably to be anticipated. Transactions not part of such a course of dealings or in acting as an odd-lot dealer are not to be effected.

(4) A specialist's quotation, made for his own account, should be such that a transaction effected thereon, whether having the effect of reducing or increasing the specialist's position, will bear a proper relation to preceding transactions and anticipated succeeding transactions.

(5) Transactions on the Exchange for his own account of a member acting as specialist are to be effected in a reasonable and orderly manner in relation to the condition of the general market, the market in the particular stock and the adequacy of the specialist's position to the immediate and reasonably anticipated needs of the round-lot and the odd-lot market. The following types of transactions to establish or increase a position are not to be effected except when they are reasonably necessary to render the specialist's position adequate to such needs:

(A) a purchase at a price above the last sale in the same session;

(B) the purchase of all or substantially all the stock offered on the book at a price equal to the last sale, when the stock so offered represents all or substantially all the stock offered in the market; and when a substantial amount of a stock is offered at a price equal to the last sale price the purchase of more than 50 per cent of all the stock offered;

(C) the supplying of all or substantially all the stock bid for on the book at a price equal to the last sale, when the stock so bid for represents all or substantially all the stock bid for in the market; and when a substantial amount of a stock is bid for at a price equal to the last sale price, the supplying of more than 50 per cent of all the stock bid for; and

(D) failing to reoffer or rebid where necessary after effecting transactions described in (A), (B) and (C) above.

Transactions of these types may, nevertheless, be effected with the approval of a Floor Official or in less active markets where they are an essential part of a proper course of dealings and where the amount of stock involved and the price change, if any, are normal in relation to the market.

(6) Transactions on the Exchange by a specialist for his own account in liquidating or decreasing his position in a specialty stock are to be effected in a reasonable and orderly manner in relation to the condition of the general market, the market in the particular stock and the adequacy of the specialist's positions to the immediate and reasonably anticipated needs of the round-lot and the odd-lot market and in this connection, unless he has the prior approval of a Floor Official, he should avoid:

(A) liquidation of all or substantially all of a position by selling stock at prices below the last different price or by purchasing stock at prices above the last different price unless such transactions are reasonably necessary in relation to the specialist's overall position in the stocks in which he is registered;

(B) failing to maintain a fair and orderly market during liquidation;

(C) failing to re-enter the market where necessary, after effecting transactions described in (A) above.

(D) The provisions of (A) shall not apply to any purchase or sales of any security made by a specialist odd-lot dealer to offset positions established in executing odd-lot orders for customers on that day. Such transactions are, however, subject to the provisions of Rule 100.

(7) When inquiry is made of a specialist as to the price at which a block of stock may be sold, the specialist may advise the broker of the "clean up" price for the block. However, the specialist may not specify the amount that would be purchased by the book and the amount that he would take as a dealer. If, as a result of this inquiry, the block is sold and the specialist participates as a dealer at the "clean up" price, he should also execute at the same price the executable buy orders held by him except for the amount of the block which can be executed at the current bid, whether such bid is for orders held by him or for the account of the specialist or both. The same principle applies in the event an inquiry is made with respect to an order to purchase a block of stock.

(8) If a specialist has limit sell orders on his book at two or more different prices, he should not, as a dealer, purchase all of the stock from the book at the lowest limit price and then immediately purchase stock from the book at a higher limit price. He should in such a situation withdraw the offer and cross the entire amount of stock he is purchasing as a dealer at one price. The same principle applies in the event the specialist sells stock to limit orders on the book at two or more different prices.

Participation at openings or reopenings: A specialist should avoid participating as a dealer in opening or reopening a stock in such a manner as to upset the public balance of supply and demand as reflected by market and limited price orders, unless the condition of the general market or the specialist's position in light of the reasonably anticipated needs of the market makes it advisable to do so. He may, however, buy or sell stock as a dealer to minimize the disparity between supply and demand at an opening or reopening.

Specialists' Investment Accounts: Under certain circumstances a specialist may assign specialty stocks to an investment account. Purchases creating or adding to a position in an investment account that are not reasonably necessary to permit the maintenance of a fair and orderly market or to act as an odd-lot dealer are not to be made.

In the maintenance of price continuity with reasonable depth, it is commonly desirable for a specialist to supply stock to the market, even though he may have to sell short to do so, to the extent reasonably necessary to meet the needs of the market.

A specialist may not effect a transfer of a specialty stock from his dealer account to an investment account if the transfer would result in creating a short position in the dealer account.

A specialist may not assign to an investment account any specialty stock that was purchased in the round-lot market on a "plus" or "zero plus" tick. In addition, in order to make such assignment, he must have maintained, with respect to purchases in that stock, a stabilization rate of at least 75 per cent, measured by the Tick Test, as defined in Rule 112(d)(3), for the day of purchase and for the entire calendar week encompassing that day.

If a "net long" position is created as a result of the maintenance of an investment position in a specialty stock while a short position exists in the specialist's dealer account, the specialist may not cover such a short position by purchasing stock in the round-lot market on a "plus" tick. In addition, he must also limit his purchase to no more than 50 per cent of the stock offered on a "zero plus" tick, and in no event may he purchase the final 100 shares offered.

Rule 123.46: Procedures for Executing Orders Received by a Specialist via the Designated Order Turnaround (DOT) System

One-hundred-share market orders received by a specialist via the DOT System must be time stamped by the specialist unit upon receipt and shall be executed using normal auction market procedures. The specialist in executing such orders shall be subject to all rules and regulations governing the handling of orders on the Floor. The procedures set forth below shall supplement the rules and regulations governing the handling of orders on the Floor and, when not in contravention thereto, shall be applicable in situations where a specialist receives more than one 100-share market order simultaneously (hereinafter referred to as "orders in a group"). The procedures for pricing such orders are:

A) In the case where the orders in a group are on both sides of the market and the number of buy orders equals the number of sell orders and:

(i) where the spread in the quotation is ⅛ point, the buy orders and sell orders in a group shall be stopped against each other and executed at prices and in amounts corresponding to those of subsequent regular way sales in the stock; and

(ii) where the spread in the quotation is more than ⅛ point, the buy orders and sell orders in a group shall be crossed at the price of the immediately preceding regular way sale in the stock, if possible (taking into account such factors as public bids or offers with priority at that price, etc.). Otherwise, the buy and sell orders in a group shall be crossed at a price within the quotation as near to the last sale as possible.

B) In the case where the orders in a group are all on the same side of the market, the orders must be executed, to the extent possible, at prices that are at or within the quotation that exists at the time the orders are received by the specialist. Any and all orders in a group that will be executed outside such quotation must all be executed at one price, which price shall be within the following parameters:

(i) ¼ point from the immediately preceding regular way sale when such sale is under $10 per share;

(ii) ⅜ point from the immediately preceding regular way sale when such sale is at $10 per share or more, but less than $50 per share; or

(iii) ½ point from the immediately preceding regular way sale, when such sale is $50 per share or more.

Any deviation from the above price parameters shall require the prior approval of a Floor Official. For purposes of determining which orders within a group shall receive a price at or within the quotation and which orders shall receive the price outside the quotation, orders shall be assigned priority within the group in accordance with the sequence numbers assigned to the orders by the DOT System.

C) In the case where the orders in a group are on both sides of the market and there is an imbalance of buy and sell orders, the buy orders and sell orders in a group shall be crossed, to the extent possible, at either the bid price or the offer price that exists at the time the specialist receives the orders, whichever would be more appropriate, giving due regard to other public orders that have priority at the bid or offer price as the case may be. The remainder of the orders in a group would then be on the same side of the market. Any and all orders in a group that will be executed below such bid or above such offer price, as the case may be, must all be executed at one price, which price shall be within the parameters set forth in paragraph B above unless the prior approval of a Floor Official is obtained to deviate from the parameters.

Mr. ECKHARDT. One of your analogies may well have been gotten from an exhibit at the Smithsonian Institution that I saw the other day. It was a camel with a Gatling gun mounted on the top of its hump. It struck me that the only effect of that would be to make the camel keep his head down.

Mr. PEAKE. I believe, Mr. Chairman, when the introduction of the Gatling gun was first made on the Camel, they didn't have synchronization and it used to shoot its own propeller off.

Mr. ECKHARDT. I notice on page 16 of your statement you say that "rule 390 and its fellows should be abrogated," but they must be replaced with a different kind of focusing rule; and then you discuss the necessity of some manner of automated limit order file.

I know at the time when we first dealt with rule 390, it was in conjunction with the 1975 act. My predecessor, as chairman of the Consumer Protection and Finance Committee—I have left that and Mr. Scheuer is my successor—John Moss was recommending an immediate abrogation of rule than now 390, which was of course at that time even a stricter rule. I had some reservations about eliminating the rule by statute at that time, and I think perhaps for the same reasons you are suggesting here. When that is abrogated, there must be something to take its place in order to protect limit orders.

Would you care to comment a little further on rule 390 at this time?

Mr. PEAKE. Rule 390, as I indicated in my written statement, basically was created to deliver as much business as possible to the franchised marketmakers and furnish work for other floor members. They are anticompetitive on their face and I think Congress found that out and determined that, and the Commission has agreed. However, they do serve a benefit of focusing some order flow in one place.

From an economist's viewpoint—and I am not an economist—that certainly helps aid an efficient pricing mechanism, if you can get most of the bids and offers in one place. If you can get all bids and offers and get them much more cheaply, you have a better system and, I think, a far superior system to the existing one.

I think to abrogate rule 390 at this time without a replacement is in error. I so testified at the Commission's 390 hearings. But we have a chicken and egg problem. There certainly is no incentive, of course, for the exchange to voluntarily abrogate 390 and there is great fear to do so. And, as a result, we have been at an impasse for a great number of years.

I think at this point it would be nice to see the Commission review their position on price-time priority. First in their January 26, 1978, release—they came out in favor of it, as did this joint committee in their 1977 report. Then it was March 22 of this year that the Commission reversed themselves. They did so without evidence. None was offered.

Assertions were made by people who had a lot to lose if a price-time priority rule was put in. Based only on those assertions, it is interesting that the footnote in the release did not even make the claims that the Commission used as their basis for rejecting price-time priority. I do not think that there is any valid reason to

change their mind just because somebody who might be adversely affected says, "Gee, that might change things.

Mr. ECKHARDT. Professor Lorie, among other things, had a total of five suggestions. You heard his testimony: If ITS embraced the Cincinnati and also the NASD, and that of course the Cincinnati contained a central limit order file, which is automated; that this might solve that question.

What do you think about it? Perhaps I am misstating.

Mr. PEAKE. No, sir, I think you certainly got the essence of what Professor Lorie said.

One of the difficulties, you see, is if a bid or offer is already on the Cincinnati system, it has its priority. Now assume that they had a bid on the system at 20, and they discovered that an offer was available on some other market center at 20. In order to attempt to go find that, they would first be obliged to remove their bid from the Cincinnati. If they did not, while they were out trying to find out if they could match the offer somewhere else and another offer came in, they would have two executions. So that as a result it is very difficult to try to interconnect the two systems.

When one system has automated execution and the other systems do not and there is a time delay of up to several minutes to accomplish and know that you have effected the execution. Once you have removed your bid from the Cincinnati system, if it turns out that you sent the commitment to trade over ITS to an exchange and it is returned unexecuted because of a prior execution or change of market or for some other reason, then you have to go back to the end of the price-time priority line again.

The alternative is to leave your bid in the Cincinnati Stock Exchange and take a risk that you will execute your customer's order twice, or if it is for your own account, you might buy securities and own them. Of course, if you did it for your customer's account, I guess you would own them too.

Mr. ECKHARDT. Are you suggesting that we should mandate putting into effect some kind of a national central limit order book?

Mr. PEAKE. I believe so, sir.

I think, you see, one of the concerns clearly is that of monopolies. I am concerned about monopolies. At the present time we have a series of monopolies. They exist. They are part of the system today. The Consolidated Tape is a monopoly; the ITS is a monopoly, the Composite Quotation System is a monopoly. And they are unregulated as to ratesetting.

I think at some point the Commission—since it approves all rules of all self-regulatory organizations—has found itself already in the ratemaking business. They have done so passively by not really objecting when rates are set, but it ought to be recognized that there is going to have to be some kind of public utility center in a national market system. If that can be recognized up front, you can build a very tiny public utility which is effectively the computer that queries and stores the orders, is totally neutral and provides services to anyone who wishes to use it. That will be a very small, cheap public utility. It can be focused on as such and will provide benefits to the investors.

Mr. ECKHARDT. Sometimes it is easier for us to define what a frustrated and stultified situation we may be in today and what a

fine and well-directed situation ought to be in existence in the future, but it is much more difficult to know how to get from here to there.

I think we have had some pretty good testimony here that has been somewhat a consensus—there perhaps will not be by the time we complete these hearings—as to where we ought to go. But I would like to hear your view as to how we should get from here to there.

Should we, for instance, follow the GAO's recommendation, of the SEC establishing where we want to go and define it in rather positive terms and then drive for that objective? Or should we put into effect some rules that would militate in favor of moving toward a freer and broader market and leave the details to a sort of survival of the fittest process?

Mr. PEAKE. It is always helpful to have some idea of where you are going before you start a journey. Certainly it has something to do with the selection of the means of transportation. I would not like to get from here to New York on the subway. I do not think I would make it.

The Congress outlined broad characteristics the system should have had. It is too bad that the National Market Advisory Board—it is clear because of its composition it could not do it—could not develop what I call the "motherhood list." All orders should interact, for example—the things that Merrill Lynch and Jim Lorie put into the record, I agree with those things.

Having that laundry list, you say, "What conceivable systems will meet all of the criteria?" It may be there is no conceivable system that will meet all of the criteria, at which point you then have to make evaluations of what has to give, what is the least important criterion, and so forth.

When you have discovered how many potential systems designs can meet the criteria that you have laid out, it helps you a great deal. If it turns out that you cannot do this by having a series of large rooms with thousands of people running around with jackets, badges, throwing paper on the floor, I guess you discard that and say we can't do it that way.

On the other hand, if it turns out computers can't do the work, you have to discard them. Maybe that is the better alternative. But at the moment we haven't done that. We don't have a defined list of things the system ought to have. That could have been done I think within a period of 90 days from the beginning of the National Market Advisory Board if it had had a different composition and it had been told that is what it had to come up with.

Given that laundry list, the Commission could have put forth those characteristics and offered to pay people to do design work, to design theoretical systems that would come up. Then at least people could have debated the merits of systems.

What we are doing now I think is, we are continuing to debate buzz words—internalization, specialists, fragmentation, black box—at this point I would observe that any computer system that I would design would be red, white, and blue and say, "Made in U.S.A.," on it. I do not think it would be black—although I would also note that black is also beautiful.

Mr. ECKHARDT. No one has yet suggested that we go back to the green hat in which securities are carried from one place to another, as in the London Stock Exchange.

Mr. PEAKE. That is good. But we need at least to know where we think we'd like to be. Certainly in any system—I am sure Merrill Lynch, when they designed their little switch, their $82,000 switch—they said it should do A, B, C. These are the characteristics it needs. They put that out for bids—somebody said "Yes, I can do it, I can do it for so much money." Sure enough it did. They now have a system and Merrill Lynch has a system that does what they want it to do.

To take the entire marketplace as it is today and write rules which are either impossible to enforce from a pragmatic standpoint—if you can do something instantly, suggesting it be done instantly, is a little bit futile—certainly is not the way to do it.

I would certainly disagree with a portion of the GAO's report in which they recommend that the Commission add to staff. It seems to me the Government's method of solving problems is to throw money at them and hope they will go away. I think trading—and without commenting negatively on the staff involved—trading four lawyers for two systems analysts might be a better approach because this is a system problem that needs addressing. If with some systems design, it were put forward, then people could talk about shooting at the design and not talking about shooting at the buzz words.

Mr. ECKHARDT. Mr. Opper, do you have any questions?

Mr. OPPER. Yes.

Mr. Peake, Professor Lorie indicated that he would support the Commission's proposed rule 19(c)(3) not only because in his opinion it represented somewhat of an erosion of rule 390, but also because it may lead to a Cincinnati exchange type development by the NASD. Would you agree with that observation?

Mr. PEAKE. If it accomplishes that effect and if NASDAQ's securities begin to trade in a price-time priority system, I would think that was a laudable direction to go. However, attempting to tinker with 390 begs the question. There has to be, in my judgment, a focusing rule of some sort to get all bids and offers into the national market system. The rules under which that focusing order operates are the key subject, and should be kept on the table as the No. 1 question for anyone looking at a national market system.

Price-time priority implies a single system because, if it is systemwide, you can only have one quene of bids and offers. You can't have three. If you have three, you have to merge them into one and whoever runs the one is running a single system.

If the answer to that question is "yes", you have suggested a computerized market structure. If the answer is "no", then whatever system is developed will not have the characteristics Congress wanted, it will not be economically efficient. It will not permit investors orders to meet without the intervention of a dealer. It will not make all bids and offers available to investors, brokers and dealers, it will do none of those things, because some piece of the order flow is never going to interact with some other piece.

Mr. OPPER. Both you and the GAO have cited the Stanford Research Institute study, which indicates that a savings of some-

where in the neighborhood of $130 million might be realized with the establishment of a national market system. What are the components of this $130 million saving?

Mr. PEAKE. I said in my testimony I think that was a number that SRI had estimated. It is a very low number. I think the number is several times that amount. I wish we had the real numbers. We do not know what the present system costs. When we are looking for measuring cost effectiveness we do not know.

There are a lot of numbers that can be thrown around. For example, in a recent report by the Commission's Directorate of Economic and Policy Research, they indicate that the cost of the self-regulators alone last year was $261 million—this is the revenue they took in—$261 million against the previous year's $236 million—$24 million more in 1 year. Of that amount, and I use another source, which is the options study, they indicated that about $26 to $30 million—somewhere in that range—is for regulatory efforts, which means the balance is used for market center operation and promotion. So that is a fairly sizable number—about a quarter of a billion dollars.

You look at the table—A(7)—in the same document, which shows the detailed specialist income statement for the New York Stock Exchange, of whom there are 395 according to the stock exchange's brochure that just came out. On total revenue in 1978, in specialist activities only of $170 million, they have two numbers; one is called "pre-tax income", which is $57 million, and another one which is on the expense slide of the ledger called "owner's compensation."

Of course when I took my first accounting lesson, "owner's compensation" was part of profit. So I took the liberty of adding those two numbers, which comes to $97 million, or about $248,000 a person. This is a 57 percent pretax rate of return for specialists.

I have the feeling a competitive system would do better.

Mr. OPPER. I think all of the witnesses today and the Commission have expressed some concern about the turnaround time on the ITS. What are the steps that are involved? And why in your estimation does it take so long?

Mr. PEAKE. Well, there are a whole series of people that have to handle orders in ITS. Again, as I mentioned in my statement, there are a lot of middlemen involved. The first middleman investor deals with is the registered representative. In a Cincinnati-type system carried to its extreme, a registered representative, looking on his screen—which might be provided by Bunker-Ramo, Quotron or GTE—could enter the bids and offers in the security, tell the client over the phone what the size of the market was and, if given an order, either could hit the bid, take the offer or enter a better price in between and do it right from his desk. That would be the end of the middlemen.

Under the present system, it goes over a communication system form the registered representative, is hand-carried to a teletype or other order entry device, sent over an expensive switching system, which would, in the Merrill Lynch case, interface with another little computer system that would then find where it was to be sent—would print out on a piece of paper somewhere—might or might not be carried by a broker out to the trading post, if a better bid or offer were displayed over ITS, would then be keyed in

through another system and shipped to another exchange where it would come out on another piece of paper and be handed to another specialist who would determine whether or not that order could be executed, would mark the transaction, hand it to the reporter who would key the information back into a machine, send it back into the New York Stock Exchange where it would be keyed into another machine and then be sent back through the firm's switching system to the investor. That is a lot of handling and middlemen.

The key to an efficient securities market is getting the buyer and seller together and doing so efficiently. If you can get rid of middlemen, it is less costly and efficient. It would be like saying if, the telephone operators in this country back in 1935 had had the power to say "you can do anything in automation you want, as long as you keep an operator in the middle"—and the floor operations for the most part are the equivalent of a telephone operator. If you can direct-dial it certainly is a lot more efficient. I hate to think how many telephone operators we would have had otherwise.

Mr. OPPER. Merrill Lynch today announced its best-price selector. Do you have any reaction to that announcement?

Mr. PEAKE. Well, I admire them for doing it. I think it is a positive step. But they are going to be faced with some practical operating difficulties.

If they find they send bids and offers to what appears to be the best bid or offer, and they get rejected by the market center because they are too late, then that order has to be put back into the system—sent back to Merrill Lynch saying, "I am sorry, it is too late,"—they have to begin all over again. Whether they do something like deciding they won't use that market center any more—using that as a means of getting the performance or not—I do not know. But it will still be cumbersome, especially if they have an order for 600 shares, a bid at 30 for 100 shares, a bid at 29⅞ for 600 shares and another bid at 30 for 300 shares, where do they send the order? They have 600. Do they send 100 to the 30? Do they send another 300 to the 30? Do they send the balance to the 29⅞ bid or do they send the whole 600 to the 29⅞ bid on the theory at least they will get it all executed at one price?

If makes for a very difficult kind of system. But I admire and respect them for doing it and think it will lead to a similar system being developed by other firms. When people start to look at the futility of chasing orders all over the country, perhaps we will get to the automated system that we so greatly need for investors.

Mr. OPPER. Thank you very much, Mr. Peake.

Mr. ECKHARDT. Mr. Stewart?

Mr. STEWART. I have no questions. I believe Mr. McMahon has.

Mr. MCMAHON. I have two questions and they will be mercifully short.

The first question I have, Mr. Peake, is what would be the mechanics of large block trading in a fully automated environment? Presently large blocks perform an end run around normal market procedures. Would you have a special categorization for large block trading in a fully automated environment to avoid market disruption?

Mr. PEAKE. My answer is, they would be traded just like they are today. They would be negotiated outside the system and the execution would occur within the trading arena. I refer you to the appendix—the paper that I submitted, the ABC's of Trading on a National Market System. It goes into some detail as to how the various sized transactions would be handled.

But remember, I am suggesting that the national market system be the trading arena in which only bids, offers and the resultant executions would be resident.

Just as the New York Stock Exchange, for example, only permits bids and offers in their trading arena. An order has no standing. Anyone standing in the crowd with an order who has not expressed his bid has no right to buy securities. He cannot say, "Gee, I was thinking about that and therefore I am entitled to an execution."

The same would be true in an automated system. You are changing the process—I think this is a very important point—and I am delighted the question was asked; you do not change the process. You do not change the iterative process of what happens by changing technology. You only change the speed with which it is done and the ease with which it is done. But all of the functions remain, and if, as Professor Lorie indicated, it is useful to have a large room with a lot of people in it who negotiate transactions and choose then to use the terminals that are located there to effect the execution, I think that is fine, if it turns out to be economic. I think, however, to have very large rooms with thousands of people running around to make transactions, which by the stock exchange's own statistics are mostly done in routine fashion—for example, the exchange indicates, I believe, that 50 percent—according to a recent booklet they just put out—I think it was sent to every Member of the Congress—50 percent of all the transactions are now handled by specialists over the DOT system. Unless he is like Janus it is not a face-to-face transaction, because he makes them with himself.

In addition, another 3 percent or so are over ITS, and there is no face-to-face—a message is sent over a communications line.

I think they also indicate that 85 percent of all transactions occur at or within an eighth of a point of the previous price, and 97 percent within a quarter of the previous price. This indicates a very limited amount of give and take. It seems the cost of this system which handles relatively few transactions which require negotiations, is very costly.

Mr. MCMAHON. This is my last question. After much study SEC has determined that all securities are not as fungible as one might think. In other words, an over-the-counter security, because of its trading volume, its price, and investor interest, does not have or does not belong in the same basket with a blue-chip flyer. In this connection, SEC has developed a concept called tier 1 and tier 2 pricing.

Do you think this is a sensible distinction to make in an automated environment?

Mr. PEAKE. I do not believe so. Again, if, as I indicated in my oral and written statements, if you can have a system which, on an incremental cost basis is almost free to add another security when you have already 10,000 in the system, the system is cheap. If you

can get all bids and offers into the system and everybody in the country can see them, anyone who chooses to be can become a marketmaker. He may wish to make a one point-spread market. Perhaps the security does not deserve better than a one point-spread market. Any investor going into the security knows, as part of his investment judgment that he is buying a security that is less liquid than, say, A.T. & T., which may trade at an eighth spread—or if we ever went to penny pricing might trade at a 2-cent spread. That is part of the information that is important. If a specialist today in a lesser known security takes the subsidy from an actively traded security and uses that to artificially narrow the spread in a less active security, the public is being fooled. They think they are buying a security with a one-eighth spread. That is an artificial spread and if things get bad and the investor tries to sell it he may find the liquidity is not what he thought it was.

In answer to your question, I know of no evidence—evidence—that indicates that an automated system would not be best for less active traded stocks as well as the most active, because it would permit all buying and selling interest, even if it was erratic and small, to be available in a central location and for no cost. With a slow trading security, one of the biggest costs is the cost of research—the cost of finding the other side—and if you can put all bids and offers in the system the cost of search is zero.

Mr. McMAHON. Do you not think there might be wider spread then for less popular securities than exists now?

Mr. PEAKE. Vis-a-vis over-the-counter market, I do not think so. But I do not think that any security should have a better market than the free market forces entitled it to.

Why should the shareholders of A.T. & T. subsidize the investors in Happy Acme Uranium, if that is the stock, just so that Happy Acme can have an eighth spread when it is really only entitled to a one-point spread. I do not see the economic logic of that.

Mr. ECKHARDT. The picture painted here reminds me of the House of Representatives. It is a large room, sometimes with many people running around in it. It has an automated board, but sometimes it lacks depth and quality.

Thank you very much for your testimony.

Mr. PEAKE. Thank you, Mr. Chairman.

Mr. ECKHARDT. I might say that your testimony has been very useful to the committee in the questioning of other witnesses, as you have seen.

Mr. PEAKE. Thank you, sir.

Mr. ECKHARDT. That completes our hearing for today. The committee will resume these hearings on Monday.

[Whereupon, at 2:30 p.m., the subcommittees were adjourned, to reconvene Monday, September 24, 1979.]

PROGRESS TOWARD THE DEVELOPMENT OF A NATIONAL MARKET SYSTEM

MONDAY, SEPTEMBER 24, 1979

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS, AND SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCE, COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,

Washington, D.C.

The subcommittees met, pursuant to notice, at 10:15 a.m., in room 2322, Rayburn House Office Building, Hon. Bob Eckhardt, chairman of the Subcommittee on Oversight and Investigations, presiding.

Mr. ECKHARDT. The Subcommittee on Oversight and Investigations, in conjunction with the Subcommittee on Consumer Protection and Finance, will resume its hearings.

We have for this day's hearing representatives of the exchanges and over-the-counter market. We are particularly interested in how the markets have become more efficient and how they may have made use of improvements to computer and data processing technology. We want to learn if the goal embodied in the Securities Acts Amendments of 1975 of insuring that all orders for the purchase and sale of stock come into contact with all other orders has been advanced in the last 2 years.

Further, we want to learn how adequately the Securities and Exchange Commission has fulfilled its responsibilities under the act. We will conduct today's hearing in a panel discussion format. I will ask each participant to make a 5- or 10-minute opening statement. Then we will engage in a question and answer session between the members of the subcommittees and the panelists and among the participants in the panel, and I hope you pay particular attention to what I said last, that is the participation of questioning and discussion within the panel itself. Some of you, I imagine, remember when we had our hearings and the study preceding the 1975 act. I would like to make this a very informal process like that was.

We on the Committee on Oversight and Investigations have the custom of swearing all witnesses. So do you all swear to tell the truth, the whole truth, and nothing but the truth, so help you God?

[Chorus of "I do's."]

Mr. ECKHARDT. Now what is the order that you would prefer to proceed in? Do you have that worked out or shall I call on members?

Mr. RICKERSHAUSER. I think we should start on the far left, Mr. Chairman.

Mr. ECKHARDT. All right. Mr. Batten.

TESTIMONY OF WILLIAM M. BATTEN, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, NEW YORK STOCK EXCHANGE, INC., ACCOMPANIED BY DONALD L. CALVIN, EXECUTIVE VICE PRESIDENT, MARKET DEVELOPMENT AND PUBLIC AFFAIRS, JOHN J. PHELAN, JR., VICE CHAIRMAN, ROBERT M. GARDINER, VICE CHAIRMAN, DONALD D. KITTELL, EXECUTIVE VICE PRESIDENT, OPERATIONS; ROBERT BIRNBAUM, PRESIDENT, AMERICAN STOCK EXCHANGE, ACCOMPANIED BY GORDON L. NASH, COUNSEL; ELKINS WETHERILL, PRESIDENT, PHILADELPHIA STOCK EXCHANGE, INC., ACCOMPANIED BY NICHOLAS GIORDANO, EXECUTIVE VICE PRESIDENT; CHARLES E. RICKERSHAUSER, PRESIDENT, PACIFIC STOCK EXCHANGE, INC., ACCOMPANIED BY WILLIAM LUPIEN, GOVERNOR; RICHARD B. WALBERT, PRESIDENT, MIDWEST STOCK EXCHANGE, INC., ACCOMPANIED BY ALTON B. HARRIS, COUNSEL; K. RICHARD B. NIEHOFF, PRESIDENT, CINCINNATI STOCK EXCHANGE, ACCOMPANIED BY ROBERT TAFT, JR., LEGAL COUNSEL, JOHN LIFTIN, COUNSEL, PETER DU PONT, KENNETH EBER, JOEL EINHORN (CONTROL DATA CORP.); AND J. STEPHEN PUTNAM, BOARD CHAIRMAN, NATIONAL ASSOCIATION OF SECURITIES DEALERS, INC., ACCOMPANIED BY GORDON MACKLIN, PRESIDENT, FRANK WILSON AND FRANK FORMICA, MEMBERS, GENERAL COUNSEL'S OFFICE, AND RICHARD JUSTICE, SENIOR VICE PRESIDENT, AUTOMATION

Mr. BATTEN. My name is William M. Batten. I am chairman and chief executive officer of the New York Stock Exchange, Inc. With me at the table to my left today is Donald L. Calvin, executive vice president of the exchange for market development and public affairs.

I would also like to introduce three gentlemen in the audience who are extremely knowledgeable about the issues we will be discussing. I hope the Chair will permit them to participate as the hearings proceed. They are: John J. Phelan, Jr., vice chairman of the exchange and senior partner in the firm of Phelan, Silver Vesce, Barry, and Co.; Robert M. Gardiner, vice chairman of the exchange and vice chairman of the firm of Dean Witter Reynolds, Inc., and Donald D. Kittell, executive vice president of the exchange for operations.

Mr. ECKHARDT. Where are these gentlemen?

Mr. BATTEN. These gentlemen right here.

Mr. ECKHARDT. You may be considered as actually part of the panel.

Do you swear to tell the truth, the whole truth, and nothing but the truth, so help you God?

[Chorus of "I do's."]

Mr. BATTEN. The five of us comprise the exchange's office of the chairman.

We appreciate this opportunity to assist the efforts of your two subcommittees to assess the progress made thus far toward bringing a national market system into existence. And we understand that an important purpose of these hearings is to determine how

effectively the various participants in the total national market system development effort—that is, the Congress, the Securities and Exchange Commission, and the securities industry—are fulfilling the roles originally envisioned for them.

It was, of course, the Congress that determined the need for a national market system, and it was the Congress that gave the concept of a national market system, the force of law, in the Securities Acts Amendments of 1975.

As many commentators have pointed out, Congress, in setting the ground rules for developing such a system, wisely and carefully refrained from trying to specify the structure or components of the system. Congress did specify objectives for the SEC and the industry, and, perhaps more important, Congress provided very clear guidelines for what a national market system should accomplish.

After stating unequivocally that "the securities markets are an important national asset which must be preserved and strengthened," Congress specified that, among other things: A national market system should enable all buying and selling interests in securities traded within the system to meet and interact within the system.

It should link the various competing markets through new data processing and communications capabilities.

It should assure an opportunity for investors orders to be executed without the participation of a dealer.

It should assure price protection for customers limit orders.

And it should provide for effective surveillance of market activity.

The legislative history of the amendments leaves no doubt of Congress determination, as the House Committee on Interstate and Foreign Commerce put it:

> * * * to enhance competition and to allow economic forces, interacting within a fair regulatory field, to arrive at appropriate variations of practices and services. Neither the markets themselves nor the broker-dealer participant in those markets should be forced into a single mold. Market centers should compete and evolve according to their own natural genius * * *.

Congress was no less clear in setting forth the role intended for the SEC, which it directed to "facilitate the establishment of" a national market system, with "due regard for public interest, the protection of investors, and the maintenance of fair and orderly markets"—in accordance with the findings and objectives set forth by Congress.

Congress also empowered the Commission "to authorize or require self-regulatory organizations to act jointly * * * in planning, developing, operating or regulating" a national market system or its subsystems and facilities.

The SEC has more recently suggested, and we agree, that "the development of a national market system should be an evolutionary process", and that the Commission's role "is to monitor and encourage industry progress, to act as a catalyst and, when necessary, to take regulatory action to achieve a particular goal."

The Commission has also pointed out, and again we agree, that "Congress did not intend that the Commission dictate the ultimate configuration of the national market system or, through regulatory fiat, force all trading into a particular mold."

We believe, and the SEC appears to agree, that Congress essentially intended that the securities industry should bear primary responsibility for evolving the ultimate format and facilities that will comprise a national market system, based on the industry's consensus view of the combination of trading and other elements that will best achieve the legislative goals.

We believe, too, that the industry's considerable progress to date validates the legislative intent and prescription, and demonstrates the industry's ongoing commitment and ability to build, with each successive new element of the evolving system, a firm foundation on which to build the next.

When we last appeared before your two subcommittees, in June 1977, only one of the key elements of the national market system, the Consolidated Tape, was in place and functioning.

A Consolidated Quotation System had been identified as a key element, and the SEC had just published, for comment, its proposed quotation rule.

A National Clearance and Settlement System was largely in place, but had not yet begun operating. And the industry was deeply engaged in working out plans for an effective intermarket linkage.

Today, 27 months later, the Consolidated Quotation System and the National Clearance and Settlement System are fully operational.

Mr. ECKHARDT. Mr. Batten, the full committee needs two members for a quorum. So if you will excuse us, we will go down to make a quorum and come right back.

Mr. BATTEN. Surely.

[Brief recess.]

Mr. ECKHARDT. Mr. Batten.

Mr. BATTEN. Perhaps I should start at this point so we do not lose the continuity of the thought.

When we last appeared before your two subcommittees in June 1977, only one of the key elements of the national market system, the Consolidated Tape, was in place and functioning. A Consolidated Quotation System had been identified as a key element and the SEC had just published for comment its proposed quotation rule.

A National Clearance and Settlement System was largely in place but had not yet begun operating. And the industry was deeply engaged in working out plans for an effective intermarket linkage.

Now a look at where we are today.

Today, 27 months later, the Consolidated Quotation System and the National Clearance and Settlement System are fully operational. And the Intermarket Trading System now electronically links trading in some 600 listed stocks that are traded in two or more of six participating exchange market centers across the country.

These elements all employ modern electronic technology to create the opportunity for more efficient and effective market operations. And we believe the Intermarket Trading System, which has the potential for becoming an expanded linkage with other markets in addition to the 6 present participants, specifically meets the

congressional guideline for linking the various competing markets "through communication and data processing capabilities."

ITS is a major step forward in the continuing effort to "foster efficiency, enhance competition, increase the information available to brokers, dealers, and investors, facilitate the offsetting of investors' orders, and contribute to best execution of such orders."

We believe the gradual, evolutionary expansion of ITS from the initial pilot operation launched in April 1978 fully justifies the participants' original confidence that the system could and would constructively address several of the key legislative goals.

Clearly, ITS fosters "economically efficient execution of securities transactions."

The system promotes "fair competition among brokers and dealers, among exchange markets," and, subject to arrangements for entry by the National Association of Securities Dealers as a participant, "among exchange markets and markets other than exchange markets."

Moreover, ITS goes a long way toward assuring "the practicability of brokers executing investors' orders in the best market," and a fair opportunity, "for investors' orders to be executed without the participation of a dealer."

With ITS approaching full implementation as a key element of the emerging national market system, we have begun examining in detail additional applications which can address additional legislative goals.

As the subcommittees doubtless are aware, the SEC has stated that the "Commission's first priority is the achievement of nationwide price protection for public limit orders against executions at inferior prices."

Agreeing with that view, the ITS participants have committed themselves to develop a joint plan for providing such protection. Earlier this month we forwarded to the SEC a preliminary explanation of how we propose to proceed. Our approach, and I am referring here to the ITS participants, involves developing a new limit order information system as an integral part of ITS. This will enable a broker-dealer in any ITS participant market to find out in advance what limit orders must be protected anywhere in the ITS network whenever he may be contemplating a trade outside the current quote in an ITS stock.

We have given the SEC a timetable for the months immediately ahead. And we have promised to provide, by early November, a more detailed description of a pilot program that we expect to be able to begin about 1 year from now.

The New York Stock Exchange has also made a commitment to develop a plan for enhancing market-making competition within its own market. Our purpose is to improve the quality of the market by strengthening competition in the pricing of listed stocks and increasing liquidity by bringing additional market-making capital to the Exchange floor. Our current thinking is that it should become possible for firm bids and offers in listed stocks to be entered directly onto the trading floor from member firm offices by way of a CRT/keyboard device.

We also envision an evolutionary approach in developing this system, beginning in January, and the pilot will be designed to

permit nonmember broker-dealers who are members of the NASD to participate in competitive market making on the exchange.

In keeping with your request for brevity, I have only touched upon the broad aspects of national market system progress to date. However, we have filed a more detailed progress report for the record.

And if I may just summarize very briefly, we believe that Congress, in the Securities Acts Amendments of 1975, clearly envisioned the development of a national market system as an evolutionary process and, at the same time, clearly defined its own, the SEC's and the securities industry's roles in guiding that progress.

We believe the record shows that the evolutionary process has in fact been proceeding in an orderly fashion, with speed tempered by prudence. The step-by-step approach, in which the SEC has been effectively fulfilling its assigned role as monitor, catalyst, and, on occasion, prodder, has enabled the industry to design each successive development in a way that provides a firm foundation for the next.

We believe the industry and the SEC should continue to work together in this spirit, and with our complementary commitments, to avoid precipitate actions or experiments that could weaken or damage the important national asset that Congress correctly perceives the securities markets to be. In this way we can assure that the congressional goals and objectives are met; that investors are properly served and protected, and that our Nation's capital markets are ultimately strengthened by the reality of an effectively functioning national market system.

Thank you.

[Testimony resumes on p. 199.]

[Attachment to Mr. Batten's prepared statement follows. The submission also included a letter dated July 22, 1979, from Mr. Batten to Harold M. Williams re SEC File No. 4–220. That letter may be found in the files of the Subcommittee on Oversight and Investigations.]

A REPORT OF PROGRESS ON NATIONAL MARKET SYSTEM AND RELATED DEVELOPMENTS AT THE NEW YORK STOCK EXCHANGE

INTRODUCTION

Evolution of a National Market System has proceeded at a brisk, steady pace over the 27 months since joint hearings on progress toward the system were first held by the Subcommittee on Oversight and Investigations and the Subcommittee on Consumer Protection and Finance of the House of Representatives' Committee on Interstate and Foreign Commerce.

At that time, in June 1977, only one of the key elements of the National Market System --the Consolidated Tape-- was in place and functioning. The Consolidated Quotation System had been identified as a key element and the SEC had just published for comment its proposed quotation rule. A National Clearance and Settlement System was largely in place but had not yet begun operating. And the industry was deeply engaged in working out plans for the kind of intermarket communications and data-processing linkage that Congress envisioned as a key element of a National Market System.

The evolutionary process was proceeding smoothly, but a great deal remained to be done.

And, in fact, a great deal has now been accomplished.

In addition to the Consolidated Tape, which electronically keeps the brokerage community and the investing public accurately informed about last-sale prices in listed stocks in all mar-

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kets in which they are traded:

° The Consolidated Quotation System, which began operating in August 1978, electronically disseminates current bid and asked quotations, with size, from and to all market centers in which listed stocks are traded.

° Clearance and Settlement mechanisms are now geared to transfer the necessary funds and securities balances, electronically, in a choice of 10 locations across the country, as soon as a transaction is completed, regardless of where it may have taken place.

THE INTERMARKET TRADING SYSTEM (ITS)

Perhaps the most important and innovative of the National Market System components now serving investors and the securities industry is the Intermarket Trading System, which electronically links six major market centers --the American, Boston, Midwest, New York, Pacific and Philadelphia Stock Exchanges-- in a nationwide communications and data-processing network.

Cooperatively developed by the participating competing exchanges, ITS provides the essential linkage among them, permitting and encouraging full competitive interaction throughout the evolving system.

The ITS linkage consists, essentially, of a central computer facility, a network of interconnected electronic terminal devices in all of the participating market centers, and quotation displays in each. The linkage enables any broker or market-maker in any of those markets to reach into any of the

others --electronically, within a matter of seconds-- whenever a better execution opportunity may be shown to be available there.

ITS began as a pilot operation in April 1978, with the New York and Philadelphia Stock Exchanges as the initial participants and just a dozen or so dually traded listed stocks. Within four months, all six of the present participating exchanges were tied into the system and more than 100 listed stocks were being traded through it.

At the end of September 1979, some 630 dually or multiply traded listed stocks will be trading in ITS, and new eligible stocks are being added at a rate of about 40 per month -- toward the goal of including all 900-1,000 eligible stocks by Spring 1980.

Performance statistics have become increasingly impressive. In August 1979, daily average volume through the system was slightly above 950,000 shares, with an average of about 1,600 trades per day, and 95% of all ITS stocks trading each day. New records were established during the month, with a total of 1,981 ITS trades on August 6, and 1,317,000 shares traded on August 16.

In relating these figures to the much larger number of listed shares traded over-all on any given day, it is important to bear in mind that ITS normally is used only when it appears to a broker or market-maker in one Participant market center that an execution at a better price is currently available in another. When the same price is available in each market in which a particular stock is traded, the broker or market-maker

normally will --as a matter of speed and convenience-- execute his own or his customer's trade in the market in which he himself is physically present. The purpose of the system is not to shift trades at random from one market to another -- but, rather, to assure that executions can take place at the best price currently available within the total nationally linked network.

Assume that a broker on the New York Stock Exchange has a market order to sell 100 shares of XYZ stock and the quotation display on the NYSE floor shows that the best current bid for XYZ has been entered on the Pacific Stock Exchange. The broker may decide to hit that bid. He enters a commitment --a firm commitment-- into the ITS terminal on the NYSE floor to sell 100 shares at the bid being shown from the Pacific Stock Exchange. Within seconds, his commitment is flashed on the CRT screen and is also printed out at the PSE specialist's post, where, if the bid is still available, it is executed against that bid.

After the commitment is accepted by the PSE specialist, a short message is entered into the system and the system immediately reports an execution back to New York. (This is the equivalent of the traditional "brokers' handshake," stretching across the continent, signifying that a trade has taken place.) The appropriate market center --in this case, the Pacific Stock Exchange-- reports the trade to the Consolidated Tape. Brokers on both sides of the transaction receive an immediate trade confirmation, and the trade is also entered in the daily journal of transactions which is transmitted to each participating market

center at the end of each day. Each broker completes the clearance and settlement procedure through the clearing corporation of his choice.

Although ITS employs highly sophisticated electronic technology in building upon the essential characteristics of auction market trading to provide a full and fair field of competition among brokers and market-makers in all of the interlinked markets, the system is simple, practical and inexpensive. It offers many specific advantages to users and other securities industry constituents who have an important stake in maximizing the effectiveness and efficiency of the nation's securities markets. The system:

° Stimulates stronger professional competition to handle public investors' orders;

° Improves depth and liquidity in the public markets for listed stocks;

° Preserves the key element of human judgment in pricing and trading listed stocks while facilitating the execution of transactions among widely separated marketplaces;

° Assures low-cost enhancement of market-making in participating market centers;

° Permits continuity of regulation and surveillance of market activity in listed stocks;

° Avoids the inflexibility that would result from forcing all trading into a single, computerized mold.

The gradual, evolutionary expansion of ITS, from the initial pilot approach, has enabled the Participant exchanges to pinpoint areas in which improvements and enhancements have been

viewed as desirable, and to develop and implement such changes. These efforts have focused particularly on three problem areas:

° ITS Commitments.

Two related problems that appeared to be inhibiting brokers' and market-makers' use of the system in its early stages involved relatively high percentages of cancelled or expired commitments and unsatisfactorily long "turnaround" or "execution" times. Both of these matters have commanded the attention of the ITS Operating Committee and the individual market centers.

A commitment will normally be cancelled in a receiving marketplace when there has been an intervening trade or a quotation change that supersedes the quote that is being reached for. In unusually active markets, the receiving marketplace may not have time to cancel a commitment and the commitment will, instead, expire after a specified period of time.

Prospective ITS users expressed concern about possibly missing favorable executions in their own or other markets if commitments remained in the system too long before expiring, being cancelled or, even, being executed. And it appeared that some orders that might have found better executions were not being sent through the system because brokers and market-makers were unwilling to risk the possibility of getting a less favorable execution as a result of delays within the system itself.

Early unfamiliarity with the system itself was, of course, a prime cause of such problems, and one approach taken by the participating market centers has been to conduct intensive educational and training sessions with floor members at the various exchanges who receive commitments from other ITS markets. Another has been to reduce the maximum time that may

elapse before a commitment expires; on June 4, 1979, the NYSE discontinued its maximum allowable time of 120 seconds, so that all commitments that have neither been accepted nor cancelled within 60 seconds after they are entered into the system now automatically expire at the end of that time. A third effort has focused on surveillance techniques designed to assure that acceptable commitments are not cancelled; i.e., that a commitment is cancelled only for the valid reason that there has been a legitimate quote change.

All of these efforts have produced significant improvements. The total system percentage of executed commitments increased by 35% between August 1978 and August 1979 -- from 56.9% to 78%. In the latter month, 17.6% of commitments entered into the system were cancelled, and 4.8% expired.

August 1979 performance at the NYSE was somewhat better than the systemwide average, as indicated in the following table:

COMMITMENTS	TOTAL NYSE	% NYSE	TOTAL SYSTEM	% SYSTEM
Executed	17,594	79.5	37,068	77.6
Cancelled	3,772	17.0	8,392	17.6
Expired	778	3.5	2,293	4.8
Total Received	22,144	100.0%	47,753	100.0%

We believe additional improvements are desirable and possible, particularly with respect to expired commitments; and while the problem has been minimized, all of the participating market centers, including the NYSE, are continuing their educa-

tional efforts and stressing the importance of either accepting or cancelling commitments received with an absolute minimum of delay.

With respect to average execution time, some commentators have suggested that ITS execution time is significantly slower than execution time achievable in the type of automatic trading system operated by the Cincinnati Stock Exchange. These comments overlook a crucial difference in how execution time is defined in the two systems.

Execution time in ITS has two components: decision time and response time. During that over-all period, a market-maker in one ITS market center makes a decision to accept a commitment sent to him by a broker or market-maker in another ITS market center; and the receiving market-maker sends back a notification that he has made that decision and, in fact, executed the trade. In effect, a pricing decision has been made and the sender's commitment has resulted in a transaction during the period defined as "execution time."

By contrast, trades executed in an automated system are pre-priced; that is, the pricing decisions are made, by both parties to a trade, before the orders are entered into the system. Thus, while "execution time" in such a system is usually described as involving many fewer seconds than execution time in ITS, that description ignores the key fact that the parties to the automated trade may have taken minutes, hours --or even days-- to arrive at a pricing decision that is in any way comparable to the pricing decision made in ITS in a matter of seconds.

In any case, experience shows that investors are normally much more concerned with the quality of an execution --with the efficiency of the pricing mechanism-- than with the speed of execution. And the quality of execution is predictably higher when pricing decisions are made in the marketplace, reflecting up-to-the-moment market conditions, than when those decisions are made away from the market, for execution --however swiftly-- at some other time.

Nevertheless, the ITS Participants have been alert to the possibilities of reducing execution time within ITS-- and we have made significant progress. From October 1978, when we first began calculating execution time, to August 1979, average execution time in ITS decreased from 53 seconds to 43 seconds -- or by nearly 20%. And our continuing efforts in this area are aimed at further reductions, with particular attention to periods of high market activity.

° Broker Accessibility and Usage

If ITS is indeed to function as a key element of the emerging National Market System, then, ideally, it should be used whenever the broker in one participating market center determines that a better execution may be available in another. Here, too, initial unfamiliarity with the operation of the system --combined, perhaps, with a natural desire on the part of brokers and market-makers to "feel comfortable" with a new way of doing business before committing themselves to making major changes-- tended to limit use of the system in its early stages. In addition, an initial "shakedown" period was inevitable. With more than a year's experience now under our collective belts,

the Participant market centers have --with very valuable assistance from users-- learned a great deal about how to stimulate their floor professionals to appreciate the advantages of the system and, equally important, how to make it easier for them to use it.

At the NYSE, we have strongly encouraged all floor professionals to use this system as fully as possible. Improvements in system performance, described earlier, have made a significant contribution. In addition, installation of "neutral" ITS broker stations away from the trading posts, and installation of additional ITS terminals at posts where volume is ordinarily high, have made it a good deal more convenient for brokers on our floor to enter commitments into the system. Training sessions with personnel from the largest "retail" member firms, and with "$2 brokers," have further alerted them to the dollars-and-cents advantages offered by the system. And meetings with groups of members from all Participant market centers, together with the preparation and distribution of user brochures, have contributed --perhaps as much as the addition of more stocks into the system-- to establishing ITS as an important aid to doing business competitively on the trading floors of the various participating exchanges.

° "Trade-Throughs"

Perhaps the major criticism encountered during our early experience with ITS centered on the execution of orders at prices inferior to quotes being displayed from other ITS market centers. Here, as in other areas, it was necessary for trading floor professionals to become fully acquainted and comfortable

with the system. As they have gained confidence in the system's capabilities and efficiencies, the so-called "trade-through" issue has largely dissipated. Today, in fact, trade-throughs account for less than 1/2 of 1% of all trades in ITS. Perhaps more important, various enhancements to the system, in our own market --as well as close surveillance of trade-through situations when they do arise-- have brought us close to eliminating the problem entirely.

In the educational area, for example, we have taken a number of firm steps to deal with situations and attitudes that can result in trade-throughs:

-- Communications between the Exchange's Board-level Quality of Markets Committee and our member firm community have strongly stressed the importance of reaching for a better price whenever and wherever it may be shown to exist within the system.

-- We have asked all other Participant market centers to provide details of trade-through situations identified by them, involving trades on the NYSE in ITS stocks at prices inferior to the bids or offers displayed by other ITS market centers.

-- Our Market Performance Committee has developed a specific program for addressing all trade-through situations, including staff review of all complaints registered by other market centers; maintenance of a central complaint log which is reviewed periodically by the ITS Executive Committee;

staff consultation with specialists and brokers on all ITS-related complaints; and oversight of trade-through resolutions by a specially appointed group of NYSE members.

Perhaps the best indication of how these measures are succeeding may be gained from statistics on the resolution of trade-through complaints received by the NYSE during the typical recent week of August 27-31.

During those five trading days, we received a total of 56 trade-through complaints from other ITS market centers. As a result of staff consultations with NYSE specialists and brokers, 47 of those complaints were resolved to the satisfaction of all concerned. One complaint was judged to be not valid. Seven were attributable to technical difficulties --such things as failure of a machine card reader, an erroneous print on the tape, etc.-- and one, stemming from a transaction effected by a broker in the trading crowd who was unable to satisfy the complaint, is under investigation by the Exchange to determine whether disciplinary action may be warranted.

While technical problems and occasional errors will inevitably account for an irreducible minimum number of trade-throughs, effective monitoring --and responsible cooperation from trading floor professionals-- clearly is achieving the desired results. In January and February 1979, less than 14% of trade-through complaints were satisfactorily resolved. By August, the percentage of resolutions (excluding invalid complaints and situations caused by technical difficulties) had risen to over 95%.

In addition to monitoring and corrective measures, various improvements in the visibility of displayed quotations from other market centers have made it easier for professionals on our own floor to be alert to the existence of better quotes elsewhere within the system. For example:

-- Display print size has been doubled, from 3/8-inch to 3/4-inch.

-- The best quote outside the NYSE is highlighted by the appearance of an asterisk on the quotation display screens.

-- An indicator now shows when a best bid or offer in one market is backed by additional depth in another market at the same best price.

-- ITS stocks themselves are highlighted with red indicators.

-- Additional quotation display devices have been installed atop trading posts.

-- Installation of additional quotation montage equipment at trading posts is underway and expected to be completed in October.

A number of further enhancements are being implemented to streamline ITS efficiency and strengthen NYSE broker usage of the system:

-- The Securities Industry Automation Corporation (SIAC) is conducting a thorough review of the entire ITS system, with a view to increasing the

system's throughput capacity. This review is due to be completed in October.

-- Also scheduled for completion in October is a program to increase the availability of quotation montages on the floor, as an aid to reducing inadvertent trade-throughs when additional size is available with respect to quotes displayed from other market centers.

-- In addition, in October, we expect to implement a new "universal template" --a standardized display format for CRT screens-- that will vastly simplify the procedure for directing commitments to, and responding to commitments from, other market centers. We believe this can significantly reduce both average response time and the incidence of trade-throughs.

-- We are now testing at one trading post a new pilot system in which ITS equipment is being relocated from behind the post to the front of the post; and a new "mark-sense" card --a computer card on which the user can, with a pencil stroke, identify the pre-set information to be read by the computer-- is being tested to permit direct input to ITS by brokers and specialists.

-- In December, we will inaugurate a pilot program for receiving ITS commitments in New York from other

ITS market centers on mark-sense cards. We anticipate that the new procedures will help decrease over-all response time for ITS executions.

° NASD Participation in ITS.

A great deal of interest has focused --both within and outside the industry-- on the question of whether and when NASD market-makers in listed stocks will begin participating in ITS.

We continue to believe that it is desirable and important for over-the-counter market-makers in listed stocks to be linked to ITS. Discussions have been held --and are continuing-- with the NASD to address the matter of an expanded linkage.

Recent discussions have centered on whether the entry of NASD firms might best be accomplished through a pilot program approach within the existing ITS structure, or in connection with a proposed new Competitive Market-Maker System Pilot discussed in the Exchange's testimony before the SEC on June 29, 1979, and now undergoing preliminary conceptual development, as discussed later in this report.

LIMIT ORDER PROTECTION

Consistent with the step-by-step evolutionary approach to the development of a National Market System, the industry has now reached a point --with the ITS linkage approaching industry-wide implementation and utilization-- where the industry can confidently turn to the task and objective of providing system-wide limit order protection. And, indeed, the SEC, in its most recent status report on the development of a National Market

System, identified as its highest current priority "the achievement of nation-wide protection for public limit orders against executions at inferior prices."

In full agreement, the NYSE wrote to the Commission on May 4, 1979, making a firm commitment to cooperate with the other ITS Participants in developing a joint Plan --consistent with the approach adopted in developing ITS itself-- for providing such protection. And the ITS Participants forwarded a preliminary proposal to the Commission earlier this month.

The cooperative approach we have agreed upon involves developing, as an integral part of ITS, a new Limit Order Information System (LOIS) that will build upon the existing ITS ability to protect orders "at the market" by providing protection for limit orders "away from the market."

As we envision this application at present, each individual ITS Participant will identify the limit orders it wishes to have protected, and will send a summary to LOIS. The new facility will produce a total display of limit orders entered from all Participants, at various price levels. When a broker-dealer on any of the Participant exchanges contemplates a trade below the bid or above the offer, he will be able to request a LOIS display that will show him, in advance, the limit orders he must protect. In executing the transaction on an exchange, the broker will reserve the appropriate number of shares that must be protected through the ITS linkage. The Participant exchanges from which the protected orders were entered will, of course, be notified immediately.

All limit orders included in the system will be considered as "firm" orders, and only those orders entered by ITS Partici-

pants will be protected. Competitive pressures should help encourage entry of all limit orders into the facility, and eventually reduce unprotected limit orders to an insignificant number.

The ITS Participants have agreed that both agency and principal orders should be protectable. Orders entered into LOIS will be protected. And the ITS Participants have begun consulting with their floor professionals, upstairs traders and other expert and interested groups as to the best procedures for building that capability into the LOIS system.

We believe this new facility will, in fact, provide an effective basis for protecting limit orders away from the market. From the particular standpoint of block firms, the availability of a dynamic floor display of the orders that must be protected, in advance of block executions, should help promote an effective limit order protection system with minimal impact on the existing auction trading process.

Obviously, a substantial amount of work must still be done by the ITS Participants, cooperatively, to resolve the innumerable details of the pilot program that is presently targeted to begin by the end of September 1980. And the six ITS market centers have presented the following timetable to the SEC:

° October 1979 -- The ITS Participants expect to be able to give the Commission a more detailed timetable for phasing in the limit order protection pilot, including preliminary plans of each Participant with respect to procedures for compiling limit order summaries.

° November 1979 -- The ITS Participants plan to provide a more detailed description of how the LOIS pilot will operate.

° Year-End 1979 -- The ITS Participants expect to submit to the SEC a formal LOIS amendment to the existing ITS Plan.

° First Quarter, 1980 -- The ITS Participants anticipate filing with the Commission any necessary rule changes in connection with implementing the LOIS pilot in their respective markets.

° September 1980 -- Target date for implementing the LOIS pilot, probably with at least two Participant exchanges and a limited number of stocks -- with expansion to include additional stocks within the next month or two.

Since the proposed Limit Order Information System would, in fact, be an integral part of ITS, the question of participation by other market centers really hinges on their joining the ITS linkage. As indicated earlier, discussions are continuing with the NASD; and whatever form NASD entry into ITS may take --whether the NASD itself would become a participating market center, or whether NASD firms would participate individually in the developing Competitive Market-Maker System-- it may become possible for NASD firms --and any other market center participating in the intermarket linkage-- to gain access to the LOIS application.

NYSE MARKET CENTER LIMIT ORDER FILE (MCLOF)

A major consideration affecting the ability of the various ITS Participants to keep pace with the proposed LOIS timetable will be their individual ability to develop suitably efficient in-house facilities for identifying and summarizing the limit orders in their own markets which are to be protected system-

wide. However, several of the Participants have already begun developmental work, and we do not now foresee this as a prospective problem area.

At the NYSE, we anticipate that many of the limit order entry, storage and reporting techniques and facilities that have been undergoing preliminary pilot testing in our market in recent months will prove to be readily adaptable to the new requirements of identifying those limit orders that are to be protected throughout the ITS network, compiling the appropriate summaries, and transmitting them to the new LOIS facility.

Once the ITS Participants have agreed upon a more detailed timetable for the LOIS Pilot, it will be come possible for the New York Stock Exchange to develop more detailed and specific plans for the most effective and efficient NYSE interface with LOIS. And we expect that, at that time, each of the other ITS Participants will also be in a better position to proceed with development, in accordance with its own individual business needs and operations, of its own facilities for interfacing with LOIS.

ENHANCING MARKET-MAKING COMPETITION

In addition to accepting the leadership responsibilities inherent in the NYSE's role as, obviously, the largest individual competing market center in the emerging National Market System, we have also recognized that success in competing with other

markets is very closely tied to the kind of excellence that can only be achieved through maintaining an intensely competitive environment within our own marketplace, As a result, we have taken several important steps to spur internal market-making competition which, in turn, enables NYSE member market-makers to compete more vigorously with their counterparts in other markets.

° Registered Competitive Market-Makers (RCMMs)

The first of these steps, in May 1978, was to establish a new category of Exchange floor members -- Registered Competitive Market-Makers. RCMMs have specific Exchange-imposed obligations to trade for their own and their firms' accounts --when called upon by an Exchange official-- by making a bid or offer that will narrow the existing quote spread or improve the depth of an existing quote. Any RCMM may also be asked to assist a commission broker or a floor broker in executing a customer's otherwise unexecutable order.

At present, 47 RCMMs are registered with the Exchange. During the first eight months of 1979, RCMMs effected 60,993 transactions involving a total of 37,971,700 shares -- an average of 623 shares per transaction. Acquisitions totaled 17,643,600 shares and liquidations totaled 20,328,100 shares. Over the eight-month period, RCMMs were called upon by floor officials to make bids or offers in difficult situations --or by floor brokers with customers' unexecuted orders-- a total of 328 times. The cumulative data show that their participation improved the market in 87.8% of the situations in which they were involved as buyers or sellers.

° Competitive Market-Maker System Pilot

At the NYSE, we have recognized that it is desirable, in the context of supporting and encouraging the development of a National Market System, to modify existing and developing facilities in ways that can stimulate additional market-making competition in our own market. In our June 29, 1979 appearance at hearings conducted by the SEC on a proposed experiment that would exempt from the existing off-board trading rules of the various exchanges the stocks of certain newly listed companies, we offered a proposal of our own that we believe would be considerably more practicable.

Acknowledging the Commission's eagerness to resolve the off-board trading rules issue, we pointed out that it would, nevertheless, be counterproductive to attempt to remove those rules --even in part-- before the remaining key elements of the National Market System are in place and functioning properly and effectively. And we stressed our belief that, in fact, the confusion that would inevitably be generated by the proposed experiment would deflect the securities industry's attention from more urgent National Market System projects and thus impede, rather than stimulate, further progress toward the goals and objectives identified by Congress in the Securities Acts Amendments of 1975.

The proposal we offered would avoid the uncomfortably high potential inherent in the proposed off-board trading rule experiment for impairing auction-type trading, for decreasing the level of protection available to public investors and, therefore, for eroding public confidence in the securities markets.

We called, instead, for a cooperative effort that would focus not on removing existing off-board trading restrictions but, rather, on finding new ways to strengthen market-making competition and add to market liquidity in listed stocks. Ideally, this would involve giving market-makers who wish to commit risk capital an opportunity to do so by making competitive, continuous, two-sided markets in listed stocks --within the evolving National Market System framework-- without requiring their physical presence on the trading floor. Firms accepting that opportunity would, in fact, make markets in direct competition with everyone else in the system, as an extension of the present method of doing business.

We pledged our best efforts, at that time, to develop a proposal for utilizing the very substantial market-making capabilities of NYSE member firms -- through a new step-by-step evolutionary process in which experience gained along the way, together with parallel progress in National Market System initiatives, would contribute to maximizing the effectiveness of the final product. The key caution, as we suggested to the Commission, is that we must avoid establishing procedures or implementing mechanisms that might weaken the present high quality of the listed markets and the many public protection safeguards which are so essential to maintaining public confidence in those markets.

Our current thinking, based on preliminary consultation with NYSE constituent groups --including the various elements of the Exchange membership and our listed companies-- is that it should be possible for firm bids and offers in listed stocks

to be entered directly onto the trading floor from both member firm and non-member firm offices by way of a keyboard/CRT device. Those bids and offers would then become part of the overall New York Stock Exchange quotation that is disseminated over the Consolidated Quotation System. Any broker in any ITS Participant market center could, therefore, hit the bid or take the offer, with the resulting transaction executed on the NYSE floor, subject to NYSE rules. Since the objective here would specifically be to enhance competitive market-making, agency orders held by brokers would not be handled through this system.

Our current plans call for initiating a pilot operation in January 1980, and we will soon begin selecting firms for the pilot, with particular attention to attracting a suitable mix of local, regional and national firms -- both retail and institutional. The pilot will be designed to permit non-member broker-dealers who are members of the NASD to participate in competitive market-making on the NYSE. We expect to begin the pilot with five stocks, and plan to expand it later in the year, to include additional stocks and additional competitive market-making firms -- in essentially the same orderly fashion that has characterized our approach to other National Market System and related development programs. Our goal here is to help assure that a strong new element of market-making competition is smoothly built into the emerging National Market System.

DESIGNATED ORDER TURNAROUND SYSTEM (DOT)

As the Subcommittees are aware, competition for order flow has greatly intensified with the development of new systems and technology aimed at making order-handling more efficient and

cost-effective. At the New York Stock Exchange, we have devoted considerable time and effort to perfecting our Designated Order Turnaround (DOT) System, which competes with order-handling systems implemented at other exchanges.

DOT, of course, is strictly an NYSE facility, and not a part of the National Market System. Essentially, this system enables NYSE member firms to transmit market orders of up to 299 shares and day limit orders of up to 500 shares, in virtually any listed stock, directly from computers in their own offices, through the Exchange's electronic message switch, to the proper trading post on the Exchange floor. The specialist receiving an order via DOT represents it in the trading crowd at the post, giving it the same status as other orders represented there, executing it as quickly as market interest and activity permit, and sending a confirmation back to the originating broker's office over the same electronic circuit that brought the order to the floor.

Since DOT began operating in 1976, it has evolved as a major aid to member firms in reducing the costs and improving the efficiency of handling smaller orders. 89 NYSE member firms are now direct DOT users. On a typical day in 1979, traffic routed through the system has participated in approximately 45% of the post-opening transactions executed on the NYSE trading floor -- or about 25,000 transactions. In recent months, DOT orders have participated in some 10% of all NYSE reported share volume -- in the neighborhood of 3 million shares daily.

Although DOT itself is not a National Market System component, an important part of the NYSE's internal program of gearing up to participate in the new LOIS application to ITS will

involve developing techniques for including limit orders routed through DOT in an in-house limit order identification and summarizing facility.

NYSE FACILITIES UPGRADE PROGRAM

A major National Market System-related task for the New York Stock Exchange has focused on assuring our own ability to accommodate the complex new electronic technology that has been proliferating in connection with the evolving system.

Thus, over the past year, a major element of our commitment to the development of a National Market System has been a far-reaching program to upgrade Exchange trading floor facilities. In October 1978, the Exchange's Board of Directors approved detailed plans for changes in the trading floor environment aimed at permitting more efficient utilization of available space and providing the capability for more and better displays of trade information generated by our own and other market centers.

The most dramatic change involves replacing all 22 traditional U-shaped trading posts --most of which have been in service for half a century-- with 14 new trading posts consisting of pairs of cogwheel-shaped installations with shared service cores accommodating ITS, DOT and other National Market System-related equipment. The superstructures of the new posts are designed for maximum flexibility in accommodating market data displays; and the over-all modular construction of the new posts will permit them to be readily modified, rearranged or restructured --when and if necessary-- to accept new electronic

systems that may be added in the future.

In order to accommodate the tremendous power supply requirements of the modern securities marketplace, we have designed a "space frame" to be hung from the ceiling of the main trading area and used for distribution of power, signal cables, air conditioning and support of the trading post superstructures.

As in all of our systems planning, a pilot approach to the Facilities Upgrade Program has been indispensable to assuring that the final product will be thoroughly efficient and cost-effective. A pilot trading post was installed in January 1979, providing invaluable operating experience which has, in fact, resulted in numerous over-all design changes -- including a reduction in the total number of new posts from 18 to 14 (10 of which will be larger than the pilot post and 4 of which will be smaller); a trading floor layout that will be substantially different from the original plan; and many alterations in the details of work-space configurations, aimed at providing optimum working conditions for all personnel on the floor. These changes increased the total construction budget from $10 million to $12 million and have required changes in the implementation schedule.

The present timetable for bringing the new facilities into operation --without any interruption in trading-- calls for installation of the space frame between November 1979 and January 1980; and installation of the new posts, on weekends, during April-October 1980.

Additional changes to be implemented in connection with the over-all Facilities Upgrade Program include introduction of a new radio paging system to replace the Annunciator Boards formerly used to summon brokers to their firms' booths; and installation of new telephone facilities, a new lighting system and a public address system.

Phase II of the Facilities Upgrade Program, now in the preliminary planning stages, will involve upgrading brokers' booth facilities on the periphery of the trading floor, and addressing communications and other requirements of member firms communicating to and from the trading floor.

CONCLUSIONS

The Exchange is aware, of course, that some commentators have expressed concern that, although four years have elapsed since Congress formalized its call for the establishment of a National Market System, in the Securities Acts Amendments of 1975, the system is not yet complete. We believe those comments overlook the magnitude of the tasks involved in developing a National Market System without putting the acknowledged high quality of the present market system at risk or jeopardizing investor confidence by risking serious disruptions in the existing securities trading processes. The critics also appear to give insufficient attention to the complex issues and problems which must be satisfactorily resolved among all the competing participants who share primary responsibility for conceiving, planning, designing, implementing, operating and funding the complex elements of such a system.

At the present advanced stage of National Market System evolution, therefore, it is appropriate to examine and assess how effectively the various participants in the total National Market System development effort --the Congress, the SEC and the securities industry-- are fulfilling the roles originally envisioned for them.

° The Role of Congress

It was, of course, the Congress that determined the need for a National Market System, and it was the Congress that gave the concept of a National Market System the force of law, in the Securities Acts Amendments of 1975.

As many commentators have pointed out, Congress, in setting the ground rules for developing such a system, wisely and carefully refrained from trying to specify the structure or components of the system. Congress did specify objectives for the SEC and the industry; and, perhaps most important, Congress provided very clear guidelines for what a National Market System should accomplish.

After stating unequivocally that "the securities markets are an important national asset which must be preserved and strengthened," Congress specified that, among other things:

. A National Market System should enable all buying and selling interests in securities traded within the system to meet and interact within the system.

. It should link the various competing markets through new data-processing and communications capabilities.

. It should assure an opportunity for investors' orders to be executed without the participation of a dealer.

. It should assure price protection for customers' limit orders.

. And it should provide for effective surveillance of market activity.

The legislative history of the 1975 Amendments leaves no doubt of Congress' determination, as the House Committee on Interstate and Foreign Commerce put it:

> "...to enhance competition and to allow economic forces, interacting within a fair regulatory field, to arrive at appropriate variations of practices and services. Neither the markets themselves nor the broker-dealer participant in those markets should be forced into a single mold. Market centers should compete and evolve according to their own natural genius..."

° The Role of the SEC

Congress was no less clear in setting forth the role intended for the SEC, which it directed to "facilitate the establishment of" a National Market System, with "due regard for the public interest, the protection of investors, and the maintenance of fair and orderly markets" -- in accordance with the findings and objectives set forth by Congress.

Congress also empowered the Commission "to authorize or require self-regulatory organizations to act jointly...in planning, developing, operating or regulating" a National Market System or its subsystems and facilities.

The SEC has more recently suggested --and the New York Stock Exchange agrees-- that "the development of a National Market System should be an evolutionary process," and that the Commission's role "is to monitor and encourage industry progress,

to act as a catalyst and, when necessary, to take regulatory action to achieve a particular goal."

The Commission has also pointed out --and again, we agree-- that "Congress did not intend that the Commission dictate the ultimate configuration of the National Market System or, through regulatory fiat, force all trading into a particular mold."

° The Role of the Securities Industry

We believe --and the SEC appears to agree-- that Congress essentially intended that the securities industry should bear primary responsibility for evolving the ultimate format and facilities that will comprise a National Market System -- based on the industry's consensus view of the combination of trading and other elements that will best achieve the legislative goals.

We believe that the record --and particularly the record of the past 27 months, as summarized in this progress report-- offers clear evidence of the securities industry's total commitment to the National Market System concept, and that it demonstrates the industry's determination and ability to create a National Market System that will be fully consistent with the intent of Congress and with universally accepted high standards of service to the investing public.

We believe that the record shows that the evolutionary process has, in fact, been proceeding in an orderly fashion. The step-by-step approach, in which the SEC has been effectively fulfilling its assigned role as monitor, catalyst and, on occasion, prodder, has enabled the industry to design each successive development in a way that provides a firm foundation for the next.

We believe the industry and the SEC should continue to work together in this spirit, and with our complementary commitments, to avoid precipitate actions or experiments that could weaken or damage the important national asset that Congress correctly perceives the securities markets to be.

Most of the essential elements of a National Market System are, in fact, in place and operating smoothly. And we are fully confident that the remaining tasks and systems can and will be completed with a measure of speed and efficiency tempered only by the dictates of prudence --and what is technologically possible-- in the months ahead.

Mr. ECKHARDT. Mr. Birnbaum.

TESTIMONY OF ROBERT BIRNBAUM

Mr. BIRNBAUM. Thank you.

My name is Bob Birnbaum and I am president of the American Stock Exchange. I am accompanied today by Gordon Nash of Lord, Day and Lord, exchange counsel.

The Amex welcomes the opportunity to appear before these two distinguished subcommittees of the Congress and express its views on the progress which has been made toward the development of a national market system.

When we appeared before these same subcommittees in the summer of 1977, there was only one major component of the national market system in operation, the Consolidated Tape. In the intervening 2 years there has been very considerable progress, not only in conceptualizing the national market system but also in developing and actually implementing additional components of the system.

For more than a year the industry has been operating a Consolidated Quote System enabling brokers to obtain and compare quotations from various competing market centers; also an electric linkage between markets, the International Trading System has been operating for approximately 1 year and presently ties together six marketplaces with approximately 600 equity securities included in the linkage.

This system enables a broker in any participating market to determine whether a better price is available in another market and, if there is, to reach into such other market, through the electronic network, and seek the better execution opportunity shown to be available there.

Plans have also been submitted to the SEC for a mechanism which, by building on ITS, would provide systemwide protection of limit orders against executions at inferior prices. A commitment has been made by all of the ITS participants to work toward implementing a pilot operation of this system by September 1980. Moreover, nearly every exchange has during the past several years

proceeded on its own to develop new mechanisms and to improve existing systems for the automatic routing and processing of orders, reporting of executions, and furnishing of market data.

All of these steps have resulted in enhanced competition among marketplaces and market makers; aided in reducing costs and providing more efficient execution of securities transactions, and enabled brokerage firms to provide improved services to investors.

The Amex believes that both the SEC and the industry have acted responsibly and effectively in their efforts to achieve the national market objectives spelled out by Congress. The progress made to date has been mainly evolutionary in nature rather than a resort to radical restructuring of our present capital-raising mechanism. This approach we believe to be consistent with the finding by Congress that our securities markets are an important national asset which must be preserved and strengthened.

The effort has been aimed at building on the strengths of our existing markets, to enhance competitive opportunities, improve efficiency, tie markets together electronically, make more information available to the investing public, and create the means by which brokers can achieve the best price for their customers.

We do not contend that all national market objectives have been achieved. Many of the mechanisms that are in place need to be improved and those on the drawing board need to be perfected. But we are convinced that the industry and the Commission are following the path intended by Congress.

As we move farther along this path it is essential, however, that we guard against pitfalls which could have the effect of destroying our existing auction markets; developments such as the internalization of order flow within brokerage firms and the substitution of dealer markets for agency markets. If appropriate safeguards are invoked against these potentially destructive forces, we believe that the cooperative efforts of the self-regulatory organizations and the Commission will result in the achievement of all national market goals laid down by Congress within a reasonable time frame.

Thank you.

[Testimony resumes on p. 213.]

[Mr. Birnbaum's prepared statement follows:]

STATEMENT OF THE AMERICAN STOCK EXCHANGE, INC.

My name is Robert Birnbaum and I am President of the American Stock Exchange. I am accompanied today by Gordon L. Nash of Lord, Day & Lord, Exchange counsel.

The Amex welcomes the opportunity to appear before these two distinguished subcommittees of the Congress and express its views on the progress which has been made towards the development of a national market system. I understand you are primarily interested in four key areas--new developments that have taken place since August 1977; the adequacy with which the Securities and Exchange Commission and the industry have fulfilled their role in the development of the national market system; the potential of two specific facilities--the Intermarket Trading System (ITS) sponsored by all of the major exchanges, and the Cincinnati Stock Exchange's electronic trading system--for fulfilling the legislative mandate of the '75 Act Amendments; and finally what additional steps should be taken by the SEC and the industry. I would like to touch briefly on each of these areas.

New Developments since 1977

First, what has been accomplished? When we appeared before these same subcommittees in the summer of 1977, there was only one major component of the national market system in operation--the consolidated tape. This system, managed jointly by all the participating exchanges and the NASD, captures all last sale

prices of securities listed on the primary exchanges, as well as selected issues on other exchanges, and disseminates them nationwide in the sequence in which they are reported from the various markets, including trades effected in the over-the-counter market in such listed securities.

In the intervening two years there has been very considerable progress, not only in conceptualizing the national market system but also in developing and actually implementing additional components of the system. One of the fundamental building blocks of a national market system is a means for enabling brokers to obtain and compare quotations from various competing market centers. The industry--through the impetus provided by SEC rule making--has developed and for over a year has been operating a consolidated quote reporting system which largely parallels the consolidated tape. Quotes entered in the CQS must specify size and must be firm, subject to certain exceptions necessary to reflect changed circumstances after a quote has been reported. Based on the limited period of full operation--approximately one year--we believe this system is working reasonably well and is providing a sound basis for intensifying competition among market makers in the various market centers.

Perhaps the main cog in any national market system is an electronic linkage of the individual competing market centers--a

system to enable brokers to send messages back and forth and to effect executions between such market centers. Here again, the industry has moved beyond the drawing board and implemented such a linkage that currently includes six market centers and 590 equity securities. Essentially, ITS consists of a central computer facility, a network of interconnected electronic terminals in all the participating market centers providing two-way communications capability, and quotation displays in each such market center showing the quotes from all competing markets. Thus, a broker in any of the participating markets can determine whether a better price is available in any other market and, if there is, he can reach into such other market--through the electronic network--and seek the better execution opportunity shown to be available there. ITS has been an evolving system since it first went on stream in the fall of 1978. Obviously, it takes both time and experience for brokers and market makers to get used to the market interaction made possible by a system of this nature. We firmly believe, however, that the increased use of ITS in recent months clearly demonstrates its pivotal role in enabling brokers to obtain the best price for their customers and in stimulating competition among market makers throughout the system.

A necessary companion to an effective national market is a national system for clearing and settling transactions. A great deal of progress has been accomplished in this area also, commencing with the consolidation of the three New York City clearing facilities previously operated separately by the Amex, NYSE and NASD. Following that consolidation a major effort was undertaken to develop interfacing arrangements linking up all major clearing organizations in a manner that will permit a broker to select a single clearing organization to clear all his transactions, no matter where the purchase or sale occurred and no matter who the opposite side broker may be. Although these interfaces involve a number of communications, record keeping, financial and legal complexities, "single account clearing" is nearing reality and the brokerage community is already beginning to realize some of the millions of dollars in savings that will result from eliminating the need for each firm to deal separately with a number of different clearing entities.

Another area which has received a great deal of attention recently is a facility for providing system wide limit order protection. This past spring the Commission requested the various self-regulatory organizations to develop a joint plan for protecting limit orders against executions at inferior prices and to begin work on designing such a system so that it might be "implemented, at least on a pilot basis, not later than the end of calendar year 1980." Recently all of the ITS participants submitted an outline of such

a facility to the Commission together with a commitment to work towards a pilot operation by September 1980.

The proposal envisions building on the existing ITS market center linkage and is premised on the fact that ITS itself provides a means of protecting limit orders at or within the quoted markets of any of the participating ITS market centers. Thus, only limit orders away from the quoted markets require protection. Each ITS participant would gather those limit orders it desires to be protected and send a summary to a central computer facility. The summaries from all participating markets would then be aggregated and a display would be generated showing the total number of limit orders at various price levels. Whenever a broker or dealer in any ITS market center contemplates effecting a transaction outside the quoted market, he will be able to access the central computer facility and determine in advance the limit orders that must be protected. With this information at hand, the broker will then be able to reserve the appropriate number of shares to protect those limit orders before executing the transaction outside the quoted market. Immediately after such execution, responses will be sent through ITS to the various market centers with limit orders that have been protected.

We recognize that we are in the very early stages of planning a facility for system wide limit order protection. Additional input from the self-regulatory organizations, the broker dealer community, the Commission and technical experts can be expected to help refine and

improve upon this initial formulation of a plan. But we believe a system based on the principles underlying the submission made to the Commission is both economically and operationally feasible and will contribute significantly to the goal of investor protection.

The areas I have touched upon are the most visible and direct results of the joint efforts by the industry--under the guidance and prodding of the SEC--to design and implement components of the national market system. But during the four years since the enactment of the '75 Act Amendments, there have been a number of other developments which have contributed significantly to achieving the national market objectives outlined by Congress. Nearly every exchange has proceeded on its own to develop and perfect new systems having such capabilities as automatic routing and processing of orders, automatic execution of odd-lot orders and, in some cases, round-lot orders of limited size, improved displays of composite market data, and more efficient and faster reporting of executions to member firms. Access to exchange markets has in several instances been eased. Off-board trading restrictions with respect to all agency transactions (except in-house crosses) have been abolished. All of these steps have resulted in enhanced competition among marketplaces and market makers, reduced costs and more efficient execution of securities transactions, and improved services to investors.

Adequacy of SEC and Industry Actions

The Amex believes that both the SEC and the industry have acted responsibly and effectively in their efforts to achieve the

national market objectives spelled out by Congress. The progress made to date has been mainly evolutionary in nature rather than a resort to radical restructuring of our present capital raising mechanism. This approach we believe to be consistent with the finding by Congress that our "securities markets are an important national asset which must be preserved and strengthened." The effort has been aimed at building on the strengths of our existing markets--to enhance competitive opportunities, improve efficiency, tie markets together electronically, make more information available to the investing public and create the means by which brokers can achieve the best price for their customers.

There are, of course, critics who contend that very little progress has been made. Many of these critics are proponents of giant computer complexes controlling vast electronic communications networks that would capture, process, execute and settle all securities transactions through a single uniform system. While there have been numerous attempts at describing such systems, no one so far has been able to provide assurances they will work as intended, that they can be developed within a reasonable time frame, that adequate financing can be arranged, that they would be economically feasible to operate or that, even if perfected, they would serve the needs of investors better than existing markets. The one thing that most such electronic markets have in common is the substitution of a machine for the judgmental and decision making process now carried out by a broker

in representing his customer, and thus they pose a serious threat to exchange auction markets as we know them today. Measured against this type of visionary and hypothetical market structure, progress may indeed be said to have been slow. We do not believe, however, that it is necessary to supplant existing markets in order to achieve the goals laid down by Congress.

We do not contend that all national market objectives have been achieved. There are still important issues to be resolved. Solving them can at times be a difficult and tedious process--particularly in view of the large number of competing market centers involved, each of which is striving to represent the interests of its own constituency. But we believe the progress that has been made to date clearly demonstrates that differing points of view can be reconciled and workable compromises can be developed.

The fact is that many of the mechanisms I have referred to previously are now operating to make the markets more efficient, to reduce order handling costs, and to enable brokers to obtain the best price for their customers. Not everything is working perfectly, of course. But as time passes we are gaining more experience and are thus able to make improvements, eliminate flaws and adopt innovations. I firmly believe that this will continue to be an evolutionary process and that ten years or twenty-five years from now we will still be searching for ways to improve the system.

The SEC has in our view appropriately discharged its responsibilities in carrying out the will of Congress. It has

alternately requested ideas, prodded the industry into moving forward and, on occasion, exercised its rule-making authority to achieve results. We have not always agreed with some of its decisions or priorities but we have found generally that it has been prepared to listen to the industry's views, to consider alternatives and to accept compromises. This we believe has in large measure been responsibile for the considerable progress that has been made. It is our hope that in the future this spirit of cooperative endeavor will persist and that the Commission will continue to resist taking precipitous or radical actions which could threaten the stability or viability of existing markets.

Potential of ITS

I have already discussed the functioning of ITS in the national market scheme. We at the Amex believe this system has already demonstrated its capability of tying the markets together electronically in an effective, practical, reliable and inexpensive manner. The most important feature of this system is that it gives the broker maximum flexibility at the most critical point in the process of carrying out his fiduciary responsibilities--at the time of actual execution of a customer's order. No matter which market the order is represented in, the broker can ascertain, immediately prior to execution, whether a better price is available in some other market and, if so, seek to obtain that better price.

We anticipate that, as further experience is gained, there will be significant improvements in the operation of ITS and new applications will be found for its use. Turn-around time (lapsed period from time inquiry is sent to another market until response is received) has in some instances not been as rapid as hoped for and efforts are under way to improve performance in this area. Educational programs have been initiated to familiarize brokers with the operation of ITS and the benefits it can provide in achieving the best execution prices for their customers.

High priority must, of course, be given to the task of tying into ITS those markets which are not now participants. The Cincinnati Stock Exchange has been invited to join the ITS plan and we understand that it has taken that proposal under advisement. The inclusion of over-the-counter market makers presents more substantial problems because of the difficulties and costs of interfacing with a large number of widely separated offices. It was originally anticipated that the NASD would develop some sort of "concentrator" for O-T-C quotes and for receiving and responding to ITS trading commitments and inquiries on behalf of O-T-C market makers--similar to the procedures it has adopted for collecting transaction reports for inclusion in the consolidated tape--but so far this has not materialized because of policy questions concerning NASD's role as a market center. Recently,

the NASD announced plans for a major program involving communications links and order handling processes in the O-T-C market. While no details of this program have as yet been released, it is possible that it will provide an improved mechanism for linking O-T-C market makers to central exchange markets through ITS.

Additional Steps to be Undertaken

We believe that for the near future, the primary efforts of the self-regulatory organizations, in cooperation with the SEC, should be to further perfect the national market mechanisms that are presently in operation (particularly ITS), to expand their coverage to include all markets as I have previously indicated, and to move forward with a plan to provide system-wide limit order protection. Once all of these systems are functioning and have been given an opportunity to reach their potential, it will be possible to assess the degree to which our securities markets are operating in conformance with the national market objectives laid down by Congress, and whether or not further structural changes are required or are desirable.

One other area which must be explored in the near future is the extent to which national market mechanisms developed in connection with the trading of equities are adaptable for other types of securities. In particular the industry must address the problems of a national market system for options. While we recognize that there are substantive differences in the trading processes for

options and equities and that these differences will most certainly increase the difficulty of integrating the various options markets, the experience gained from tying together the equity markets should furnish valuable insights in proceeding with a national options market system.

On a final note, I would like to turn to what the Amex considers the most serious and far-reaching problem which remains to be solved in connection with the development of the national market system--the consequences of eliminating remaining off-board trading restrictions. These restrictions prohibit exchange member firms from crossing customer orders in their offices and from effecting off-board principal transactions in listed securities.

We believe that the principal threat not only to existing markets but also to the national market system as conceived by Congress, is the potential for internalization of order flow within large brokerage firms once off-board trading restrictions are removed. Such internalization of order flow has the potential for preventing a significant amount of buying and selling interest from being reflected in the marketplace, thus increasing market fragmentation and decreasing pricing efficiency. This would deal a crippling blow to our auction markets as we know them today and would likely make a national market impossible of achievement.

As we have previously testified before these subcommittees and before the Commission, the Statute clearly envisions the development of a national market system and the execution of <u>all</u> orders <u>within</u> that system. But encouraging the development of dealer markets and the internalization of order flow serves mainly to facilitate the execution of orders outside the planned system. We will, therefore, continue to urge the Commission to develop appropriate procedures and safeguards to prevent internalization of order flow before taking any further steps to eliminate off-board trading restrictions.

Mr. ECKHARDT. Mr. Wetherill.

TESTIMONY OF ELKINS WETHERILL

Mr. WETHERILL. Thank you, Mr. Chairman.

I am Elkins Wetherill, Philadelphia Stock Exchange, and I am accompanied by Mr. Nicholas Giordano, executive vice president.

We appreciate the opportunity to appear here and present our views on the national market system.

Our exchange is composed of 395 individual members and 247 member organizations. We trade 1,129 securities, of which 995 are also traded on other national securities exchanges. We are the Nation's third largest options exchange with trading 35 call options and 5 put options.

The Philadelphia Stock Exchange firmly believes that ITS is the cornerstone of a national market system and, when augmented with all presently planned applications, it will serve the public by enhancing competition while preserving the benefits of auction market trading.

Our written submission covers the progress toward a national market system for equities, the necessity for development of a national market system for listed options, the moratorium on unlisted trading privileges, removal of prohibitions on off-board trading, and the procedure for proposed rule changes.

I will not read that testimony but would like to make some comments.

The two major elements or components of a national market system are: One, the dissemination of securities information and two, the linkage of market centers.

In the area of dissemination of information, we now have an operable consolidated tape and a consolidated quotation system. We still need to develop a nondiscriminatory format for vendor display of securities information.

The consolidated tape has been phased in over the past 4 years. We would hope that a new CTA plan providing a more liberal procedure of amendment will be adopted. We would also hope that the present eligibility standards that permit only NYSE and AMEX listed securities to be displayed on the tape will be expanded to include those listed on other exchanges.

What securities information should be displayed by vendors is a subject that we believe requires immediate action by the Commission.

The Commission has proposed a rule requiring vendors to provide a display of securities reported on the consolidated tape indicating the highest bid and lowest offer, with size and indicating the market responsible for the bid or offer. We do believe that this rules goes far enough as it permits a display of information from less than all the market centers. Fair competition among market centers depends upon a display by all vendors of a quotation montage in each reported security.

In the second major area of a national market system, the linkage of market centers, much progress has been made.

From April 17, 1978 when ITS began operation between NYSE and PHLX with 11 stocks, to today when 593 stocks are traded by five exchanges, the volume has steadily increased.

One element of ITS that needs improvement is to reduce the maximum 2-minute time interval provided for execution or rejection within the system. An experiment is presently being conducted to shorten this period and thus create stronger incentives for the use of the system.

The ITS participants are now working on another aspect of the system, the protection of limit orders.

The participants recently filed with the Commission a proposal for a new limit order information system. This system will provide protection for both agency and principal limit orders away from the market. Work will soon begin on limit order protection for executions done at the market. The SRO's and the Commission must continue to work together to develop these concepts.

At a time when these subcommittees are conducting hearings on the progress toward development of a national market system for equities, we felt that it would be appropriate to call attention to a pressing need to begin to develop a national market system for options.

Pursuant to a voluntary agreement solicited by the SEC on July 18, 1977, the self-regulatory organizations who trade options have been subject to a moratorium on further expansion of standardized options markets. On February 22, 1979, having completed a special study of the option markets, the Commission issued a plan for terminating the moratorium.

In its plan, the Commission indicated that it would consider certain key options market structures among which is the issue of whether or not to permit multiple trading of options prior to the development of a national system for options.

The opinion of the PHLX is that multiple trading of options absent substantial progress via dissemination of information, protection of public limit orders and linking would be inconsistent with the basic objectives of Congress in section 11A. That section speaks of the need to eliminate fragmentation and enhance competition by the establishment of a national market system, "Which may include subsystems for particular types of securities with unique trading characteristics."

In practice, we see multiple trading in options at present as simply a way to destroy the smaller primary regional exchanges participation in option trading and to establish a long run monopoly position which the development of a national market system will not be able to undo. Thus, multiple trading now has a fundamental anticompetitive effect.

It seems to us that the very progress made in equity trading toward resolving the concerns expressed by Congress, the Commission and the industry itself, demonstrates the possibility and necessity of reforms within the structure of options trading to accomplish comparable protection for investors. A trading environment for options should be created wherein at last some of the elements of a national market system are in place.

The Congress should be just as concerned with national market system objectives in the options markets as with the equity markets.

We believe that the present procedures for proposed rule changes submitted by the SRO's to the SEC are cumbersome and result in unnecessary delays.

These delays often impede efficient administration by the SRO's and can hold back the implementation of desirable projects. We would suggest that consideration be given to amending the present procedures and have discussed this in some detail in our written testimony.

Our written testimony deals in some detail with the question of off-board trading restrictions and specifically with the experiment proposed by the SEC in rule 19c–3.

I would say here in summary that PHLX believes that the removal of off-board trading restrictions, even in the experimental or limited context of proposed rule 19c–3, is still untimely.

We also discuss in our written submission the question of unlisted trading privileges. We urge the Commission to resume the granting of these privileges under present rules and standards.

We believe that since the adoption of the 1975 act, there has been real progress toward competition between market centers and in the formation of a national market system. Much remains to be done but most of the basic elements are now in place and the willingness of the SRO's working with the SEC to keep the initial impetus moving seems apparent. We are pleased to have participated in these important areas of change in the securities industry and look forward to continued cooperation by our exchange and advancement of our exchange in future developments.

[Testimony resumes on p. 237.]

[Mr. Wetherill's prepared statement follows:]

Statement of Elkins Wetherill, President
of the Philadelphia Stock Exchange, Inc.
before the Subcommittee on Oversight and Investigations
and the Subcommittee on Consumer Protection and Finance
of the House Committee on Interstate and Foreign Commerce
September 24, 1979

I. Introduction

We appreciate the opportunity to appear before you and present our views on development of a national market system ("NMS") and other issues.

I think you may be interested in the following basic facts concerning our Exchange which dates back to 1790 and is the nation's oldest. Our Exchange is composed of 395 individual members and 247 member organizations.

We trade 1,129 securities, of which 995 are also traded on other national securities exchanges. We are the nation's third largest options exchange with trading in 35 call options and 5 put options.

The Philadelphia Stock Exchange is strongly supportive of an intermarket linkage facility of self-regulatory organizations and has devoted much time to development and implementation of the Intermarket Trading System ("ITS").

The Philadelphia Stock Exchange firmly believes that the ITS is the cornerstone of a NMS and when augmented with all presently planned applications, it will serve the public by enhancing competition while preserving the benefits of auction market trading.

Our testimony will cover the progress toward a NMS for equities, the necessity for the development of a NMS for listed options, the moratorium on unlisted trading privileges, the removal of prohibitions on off-board trading, and the procedure for proposing rule changes.

II. Components of a NMS

A. Dissemination of Securities Information

There are three components of a NMS which are necessary to assure pursuant to Section 11A of the Securities Exchange Act of 1934 ("Act"), that information concerning quotations and transactions in securities is available to brokers, dealers and investors. They are a Consolidated Tape Reporting System ("CTRS"), a Composite Quotation System ("CQS") and, a non-discriminatory format for vendor display of securities information. The first two components are operative. The third is the subject of a rule proposal of the Securities and Exchange Commission ("Commission").

1. CTRS

During the last four years the CTRS has been phased into operation under the Consolidated Tape Association ("CTA") Plan

of eight self-regulatory organizations. Today all transactions in securities which substantially meet the listing requirements of the New York Stock Exchange ("NYSE") and the American Stock Exchange ("AMEX") are disseminated to the public.

Although we believe that the CTRS is a primary component of a NMS we have expressed our dissatisfaction with the CTA plan in three areas. These are the presence of the market identifier, the dominance of the NYSE and the AMEX in the Consolidated Tape Association ("CTA") voting structure and the exclusive definition of "eligible security" in the CTA Plan.

Prior to April of 1978 all regional stock exchange transactions eligible for dissemination through the CTRS on moving ticker displays had a market identifier. Transactions of the NYSE and the AMEX had no identifier. The identifier restrained competition among markets by telling the world there is the "NYSE" and the "AMEX" and there are those other secondary market places. We are pleased that the Commission, at the request of the participants in the ITS, has taken action providing for removal of the market identifier on moving ticker displays. In our view, elimination of market identifiers from the tape has enhanced intermarket competition without significantly reducing the availability of market information.

In its January 1978 release the Commission, responding to the concerns of regional exchanges, indicated its intent

to call for reform of the voting arrangement in the CTA Plan. This voting arrangement gave two votes each to the NYSE and the AMEX and a single vote to each other participant. We are pleased that a newly proposed CTA Plan has been amended to provide a single vote to each participant. However, the CTA Plan as written is extremely detailed and in order to make changes in it an amendment is generally required. Since an amendment requires the unanimous vote of all participants, it is, practically speaking, difficult to make substantial changes in the plan.

Only "eligible securities" as defined in the CTA Plan qualify for dissemination on a moving ticker display. An "eligible security" is one that substantially meets the listing requirements of the AMEX or the NYSE. Thus transactions in securities which meet the listing requirements of any other national securities exchange without also meeting those of the AMEX or the NYSE are not disseminated on moving ticker displays. The CTA Plan recently has been amended to provide information on such transactions to vendors for inclusion, if they choose, in transaction reports on interrogation devices. But we continue to believe that the definition of eligible security in the Plan remains an unnecessary burden on competition in transactions in securities not listed on the primary exchanges and denies information concerning transactions in securities to brokers, dealers and investors.

2. CQS

In January 1978 the Commission adopted a rule requiring all market centers to collect and make available "firm" quotation information (including size) to securities information vendors for dissemination to market professionals and the investing public. Pursuant to the rule and a joint industry initiative of participants in the CTA, the Consolidated Quote Association ("CQA") was created to collect and process quotations from all participating market centers in a single data stream. As of August 1, 1978, a functioning consolidated quotation system, long considered a major component of the national market system became operational and quotation information is now a basic part of the nation's securities markets.

With respect to the CQA's voting structure, we have the same concerns as we expressed concerning that of the CTA.

3. Vendor Display of Securities Information

Vendor Display of securities information is an area which we believe requires Commission action as soon as possible.

In October 1978, the Commission proposed Rule 11Ac 1-2 which specifies minimum display requirements with respect to quotations. These requirements are very limited. Vendors would have to provide a consolidated transaction and quotation display for transactions reported on the consolidated tape indicating only the

highest bid and lowest offer, with size, and an identifier indicating the market or markets responsible for such bid or offer. This information must be retrievable in response to an inquiry which is simpler than the inquiry used to retrieve individual market center last sale or quotation information. The rule would permit vendors to display transaction and quotation information for fewer than all individual market centers who submit the data which comprises the composite display so long as such information, if provided, is retrievable on an equal basis among such market centers. While the proposed rule certainly represents an improvement in the present situation, we view it as an inadequate and discriminatory response to the objectives of a NMS.

We believe that fair competition among market makers and market centers dealing in securities depends upon display by all vendors of a quotation montage in each reported security and that the proposed rule should be amended accordingly. This is particularly true when the size sought by an order is greater than that shown by the composite quotation. It is also true when the bid or offer shown by several market centers is equal and the size is equal or sufficient. In these situations the best or most cost effective execution is determined by other factors than the best quotation such as depth at a higher bid or lower offer, execution and clearing expenses and other market conditions.

In the event that the Commission determines not to amend the proposed rule to require a montage format we have strongly urged that at the very least it require vendors to supply market data information from all individual market centers which contribute the information displayed in the composite display. Such information should be retrievable on a non-discriminatory basis. Fair competition between and among market centers cannot occur when vendors are not required by rule to provide market data information to brokers, dealers, and investors for all market centers which are required by rule to collect and make available such information.

B. Linkage of Market Centers

The evolving concept of a NMS, in our view, derives from Congress' recognition that it is in the public interest to preserve and strengthen the nation's securities markets, eliminate fragmentation, and maintain and enhance competition among markets and market centers. In order to strike a balance among these sometimes conflicting objectives it was necessary to join with other self-regulatory organizations in designing a system for connecting or linking the market centers which contribute to the CTRS and the CQS. This system is the ITS. When fully developed, it will provide the legislatively sought benefits of auction-type trading systemwide and cost effective executions.

1. Progress of ITS to Date

On January 26, 1978 in its National Market System Statement, the Commission endorsed the concept of an intermarket

order routing system in which each exchange and third market maker would be electronically linked. In response to the Commission's request on March 8, 1978, the AMEX, BSE, NYSE, PHLX and PSE filed a plan for the implementation of the ITS.

The ITS plan described an electronic linkage system supporting two distinct applications: an electronic mechanism to send orders from one market center to another market center; and a pre-opening application by which regional specialists and the orders they hold could participate in openings a specified amount away from the previous close. ITS participants further agreed, prior to the Commission's adoption of the firm quote rule, to honor their quotations and to protect bids on limit orders at the market which were reflected in these quotations.

On April 17, 1978, the ITS began operation by linking the PHLX and the NYSE in 11 stocks. By November 1978 the system linked all the original participants in the Plan in 273 stocks. As of August 30, 1979, 591 stocks are traded through the ITS and trade volume has increased steadily. Future plans call for linkage with all remaining market centers. It is our hope that agreement can soon be reached with the National Association of Securities Dealers and the Cincinnati Stock Exchange concerning their participation in the ITS.

2. Planned Improvements to ITS

a. Increased Speed of Execution

A primary goal of ITS participants is to increase the efficiency and ease with which orders are executed against orders in other markets and to thereby create strong incentives to use of the system. This means reducing the complexity of order entry procedures and the maximum two minute time interval provided for execution or rejection. Currently, ITS participants are experimenting with a one-minute time period, although average actual response time is now significantly less than a minute (43 seconds). Plans are underway for the expansion of this pilot.

b. Limit Order Protection

On its April 4, 1979 National Market Statement, the Commission stated that its first priority was to achieve nationwide price protection for public limit orders against executions at inferior prices. The Commission took note of the potentially deleterious effects on the exchange trading process detailed in comments submitted in connection with its earlier proposal for a central limit order file in which public limit orders would be entered and priced for execution in accordance with principles of price and time priority. It further expressed its reconsidered view that the self-regulatory organizations should be given the opportunity to resolve the various technical problems

associated with disseminating limit order information from each market center and enhancing the ITS so that it may serve as a means by which price protection for public orders can be afforded on an inter-market basis.

In response to the Commission's request the PHLX and other SRO participants in the ITS have agreed to work jointly through the system to develop and implement a plan for protection of limit orders and to establish a pilot program by the end of 1980. On September 7, 1979, the participants filed a response to the Commission explaining a new Limit Order Information System (LOIS) which will become part of the ITS. The new application will build upon the existing ability of ITS to protect orders "at the market" by providing for a protection of both agency and principal limit orders away from the market. It will thus preserve the benefits of auction type trading by making it possible systemwide for the best bid on a limit order to meet the best offer on a limit order.

We have also agreed to work with other ITS participants on increasing the efficiency of limit order protection for executions done at the market. This is the so-called "trade-through" problem which occurs when orders are executed at prices inferior to quotes being displayed by other market centers.

We believe that elimination of the "trade through" problem for orders at the market and the implementation of the LOIS will provide limit order protection in a manner consistent with Section 11A of the Act. In this regard we have refrained at this time from commenting on the Commission's recently proposed rule providing intermarket protection of all displayed public limit orders. The joint SRO initiative with which we are presently engaged will establish the environment in which the proposed rule, if adopted, would operate. An understanding of this environment is a prerequisite to meaningful consideration of a rule for limit order protection. We further believe that the SRO's and the Commission must work together to develop in an orderly and deliberate manner this component, as well as all others, of a National Market System.

III. Other Issues

A. NMS for Options

At a time when the subcommittee is conducting hearings on the progress toward development of a national market system for equities, we felt that it would be appropriate to call the committee's attention to a pressing need to begin to develop a NMS for options.

Pursuant to a voluntary agreement solicited by the SEC on July 18, 1977, the self-regulatory organizations who trade options have been subject to a moratorium on further expansion of standardized options

markets. On February 22, 1979, having completed a Special Study of the Options Market, ("Options Study"), the Commission issued a Plan for terminating the moratorium. In its Plan the Commission indicated that it would begin to consider certain key options market structures shortly, among which is the issue of whether or not to permit multiple trading of options prior to the development of a NMS for Options.

The opinion of the PHLX is that multiple trading of options absent substantial progress on dissemination of information, protection of public limit orders, and linking would be inconsistent with the basic objectives of the Congress in Section 11A to eliminate fragmentation and enhance competition by the establishment of a NMS "(which may include subsystems for particular types of securities with unique trading characteristics)". Our reasons, and they are well set out in the Report of the Options Study (Chapter VIII), may be summarized briefly as follows:

1. The public is directly injured by market fragmentation, the quirks of variable prices on different exchanges, and the practical impossibility of insuring best execution.

2. Under present conditions the effort to create a primary market at one exchange creates a risk of fictitious trading which may or may not be minimized by extensive and difficult surveillance.

3. In practice we see multiple trading at present as simply a way to destroy the smaller primary regional exchanges' participation

in option trading and to establish a long run monopoly position which the development of a national market system will not be able to undo. Thus multiple trading now has a fundamental anticompetitive effect.

It seems to us that the very progress made in equity trading toward resolving the concerns expressed by Congress, the Commission, and the industry itself, demonstrates the possibility and necessity of reforms within the structure of options trading to accomplish comparable protection for investors. A trading environment for options should be created wherein at least some of the components of a National Market System are in place.. For the Congress to be strongly concerned with NMS objectives in the equity markets, and to not consider these same concerns in the options markets seems hard to understand. We have expressed, as have other exchanges, our willingness to cooperate in overcoming the problems which are involved in establishing a NMS in options trading — and our recognition that such a system would probably make dual trading a fair and practical mode of inter-exchange competition in options.

Also noteworthy are the positive effects that a viable options program has on our equity markets and on our ability to be a true competitor in a NMS.

Our options program has indirectly resulted in increased order flow and capital commitment to our equity markets. This of course enables

our specialists to make better markets which are, through the ITS, accessible on a systemwide basis to the public.

B. Removal of Prohibitions on Off-Board Trading

For more than two years exchange members have been free to effect agency transactions over-the-counter (OTC) in securities dealt in on an exchange except for in-house agency cross transactions. However, transactions in which members act as principal have remained subject to exchange rules which limit or condition the ability of members to effect transactions OTC in securities listed and registered or admitted to unlisted trading privileges on an exchange (off-board trading restrictions).

The Commission in April of 1979, proposed Rule 19c-3 which would prevent off-board trading restrictions from applying, with certain exceptions, to equity securities which were not traded on an exchange on April 26, 1979, or which were traded on an exchange on that date but fail to remain so thereafter. These would be known collectively as Rule 19c-3 securities. Securities which were listed or admitted to unlisted trading privileges on an exchange on April 26, 1979, and remain so thereafter would be defined as covered securities and subject to the remaining off-board trading restrictions.

The PHLX has supported the concept of a national market system and worked actively for its development. We have indicated in previous public comments that we do not oppose the removal of off-board trading restrictions when the mechanism of the national market system

is sufficiently established to assure the statutory standards of fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets.

The Commission has argued in favor of "controlled, limited experiments" in the elimination of remaining off-board trading restrictions which are characterized as being in areas involving potentially profound market structure change.

In proposing the experiment with Rule 19c-3 securities the Commission expresses concern that continued listing of OTC-only issues will, because of off-board trading restrictions, preclude competition between OTC and exchange markets in an ever-increasing number of securities. It points out that, to some extent, OTC market-making is eliminated when OTC issues initially become traded on exchanges and questions whether arguments supporting off-board trading restrictions are significant or justifiable when it is proposed to eliminate such restrictions only with respect to exclusively traded OTC securities which become exchange-traded for the first time.

It is the expectation of the Commission that the proposed Rule might create new incentives to improve existing market linkage facilities and make it possible "to observe a trading environment freed from the constraints of off-board trading restrictions, but tempered in most instances by the discipline of comprehensive, multiple market

real-time last sale reporting and other national market system mechanisms and regulations".

The PHLX is aware of the significance of off-board trading restrictions in relation to a national market system. We cannot, however, understand the necessity for the elimination of off-board trading restrictions for a lesser number of exchange-traded stocks before assurances can be given that the experiment will be conducted within statutory guidelines that provide for fair and equal regulation. No matter how large or small the experiment, the same issues affect its operation, its impact upon market places and investors, and the value to be gained from it. We do not consider that conditions now exist for an equitable or meaningful experiment and we believe they should be established before an experiment of any scope is conducted.

We cannot agree with the Commission's view that there now exists sufficient equal regulation between exchange specialists and OTC market makers in those securities which might be covered by the experiment. This is not to say that rules establishing equal regulation should necessarily be uniform. However, where the objective of an experiment is to effect a market linkage between exchange and OTC market makers, there should be rules in place which establish minimum standards for qualification and performance in the framework of a national market system. Such rules should provide for registration requirements

for market makers; their capital requirements; the reporting of executions; the maintenance and reporting of firm two-sided quotes; affirmative and negative market making responsibilities; requirements that market making be continuous for reasonable periods of time; maintenance of audit trail records of transactions; and prohibition against recognized unfair trading practices.

We believe the issues presented in limit order protection should be resolved before the experiment with Rule 19c-3 is conducted and that OTC market makers in Rule 19c-3 securities should be bound by the limit order protection rule applicable to exchanges.

Whether off-board trading restrictions are removed in their entirety or only experimentally for a lesser number of Rule 19c-3 securities, the proposed rule does not take into consideration safeguards against fragmentation of order flow among market centers. Until such protective rules are developed for market makers in a linked market system, orders for Rule 19c-3 securities may be dispersed with customers unable to know which upstairs OTC market maker would provide a better price.

Relevant also to the proposed experiment is the determination of what are "qualified securities", that is, the designation of those securities qualified for trading in the national market system (NMS). In June 1979, the Commission, in an extensive Release, proposed adoption of a rule to provide procedures by which securities would be so designated. Several hundred OTC stocks might be included as NMS securities. The Qualified Securities Release designates standards under which OTC

stocks will be considered suitable for trading in an NMS environment and states the Commission's belief that it would be technologically possible to link all OTC market centers with each other and directly with the exchanges by means of an interface between ITS and an enhanced NASDAQ SYSTEM. Thus, comment is being sought on conditions and requirements considered appropriate for competitive market making between exchanges and OTC markets. Any such standards appear relevant to the competitive trading experiment proposed by Rule 19c-3 under which securities exclusively traded OTC might enter exchange markets at random. We think, at the least, that action on the experiment with Rule 19c-3 securities should be postponed until comments have been submitted on the procedures and rules proposed in the Qualified Securities Release.

The PHLX believes that the removal of off-board trading restrictions, even in the experimental or limited context of proposed Rule 19c-3, is still untimely. The linking of exchange and OTC markets is intended to contribute to best execution of investors' orders. Work remains to be done on the conditions under which the experiment should be conducted.

C. Moratorium on Unlisted Trading Privileges

Since December of 1977 the Commission has declined to grant unlisted trading privileges to the exchanges. Being thus unable to expand their number of securities admitted to dealings, the regional

exchanges have been placed at a competitive disadvantage with the New York exchanges.

Almost two years ago the Commission indicated that it might review its standards or guidelines for granting unlisted trading applications. It also supported its moratorium because of the Ludlow case which was pending at the time. The SEC had granted the Boston Stock Exchange unlisted trading privileges in the stock of Ludlow Corporation. The issuer objected, eventually appealing to the U.S. Court of Appeals for the District of Columbia. That Court has now upheld the SEC decision, observing that "the granting of unlisted trading privileges is highly relevant to the objectives of a national market system". The Court also found that the granting of such privileges is an indispensable part of Congress' plan for competition between securities markets, since otherwise trading will occur only on an exchange that lists the security under an agreement with the issuer, or over-the-counter.

We believe that the Commission should act without further delay to resume the granting of unlisted trading privileges under present rules and standards which appear to be adequate in view of the Court's decision in Ludlow. Continuation of the moratorium would also adversely affect the proposed experiment in removal of off-board trading restrictions to which we have previously noted our objection. Exchanges which

have heretofore availed themselves of unlisted trading privileges are now unable to expand the number of securities they trade by the exercise of this privilege. If an issue traded exclusively OTC becomes listed and subject to the Rule 19c-3 experiment, other exchanges could not trade the stock unless they could also obtain a listing. Failing to do so, they could not obtain unlisted trading privileges and would, thus, be prevented from competing in the experiment.

D. Proposed Rule Changes

Section 19(b)(1) of the Securities Exchange Act of 1934 requires a self-regulatory organization to file with the Commission each of its proposed rule changes accompanied by a "concise general statement of the basis and purpose of the proposed rule change". Once a proposed rule change has been filed, the Commission is required to publish notice of it and to provide an opportunity for public comment. The proposed rule change may not take effect unless it is approved by the Commission, or is otherwise permitted to become effective, under Section 19(b).

Section 19(b)(2) sets forth the standards and time periods for Commission action either to approve a proposed rule change or to institute and conclude a proceeding to determine whether a proposed rule change should be disapproved. For most routine rule proposals, the time period specified by the Act is 35 days.

Rule 19b-4 establishes the procedures for self-regulatory organizations to file proposed rule changes. Since adoption of the Rule

in June of 1975, our experience in general has been that the rule change process is cumbersome and has resulted in frequent delays well beyond the 35-day period specified in the Act. We do not believe that the Commission's recently proposed amendments to Rule 19b-4 will correct these problems.

One area of delay has been the time period between the filing of a proposed rule change and its publication in the Federal Register. Publication triggers commencement of the time periods specified in the Act for Commission action. But the Act does not specify a time period in which the Commission must publish a rule change, once filed. Therefore, we urge these Subcommittees to consider recommending to Congress the amendment of Section 19(b)(2) of the Act to provide for publication of a rule change within 10 days of its filing with the Commission.

Another area of our concern relates to the complex and formalized filings required by Rule 19b-4 as administered by the Commission. The Act expressly requires a filing of the rule proposal and a "concise general statement of the basis and purpose of a proposed rule change". The rule also includes this language. However, in administering Rule 19b-4, the Commission's actual requirements concerning rule filings it will approve have not allowed for concise statements of basis and purpose. It is common for these sections of rule proposals to run many pages. While disclosure to the public must be clearly and appropriately made, we do not believe that this objective is enhanced by interpreting the Act to require lengthy, complex, and legalistic rule change filings.

Delay also results from the pattern of frequent requests by the Commission's staff for extension of the statutory time period for Commission action. In our experience, it is not uncommon for these requests to be made at the very end of the time period for Commission action or for several extension requests consecutively to be made for a single rule change. In our view, it would be preferable for the Commission to disapprove a proposal, giving notice of its reasons, as required by Section 19b of the Act, rather than to administer the section by frequent requests for extension which serve only to delay the process.

IV. Conclusion

Thank you for this opportunity to express our views on these matters. We are available to further discuss with members of these subcommittees the comments and observations.

Mr. ECKHARDT. Mr. Rickershauser.

TESTIMONY OF CHARLES E. RICKERSHAUSER

Mr. RICKERSHAUSER. Mr. Chairman and Mr. Chairman, we appreciate the opportunity to be here and we compliment these two committees on holding these hearings periodically. I think they are an important contributor to the progress that has been made by requiring all of us to focus on these issues.

I will only mention some of the points in our prepared testimony, partly because it to some extent duplicates the other testimony and partly because I have with me a governor of our exchange, but more importantly, a specialist on our floor, who is probably the largest personal participant in the ITS in the United States. His name is William Lupien.

I think when we turn to the question and answer session, you would like to hear how ITS works and why it doesn't work better than it does. I suspect he said "I do" when you swore the witnesses, but if you want to do that again, you could.

Mr. ECKHARDT. Is he in the audience?

Mr. RICKERSHAUSER. Yes, sir.

Mr. ECKHARDT. I think Mr. Birnbaum has mentioned someone else.

Mr. BIRNBAUM. Mr. Nash.

Mr. WETHERILL. We have Mr. Giardano.

Mr. ECKHARDT. Will you identify yourselves?

Do you agree to tell the truth, the whole truth and nothing but the truth, so help you God?

Mr. LUPIEN. I do.

Mr. NASH. I do.

Mr. GIARDANO. I do.

Mr. RICKERSHAUSER. When we were here 2 years ago, we expressed disappointment at the progress. We now are quite pleased with the progress, in the development of the ITS system, except that the obstacles we pointed out then are really still significant problems to us.

There is no question but what the ITS system is beneficial to the Pacific Stock Exchange. It has increased its volume, it has ability to compete, and we think it also benefits public customers, but the obstacles that remain and need to be solved to make us more competitive are, just ticking them off, basically we still have problems with the way the securities are opened each day. We still have problems with trade-throughs. There are problems at the closing. And more importantly, from a governmental standpoint, we are quite dissatisfied with the 2-year moratorium imposed on unlisted trading privileges by the Securities and Exchange Commission, which prevents us from competing in securities of companies which have not chosen to list on our exchange. It is very hard to have a competitive intermarket system when we can't compete in a great number of the securities.

We have one other problem that is touched on in our testimony. We don't think the progress has been the same with respect to the development of ITS on the securities listed on the American Exchange that it has on the New York.

One problem that others haven't touched on, from the standpoint of the smaller exchanges, is that the perceptions of the public and the professionals in this business have not fully accepted the national market system to the extent that it really has developed. These perceptions arise because the newpapers still talk about the New York Stock Exchange transactions in securities and American and because the quotation and transaction retrieval devices are discriminatory against the other markets.

A problem that we think exists with respect to the SEC's progress in developing this system is that they tend to decide issues separately that really are interrelated to the development of a national market system. Two examples we give in our testimony are the option markets and clearance and settlement.

I think that that summarizes our position and once again, we very much appreciate your taking the time to hold these hearings.

[Testimony resumes on p. 257.]

[Mr. Rickershauser's prepared statement follows:]

TESTIMONY OF THE PACIFIC STOCK EXCHANGE INCORPORATED

Two years ago the Pacific Stock Exchange ("PSE"), in testifying before these Subcommittees, expressed great disappointment at the progress that had been made since the Securities Acts Amendments of 1975 in developing a national market system. In that testimony we indicated that no real progress had been made in the previous two years in developing a national market, and we stated that "the prospects for creating a national market system appear dim."

We are pleased today, that in reviewing the two years since our last testimony, we can report that some real progress has been made toward developing a national market system. Nevertheless, numerous obstacles remain to the development of a national market system. The difficulty of removing these obstacles is underscored by the fact that many of the problems we described in our testimony of two years ago remain today as major barriers to further progress in the development of a national market system.

A. The Intermarket Trading System and Progress Toward the National Market System.

1. Benefits of ITS.

The most important national market system development since our testimony two years ago is the establishment of the Intermarket Trading System ("ITS") as a means of linking the auction markets of securities exchanges. ITS, coupled with

another development of the last two years, the consolidated quotation system, provides the basic preconditions for competition among exchanges in making markets. Specialists can now display their quotes on other exchanges, review the quotes displayed by other exchanges, and effect executions on other exchanges. If the problems described below can be solved, we believe that ITS will enable PSE and its specialists to become a major competitive force in the national market system.

ITS has already provided substantial benefits for PSE's members and their customers, and for PSE. It has contributed to an overall increase in PSE volume. More importantly, perhaps, for demonstrating the potential of ITS, the PSE specialists who are most committed to ITS and most adept in its use have been able to achieve major increases in their share of trading volume in specific securities, and have thus been able to provide effective competition to New York Stock Exchange specialists in these securities. The success of the specialists who have used ITS is encouraging its use by other specialists, as well as encouraging additional persons with capital and market making talent to become specialists on PSE. All of these developments are combining to make PSE a stronger and more competitive market.

ITS has also begun to provide substantial benefits to public customers by affording them improved executions. We can gain some appreciation of the benefits to public customers

if we consider that, at current levels of ITS usage, each week approximately 4,000,000 shares are traded through ITS. Since trades are sent through ITS only when a better execution is available on another exchange, and since a better execution must be at least 1/8 of a dollar better, the direct weekly savings being realized through ITS must be at least $.125 x 4,000,000 or $500,000. In addition to these direct savings, there are additional indirect savings which are very difficult to measure. These indirect savings result from the fact that specialists frequently improve the price they have been quoting on their own floor rather than see an order shipped, by means of ITS, to another exchange. We estimate that these indirect savings to customers are probably at least as great as the direct savings.

While ITS is already benefiting the public, we believe that we have only barely begun to obtain the benefits that are obtainable through ITS. As more securities are added to ITS trading, and as more specialists and floor brokers on all exchanges become committed to ITS and adept at its use, we believe the benefits that the public obtains through ITS will multiply. Moreover, as specialists on different exchanges become more competitive, tighter markets will be quoted and the opportunities for savings by public customers will be increased.

In sum, we believe that ITS has already demonstrated the ability to enhance competition among exchanges and market makers, and through enhanced competition to provide substantial benefits to the investing public. ITS preserves the advantages of auction markets, while linking auction markets into a competitive national market system.

2. Obstacles to the Further Development of ITS.

Despite the progress that has been made in developing ITS, and despite the promise that ITS holds as the central mechanism of a national market system, there remain a number of major obstacles to the further development of ITS. These are not technical problems. For the most part they are problems in getting the dominant exchanges to allow ITS to fulfill its potential of facilitating competition, and in some cases the problems relate to the lack of urgency with which the Securities and Exchange Commission has viewed the efforts of exchanges outside of New York to use ITS as a means of becoming more competitive.

The procedures followed in connection with the opening are one of the principal defects in the operation of ITS. The opening procedures, which allow exchange of information about imbalances of orders before the opening and require a notice of an intended opening more than a specified interval from the prior close, do not require the New York specialist to take account of the information he receives about orders in other

markets, nor do they allow specialists on other exchanges to participate in the New York opening. The effect of such procedures, as we predicted in our 1977 testimony to these Subcommittees, has been to assure complete New York domination of the opening, while regional specialists receiving orders prior to the opening must either send the order to New York, or agree to buy or sell the security himself at the price of the New York opening, thereby gambling on how the stock will open in New York.

The opening is the most important single event of the trading day. A substantial portion of the total days' trading occurs at the opening. New York control of the opening, which causes order flow prior to the opening to be directed to New York, assures New York domination of trading flow for the balance of the day.

Opening procedures in ITS securities must be changed if ITS is to serve as an instrument of fair competition among exchanges. The simplest change would be to allow specialists on other markets, as well as all other participants in the market, to participate in the opening by entering orders to be executed at the opening. This would enable PSE specialists to accept orders prior to the opening with the assurance that those orders would participate in the opening, and it would insure that the opening reflects all buying and selling interest. While we believe that this simple solution is preferable, there

are other possible means of dealing with the opening problem. It may be possible, for example, to rotate responsibility for handling the opening among ITS participant specialists, or to require more thorough pre-opening consultation coupled with a requirement for a notice regarding any intended opening at a price differing from the prior close.

Even the minimal requirements of the present opening procedure are ignored in connection with situations where trading is reopened after a trading halt. In these situations the New York specialist simply opens trading, without an opportunity for other specialists to report the buying and selling interest on their exchanges, and to receive any notice as to the intended opening. Just as openings need to be coordinated for exchanges outside of New York to be able to participate on a fair competitive basis, reopenings also need to be coordinated. We believe that reopenings should be handled in the same manner as openings, and thus that the procedures we have suggested for openings be also applied to reopenings.

A second major problem in the functioning of ITS is the widespread occurrence of trade-throughs. A trade-through occurs when a trade is executed on one ITS exchange at a price that is inferior to a price concurrently displayed as being available on one or more other ITS exchanges. A trade-through means that someone is failing to receive the best price available at the time in the nation's securities markets, and that the

market which was quoting the best price has been prevented from competing. Trade-throughs interfere with the ability of specialists outside New York to provide limit order protection by entering a quote based on the limit order, and they discourage all participants in ITS exchanges from taking ITS seriously. Every time a trade-through occurs it represents a failure for ITS and a failure for the national market system that ITS is intended to create.

Trade-throughs occur primarily because a number of floor brokers and specialists on the dominant markets in New York are not committed to ITS and to the national market system, and are not adept in the use of ITS. Such persons pay little or no attention to the markets displayed on ITS. Until specialists and floor brokers are forced to pay attention to ITS, either because of competitive pressure from major brokerage firms threatening to send orders to other exchanges or because of actions by self-regulatory and regulatory bodies, the problem of trade-throughs will continue as a severe limit on the ability of ITS to function as the central mechanism of a national market system. We believe that trade-throughs must be closely monitored and exchanges should consider sanctions, which might include denying new listings or taking away existing listings, against members who show a pattern of involvement in trade-throughs. We also believe that exchanges must make greater efforts to encourage the use of ITS and to insure that all floor personnel are familiar with when and how to use ITS.

The harmful effects of trade-throughs are accentuated by the fact that in some situations the trade-through not only fails to provide an execution for the best offering in the system, but may actually prevent a sale from being effected at that offering price after the trade-through. This can occur if the offering was with respect to a short sale, so that while the short sale could have been effected legally before the trade-through, after the trade-through the transaction would represent a down tick and thus be in violation of the short sale rule. A trade-through can thus have a doubly damaging effect on the market whose quotes were ignored. While we believe that the best way to deal with the problems of trade-throughs is to keep them from occurring, the short-sale problem could be removed by modifying the short sale rule so as to permit short sales in connection with an offering that had been legally made prior to a transaction at an inferior price in another ITS participant market.

Just as there are problems associated with the operation of ITS at the opening, there are also problems which arise at the close of trading. Because users of ITS are afraid that they will not be able to obtain an execution before the close, the use of ITS normally ceases several minutes before the close, and thus the national market system trading facilitated by ITS ceases several minutes before the close. This problem might be dealt with by allowing the acceptance

after the close of commitments to trade entered prior to the close.

One of the most serious problems with the further development of ITS is the lack of cooperation and participation from the American Stock Exchange. Out of 590 issues traded through ITS as of August 31, 1979, only 37 of these securities are listed on the American Stock Exchange. While the New York Stock Exchange has been proceeding with reasonable speed to add securities to ITS, the American Stock Exchange has proceeded at a snail's pace. As a result, the advantages of competitive national market system trading are available for only a handful of securities listed on the American Stock Exchange.

The American Stock Exchange has also been very slow in installing ITS terminals on its floor, having only 7 terminals in use on its floor at the present time, compared to 38 in use on PSE. American Stock Exchange specialists and other floor personnel largely ignore ITS, with the consequence that trade-throughs plague the trading in the few American Stock Exchange issues which are included in ITS. We believe that for ITS to be successful all exchanges must be committed to its use and expansion. The American Stock Exchange must substantially increase its level of commitment to ITS, and take steps to insure that specialists and other floor personnel are familiar with ITS and able and willing to use it.

In addition to the obstacles to ITS expansion which have been posed by the attitudes of some participant exchanges, the Commission has created a major obstacle to the development of ITS by imposing a moratorium on the extension of unlisted trading privileges. Pursuant to Section 12(f) of the Securities Exchange Act of 1934, exchanges are permitted, with the approval of the Commission, to extend unlisted trading privileges "to any security listed and registered on any other national securities exchange." Approval by the Commission requires a finding that the proposed extension of unlisted trading privileges "is consistent with the maintenance of fair and orderly markets and the protection of investors." In contrast to the procedure exchanges must follow to commence trading a security, the over-the-counter market can begin trading a listed or unlisted security anytime it chooses, without having to obtain approvals.

Unlisted Trading Privileges are of great importance to exchanges outside New York, since only through unlisted trading privileges can these exchanges compete with the New York exchanges and the over-the-counter market in trading the securities of companies which have not listed their securities on the regional exchanges. It is for this reason that the Court of Appeals for the District of Columbia recently stated in the Ludlow case, "Unlisted trading therefore is an indispensable part of Congress' plan that securities markets compete with one another."

Unlisted trading privileges, which are important to exchanges outside of New York in any event, take on particular importance in the context of ITS. A number of securities eligible for ITS trading are not listed for trading on one or more of the exchanges outside of New York. If these exchanges can obtain unlisted trading privileges for such securities, they will be able to trade them in a competitive national market system environment, while if they are foreclosed from unlisted trading privileges they will be prevented from competing with respect to a large segment of the securities market.

Despite the importance of unlisted trading privileges to the development of the national market system and the development of ITS, the Commission for two years, and essentially without explanation, has refused to approve any applications for unlisted trading privileges. The Commission's actions are without justification under the Exchange Act and are extremely damaging to the ability of exchanges outside New York to be viable competitors in a national market system. The Commission must realize that timing is critical in the development of a national market system. A two year delay that prevents exchanges outside New York from competing with the New York exchanges and the over-the-counter market may, in the present environment, deal a critical blow to the efforts of these exchanges to improve their competitive position in the national market system. The competitive disadvantage is particularly great in view of the

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ability of the over-the-counter market to commence trading at will in the issues PSE is foreclosed from trading.

In summary, while ITS has made a great deal of progress, and holds great promise, there are presently a number of obstacles which will impede further progress until they are removed. We doubt that these obstacles can be removed without a more active and agressive role by the Commission in removing them.

To date the Commission has viewed ITS developments with interest but without a great deal of involvement. We would urge the Commission to become more involved, pressing for a fair and competitive resolution of issues such as opening procedures, trade-throughs, and American Stock Exchange lack of participation, and removing the obstacle that it has created with its moratorium on unlisted trading privileges.

B. Role of the Cincinnati Stock Exchange in the National Market System.

The Pacific Stock Exchange and its specialists were among the earliest users of the Cincinnati Stock Exchange system. Terminals providing access to the Cincinnati system are in place on the PSE floor. The experience of our specialists has been that the Cincinnati system is cumbersome to use and that the markets available through Cincinnati seldom are not as good in price, depth and liquidity as the ITS markets. For these

reasons we have found that the Cincinnati system is seldom used by people on the PSE floor.

On a more fundamental level, we believe that the Cincinnati system is not an appropriate design for the national market system. It is a design for a dealer market, destroying the advantages of the present auction market system. ITS, which preserves the advantages of auction markets while linking auction markets into a national market system, is, in our view, a much better design for a national market system. The Cincinnati Stock Exchange is a detour on the road to a national market system.

C. Perceptions of the National Market System.

While substantial progress has been made toward developing a national market system, particularly through the ITS linkage of exchanges, perceptions of the national market by the public as well as by many securities professionals have lagged behind the progress. This gap in perceptions is itself an obstacle to national market system progress. Part of this problem derives from newspapers' continued description of "New York Stock Exchange Transactions." The focus of market professionals on the "primary market" is encouraged by the design of quotation and transaction retrieval systems which allow the retrieval of primary market quotation and transaction information by a simple routine, while requiring additional keystrokes to retrieve information from markets outside of New York. Given

the speed with which order routing decisions must be made the additional keystrokes can effectively keep market professionals focused on the primary market. To facilitate national market system trading market professionals need ready access to a montage of quotes from all exchanges. While the Commission has proposed a rule that would deal to some extent with these problems (proposed rule 11Ac1-2, Securities Exchange Act Release No. 15251), the proposed rule does not go far enough. We would encourage the Commission to place a high priority on steps that aid the public and market professionals in understanding the national market system and seeking the competitive quotes that are made possible by such a system.

D. Impact of Commission Decisions in Other Areas on National Market System Development.

Many decisions which the Commission makes, while not directly involving national market system issues, nevertheless have a major impact on the prospects for developing a national market system. We are concerned that the Commission may pay too little attention to such matters as the effects of its decisions on the ability of exchanges outside of New York to compete in equity trading and the economic viability of exchanges outside of New York. An example of our concern is provided by decisions which are pending regarding options trading.

In the next several months the moratorium that has prevented any expansion of options trading will probably be lifted. In connection with lifting the moratorium decisions will have to be made about a number of market structure issues, and the market structure decisions that are made in connection with options trading may have a profound impact on the structure of the national market system for equity securities.

The issues that must be resolved regarding options trading are whether there should be an expansion of dual trading of options (i.e., trading the same options classes and series on more than are exchange), whether options trading should be permitted on the New York Stock Exchange and in the over-the-counter market, and whether options should be permitted to be traded on the same floor as the equities underlying the options.

At present there is no effective national market system for options. As a result, when the same option is traded on more than one exchange, brokerage firms designate the exchange to which they will route all their customer orders rather than checking quotations to see what exchange is making the best market at any point in time. Usually brokerage firms designate the larger, dominant exchange and such decisions become self-fulfilling prophecies so that soon virtually all trading in the particular option is conducted on one exchange. The history of dual trading of options is thus that it has not led to increased competition but rather has resulted in one dominant

exchange capturing most, if not all, of the public order flow. If an expansion of dual trading is permitted before a national market system has been created, exchanges such as PSE will likely be forced out of options trading as other larger exchanges begin trading in PSE's most active options.

Options trading by the New York Stock Exchange would likely force all the existing options exchanges out of the business of trading options. Because of the effective monopoly of the New York Stock Exchange in equity trading, brokerage firms would likely choose to send their options orders as well as their equity orders to the New York Stock Exchange (particularly since equity and options orders are often combined). Thus the New York Stock Exchange would be permitted to extend its monopoly in equity trading to options trading, further strengthening its position as the nation's dominant securities market and greatly lessening the opportunities that any other exchanges have to compete.

If options are permitted to trade on the same floor as the underlying equity securities, this would simply make it easier for the New York Stock Exchange to achieve complete dominance of equity and options trading, since it would be able to offer a combined package of equity and options execution.

These issues of options market structure obviously can have a major effect on the national market system for equities. As a result of ITS and other national market system

developments PSE and other exchanges outside New York have recently started being able to provide meaningful competition to the New York exchanges in equity trading. If decisions are made regarding options market structure which weaken the exchanges outside New York by depriving them of the revenues from options trading as well as the equity order flow that stems from options trading, and which strengthen the New York Stock Exchange and American Stock Exchange by adding an options trading monopoly to their already dominant position in equity trading, we believe the efforts to develop a national market system will be doomed. Instead of a national market system we believe that the nation would have one or two exchanges, located in New York, which would control all options and equity trading. This is not the design which Congress chose for the nation's securities markets in 1975, and we believe that today Congress should discourage decisions that would result in a single, concentrated national market rather than a national market system.

A second area in which we are concerned that Commission decisions should reflect concern for national market system impact is clearance and settlement. The Commission has made decisions permitting the combination of National Securities Clearing Corporation ("NSCC") and National Clearing Corporation, and the expansion of NSCC to provide clearing services nationwide, without, in our view, adequately considering that such expansion would threaten the existence of the clearing agencies associated with exchanges outside of New York.

Clearing agencies have many close and supportive relationships with their associated exchanges. PSE's clearing corporation, for example, provides a substantial portion of the income of PSE. In addition, PSE's clearing corporation furnishes services that make trading on the PSE more efficient. A destruction of clearing agencies outside New York would not only lead to a monopoly in clearance and settlement rather than a national system of clearance and settlement, destroy important sources of innovation in clearance and settlement, and adversely affect regional financial communities, but it would also have substantial adverse effects upon the exchanges associated with these clearing agencies and therefore upon the prospects for developing a national market system.

We have expressed our views of market structure issues relating to options trading and clearance and settlement questions at considerable length to the Commission. We raise these issues at this time not to deal with them at length, but to make the point that decisions such as these can have a major impact on national market system development, and that these issues must not be viewed in isolation but must be considered in light of the effect they will have on the national market system.

E. Conclusion.

We are generally pleased with the progress that has been made during the last two years toward the goal of creating a national market system, particularly through the development of ITS. The expansion of ITS, however, is now being delayed by a number of obstacles, and we believe that a higher level of Commission involvement and activity will be required to remove these obstacles. There are also other events occurring in connection with the options markets and clearance and settlement which may have profound effects on the national market system. We would urge your Subcommittees to reaffirm support for a national market system composed of linked, competing markets, and to express concern with developments that may prevent the establishment of such a system.

Mr. ECKHARDT. Thank you.
Mr. Walbert.

TESTIMONY OF RICHARD B. WALBERT

Mr. WALBERT. My name is Richard B. Walbert. I am president of the Midwest Stock Exchange, Inc., and appearing with me is Alton B. Harris, counsel for the stock exchange, who is sitting right back of me. I don't believe he has been sworn in yet. Do you care to swear Mr. Harris in?

Mr. ECKHARDT. All right, Mr. Harris, do you swear to tell the truth, the whole truth and nothing but the truth, so help you God?

Mr. HARRIS. I do.

Mr. WALBERT. Midwest is pleased to have the opportunity to testify again before these subcommittees on the important subject of the development of a national market system for securities.

Since Midwest last testified before these subcommittees, much has happened. I am pleased to testify today that Midwest believes that within the foreseeable future the fundamental elements of a national market system will be in place.

When Midwest testified in 1977, we were highly critical of the SEC's leadership in facilitating the development of a national market system. Since that time, there has been a change in the direction and attitude of the SEC toward the national market system and its role in facilitating that system's development. The SEC is now exercising leadership in facilitating the development of a national market system. Indeed, in large part because of the SEC's leadership, the securities industry has made major progress over the past 2 years toward a national market system.

I am not suggesting that Midwest agrees with everything the SEC has done in the national market system area over the past 2 years. By no means. But Midwest does believe that the SEC is now

doing the job it was assigned by the 1975 amendments. It has begun effectively to guide—and when needed to prod—the industry toward development of the necessary national market system facilities in measured, sound and timely steps.

The concept of a national market system derives from the recognition on the part of the Congress that it is desirable in the public interest to link all markets for "qualified" securities in such a way that: First, investors have the benefits of auction type trading protections systemwide and second, competition among market centers and market makers is strengthened.

A national market system, as thus conceived, is not, and was never understood by the Congress to be a radical concept. As embodied in the 1975 amendments, the call for development of a national market system is a modest proposal, designed to be achieved through the orderly evolution of present market facilities under the direction and regulation of the SEC.

The present system for the trading of equity securities generally is sound and operates in the public interest. The call for the development of a national market system was a call to improve that system, not to build an entirely new one.

We have had an opportunity to review the recent GAO report only briefly. However, I would like to make one general comment about it:

The Congress conceived of the national market system as developing through an evolutionary process under the regulatory leadership of the SEC—precisely the approach the GAO criticizes. Thus, the GAO misconceives the very nature of the statutory directive under which the SEC is operating.

In addition, the enactment of its recommendations would petrify the concept of a national market system. The concept is dynamic, not static. The goals of a national market system cannot now be simultaneously realized. Therefore, as market configurations and practices change and new communications and data processing facilities are developed, the Commission and securities industry are called on by the statute to strike a succession of regulatory balances among the various goals of a national market system. The GAO's recommendations would stifle that process. We trust, therefore, that those recommendations will be rejected.

There is a very vocal group in the debate over the national market system urging the SEC to establish an automated execution facility. We do not believe it is possible now, or will it be possible in the foreseeable future, to build a computer based trading system that can perform as well as the present markets. In our view, those that argue to the contrary are slowing up the real work at hand and may force a serious loss in trading flexibility and public protection.

There is another vocal group urging the SEC to rely more heavily on unregulated competition to bring about a national market system, and specifically to force the elimination of rules which limit firms from making markets in listed securities off of exchanges. Midwest believes the New York Stock Exchange's rule 390 should be eliminated only when this will contribute to, rather than work against, the establishment of a national market system. At a minimum, that means, in our view, that facilities and rules must

be in place that assure that there will be no diminution in the protections now provided to investors trading in an action/agency environment.

Midwest believes it would be extremely useful for these subcommittees to reassure the Commission and the securities industry that in enacting the 1975 amendments the Congress did not call for the dismantling or radical restructuring of the present securities markets—either through the forced establishment of an automated execution system or through the forced removal of the basic regulatory underpinnings of the present exchange markets.

Therefore, we urge these subcommittees to encourage the SEC to continue to conceive of its responsibilities with respect to a national market system in essentially evolutionary terms: Urging always, and forcing when necessary, practical changes in the present markets that will extend auction type trading protections and foster fair competition.

Although Midwest believes that the SEC is now on a constructive course in the national market system area, we are seriously disturbed by the manner in which the agency is carrying out its basic oversight responsibilities with respect to the self-regulatory organizations. In our view, in performing its oversight function, the SEC is flouting the strict procedural standards and timetables within which it is required to act.

This is true in the Commission's administration of section 19(b) of the Securities Exchange Act and in its processing of applications of extension of unlisted trading privileges under section 12(f) of the Securities Exchange Act. With respect to both section 19(b) and section 12(f), we urge these subcommittees to take appropriate action to assure that the SEC properly complies with the procedural requirements of the Exchange Act.

In conclusion, we hope that in the national market system area these subcommittees will give the Commission the support it needs, and in the procedural, oversight area that they will find an effective way to remind the SEC that it must pay close attention to the requirements imposed on it by the law it is charged with administering.

Thank you.

[Testimony resumes on p. 277.]

[Mr. Walbert's prepared statement follows:]

MIDWEST STOCK EXCHANGE, INCORPORATED
STATEMENT BEFORE THE
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
AND THE
SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCE
OF THE
HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

September 24, 1979

My name is Richard B. Walbert. I am President of the Midwest Stock Exchange, Incorporated. Midwest is pleased to have the opportunity to testify again before these subcommittees on the important subject of the development of a national market system for securities.

Since Midwest last testified before these subcommittees on the national market system, much has happened. At that time in June of 1977, the Securities Acts Amendments of 1975 had been on the statute books for two years, but little progress had been made toward a national market system. Midwest, therefore, was concerned that unless there was a shift in the SEC's orientation and an exercise by it of the leadership that the Congress had called for, another two years could pass without meaningful progress.

I am pleased to testify today that Midwest has every reason to believe that within the foreseeable future the fundamental elements of a national market system will be in place. Of course, a great deal of work remains to be done, but I would characterize our attitude today, in contrast to two years ago, as one of encouragement and hope, for we can now see the development of systems and rules that will

provide the public with the benefits of effectively linked auction markets and assure all market centers, including Midwest, the opportunities inherent in the statutory goal of "fair competition."

I. ROLE AND PERFORMANCE OF THE SEC

When Midwest testified in 1977, we were highly critical of the SEC's leadership in facilitating the development of a national market system. We pointed out that in adopting the 1975 Amendments the Congress had expected the SEC to take the lead in defining the nature, competitive balance and operational characteristics of the national market system. And we stated, "It is precisely here, however -- the SEC's responsibility to rethink where the markets now are, where they must move to become a national market system, and how that movement is to be accomplished -- that there has been the greatest lapse in the implementation of the 1975 Amendments." Our recommendation was "a new articulation by the Commission of its position on the objectives and operation of the national market system and a set of clear directions as to how it expects these objectives to be implemented."

These subcommittees, in the Report they issued following the 1977 Oversight Hearings, basically agreed with Midwest and stated that their "major conclusion" was that the SEC had not vigorously used its authority in the national market system area. The subcommittees' recommendation was, "The SEC must vigorously exercise the authority granted it

in the 1975 Amendments to fulfill its congressional charge of facilitating the establishment of a national market system."

Since the issuance of the subcommittees' Report in November of 1977, we believe there has been a very real change in the direction and attitude of the SEC toward the national market system and the agency's role in facilitating that system's development. Let me briefly summarize the evidence of that change.

Responding directly to the criticisms made during the 1977 Oversight Hearings, on January 26, 1978, the SEC issued a Policy Statement on the Development of a National Market System. While Midwest did not agree with everything in the SEC's Policy Statement, we saw it as a thoughtful statement of the Commission's basic assumptions and objectives. As a result of the Policy Statement, the securities industry was much better able to assess the SEC's view of its statutory responsibilities in the market structure area and, as a result, intra-industry dialogue on critical national market system issues became both more focused and more fruitful.

Just over a year later, on March 22, 1979, the SEC issued another major statement on its plans for development of a national market system. In this Status Report, the Commission assessed the progress that had been made in pursuing the initiatives described in its 1978 Policy Statement and modified, in important ways, certain positions it

had taken in that Statement.* In addition, the Commission outlined the steps it planned to take during the next twelve months to facilitate the development of a national market system. In our view, the Status Report was extremely useful to the securities industry in general, and to the self-regulatory organizations in particular, in planning for future market developments and systems requirements, as well as in facilitating cooperation within the industry on the design and supervision of new market facilities.

Following the release of the Status Report, the Commission instituted rule making proceedings with respect to a number of national market system issues, including nation-wide price protection for limit orders, improvement of the display of quotation and transaction information, removal of remaining off-board trading restrictions, and the designation of qualified securities. As a result of these proposals, the securities industry now has before it a very full plate of SEC initiatives with respect to the national market system. Therefore, unlike the situation two years ago when these subcommittees last held oversight hearings, we believe the SEC is exercising the needed leadership in facilitating the development of a national market system. Indeed, in significant part because of the SEC's leadership, Midwest believes the securities industry has made major progress over the past two years toward a national market system.

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*For example, the Commission announced that it would concentrate its efforts on the achievement of systemwide price protection for limit orders and would not now pursue the objective of absolute time priority for such orders.

I am not suggesting that Midwest agrees with everything the SEC has done in the national market system area over the past two years. By no means, for there are many points of difference between the Commission and ourselves. But Midwest does believe that the SEC is now doing a responsible job in facilitating the development of a national market system. The SEC needs more confidence that it is generally on the right track, and it needs to focus more clearly on precisely what its expectations in the market area should be. Nevertheless, the SEC, in our view, now recognizes its responsibilities to review, evaluate and balance the necessarily conflicting policy, technological and competitive claims involved in an enterprise of this magnitude. And it has begun effectively to guide -- and when needed, to prod -- the industry toward development of necessary national market system facilities in measured, sound and timely steps.

II. THE OBJECTIVES OF A NATIONAL MARKET SYSTEM

Midwest, in past statements, has discussed in detail the origins and meaning of the concept of a national market system. I want to make only two brief comments on the subject here.

First, the concept of a national market system derives from the recognition on the part of the Commission and the Congress that it is desirable in the public interest both (1) to link all markets for "qualified" securities in such a way that investors have the benefits of auction-type trading

protections systemwide (thereby eliminating "fragmentation"), and (2) to maintain and strengthen competition among market centers and market makers. A national market system, therefore, must be defined in its most fundamental respects in terms of a system of facilities and regulations that tie together (in a manner consistent with efficiency, fair competition, and adequate dissemination of market information) the trading of securities in multiple market centers so as to preserve and strengthen competition among those market centers while also extending to investors the benefits of auction-type trading systemwide.

Second, the national market system, as thus conceived, is not, and was never understood by the Congress to be, a radical concept. Indeed, as embodied in the 1975 Amendments, the call for the development of a national market system is a quite modest proposal, capable of achievement through the orderly evolution of present market facilities under the direction and regulation of the SEC. The present system for the trading of equity securities generally is sound and operates in the public interest. It is also extremely complex, involving a delicate balance of a great number of privileges and obligations, burdens and benefits. The development of a national market system was conceived as an effort to improve <u>that</u> system, not to build an entirely new one. As the Securities Exchange Act of 1934 states: "The securities markets are an important national asset which must be preserved and strengthened."

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We believe that the SEC generally shares this view of a national market system. However, one of the difficulties the SEC faces in fulfilling its mandate to facilitate the development of a national market system is that various factions within the securities industry have chosen to characterize the objectives of a national market system in terms of their own economic and policy preferences. They then urge the Commission in the name of facilitating the development of the national market system to pursue these special interests. This type of urging comes from both extremes in the national market system debate: those in favor of fully automated trading systems and direct Commission involvement in systems design and construction, and those in favor of greater deregulation and unfettered competition, particularly with respect to upstairs market making.

To some extent, the SEC has been swayed over the past several years first by the arguments from one extreme and then by those from the other. As a result, policy with respect to a national market system has often appeared, as it did to the Government Accounting Office in its recent report, to be vacillating and inconsistent. In our view, it is time the vacillation stopped and the SEC got a firm fix on the objectives of a national market system as mandated by the 1975 Amendments. Therefore, Midwest hopes that if these hearings serve no other purpose, they will at least serv to assure the SEC of the appropriateness of its pursuing a moderate, practical approach in facilitating the development

of a national market system: encouraging, working with, even putting regulatory pressure on the self-regulatory organizations to keep the evolutionary process moving, but not succumbing to blandishments from those calling for radical change in present market operations or demanding too much too soon from the self-regulatory organizations in relation to their fundamental structures or resources.

GAO Report

We have had an opportunity to review only briefly the recent GAO report, "Improvements Needed In The Securities And Exchange Commission's Efforts To Establish A National Market System." However, I would like to make one general comment about it.

The GAO criticizes the SEC because it does not have "a plan to guide the creation of a national market system," and it recommends that the Congress require the SEC "to develop and submit a national market system plan ... by a specified date" which would "define the system and its requirements, assign responsibility for designing components, and include an implementation schedule." With due respect, we believe the GAO has entirely missed the point of what the Congress called for when it mandated the development of a national market system.

The legislative history of the 1975 Amendments makes clear that the Congress never anticipated that anyone would "define" the national market system. As the Conference Committee pointed out, the 1975 Amendments rely

> on an approach designed to provide maximum flexibility to the Commission and the securities industry in giving specific content to the general concept of the national market system .... [T]he national market system [is intended to] evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed. [I]n those situations where competition may not be sufficient ... the Commission [is expected to] use the powers granted to it in [the Act] to act promptly and effectively to insure that the essential mechanisms of an integrated secondary trading system are put into play as rapidly as possible.

H.R. Rep. No. 94-229, 94th Cong., 1st Sess. 92 (May 19, 1975).

The Congress conceived of the national market system as developing through an evolutionary process under the regulatory leadership of the SEC -- precisely the approach the GAO criticizes. The GAO not only misconceives the nature of the statutory directive under which the SEC is operating, its recommendations petrify the concept of a national market system. The concept is dynamic, not static. The simultaneous realization of all of the goals of a national market system is not possible now and may not be possible for some time to come. The evolutionary approach allows the Commission and securities industry to strike successive regulatory balances among the various goals of a national market system as market configurations and practices change and new communications and data processing facilities are developed. We trust, therefore, that these subcommittees will respectfully reject the GAO's recommendations.

Pressure on the SEC
for Automated Execution

There is a very vocal group in the debate over the national market system urging the SEC to establish an automated execution facility. This group essentially argues that exchange floors are anachronistic, unnecessary relics of a precomputer age, whose functions can be more efficiently performed through a massive data processing system. In other words, their claim is that it is now possible to recreate the beneficial characteristics of the present listed markets in a computer. In Midwest's view, the danger presented by this position is that it may be taken seriously.

Experiments such as the Cincinnati Stock Exchange are valuable as experiments, but if pressure is placed on members of the securities industry to use and conceive of such mechanisms as prototypes of a national market system, talent and resources may be diverted from where they are really needed, i.e., in building and improving the communication and data processing systems necessary to accomplish the "linking of all markets for qualified securities." Sec. 11A(a)(1)(D). It is simply not possible now, nor will it be possible in the foreseeable future, to build a computer-based trading system that can perform as well as the present markets. Those that argue to the contrary are slowing up the real work at hand and may force a serious loss in trading flexibility and public protection.

Apart from what we regard as the unrealistic nature of the call for the automation of equity trading, those urging

the establishment of such systems misrepresent the Congress' intention when it called for the establishment of a national market system. The objective of an NMS is not to eliminate exchanges or put the markets into a "black box." It is rather to preserve what is valuable in the present markets while taking sound, careful steps toward realizing as fully as possible at each level of technological development the benefits of both competitive market centers and auction/agency-type trading. Computers and communications systems have an immediate role to play in linking the exchange floors. But the floors themselves are working well in fostering the interaction of agents and dealers. For the present, therefore, the collective efforts of the industry and the SEC should be directed to linking and improving the operation of the present exchange markets, not to trying to duplicate their functions in a computer. Further technology may someday make stock exchanges obsolete, but we are a long way from that point -- at least so long as the Congress and the SEC remain committed to trading efficiency, competitive incentives, and extending to investors the protections of auction trading.

Pressure on the SEC for Elimination of Restraints on Upstairs Market Making

There is another vocal group in the debate over the national market system urging the SEC to move faster in the area of deregulation, to rely more heavily on unregulated competition to bring about a national market system, and most specifically to force the elimination of exchange rules

which limit member firms from making markets in listed securities off of an exchange. Midwest believes that the timing of the adoption of any rule which would remove limitations on upstairs market making is critical to the fairness, efficiency and competitive vigor of the securities markets. The New York Stock Exchange's Rule 390 should be eliminated only when this will contribute to, rather than work against, the establishment of a national market system. At a minimum, this means, in our view, that facilities and rules be in place to assure that there is no diminution in the protections now provided to investors trading in an auction/agency environment.

Facilities developments and regulatory initiatives now under way guarantee that in a relatively short time all auction securities should be able to trade in an environment of systemwide price protection. Pending the achievement of such a trading environment, all listed securities, including those covered by proposed Rule 19c-3, are entitled to the maximum protections of the auction markets. Waiting to adopt proposed Rule 19c-3 until after systemwide price protection for auction securities has been achieved appears to us to be only prudent; proceeding with proposed Rule 19c-3 prior to that time appears to us to be both inconsistent with the SEC's statutory mandate to facilitate development of a national market system and contrary to the best interests of securities professionals and public investors.

More generally, we believe it is important to recognize that unrestricted dealer competition will not, by itself, create a national market system. The natural consequence of unleashing competitive forces at this time by allowing unlimited upstairs market making will not be the development of a national market system, but an exacerbation of the problems which caused the Congress to call for its development in the first place. Competitive forces alone will not assure best bid meets best offer, will not protect limit orders at prices away from the market, will not provide for displacement to insure the integrity of pricing, and will increase fragmentation. Furthermore, because of the scramble to obtain "captive" order flow, the jockeying for position in relation to the diverse regulatory requirements applicable to exchange trading and upstairs trading, and the dealers' incentive to prevent any interference with earning their full spread, increased upstairs dealer competition at this time would, in our view, make it virtually impossible for the industry to agree on and build the common facilities essential to achievement of the objectives of a national market system.

Recommendation

To summarize, Midwest believes it would be extremely valuable if these subcommittees would reassure the Commission and the securities industry that in enacting the 1975 Amendments the Congress did not call for the dismantling or radical restructuring of the present securities markets --

either through the forced establishment of computer based automated execution systems or through the forced removal of the basic regulatory underpinnings of the present exchange markets. Therefore, we urge these subcommittees to encourage the SEC to continue to conceive of its responsibilities with respect to a national market system in essentially evolutionary terms: urging always, and forcing when necessary, practical changes in the present markets that will extend auction-type trading protections and foster fair competition.

III. SEC PERFORMANCE OF ITS OVERSIGHT RESPONSIBILITIES WITH RESPECT TO THE SELF-REGULATORY ORGANIZATIONS

Although Midwest believes that the SEC is now on a generally constructive course in the national market system area, we are seriously disturbed by the manner in which the agency is carrying out its basic oversight responsibilities with respect to the self-regulatory organizations.

As these subcommittees know, the 1975 Amendments greatly increased the SEC's control over the activities and policies of the exchanges and the NASD. In doing so, the Congress' intention was to assure that the securities markets operate at all times in accordance with the basic standards of the Securities Exchange Act. However, recognizing the dangers inherent in excessive government regulation -- dangers to competition, innovation and private initiative -- the Congress circumscribed the SEC's power with strict procedural standards and rigorous timetables within which it is required to act. In our view, the SEC is flouting these standards in performing

its oversight function, to the serious injury of the self-regulatory organizations. Let me give two examples.

The first is the Commission's administration of Section 19(b) of the Securities Exchange Act. That section requires a self-regulatory organization to file all proposed changes in its rules (which include all of its policies, practices and procedures) with the SEC. These proposed rule changes may not go into effect, with minor exceptions, unless they are affirmatively approved by the SEC. Under the Act, however, the SEC is required to adhere to a carefully conceived timetable in connection with this approval process: within 35 to 90 days after public notice of the filing of the proposed rule change, the SEC must approve the rule change or institute proceedings to disapprove it, and if it institutes a disapproval proceeding, the SEC must conclude the proceeding and issue an order approving or disapproving the rule change no later than 240 days after public notice of the filing.

Over the past three years, Midwest has filed more than 25 proposed rule changes which were not acted upon by the SEC within the statutory timetable. In one instance more than 13 months elapsed before the SEC took any action whatsoever. In the case of almost all proposed rule change filings, the Commission attempts to obtain the consent of the self-regulatory organization to an extension of the time periods of the Act. The SEC imposes considerable pressure on a self-regulatory organization to grant this consent, but even

where consent is not given, the SEC generally chooses to ignore the timeliness requirements of the Act. For the self-regulatory organizations, the consequences of the SEC's disregard for these requirements are costly, in terms of dollars, time and lost opportunities.

The second example concerns the SEC's processing of applications for extension of unlisted trading privileges under Section 12(f) of the Securities Exchange Act. Under this section a stock exchange may apply to the SEC for unlisted trading privileges with respect to any security listed on another exchange. As the Court of Appeals for the District of Columbia Circuit recently pointed out:

> Unlisted trading...is an indispensible part of Congress' plan that securities markets compete with one another. At present, the smaller exchanges earn much revenue from unlisted trading. [Regional] exchanges...must be able to trade securities on an unlisted basis to compete with the NYSE and, indeed, to survive.

Ludlow Corporation v. SEC, Civ. No. 77-1417 (D.C. Cir. at 10) (August 9, 1979).

Despite the importance of unlisted trading to the regional exchanges, over the course of the past 21 months, the SEC has not ruled on a single application for unlisted trading, other than for odd-lots. We do not know the total number of requests now pending but Midwest alone has filed seven. The SEC has not offered any justification for its refusal to act on these applications. The SEC's conduct appears to us to be without legal foundation, and has been extremely detrimental to fair competition between the regional exchanges and the New York exchanges.

With respect to both Section 19(b) and Section 12(f), we urge these subcommittees to take appropriate action to assure that the SEC properly complies with the procedural requirements of the Exchange Act.

* * * * *

The purpose of my remarks today has been twofold. First, to bring to the subcommittees' attention the improvement in Commission leadership in the national market system area over the past two years. Progress is now being made at a reasonable pace and for the first time since 1975 it appears that the regional exchanges, including Midwest, are likely to reap the benefits of the Congress' conception of a national market system. And second, to inform you that the SEC is not complying with certain key procedural requirements in the Exchange Act.

We hope that in the national market system area these subcommittees will give the Commission the support it needs, and in the procedural, oversight area that they will find an effective way to remind the SEC that it must pay close attention to the requirements imposed on it by the law it is charged with administering.

Mr. ECKHARDT. Mr. Niehoff.

TESTIMONY OF K. RICHARD B. NIEHOFF

Mr. NIEHOFF. Mr. Chairman, my name is Richard Niehoff, president of the Cincinnati Stock Exchange. Accompanying me today are Mr. Robert Taft, Jr., legal counsel of the Cincinnati Stock Exhange, and Mr. John Liftin, outside counsel of the Cincinnati Stock Exchange. Also accompanying me today representing Control Data Corp., facilities manager for the Cincinnati Stock Exchange, are Mr. Peter duPont, Mr. Kenneth Eber, and Mr. Joel Einhorn. I would like to request that you allow my associates from Control Data and my counsel to participate in the panel questions.

Mr. ECKHARDT. Yes, will the gentlemen identify themselves?

Do you swear to tell the truth, the whole truth and nothing but the truth, so help you God?

Mr. TAFT. I do.

Mr. LIFTIN. I do.

Mr. DUPONT. I do.

Mr. EBER. I do.

Mr. EINHORN. I do.

Mr. NIEHOFF. The Cincinnati Stock Exchange is pleased and honored to be invited to these most important hearings, because we agree with Congress that a fair, modern, cost effective, efficient market structure is essential to our Nation.

The Cincinnati Stock Exchange was founded in 1885 and has more than 350 proprietary and nonproprietary member organizations. The CSE has contracted with Control Data Corp. to provide CSE's members and regional exchanges' floor market makers' entry into a unique computer-based system which I will refer to as the system for trading of securities which embodies what CSE believes to be the essential elements of the national market system that Congress envisaged when it enacted the Securities Act Amendments of 1975. I would like to describe briefly the trading system and its operation and then comment on the matters referred to in your letter of invitation.

The system operates as follows: Both investors' and market makers' bids and offers can be entered into the system directly from computer terminals which have video screens; these terminals are located in broker/dealer offices and on exchange floors. The system's market is updated instantly and is displayed on the terminals' screens and when like-priced bids and offers meet, an execution is automatically effected, based on a strict first come, first served, or price/time priority sequence, except that public investors' orders are given preference over market makers' orders. The system makes no pricing decisions; prices are the sole responsibiity of brokers, as is the case in existing exchange floor "crowd" systems.

In addition, the results of a transaction are instantly displayed to both buyer and seller on their video screen terminals. At the same time, the buyer and the seller receive hard copy reports. A report is also made to the consolidated tape, and a precise record is automatically created for audit purposes.

Finally, the transaction can trigger the necessary entries required to clear and settle the trade through the national clearing mechanisms.

We believe that this system contains all the ingredients that Congress wanted in a national market system. It is economic, efficient, competitive, and equitably available to all participants and broker/dealers whether located on an exchange floor or elsewhere. Investors and dealers can see and understand how this market functions. Our system has been described as an exchange without walls, which is an apt description of what we are trying to provide. The system is easily monitored, is expandable to handle more issues, greater volume, and additional members. Access is easy and inexpensive.

The capital required to operate and enhance the system has been provided by our indepependent operator, Control Data Corp. Certain surveillance functions are performed by an independent major self-regulatory organization—the NASD—which is represented here today. The Cincinnati represents what we believe to be an important advance in market structure. It permits the full interaction of all public offers as well as bids and offers of competing market makers.

The Cincinnati system has been designed, built, and operated so that it includes all of the characteristics called for by Congress. We stand ready to devote further efforts to integrate our system with others to the fullest extent possible.

We have already stated that we believe the Cincinnati system meets the requirements of the acts. The Cincinnati system has the essential elements of a complete market system:

The System operates as an extremely efficient composite quotation system (CQS) for all participating markets.

The System has a central limit order file which not only provides time within price priority for public orders but also integrates within the priority formula transactions for the account of industry professionals, including specialists. In other words, our System assures investors' orders will always be executed at the most favorable price existing at that time.

All public and professional bids and offers directed to our System are displayed and interact.

The System routes all orders to the appropriate contra order (order routing facility).

The System produces an instantaneous trade report in absolutely correct sequence (composite tape).

Our system provides competition among specialists and non-exchange market makers.

The markets referred through the system are absolutely current and firm.

Transactions against the System markets are confirmed instantaneously.

There are no questioned trades.

Market surveillance is supported by what we believe is the most advanced, detailed, recallable record of market activity in the country.

The SEC should make it clear that no selection has been made between the Cincinnati System and ITS as the appropriate model for development of the national market system. Development efforts should be encouraged to assure that established long-range goals are achieved.

Users of the trading market such as broker/dealers and investors should participate in both systems and through their participation evaluate the merits of each. Only in this way can practical solutions to this difficult problem be achieved.

We have been urged by the Commission to participate in ITS, and this we want to do. While we believed that an interface between our system and ITS is possible, and we are in fact working to achieve this, we should point out that there are fundamental differences between our system and the other market centers represented by ITS. Our concern for the future is that we may be subject to continuing pressure from the Commission to alter our system to accommodate ITS. Doing this could destroy some of the unique, competitive characteristics of our system.

We have offered in the past, and we reiterate this offer, to provide our terminals to those exchanges which are not participating in our system at the present time. We feel that in this way both systems could benefit from exposure to the unique characteristics of the other.

We at Cincinnati are firmly committed to providing a high quality market facility at reasonable cost to brokers and dealers. We believe that, if given a fair field of competition on which to compete, our system will become an important part of the ultimate national market system.

Thank you for inviting me to participate in these important hearings. I shall be pleased to respond to questions at the appropriate time.

Mr. Chairman, I have one other matter to enter into the record, which is not in my testimony.

On Friday, the 21st of September, the Cincinnati Stock Exchange was notified by the staff of the Securities and Exchange Commission that our request for a 3-year extension had been approved in principal, and I would also like to ask that the record be kept open for further written comments.

Mr. ECKHARDT. Without objection, it will be done.

[No response was received at time of publication.]

Mr. ECKHARDT. Also, those of you who have summarized without placing your statement in full in the record, the record will include those statements without objection.

[Testimony resumes on p. 289.]

[Mr. Niehoff's prepared statement follows:]

TESTIMONY OF

K. RICHARD B. NIEHOFF

PRESIDENT
CINCINNATI STOCK EXCHANGE

Good morning.

My name is Richard Niehoff, President of The Cincinnati Stock Exchange. Accompanying me today are Mr. Robert Taft, Jr., Legal Counsel of The Cincinnati Stock Exchange and Mr. John Liftin, outside counsel of The Cincinnati Stock Exchange. Also accompanying me today representing Control Data Corporation, facilities manager for The Cincinnati Stock Exchange, are Mr. Peter duPont, Mr. Kenneth Eber, and Mr. Joel Einhorn.

The Cincinnati Stock Exchange is pleased and honored to be invited to these most important hearings, because we agree with Congress that a fair, modern, cost effective, efficient market structure is essential to our Nation.

The Cincinnati Stock Exchange was founded in 1885 and has more than 350 proprietary and non-proprietary member organizations. The CSE has contracted with Control Data Corporation (CDC) to provide CSE's members and regional exchanges' floor market makers' entry into a unique computer-based system for the trading of securities which embodies what CSE believes to be the essential elements of the national market system that Congress envisaged when it enacted the Securities Acts Amendments of 1975. I would like to describe briefly the trading system and its operation and then comment on the matters referred to in your letter of invitation.

The Cincinnati Multiple Dealer Trading System (which I shall also refer to as the "System") is centered

about a computer which receives, stores, queues, displays, matches, and executes orders to buy and sell securities which are "listed" in the System. At present, 41 stocks can be traded through the System; but with enhancements which are now being added, the system will have a potential to list 264 stocks, and further increases will be made as warranted.

The System operates as follows: Both investors' and market makers' bids and offers can be entered into the System directly from computer terminals which have video screens; these terminals are located in broker/dealer offices and on exchange floors. The System's market is updated instantly and is displayed on the terminals' screens and when like-priced bids and offers meet, an execution is automatically effected, based on a strict "first-come, first-served," or price/time priority sequence, except that public investors' orders are given preference over market makers' orders. The System makes no pricing decisions; prices are the sole responsibility of brokers, as is the case in existing exchange floor "crowd" systems.

In addition, the results of a transaction are instantly displayed to both buyer and seller on their video screen terminals. At the same time, the buyer and the seller receive hard copy reports. A report is also made to the consolidated tape, and a precise record is automatically created for audit purposes. Finally, the transaction can trigger the necessary entries required to clear and settle the trade through the national clearing mechanisms.

We believe that this System contains all the ingredients that Congress wanted in a national market system. It is economic, efficient, competitive, and equitably available to all participants and broker/dealers whether located on an exchange floor or elsewhere. Investors and dealers can see and understand how this market functions. Our System has been described as an Exchange without walls, which is an apt description of what we are trying to provide. The System is easily monitored, is expandable to handle more issues, greater volume, and additional members. Access is easy and inexpensive.

The capital required to operate and enhance the System has been provided by our independent operator, Control Data Corporation. Certain surveillance functions are performed by an independent major self-regulatory organization, -- the NASD -- which is represented here today. In sum, the Cincinnati/NMS represents what we believe to be an important advance in market structure. It permits the full interaction of all public orders as well as bids and offers of competing market makers.

In your letter of invitation to us you asked for our opinions on several matters. We shall next address these:

1. <u>The Progress toward the development of a National Market System, with emphasis on the developments since August, 1977.</u>

In the Fall of 1977, The Cincinnati Stock Exchange initiated the Regional Market System, with the participation of the Boston, Midwest, and Pacific Stock Exchanges. The

Regional Market System permitted buy and sell orders to be entered from exchange floors into a central computer system. This experiment proved uneconomic. Therefore, in February, 1978, The Cincinnati Stock Exchange proposed a rule to the SEC (CSE Rule 9D3) which would permit direct input into Cincinnati's electronic system from member firms' offices, as well as from exchange trading floors. After Rule 9D3 was approved on a temporary basis in April, 1978, our present system began operations.

Initially, the SEC Order on Rule 9D3 approved a nine month test, May 1, 1978, through January 31, 1979. In December, 1978, the SEC granted the Exchange an additional one-year extension of the System. On receipt of the extension, we began negotiations which led to the present arrangement with CDC. CDC operates, maintains, enhances, and assists with the marketing of the System. On June 29, 1979, the CSE applied for a three-year extension of the SEC approval. We understand that the Commission's staff has recommended approval, and we would hope that the Commission would act favorably on that request in the very near future.

Until March 22 of this year, we were operating in the belief that the national market system would have a universal price/time priority rule for all public limit orders, the method under which we operate. We made this assumption based upon the support contained in your report dated November 15, 1977, in which it was stated:

> A critical facet of such a (national market) system, which should be provided for in even the earliest state of development of such a system, is a method to protect limit orders existing anywhere in the system. Any limit order would be assured of being traded before a trade took place anywhere in the system at an inferior price or at this same price on behalf of an investor who entered his order at a later time.

We were further encouraged when the SEC, in its January 26, 1978, release on the Development of a National Market System, reaffirmed price/time priority as follows:

> The objectives of a Central (Limit Order) File are relatively simple: to make available a mechanism in which public limit orders can be entered and queued for execution in accordance with the auction trading principles of price and time priority. . .

On March 22 of this year, the SEC changed its position and set forth a proposal calling for price without time protection for public limit orders; in addition, the SEC called for the market center operators to develop, by September 1, of this year, a plan " . . .by which the mechanisms to provide price protection for all public limit orders will be developed and implemented, at least on a pilot basis, not later than the end of the calendar year 1980."

We understand that achieving nationwide price/time priority is difficult to do on a short term basis. We do believe, however, that this is an essential characteristic of the ultimate national market system and we urge that this be preserved as a most important long range objective.

In our responses to the SEC Releases dated March 22, 1979, and April 26, 1979, the CSE expressed its concern

regarding the feasibility of the proposed method of providing price protection. We pointed out that implementation would be unduly cumbersome and would not represent an important advance in the development of a national market system.

Notwithstanding our reservations, the CSE, on April 30, 1979, wrote to the SEC and expressed its willingness to cooperate with the other self regulatory organizations to develop a plan to provide price protection for public limit orders.

In summation, the Cincinnati System has been designed, built, and operated so that it includes all of the characteristics called for by Congress. We stand ready to devote further efforts to integrate our System with others to the fullest extent possible.

2. The adequacy with which the SEC and the industry have fulfilled their roles in the development of a national market system.

The creation of a national market system from a system of separate, competing market centers is difficult. Great care must be taken to assure that in developing a new market structure an evolutionary approach should be used that will cause no disruption in the trading process.

The SEC has relied on the industry's leadership to develop a national market system. The difficulty with such an approach is that there is no single identifiable "securities industry." It is composed, rather, of many competing sub-industries, the economic interests of each, differing greatly from each other.

We believe the SEC should permit and encourage cooperative approaches to the development of a national market system, as long as these efforts are consistent with the objectives set forth in the 1975 Acts Amendments.

3. The potential of the ITS System and the Electronic Trading System operated by the Cincinnati Stock Exchange in fulfilling the legislative mandates of the 1975 Acts Amendments.

We have already stated that we believe the Cincinnati System meets the requirements of the Acts. The Cincinnati System has the essential elements of a complete market system:

* The System operates as an extremely efficient composite quotation system (CQS) for all participating markets.

* The System has a central limit order file (CLOF) which not only provides time-within-price priority for public orders but also integrates within that priority formula transactions for the account of industry professionals, including specialists. In other words, our System assures investors' orders will always be executed at the most favorable price existing at that time.

* All public and professional bids and offers directed to our System are displayed and interact.

* The System routes all orders to the appropriate contra order (order routing facility).

* The System produces an instantaneous trade report in absolutely correct sequence (composite tape).

* Our System provides competition among specialists and non-exchange market makers.

* The markets referred through the system are absolutely current and firm.

* Transactions against the System markets are confirmed instantaneously.

* There are no questioned trades.

* Market surveillance is supported by what we believe is the most advanced, detailed, recallable record of market activity in the country.

4. Additional steps which the SEC and the industry should take.

The SEC should make it clear that no selection has been made between the Cincinnati System and ITS as the appropriate model for development of the national market system. Development efforts should be encouraged to assure that established long-range goals are achieved, such as:

1. Economically efficient execution of securities transactions using new data processing and communications techniques.

2. The execution of investors' orders in the best market.

3. The opportunity, whenever appropriate, for investors' orders to be executed without the participation of a dealer.

4. The execution of investors' orders and protection of public limit orders in accordance with the auction trading principles of price and time priority.

5. A system which permits the interaction, to the maximum extent possible, of all bids and offers.

6. A system which treats all market makers equitably.

Users of the trading market such as broker/dealers and investors should participate in both systems and through their participation evaluate the merits of each. Only in this way can practical solutions to this difficult problem be achieved.

5. Other relevant observations.

The CSE, through CDC, has devoted considerable time, effort, and resources in expanding the staff devoted to supporting and enhancing the Cincinnati System.

In addition, we are more than doubling the size and power of the System, and are developing new application programs -- including some requested by the SEC -- to enable the SEC to conduct efficient surveillance of trading activity which takes place through the System.

We also plan to develop a direct interface capability with our users' internal computer systems so that users' orders can automatically be sent from our users' systems to our System. This feature will eliminate much of the manual re-entry of data currently required to enter agency orders into the System.

In addition, we are beginning to work on developing interfaces with the Consolidated Quotation System and ITS. This effort requires a substantial commitment of resources.

We have been urged by the Commission to participate in ITS, and this we want to do. While we believe that an interface between our System and ITS is possible, and we are in fact working to achieve this, we should point out that there are fundamental differences between our System and the other market centers represented in ITS. Our concern for the future is that we may be subject to continuing pressure from the Commission to alter our system to accomodate ITS. Doing this could destroy some of the unique, competitive characteristics of our System.

We have offered in the past, and we reiterate this offer, to provide our terminals to those exchanges which are not participating in our System at the present time. We feel that in this way both systems could benefit from exposure to the unique characteristics of the other.

We at Cincinnati are firmly committed to providing a high quality market facility at reasonable cost to brokers and dealers. We believe that, if given a fair field of competition on which to compete, our System will become an important part of the ultimate national market system.

Thank you for inviting me to participate in these important hearings. I shall be pleased to respond to questions at the appropriate time.

Mr. ECKHARDT. Mr. Putnam.

TESTIMONY OF J. STEPHEN PUTNAM

Mr. PUTNAM. Thank you, Mr. Chairman.

Mr. Chairman, my name is Stephen Putnam, president of F. L. Putnam & Co., in Boston, Mass., a user, if you like, of the national market system, and presently serve as chairman of the board of the National Association of Security Dealers, Inc.

With me today in the audience is Mr. Gordon Macklin, president of the association; Mr. Frank Wilson, and Frank Formica, members of the general counsel's office, and Mr. Richard Justice, senior vice president for automation.

Perhaps you could swear-in these gentlemen.

Mr. ECKHARDT. Gentlemen, please identify yourselves.

Do you agree to tell the truth, the whole truth, and nothing but the truth, so help you God?

[Chorus of "I do's."]

Mr. PUTNAM. We appreciate the invitation to submit our views to the subcommittee on the progress that has been made by the Securities and Exchange Commission and the securities industry toward the development of a national market system.

We believe the national market system can be defined as a concept envisioning quotation, order routing and execution facilities; the linking of marketmakers both on and off exchanges; and finally trade reporting, clearance and settlement systems. These systems would be linked together to carry out the purposes expressed in the 1975 act amendments to foster efficiency, enhance competition, to increase the information available to broker/dealers and investors and to contribute to the best execution of orders.

As has been said before, major progress has been made through joint industry efforts in the areas of quotation display, trade reporting and clearance and settlement systems. This progress has been achieved in an evolutionary manner with the Securities and Exchange Commission—as it stated in its 1979 status report—encouraging the securities industry, monitoring the progress made, acting as a catalyst and, when necessary, taking regulatory action to achieve a particular goal.

The association has consistently believed that the proper course to pursue in achieving a national market system is to encourage competition among marketmakers both on and off exchanges thereby allowing economc and competitive forces to mold and dictate the timing of developnment of facilities. The association believes that when marketmakers can freely compete with each other and with exchanges for customer order flow, the industry will build the facilities necessary to link markets and provide broker/dealers and their customers with access to all markets for securities.

When competitive barriers are eliminated, the impact that competition between dealer and auction markets has on the marketplace can be studied and information necessary to resolve the more complicated national market system issues can be developed.

With respect to the Commission's progress in fulfilling its role in developing a national market system, we believe that its efforts in 1978 attempted to accomplish too much too soon, and that in 1979 a more evolutionary practical approach was adopted. The Commission's 1978 status report called for: (1) a composite quotation sytem; (2) a comprehensive market linkage and order routing system; (3) a consolidated limit order book with time and price priority; (4) the inclusion of securities traded exclusively in the over-the-counter market in a national market system; (5) the deferral of consideration of the removal of off-board trading restrictions; and (6) the prompt development of a national system for clearance and settlement of securities transactions. The association responded to the Commission's status report with its "Technical Plan for the Development of a National Market System" which outlined in technological terms how the Commission's proposals could be implemented.

With your permission, we will supply the committee with a copy of that report for your record.

Mr. ECKHARDT. Without objection, it will be placed in the record.

[Testimony resumes on p. 326.]

[The report referred to follows. Appendixes to the report are available for review in the subcommittee office.]

A TECHNICAL PLAN FOR THE DEVELOPMENT OF A NATIONAL MARKET SYSTEM

1.0 INTRODUCTION

This document sets forth a technical plan for developing and implementing automated facilities for a National Market System. Developed under the auspices of the Automation Committee, this Plan has been reviewed and endorsed by the NASD Board of Governors. In preparing the plan, the Automation Committee identified the following five basic member needs in a national market environment:

- The need for access to combined quotations from all market centers.
- The need to fulfill agency responsibilities.
- The need to provide system-wide protection of limit orders.
- The need to keep development and operating costs at a minimum.
- The need to have fair opportunity for competitive market making.

Based on the above, the Automation Committee deemed the following functional characteristics basic to a National Market System:

- A consolidated quotations capability which would provide firm quotes with size from all market centers for visual display as well as use in computerized data bases.
- A national order routing capability that would be a communications link connecting all market centers to each other and to all broker-dealers.
- A national limit order file which could be added to the order routing capability to provide a central repository for limit orders.

THIS PLAN FOCUSES ON EMPLOYING EXISTING SECURITIES INDUSTRY-OWNED AUTOMATED FACILITIES AND COMMUNICATIONS NETWORKS TO DEVELOP AND IMPLEMENT THE MAJOR FUNCTIONAL CHARACTERISTICS OF A NATIONAL MARKET SYSTEM. After evaluating the existing industry systems and facilities, the Committee concluded that a combination of certain facilities operated by SIAC and NASDAQ would provide the required communications networks and computing resources to service a National Market System.

As a technical planning document, the Plan does not address such policy areas as governance, the scope and content of regulation or finance and administration of the National Market System. In particular, questions related to the policy implications of a limit order file and the attendant trading rules are not addressed.

The Plan contains four key sections. Section 2.0 provides a summary of the three developmental stages, recommended methods of implementation and estimated total costs with schedules for each stage. Section 3.0 provides a description of the operational concept for each stage. Section 4.0 identifies specific current systems on which to base operation of each stage and describes necessary changes to these systems. Finally, Section 5.0 delineates the estimated costs and preliminary schedules for developing and operating each stage. Each Section is supported by analytic material included in a series of appendices.

Additionally, the Plan addresses the means by which the NASDAQ System would be upgraded in each stage to provide support to NMS Market Makers (market makers other than exchange specialists) in the National Market System. The NASD technical staff with assistance from Univac, as the computer supplier, analyzed the utilization of the NASDAQ System. A consulting organization, Network Analysis Corporation, assisted the technical staff in analyzing the use of the SIAC Common Message Switch (CMS) equipment in the implementation of the National Order Routing System.

2.0 SUMMARY

A National Market System is envisioned as being accomplished in three evolutionary stages. Stage 1 establishes an official Consolidated Quotation Data Stream including size with a single designated industry collector; Stage 2 establishes a National Order Routing System linking together all broker-dealers and all market centers; and Stage 3 establishes a National Limit Order File linked to the National Order Routing System.

Implementation of each Stage of the Plan is based on maximum use of existing industry-owned facilities -- thus recognizing the substantial financial commitment already made by the industry and minimizing the additional investment necessary. For Stages 1 and 2, the Plan recommends implementation of the Consolidated Quotation Data Stream and the National Order Routing System through augmentation of the Consolidated Tape Association facilities and the Common Message Switch operated by SIAC. These augmented systems would serve all broker-dealers and market centers. Stage 3 assumes the addition of a National Limit Order File to the NASDAQ System.

After completion of Stage 1, the National Market System would provide a single collection facility for merging of all quotation data streams and, in turn, make available a single time-sequenced, consolidated quotation stream to all market centers, quotation vendors and broker-dealers.

With the implementation of Stage 2, the National Market System will be capable of routing both market and limit orders and generating reports of executions.

During Stage 2, the execution of market and limit orders would be left to the individual market centers.

Competition among market centers presumably will take place to attract order flow through efficient order handling and execution capabilities. In this connection, the NASDAQ System will be augmented to provide automated routing of orders to market makers or, at the market maker's option, computer-assisted executions.

Stage 3 of the National Market System, if implemented, would add the capability for a centralized limit order file. This capability would make available to all broker-dealers a central file for the entry and display of limit orders and to all market centers a central facility for the execution of these orders.

In planning the National Market System, a key factor has been providing for the capability to handle peak traffic loads within reasonably response limits. For all three Stages, the Consolidated Quotations Data Stream (CQDS) processor will have to handle up to an estimated 175,000 quote changes per day (approximately three times the changes presently generated). For Stages 2 and 3, traffic estimates are based on a peak trading day of 80,000,000 shares.[1/] At the 80,000,000 share

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1/ The highest trading day experienced to this date for all issues expected to qualify for the National Market System was 67,213,000 shares on February 20, 1976. Volume statistics provided by the Consolidated Tape Association, American Stock Exchange, Inc. and NASDAQ, Inc. (NOTE: Subsequent to the preparation of this Plan, this high was exceeded on April 14, 1978 at which time the trading volume for issues expected to qualify for the National Market System was approximately 74,695,000 shares.)

level an estimated 255,000 orders will be submitted with 200,000 executions occurring each day.

Based on these traffic estimates, the approximate cumulative annual cost recovery for development and operation of each Stage of the National Market System facilities is projected to be:

Stage 1 (CQDS)	$ 100,000
Stage 2 (NOR)	$6,500,000
Stage 3 (Limit Order File)	$9,200,000

These cost estimates include amortization of development costs for National Market System capabilities but make no allowance for costs to provide competitive support systems for other market centers or for broker-dealers to interface with the National Market System.

At these cost levels, if 100,000 order executions were processed each day, each execution and associated reports would cost approximately $.27 per execution. Also, if 50,000 daily limit order executions were handled by the National Limit Order File, the total cost would be approximately $.50 per execution.

Approximate annual costs for operation and amortization of enhancements to the NASDAQ System to support NMS Market Makers are projected to be:

Stage 1	$ 20,000
Stage 2	$2,200,000
Stage 3	$1,900,000

Individual schedule estimates have been made for each Stage. Stage 1 is expected to require 6 months. Stage 2 is estimated to require 17 months. Stage 3 is estimated to require 20 months.

These schedules do not provide for design, development and implementation of competitive support systems for other market centers or interface requirements for broker-dealers.

The time periods associated with the NASDAQ System to design, develop and implement support systems and interfaces to the National Market System are estimated to be 6 months to provide NMS Market Maker quotes to the CQDS processor and 15 months to provide a routing switch and computer-assisted execution capability.

* * *

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3.0 OPERATIONAL CONCEPT

3.1 STAGE 1 - CONSOLIDATED QUOTATION DATA STREAM (CQDS)

The first stage of the National Market System would provide for the establishment of an official CQDS for qualified securities from all market centers. All national securities exchanges and the NASD would establish procedures to make available firm quotations (bids and offers with size) in which market makers in that market center are making a market.

A single facility would be designated to serve as the gathering point for all market center quotation information. In so doing, this facility would merge the quote data streams and provide one time-sequenced consolidated quotation data stream to all market centers, quotation vendors and broker-dealers. (See Chart #1)

The CQDS Processor would validate security symbol, quote range and size, reject erroneous submissions and maintain time-dated records of all accepted submissions. The CQDS Processor would also provide the capability for storing multiple quotes on each security. The CQDS would be transmitted via high speed communication lines (with recovery capability) to quote vendors, market centers, broker-dealers and other authorized parties. Utilizing the CQDS, the individual market centers would be able to develop consolidated quote displays based on member needs. Individual users could elect to obtain consolidated quote information in data stream form from the CQDS Processor or display form from the various quote vendors including NASDAQ.

STAGE #1

CONSOLIDATED QUOTATION DATA STREAM

(CQDS)

CHART 1

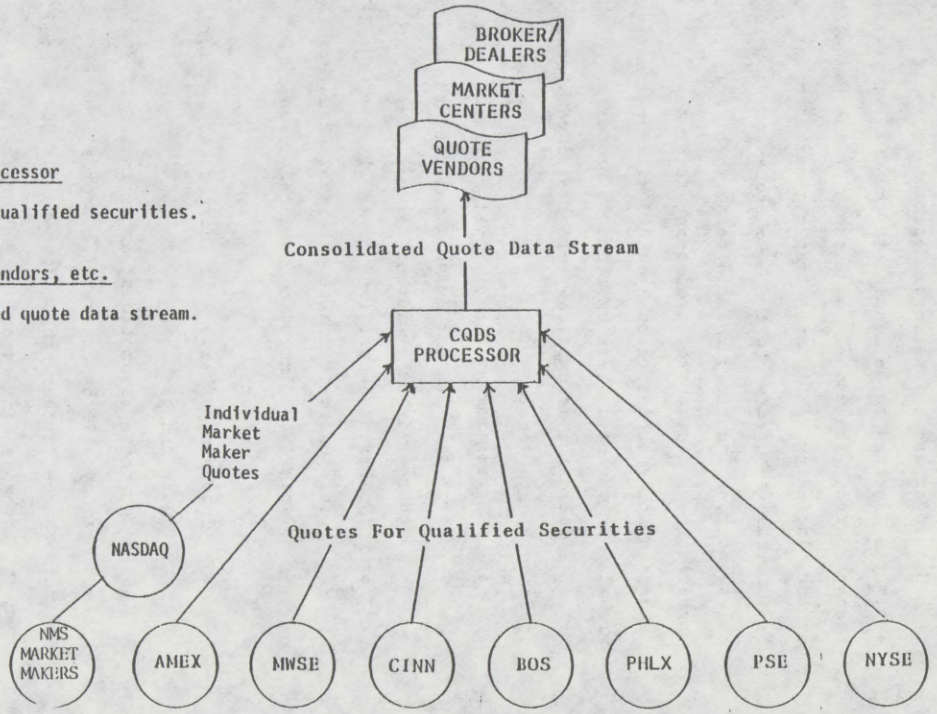
DATA FLOW

Market Centers to CQDS Processor

- Quotes with size for qualified securities.

CQDS Processor to Quote Vendors, etc.

- Consolidated, sequenced quote data stream.



Using the above functional description, traffic flow estimates expected to be handled by the CQDS Processor have been prepared. The underlying assumption is that all market centers including NASDAQ will transmit market maker quotations in qualified securities to the CQDS Processor who, in turn, will release a consolidated stream to vendors, broker-dealers and market centers desirous of processing this stream. NMS Market Makers entering quotes through NASDAQ will be treated individually as market centers by the CQDS Processor.

The following assumptions relative to peak processing loads have been made:

- Certain market centers will change their quotes from time to time automatically based on quote changes in other market centers.
- "Qualified Securities" cover all issues eligible under the criteria established for CTA Tapes A & B including unlisted issues which meet these criteria.
- Inclusion of size will increase the number of quote changes.

Based on these assumptions, an estimated 175,000 quote changes per day will be transmitted from all market centers. This estimate can be further broken down to 144,000 quote changes from the exchange markets and 31,000 quote changes from NMS Market

Makers. The 175,000 quote changes represent an increase of approximately 300 percent over the current quote change traffic which does not include size information.

After implementation of Stage 1, broker-dealers would have two basic methods for handling orders. First, broker-dealers could consult a consolidated quote display or computer-stored data base, determine which market center or market centers to use and send orders over presently available communications networks or, in the case of OTC markets, negotiate trades via the telephone. Second, broker-dealers could route all orders to specific market centers (either all securities to one market center or groups of securities to individual market centers) and either execute the order on that market center or have orders retransmitted via a market linkage system to another market center in the event a better quote is available. Market centers may wish to assume the responsibility of providing price protection for broker-dealers.

3.2 STAGE 2 - NATIONAL ORDER ROUTING (NOR) SYSTEM

The second stage of the National Market System would involve the implementation of an order routing facility to link all broker-dealers to all market centers to facilitate execution of orders.

This National Order Routing System could consist of a National Market Switch and communications network capable of routing messages from broker-dealers to designated market centers and from one market center to another designated market center. As the hub of the communications network interconnecting all broker-dealers and market centers, the National Market Switch would provide recovery procedures, store and forward capabilities and other functions necessary to insure system integrity. All messages would be identified as to type and appropriate route determined according to the market rules established. In general, designated orders, execution reports, cancellation messages, administrative messages and supervisory messages would be routed by explicit routing codes appended to the message. (See Chart #2)

The National Order Routing System could have the capability to also accept undesignated orders from broker-dealers and determine a market center or market centers to which to route the order based on the consolidated quotation record. Undesignated orders would be split between market centers when necessary.

While the National Order Routing System function essentially is to deliver orders to market centers and to return execution messages, execution standards such as automatic cancellation of orders not acknowledged by market centers

CHART 2

STAGE #2
NATIONAL ORDER ROUTING SYSTEM
(NOR)

DATA FLOW

Retail/MM Firms to NOR Switch

- Buy/Sell Orders
- Cancels for Orders
- Administrative Messages
- Supervisory Messages

NOR Switch to Retail/MM Firms

- Execution Reports
- Order Rejections
- Administrative Messages
- Supervisory Messages
- Message Rejection (status)

NOR Switch to Market Center

- Buy/Sell Orders
- Cancels for Orders
- Administrative Messages
- Supervisory Messages
- Message Rejection (status)

Market Center to NOR Switch

- Execution Reports
- Order Rejections
- Administrative Messages
- Supervisory Messages
- Buy/Sell Orders to other market centers

CQOS to NOR Switch

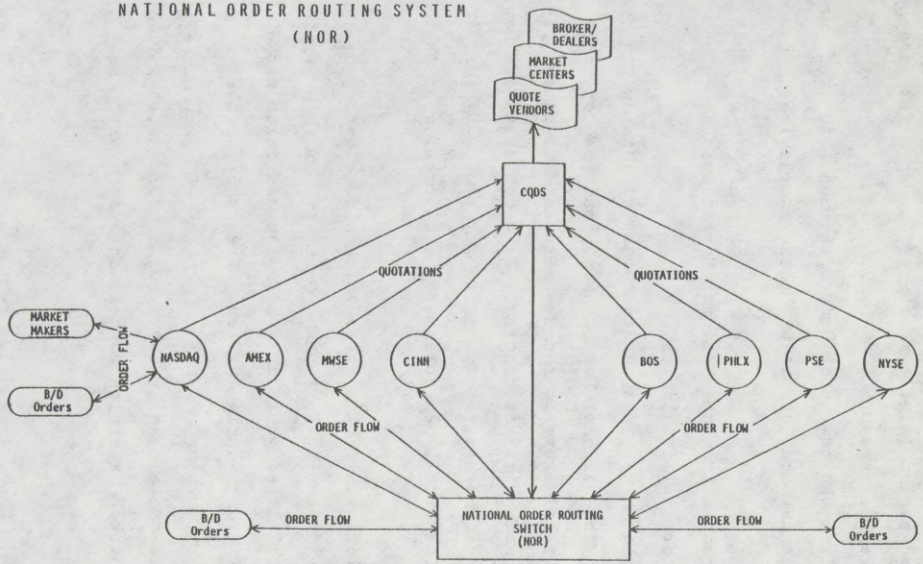
- CQOS Data Stream

Market Centers to CQOS Processor

- Quote with Size

CQOS Processor to Quote Vendors, etc.

- Consolidated, sequenced quote data stream



within a standard period (e.g. two minutes) or specific time period selected by broker-dealers could be included.

Broker-dealers who now enter orders through automated market center facilities may continue to use these facilities. In addition, a capability would be developed, particularly for those broker-dealers remote from the National Market Switch, to enter orders through terminal facilities.

For NMS Market Makers a separate communications switch interfacing with the National Market Switch must be developed to enable NMS Market Makers to receive directed orders and redirect orders to other market centers. As a competitive enhancement for NMS Market Makers, a capability would be provided for orders to be automatically executed at the discretion of the NMS Market Maker.

Broker-dealers would have three options for routing orders. First, broker-dealers could determine routing based on use of a consolidated quote data base and designate markets for the National Order Routing System. Presumably broker-dealers could continue to use any private network available to deliver orders to the exchange floors but broker-dealers could only reach NMS Market Makers through an interface with the

National Order Routing System or via telephone. Second, broker-dealers could enter undesignated orders to the National Order Routing System if a capability were provided for the System to determine the market center to which to route orders. Finally, broker-dealers could route orders to specific market centers and either execute on these market centers or have orders retransmitted via the National Order Routing System to another market center.

The major elements of traffic envisioned in the National Order Routing System are: (1) orders, (2) executions, and (3) administrative messages. Key assumptions relative to this traffic based on a peak 80 million share day are as follows:

> The total estimated number of orders entered on a peak day is 255,000. These orders result in 200,000 executions. Ten percent of these orders are received via NASDAQ terminal entry and the remainder via direct interface between broker-dealer computers and the National Market Switch. Thirty percent of the activity is assumed to occur in the first hour with one-third of that occurring within the first fifteen minutes. In order to maintain reasonable response time during this peak period, priorities will be

established for processing of order traffic. As much as ten percent of the orders in listed issues are assumed to be routed to NMS Market Makers with ninety percent routed to exchanges. Ninety percent of the orders in unlisted issues to be included in the National Market System, are assumed to be routed to the NMS Market Makers with ten percent routed to exchanges.

Appendix E contains a detailed analysis of traffic for all stages.

3.3 STAGE 3 - NATIONAL LIMIT ORDER FILE

The third stage of the National Market System, if implemented, would establish a National Limit Order File which would serve as an automated central depository for all limit orders in qualified securities. This National Limit Order File would be designed to allow entry of orders by all broker-dealers and execution of those orders by qualified market makers. The File, as envisioned, could handle principal orders as well as public orders.

In order to accomplish Stage 3, the National Limit Order File would be interfaced with the National Order Routing System. (See Chart #3) Broker-dealers would enter limit orders to the National Order Routing System as in Stage 2. Orders that are executable against another order in the National Limit Order File

DATA FLOW

NOR Switch to Limit Order File

- Limit Orders
- Limit Order Changes/Cancellations
- Order Detail Queries

Limit Order File to NOR Switch

- Execution Reports
- Query Responses
- Validation Rejections
- Acceptance Notifications

Limit Order File to Vendors

- Changes to Aggregates

Limit Order File to CQDS

- Inside Quotes

Limit Order File to Market Centers

- Last Sale Reports

Retail/MM Firms to NOR Switch

- Buy/Sell Orders
- Cancels forOrders
- Administrative Messages
- Supervisory Messages

NOR Switch to Retail/MM Firms

- Execution Reports
- Order Rejections
- Administrative Messages
- Supervisory Messages
- Message Rejection (status)

NOR Switch to Market Center

- Buy/Sell Orders
- Cancels for Orders
- Administrative Messages
- Supervisory Messages
- Message Rejection (status)

Market Center to NOR Switch

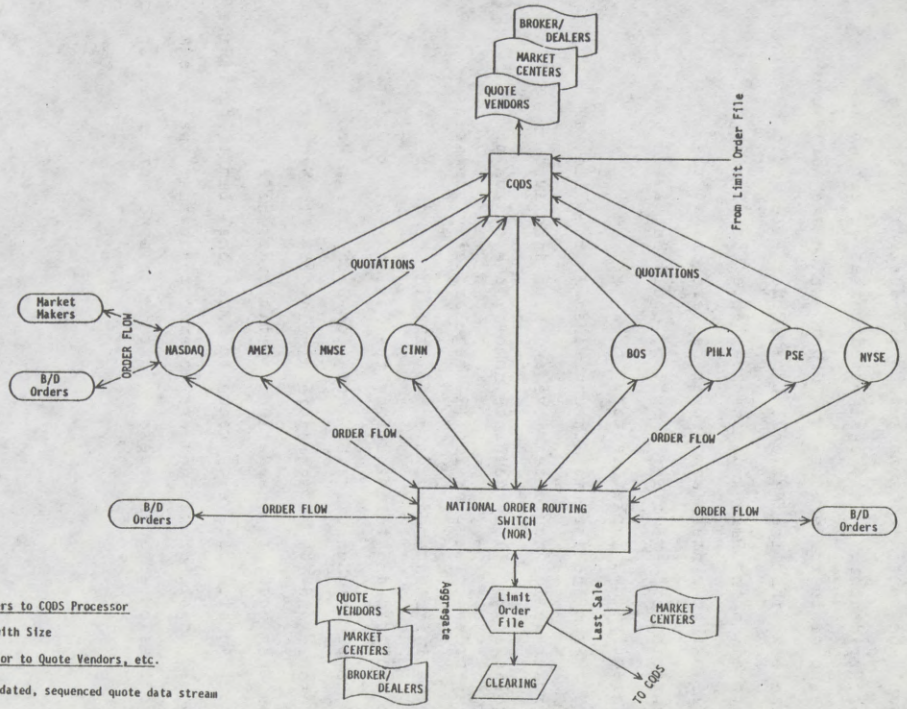
- Execution Reports
- Order Rejections
- Administrative Messages
- Supervisory Messages
- Buy/Sell Orders to other market centers

CQDS to NOR Switch

- CQDS Data Stream

STAGE #3
NATIONAL LIMIT ORDER FILE

CHART 3



Market Centers to CQDS Processor

- Quote with Size

CQDS Processor to Quote Vendors, etc.

- Consolidated, sequenced quote data stream

would be routed to a market center designated by the broker-dealer. This designated market center would be responsible for execution. Orders which are not executable against the National Limit Order File would be stored in the File and made available for display to all market centers and broker-dealers or, at the entering broker-dealer's option, could be routed directly to a market center.

From the information contained in the File, a broker-dealer could retrieve and have displayed the following: (1) by sequence number, the status of any order entered by it; (2) regular daily summaries of all its entered orders; (3) the inside quote calculated and released from the National Limit Order File to the Consolidated Quotation Data Stream Processor; and (4) an aggregate display of all changes as they occur to the National Limit Order File.

An alternative approach to a National Limit Order File would enable broker-dealers to execute against the File as well as enter open orders. In this case no market center would be

designated and all limit orders would be routed to the File where the limit orders would either be executed or entered as open orders.

Based on the peak 80 million share trading day, the File would be developed to accommodate up to 1,000,000 open orders. For the National Limit Order File, peak daily traffic is assumed to include 255,000 total orders, as in Stage 2, with 130,000 of these being limit orders. Other traffic assumptions are similar to those for Stage 2.

4.0 IMPLEMENTATION APPROACH

A major guideline in reviewing implementation approaches has been to make maximum use of existing facilities thus keeping additional investment to a minimum and taking advantage of the investment in current facilities. An analysis was made of all industry systems (See Appendix A). The conclusion was that three systems -- the Consolidated Tape Association trade processing system, the Common Message Switch and the NASDAQ System -- were the most appropriate to build on. Only these three systems presently perform processing functions of a size equivalent to the National Market System functions. In addition, each system offers excess capacity and is upgradable to provide additional required capabilities.

Stage 1 is recommended to be implemented through the use of the Consolidated Tape Association (CTA) facilities operated by SIAC. All market centers including NASDAQ (which will send

individual market maker quotes) will forward quotes to the CTA facility for time sequencing. Capabilities provided by the CTA facility are already very similar to the requirements of the central collection point for a consolidated quotation data stream.

A minimum amount of equipment modification appears to be necessary for this facility to handle this new service. (See Appendix B). An initial pilot quote collection system using some CTA facilities is scheduled to go on line in May, 1978 as part of the ITS System.

Among the several economic advantages supporting this implementation approach is the fact that all present market centers have existing communications lines to CTA and could thereby avoid unnecessary duplication of communication costs. Additionally, the communications protocol software for quotations information will be the same as the one employed for trade data. This approach is likely to have the support of quote vendors in that the problem associated with sequencing market quotations will be handled by SIAC.

Stage 2 is recommended to be implemented by augmenting the Common Message Switch (CMS) operated by SIAC (See Appendix C). The Common Message Switch presently meets most of the requirements for a National Market Switch and it appears to be both technically and economically feasible to add the necessary interfaces with other market centers.

A significant portion of the broker-dealer order flow is already tied into the CMS system. High speed communications lines will have to be added to all market centers including NASDAQ, and a capability provided to broker-dealers who are not directly tied to CMS to enter orders. One method will be to allow use of NASDAQ terminals to enter orders. Broker-dealers or other service organizations with national communications networks may also wish to provide order entry capabilities. Additional equipment will have to be added to the CMS system to accommodate the expanded traffic.

An alternative method for implementing Stage 2 would be to implement a link between the existing CMS system and an independent National Market Switch which would provide routing to and from all other market centers including NASDAQ.

To support the NMS Market Makers, a separate capability will be added to the NASDAQ System to execute orders against NMS Market Maker quotes or to route orders to NMS Market Makers. These enhancements will require upgrading of the NASDAQ concentrators and adding additional mass storage at the central processing site.

Although development and implementation of Stage 2 does not provide for an interface to clearance and settlement facilities, the National Order Routing System, in order to operate efficiently and effectively, must be supported by a national clearance and settlement system that is non-discriminatory in

access and rates and that provides uniform services.

Based on analysis of available information on existing systems, the NASDAQ System appears to be a logical choice for implementing Stage 3. The NASDAQ System with a computer-assisted execution capability has most of the required characteristics -- a large mass data storage accessible from the National Order Routing System and software to select and match entered orders against a stored data base as well as capability to automatically notify broker-dealers, quote distributors and possibly clearing facilities of executed trades. Prior to making a final determination on implementation of Stage 3, additional analysis will be made to compare the utilization of other systems with NASDAQ as to relative efficiency of adding a National Limit Order File capability.

In connection with the implementation of a National Limit Order File, there has been extensive discussion of the potential value of a pilot project. The desirability of a pilot National Limit Order File is based upon the general assumption that (1) a pilot operation could provide substantial assistance in determining if the function of such a File is workable and realistic, (2) solutions could be tested to any problems that occur, and (3) policy issues and procedures could be identified so that the basic system requirements for a full scale implementation could be defined based on operating experience. The continuing debate in the securities industry over limit order considerations indicates the difficulties involved in reaching mutually agreeable answers

for all three points.

The drawback to a pilot system is that implementation is usually done on a small system and, when full scale implementation is decided on, the small system must either be redesigned or a totally new system built. A potential consequence is that results obtained in the pilot system might not be applicable to a full scale environment and a smooth transition from the pilot system to a full scale operation might not be viable.

Another method suggested for evaluating a National Limit Order File is to simulate the trading environment on a reduced scale. Such a system would be completely removed from the actual market centers and not be involved with daily trading. Although various trading situations could be tested the fact that the trading system is only being simulated would probably inhibit making the hard operating decisions attendant to any National Market System. Hence, only limited conclusions could likely be drawn and no operating experience would be gained from a simulated trading environment.

A more practical approach for implementing a National Limit Order File would appear to be to phase in securities gradually to a system which would be capable of performing the full National Limit Order File application. The first phase, limited to perhaps 50 qualified securities, could be used to evaluate

the workability of the File and resolve operating considerations and policy issues. As soon as these are judged to be accomplished, other qualified securities could be phased in until all qualified securities were included in the File.

5.0 COSTS AND SCHEDULES

5.1 COST ESTIMATES

As noted in Section 4.0, all elements of the National Market System are to be based on augmentation of existing systems. The incremental costs for augmenting existing systems appear to be significantly lower than the cost of building new and separate National Market System elements.

Both development and operating costs were considered. Development costs are one-time costs for adding hardware and software to perform National Market System functions. For planning purposes, purchase of hardware has been assumed. Prior to actual implementation, a detailed comparison of lease versus purchase would be made. Operating costs represent an allocation of appropriate existing operating costs together with incremental costs for the National Market System. This allocation is based on the relative traffic volumes between the existing systems and the National Market System. National Market System costs are

broken down by Stages and between NASDAQ and SIAC. Also shown are NASDAQ market center costs. Costs are summarized in terms of an annual cost recovery requirement. This is based on annual operating costs plus annualized recovery of one-time software and hardware costs.

A summary of estimated National Market System costs is shown in Table 1. A summary of estimated NASDAQ Market Center costs is shown in Table 2. Assumptions used in costing are as follows:

- Stage 1 Consolidated Quotation Data Stream (CQDS) is implemented by SIAC on existing Consolidated Tape Association (CTA) equipment and no new equipment is required.
- SIAC Stage 1 operating cost estimates represent an assumed allocation based on processing load for other applications (e.g. MDS & ITS) which share the same facilities.
- Stage 1 market center costs are excluded from these estimates except for NASDAQ as specified.
- All allocations of NASDAQ costs are based on estimated percentages of traffic for each Stage.
- NASDAQ CQS Data Stream software is allocated 100 percent to the NASDAQ NMS Market Center and recovered over five years.
- NASDAQ Stage 2 concentrator and Central Processing Complex (CPC) software are allocated 67 percent to the NASDAQ NMS Market Center for routing orders to market makers and 33 percent to

the National Market System for order entry. These costs are recovered over five years.

- NASDAQ Stage 2 concentrator hardware is allocated 64 percent to the present NASDAQ OTC System, 24 percent to the NASDAQ NMS Market Center and 12 percent to the National Market System. These costs are recovered over 7 years with no salvage value.
- NASDAQ Stage 2 CPC hardware is allocated 64 percent to the present NASDAQ OTC System, 24 percent to the NASDAQ NMS Market Center and 12 percent to the National Market System. These costs are recovered over 7 years with 20 percent salvage value.
- NASDAQ Stage 2 operating costs are allocated 64 percent to the present NASDAQ OTC System, 24 percent to the NASDAQ NMS Market Center and 12 percent to the National Market System.
- NASDAQ Stage 3 software is allocated 100 percent to the National Market System and is recovered over 5 years.
- NASDAQ Stage 3 hardware is allocated 44 percent to the present NASDAQ OTC System, 39 percent to the National Market System and 17 percent to the NASDAQ NMS Market Center. These costs are recovered over 7 years with 20 percent salvage.
- NASDAQ Stage 3 operating costs are allocated 44 percent to the present NASDAQ OTC System, 39 percent to the National Market System and 17 percent to the NASDAQ NMS Market Center.
- General and Administrative (G&A) costs are added to direct operating and development cost recovery amounts based on the projected G&A rate (24 percent).

- The Annual Cost Recovery amount is derived by adding annual cost recovery amounts for software, hardware, annual operating costs, and G&A costs for each function.
- SIAC operating costs are assumed to be equivalent to estimated current CMS operating costs ($1,900,000) plus an estimate of additional costs ($1,030,000) to operate the National Order Routing System function. No estimate has been made for recovery of prior investment in the CMS system.
- All additional SIAC hardware and software costs for the National Order Routing System function are allocated 100 percent to the National Market System

TABLE 1

SUMMARY OF ESTIMATED COSTS
FOR DEVELOPMENT AND OPERATION
OF THE
NATIONAL MARKET SYSTEM

	SIAC		NASDAQ	TOTAL
STAGE 1				
Hardware	$ -0-		$ -0-	$ -0-
Software	200,000		-0-	200,000
Annual Operating Costs & G & A Costs	60,000		-0-	60,000
Cumulative Annual Cost Recovery	100,000		-0-	100,000
STAGE 2		Alternative*		
Hardware	$11,300,000	16,600,000	$ 160,000	$11,460,000
Software	836,000	1,234,000	510,000	1,346,000
Annual Operating Costs & G & A Costs	3,605,000	6,212,000	960,000	4,565,000
Cumulative Annual Cost Recovery	5,386,000	8,894,000	1,080,000	6,466,000
STAGE 3				
Hardware	$ -0-		$ 1,425,000	$1,425,000
Software	-0-		820,000	820,000
Operating Costs & G & A	3,605,000		3,400,000**	7,005,000
Cumulative Annual Cost Recovery	5,386,000		3,850,000	9,236,000

* This cost based on use of a stand-alone switch linked to the existing CMS

** Operating costs have been reallocated based on new Stage 3 traffic distribution

TABLE 2

SUMMARY OF ESTIMATED COSTS
FOR DEVELOPMENT AND OPERATION
OF THE
NASDAQ SYSTEM TO SUPPORT NMS MARKET MAKERS

	NASDAQ
STAGE 1	
Hardware	$ - 0 -
Software	85,000
Annual Operating and G & A Costs	5,000
Cumulative Annual Cost Recovery	20,000
STAGE 2	
Hardware	$ 319,000
Software	1,013,000
Annual Operating and G & A Costs	1,925,000
Cumulative Annual Cost Recovery	2,190,000
STAGE 3	
Hardware	$ 620,000
Software	- 0 -
Annual Operating and G & A Costs*	1,505,000
Cumulative Annual Cost Recovery	1,840,000

*Operating costs have been reallocated based on new Stage 3 traffic distribution.

5.2 SCHEDULE ESTIMATES

Schedules for implementation of the National Market System and the NASDAQ Market Center functions are included in Tables 3 and 4. Detailed schedule considerations are included in Appendix F.

By maximizing use of existing facilities, shorter implementation schedules are possible than if separate and new facilities were developed. However, a substantial period of time is still involved in developing the projected capabilities. Stage 1 of the National Market System is expected to be operational six months from start-up. Stage 2 is estimated to be completed in 17 months if CMS is fully utilized or 21 months if a new switch must be created to interface with CMS. Stage 3 is anticipated to require 20 months for implementation. Although the schedule show the start of Stage 3 design simultaneously with the start of Stages 1 and 2, the actual start date would depend on resolution of policy issues by the securities industry.

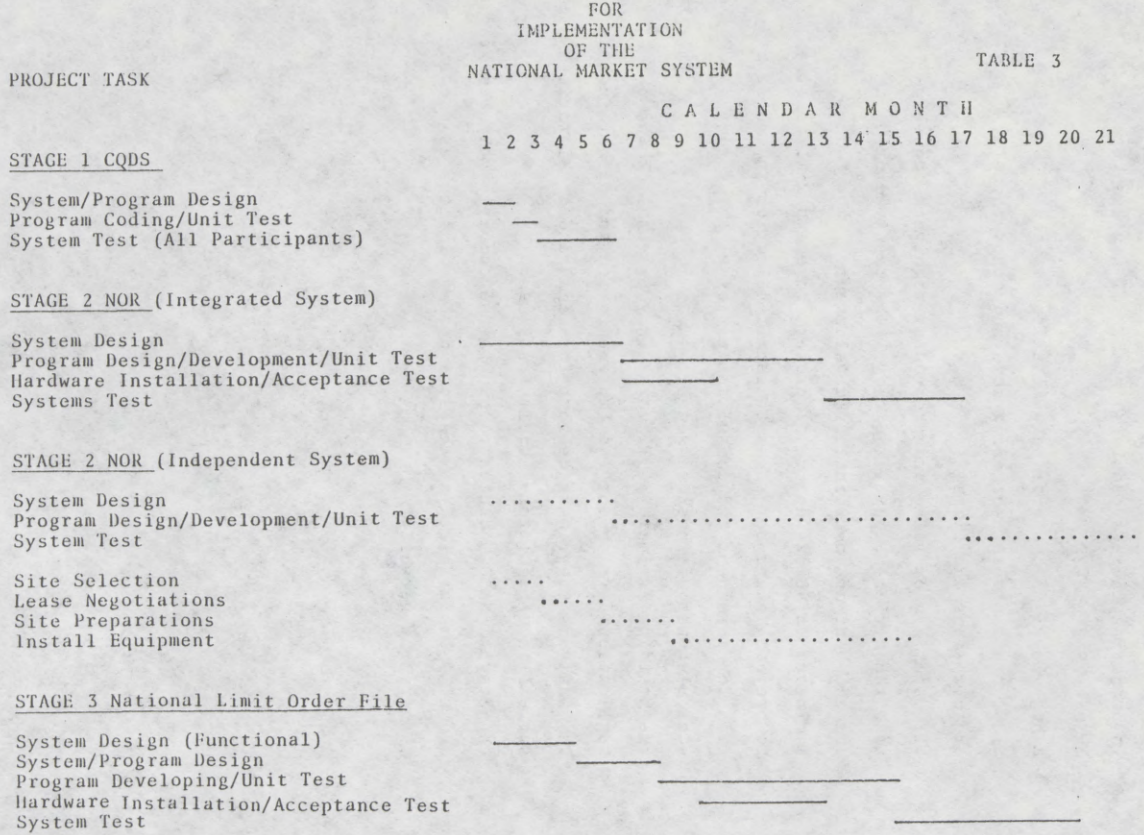
NASDAQ Market Center functions are scheduled to coincide with National Market System schedules so that NMS Market Maker quotes are available to the CQDS Processor for system test purposes, and the NASDAQ switch and computer-assisted execution functions are available to tie in NMS Market Makers to the National Market Switch on its completion.

In preparing these schedules a number of key assumptions were made. These are:

- a high level of cooperation will exist between SEC, NASDAQ SIAC, other exchange organizations and other industry organizations and firms;
- all major system rules and procedures requiring consensus from the different participants will be resolved prior to commencement of specification development;
- a minimum of 90-day notice of project go ahead will be given to project management so as to permit selection and negotiation for permanent and consultant personnel prior to the scheduled use of these personnel;
- the staffing estimates will cover only Stages 1, 2 and 3 application development and implementation and do not include any analysis/programming effort for daily and/or historical surveillance/regulatory requirements; and
- the Stage 2 NASDAQ concentrator will be competitively acquired and will be installed at the same number of sites as are in the present network.

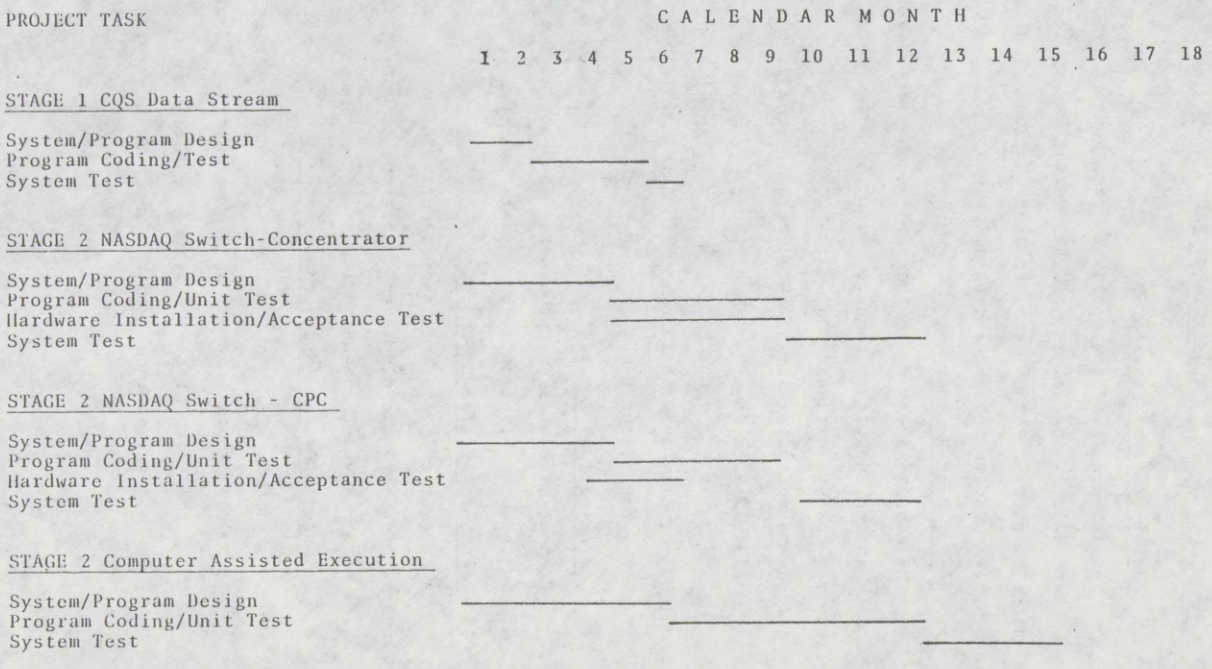
SCHEDULE ESTIMATE
FOR
IMPLEMENTATION
OF THE
NATIONAL MARKET SYSTEM

TABLE 3



SCHEDULL STIMATE
FOR
IMPLEMENTATION
OF THE
NASDAQ SYSTEM TO SUPPORT NMS MARKET MAKERS

TABLE 4



GLOSSARY OF TERMS

1. Administrative Messages

Messages sent via the National Order Routing System from broker-dealers, specialists and NMS Market Makers to either market centers or other participating parties. Typically, these messages concern the processing of orders.

2. Annual Cost Recovery

The amount necessary to recover the one-time development costs and to support the annual operating and general and administrative costs. Hardware costs are recovered over a seven year period and software costs are recovered over a five year period.

3. Aggregate Display

A display based on changes in the National Limit Order File which indicates the total number of shares available at each price for each security.

4. Communications Protocol

Precise standards and procedures for each action that is allowable under electronic communications networks.

5. Computer Assisted Execution

A program which permits the execution of purchase and sale transactions against displayed quotations of market makers without necessitating voice communication.

6. Designated Orders (Undesignated Orders)

Designation by a broker-dealer entering an order into the National Order Routing System of the recipient market center. (As an option a capability to determine the recipient market center within the National Order Routing System could also be added.)

7. Inside Quote

The best bid and best offer price for a given security as quoted in the National Limit Order File. The inside quote is transmitted to the Consolidated Quotation Data Stream.

8. Limit Order (or Limited-Price Order)

An order to buy or sell a stated amount of a security at a specified price, or at a better price, if obtainable.

9. NMS Market Maker

A broker-dealer who holds itself out as being willing to buy and sell one or more National Market System qualified securities for its own account on a regular and continuous basis otherwise than on a national securities exchange.

10. Market Centers

Registered national securities exchanges or NMS Market Makers who operate through the facilities of the NASDAQ System.

11. Recovery, Store and Forward Capabilities

A system capability employed to maintain data integrity, normally accomplished through the use of backup files and duplicate computer configurations.

12. Supervisory Messages

Messages used by broker-dealers, specialists and NMS Market Makers to control and monitor communications with the National Order Routing System.

13. Switch

An automated communication facility that receives messages from multiple points and routes those messages to other points

based on destination information included in the message.

14. Time Out

That period of time, fixed by rules, in which a specialist or NMS Market Maker has to either accept or reject an order delivered (routed) to it. If action is not taken within the specified time, the National Order Routing System will automatically inform the designee that the order is cancelled and re-route that order as specified by the rules.

Mr. PUTNAM. The association also responded with comment letters which questioned many of the policy issues present in the proposals. At that time it expressed its concern about the ability of broker/dealers to engage in marketmaking activities in the conceptual national market system suggested by the release and the potential that the proposals had for reducing the economic incentive for marketmaking.

The securities industry did not support all of the proposals of the Commission because, in our opinion, the Commission was attempting to implement complex, untested changes in the marketplace in a very short period of time and because the proposals were not consistent with the evolutionary approach toward the development of a national market system set out in the act.

In the Commission's 1979 status report, it modified the approach taken in 1978 to a more deliberate evoluntionary one. This is evidenced by the elimination of the proposed requirement for a consolidated limit order book with time priority, recognition of competition among order routing systems and consideration of a limited test for removal of off-board trading restrictions.

The association believes that the most important step the Commission could take at this time to foster the development of a national market system is to adopt rule 19c-3. Rule 19c-3 would prevent off-board trading restrictions from applying to securities listed on exchanges after April 26, 1979. This means that, for the first time, when an over-the-counter company lists on an exchange, the market makers who are also members of stock exchanges, will be able to continue making markets in these securities in competition with exchange specialists.

The association believes that the adoption of this rule will be a useful experiment and will give the securities industry and the Commission an opportunity to observe a trading environment involving competition among exchanges and over-the-counter market makers.

As a result of this commission initiative, the association has commenced development of market facilities in the over-the-counter market to provide a meaningful competitive environment for the trading of the securities covered by the proposed rule as well as other securities traded in the over-the-counter market.

I am pleased to announce here today for the first time the NASD Board of Governors has authorized on September 8 the creation of a separate NASD subsidiary to develop and operate these new facilities. These facilities would include an order routing switch

linked with the SIAC message switch and the Intermarket Trading System and an automatic execution and order display capability. Understandably, full implementation of this program will require acquiesence by SIAC's owners—NYSE and AMEX—to permit the suggested link of the two facilities.

Basically, our new facilities would provide a broker/dealer with the capability to enter an order into a terminal connected to the new system and route it directly to another market maker or to and through the SIAC message switch to an exchange floor. Likewise, orders from an exchange floor could be transmitted through the system to an over-the-counter market maker. Broker/dealers with routing facilities currently linked to the SIAC message switch would be able to route orders through that switch to over-the-counter market makers. The new system will also provide the capability for automated execution of orders received from broker/dealers and exchange floors.

Thus if a market maker is in an automated mode any order routed to him in specified securities at his displayed quotation and within his displayed size will be executed within the system, an execution report will be printed out at both the entering firm's terminal and the market maker's terminal, and the transaction will be automatically reported to the Consolidated Tape and the clearing agency. The new system will provide the capability for ITS commitments to be routed for display to market makers who could either accept or reject the commitments and for market maker commitments to be routed to exchange floors.

Total cost of hardware and software for the new system is estimated to be $10 million.

The association believes these facilities will provide all broker/dealers with an efficient method of accessing all market centers and will constitute a great step to the evolving national market sytem. Most important in connection with this development is that it is being done on a voluntary basis by the industry itself in response to a need created by the infusion of competition in the marketplace—not as a result of Commission rule or fiat.

We believe the only way an effective, efficient national market system will be built is to create the economic and competitive incentives for the industry to build the facilities necessary to such a system. If done in this manner, the new system will, in our view, be superior to anything that can be constructed as a result of Government edict.

The adoption of proposed rule 19c–3 and the development of our planned facilities will give the industry and the commission an opportunity to study an environment of competition between auction and dealer markets and to analyze the impact of merging dealer and auction markets into one system.

This competitive environment will also provide needed experience and information to answer many of the questions that have been raised with respect to the removal of off-board trading restrictions, the protection of limit orders and the inclusion of certain securities traded exclusively in the over-the-counter market in the national market system. The association believes that rule 19c–3 should be promptly adopted and the markets in these securities

studied carefully, especially after the competition of the proposed order routing and execution facilities.

After such a period of evaluation and analysis, the industry and the Commission will be in a better position to resolve the questions of off-board trading restrictions, limit order protection and that of qualified securities. We have strongly urged the Commission not to pursue these areas until such an analysis and evaluation has been completed. We believe that pursuing this course is a sound, practical evolutionary approach to the development of a national market system, is consistent with the 1975 act amendments and will result in a much more efficient and economically viable system.

The subcommittee has also asked for our views as to the potential of the electronic trading system operated by the Cincinnati Stock Exchange and the Intermarket Trading System (ITS) for fulfilling the legislative mandate of the 1975 Act amendments. We believe the Cincinnati program should be continued. To do so would serve the purpose of putting some of the major policy issues involved in the development of a national market system to a limited test.

The association has suggested to the commission that in its ongoing monitoring of the pilot program it should focus on the impact the system has on the ability of its participants to profitably engage in market making. We do not believe there has been sufficient experience with the CSE system to form an opinion as to its final role in the national market system.

The Intermarket Trading System as presently constructed is a communications link between the major stock exchanges. We feel ITS can be an important part of the national market system once access to the system has been provided to all segments of the marketplace on an equal basis and it has been interfaced with the various industry execution systems. This modification will reduce the length of time it takes to execute transactions in the system which has been mentioned as a major disincentive to its use.

The association's planned new facilities will also provide such an automated interface with ITS. At the same time, we would like to emphasize that ITS, because it links marketplaces to one another and not broker/dealers to marketplaces, has difficulty in its present form handling a tremendous amount of order flow coming from broker-dealers at times with large volumes.

We feel that it can be relied on to handle market imbalances but the large-scale routing of orders to one market or another from brokers must be done through use of a switch such as the SIAC Common Message Switch linked to all marketplaces.

The final national market area in which the Commission has progressed is in clearing and settlement. In 1977 the Commission authorized the formation of the National Securities Clearing Corporation with authorization to clear both OTC and lisited trades through a single system. In 1979 the Commission authorized the completion of the merger of the OTC and listed systems resulting in a direct saving to the industry of upward of $10 million a year.

The last remaining important decision concerns the pricing of clearing services equally to all participants in all cities serviced by the system—sometimes referred to as Geographic Price Mutualization, GPM. This form of pricing, which is in use in other major

aspects of the business such as quotation services, was first adopted by National Clearing Corporation for OTC clearing and has been continued by NSCC for OTC clearing.

At the present time, the Commission must decide whether to allow extension of this form of pricing to listed clearing. We believe a favorable decision on this is very important to the development of a national market system. Without equal pricing, non-New York broker/dealers must either pay more to clear their trades locally than the larger New York headquartered firms or must pay to have a New York facility or use some other more expensive means to clear their trades.

Another related area is that of depositories. We feel that continued pressure from Congress and the Commission must be brought to bear to influence institutions and others to leave their certificates in depositories, thus eliminating the necessity for costly physical handling of certificates.

I would also like to comment for a minute on one other area with respect to the movement toward the national system; that is, the movement toward a more efficient regulatory pattern.

As you will recall, the 1972 SEC study and 1975 act committee report both discussed the need for a change from the jumble of regulatory rules, forms and duplicate exams that were present at that time.

In this area, much has been accomplished through the cooperative efforts of exchanges, the association, and the SEC. Brokers now report their financial and operational status on one set of forms, and in many cases to only one location. Dual members of the NASD, Boston, Pacific, Midwest, Cincinnati exchanges, all have one self-regulatory exam for us to contend with, and also the presence of that single examining force promotes more uniform examination of broker/dealers. Brokers take one set of qualifying exams which are accepted by many of the SRO's.

A recent agreement between NSAA, the State administrators Association, and the NASD, now allows brokers to take one State examination to qualify for every State that presently requires examination.

There is still much to be done to maximize efficiency and reduce costs in the industry in this area. Our hope is that market centers will continue to put aside their own fears with respect to their prerogatives in this area and in favor of the obvious long-term savings to their members and that the SEC will continue to oversee this effort and take regulatory action, where appropriate, to promote this evolution.

Mr. Chairman, I appreciate your attention and will be happy to answer questions at the proper time.

Mr. ECKHARDT. Mr. Batten, do you believe that the change from old rule 394 to present rule 390 on the New York Stock Exchange in any way hampered the effective attraction by the exchange of customers in the protection of limited orders or in any other way, because that was a considerable relaxing of the old rule?

Mr. BATTEN. That is right. I came to the exchange about the time that was going on, and I think probably I should defer to Mr. Phelan, who has much more knowledge about that than I.

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Mr. PHELAN. Mr. Chairman, in the modification of rule 394 to rule 390, in which you had a particular interest, I don't think that we have found at this time that there has been any lessening of protection of customer-order or limited-order protection, nor any lessening of interest of member firms to join in the exchange. We have lost a number of member firms, but that seems to be through economic concentration and other things that are going on in the industry rather than in the change from rule 394 to rule 390.

Mr. ECKHARDT. When we were questioning witnesses on rule 390 a number of years ago—I guess it was probably in 1974—it was indicated that the exception to that rule by which one might go off the exchange, where a better opportunity might be had off the exchange, was so hedged with procedures that they were seldom used.

I recall questioning one New York Stock Exchange specialist at that time and asking just what are the mechanics of it? Do you remember a particular instance of going through the process? And I don't think he could dredge one up out of his memory at the time.

Apparently the movement from rule 390 to rule 394, which I understand is used and which does not require a prior agreement, has not hampered your operation nor driven away customers because of the lessened singularity of markets that were occasioned under old rule 394.

Mr. PHELAN. I do not think the change in rule 390 which allows a member firm acting as an agent to take his order to——

Mr. ECKHARDT. That is broad.

Mr. PHELAN [continuing]. The over-the-counter market for execution has hampered, as far as we can tell, access to our exchange, the competitiveness of our exchange, nor led to member firms leaving our exchange in order to execute those orders.

Mr. ECKHARDT. Presently, an agency order may be taken to the third market without any restrictions?

Mr. PHELAN. That is correct.

Mr. ECKHARDT. That is a very, very extensive change from old rule 394. That was not possible at that time.

Mr. PHELAN. That is correct.

Mr. BIRNBAUM. If I could add a comment—I think, as Mr. Phelan said, the primary markets haven't felt any lessening of people joining the membership or leaving because of that, but I think the truth of the matter is that I don't think either the New York or American Stock Exchange has any idea, because I don't think we have any way of knowing what our major member firms are doing because of the new offboard rules. So it doesn't seem to have had any impact on us, but we don't monitor that in any way, and the firms don't have to come to us, so we really don't know.

Mr. ECKHARDT. You don't know, but you don't see any adverse effect.

Mr. BIRNBAUM. We don't see any adverse effect, but we don't have any facts on it.

Mr. ECKHARDT. Mr. Walbert, you indicated a very strong opposition to 19c-3, and, as I understand 19c-3, it would apply to a relatively small segment of all of the stocks dealt with. Is that not correct?

Mr. WALBERT. Yes; that is true. I think our opposition gets back to the basics of timing. We think that it is overwhelmingly important that the national market system follow on a regular and true course. Anything that might interfere with that would be detrimental.

I might ask Mr. Harris to comment on that, too, if he likes.

Mr. ECKHARDT. That rule would, in effect, not apply to the stocks which were for the first time listed on the New York Stock Exchange in April of this year; is that correct?

Mr. WALBERT. Yes, sir.

Mr. ECKHARDT. It would also be true that those stocks which had moved onto the New York Stock Exchange had previously been dealt with by the third market altogether; is that correct?

Mr. WALBERT. That is my understanding; yes, sir.

Mr. ECKHARDT. Why would it not be reasonable, at least as an experiment in a relatively small number of stocks, to permit them to still be traded on the third market freely?

Mr. WALBERT. I think we could live with that at the right stage of market development.

Mr. ECKHARDT. That is all it would do, isn't it?

Mr. WALBERT. Yes.

Mr. ECKHARDT. Any other comments on that?

Mr. CALVIN. May I make some comments?

Mr. ECKHARDT. Sure.

Mr. CALVIN. First, I don't agree with Mr. Walbert's conclusion.

Mr. ECKHARDT. You have a stronger interest.

Mr. CALVIN. First off, the proposed SEC rule, Mr. Chairman, would apply to more than stocks that were previously traded over the counter. In other words, the rule is broadly drawn and applies to any issue or any stock which is listed after April 26. Now that does not say any "company" listed after April 26, but "any equity security," and, therefore, it could be that it could apply to a new issue of securities by A.T. & T, which was never traded over the counter, so it is much broader than just covering over-the-counter stocks which have become listed for trading on an exchange.

Mr. ECKHARDT. Surely that is true, but supposedly we were considering only stocks traded over the counter. Then they are added on the New York Stock Exchange. Why should not they continue to be dealt with over the counter, and why would that be a bad area of experiment?

Mr. CALVIN. Well, if the Chair would agree, as I think the 1975 legislation talked about fragmentations under the SEC-proposed rule, if adopted, there would be clearly fragmented trading, that is, dispersed trading in those stocks. Now, you could say, "well, they were traded over the counter in more than one place," but now they are being traded on, say, the New York or American Stock Exchange as well, and so the benefits of combining trading of all buy and sell orders meeting in those stocks, that objective would be defeated. The objectives sought in the Securities Acts Amendments of 1975 would not be attained, because now the dispersion of the trading would be greater. In other words, it is contrary to the national market objectives unless some of these other national market system-type things occur with respect to those stocks. But that is not proposed. In other words, there is no linkage proposed

here; there is no rule proposed; there is no surveillance proposed, and so forth. So it is just counter to what I think everybody on this panel would support, and I think what the committee supports, and that is exposing all buy and sell orders to each other.

Mr. ECKHARDT. Wasn't the argument of fragmentation brought up when we were in this committee criticizing old rule 394 and Congressman Moss was proposing its removal by the 1975 act?

Mr. CALVIN. That is right.

Mr. ECKHARDT. And ultimately it was decided, well, maybe we ought to wait a little while.

Mr. Frank, for instance, was arguing that there should be some relaxation of the rule, and it would then satisfy the objections we had. As I recall, the first step was to remove the restriction with respect to a prior agreement that the trade might go off the exchange. Certain standards were applied which included protecting, I think, the existing book of the specialists with respect to the bid on the outside. We also required, I think at that time, that there not be an opportunity to trade the stock with equal advantage on the exchange itself. Since then, you moved even further with respect to the agency trades, et cetera; but in all of those cases you move, to a certain extent, to what you here describe as fragmentation.

Mr. CALVIN. That is true, but at the same time you remember—first off, the committee, to my knowledge—or the subcommittee—never did support repeal of rule 390. Mr. Moss urged that, but the committee never adopted that as its position. The Congress did not adopt that as its position, and I think the Chair would agree that that is the end result. In other words, the conference committee between this committee and the Senate Banking Committee ultimately concluded they should not, as a legislative matter, repeal the off-board trading rules. Isn't that correct?

Mr. ECKHARDT. These other activities were little chips around the edges, but not fragmentation.

Mr. CALVIN. No, no; let me get back to the fragmentation. The fragmentation problem was recognized. At the same time it was recognized that other fragmentation existed, so the direction was to pull together to eliminate fragmentation—ideally in its entirety—and that was the overall concept, so if that was going to occur, some degree of fragmentation might be tolerable for some additional point in time. But the Congress, to my knowledge, never made that a congressional action. It was never written into the law; that is what I am trying to say, that rule 390 should be repealed.

In addition, if I may say one other thing, SEC rule 19c-3 applies to dealer trades. The action in moving from rule 394 to rule 390, as you correctly said, related only to agency trading, and the protective feature there is it is within the broker's discretion to take order off exchange trade it with an over-the-counter dealer. It is discretionary on his part, to determine whether that is in the best interest of the customer.

But the SEC proposal now applies to dealer trading as well, which means the firm can therefore take the customer's order and buy and sell from that customer, as a dealer, in their office, which is internalization. And I think this committee in the past has agreed and recognized that the problems of internalization are

such that that should not be allowed to go forward in an unfettered way, and that is basically, I think, the position of everyone at this table, with the exception of possibly the two gentlemen on the far end.

Mr. ECKHARDT. Do you have any comments on this, Mr. Putnam?

Mr. PUTNAM. One gentleman on this end does have a few problems with the statements that have been made.

I think the 1975 act amendments also wanted competition, and that was part of the thrust of the 1975 act amendments and also the SEC movement toward a national market system. I think what we are calling for in 19c-3 is experiments in that type of competition.

The one thing that occurs now is the stock that is listed; it loses a tremendous amount of market-making capital that right now is assisting in the market-making function of that stock.

Second, as far as the fragmentation, you might look at it only as adding, if you like, another market center, because right now with unlisted trading privileges, many of the regional exchanges can trade the same securities that are traded on the New York, and I don't believe the system has suffered from that kind of competition in the environment on these securities.

The other area of fact—that we don't have the linkages built—we feel that given good-faith effort on all parts, these linkages should be able to be built within 12 to 18 months to allow this type of competition to take place, working within our new subsidiary, and we feel that the efforts on the part of the Commission should be to promote an environment where the competition is there, will then build the facilities, because, as it is a profit incentive, the market will take care of that and take care of building facilities that are necessary.

The other point on internalization, this is a tough one. In the over-the-counter market we have had the potential for internalization, if you like, for many years, because you have marketmakers that also have public customers. We tend to control that, I think, through the normal type of responsibility that is placed on a broker to make sure his customer gets a good execution; otherwise, he is not adhering to just and equitable principles of trade, and if in our examinations this is found to be the case, it is brought up to a district committee, and the individual can have disciplinary actions brought against him. We have not found that because the potential exists there for internalization that we have tremendous abuses of the system.

Mr. BIRNBAUM. Chairman Eckhardt, could I comment on this?

Mr. ECKHARDT. Surely.

Mr. BIRNBAUM. I don't think that it is fair to compare the internalization that obviously goes on in a pure over-the-counter dealer market today as to what is proposed by 19c–3, and I think Mr. Calvin said it. When you are talking about firms representing agency orders in going over the counter, that is one thing, but if you are saying, let's have an experiment in 19c–3 which permits the major firms, let's say of the stock exchanges, to internalize their order flow, it seems to us what you set up is the major firms, the customers of the exchange to internalize. That is what they

are. They bring the business. If we are not serving them, we don't deserve to be in business.

But if you are a major firm sitting upstairs making markets with your customers, and you decide you have the right of first refusal, you send the orders to the floor that you don't want to execute yourself. To set up this kind of competition—specialists on the floor who are really dependent on the major firms to bring them the business, and they are only sending the business they, themselves, don't want; so it doesn't seem to us that you have real competition, as opposed to the over-the-counter market today, where you have internalization. They are operating under the same principles, but when you are asking the exchange specialists, who can't recommend stocks, can't deal with their customers, who have defined responsibilities, to compete against the major customers upstairs, we don't think you will see much competition in that kind of environment.

Mr. CALVIN. Mr. Chairman, may I make what I hope will be the final comment, and it is really two comments. First of all, the SEC proposal has been discussed as an experiment, and on that no one can tell this committee how many stocks will be covered by the so-called experiment. There is no selection process. It is just what new stocks are listed after April 26, so it is not a random selection; it is not typical, and, therefore, it is not expandable. In other words, you can't measure the results of this applied proposed experiment to the full list of stocks.

It doesn't have a time period. It is not a 6-month experiment, or a 12-month experiment, and so forth. It is apparently open ended.

All of us were asked at hearings the Commission held in June, how would you measure the result of this experiment? They asked us, and we don't know the answer to that because there is no structure to the experiment.

May I say one final thing, and that is that this committee, I think, and its chairman, in particular, took the approach which I personally think is a reasonable approach, that in dealing with off-board trading, rule changes should be made on a gradual basis; see what the experience is and determine what the next change is that should be made. That basically is the approach the New York Stock Exchange has taken as well. Rather than have the 19c-3 blunderbuss-type of action, taken here, we have suggested that a system be developed, and we are developing such a system and planning to implement it on a pilot basis in January, where over-the-counter marketmakers, as well as member-firms who want to compete with the exchange specialists, can do so without having to physically be in the trading crowd. They can compete electronically. Because when you get to the heart of the matter now, since the off-board trading rules only prohibit dealer trading upstairs, then the essence of it has to do with more competition in marketmaking; so we are saying, let's set up a pilot program to develop an efficient, cost-effective system so there can be more competition in marketmaking, both by member firms and nonmember firms, and, to that extent, let's repeal the off-board trading rules, as the next logical step.

And, therefore, if this competition becomes meaningful, or the experiment works, we will be taking the next step so the off-board

trading rules will cease to be meaningful here in terms of upstairs marketmaking. They can make markets through this competitive marketmaker system.

I can explain to you, or others can describe to you in detail, this proposed system, or we can submit a comment for the record outlining the details of this proposed system; but we think that is the next step to take—not the adoption of proposed rule 19c-3.

Mr. ECKHARDT. You are only talking about steps toward elimination, are you not? You agree rule 390 should ultimately be eliminated?

Mr. CALVIN. Yes; we do.

Mr. ECKHARDT. I have talked here mostly just to sort of act as a catalyst to the discussion——

Mr. CALVIN. You do that very well.

Mr. ECKHARDT. And I yield to my cochairman to proceed with the same process, if he would like.

Mr. Lent?

Mr. LENT. Thank you, Mr. Chairman, and gentlemen on the panel.

At the outset, I would agree with the testimony of most of you, at least that there has been significant progress toward the development of a mutual market system since our 1977 hearings, and I want to commend all of you for your efforts thus far.

I, for one, would heartily endorse the so-called evolutionary approach to creation of a national market system, as opposed to trying to go too fast.

Gentlemen, in his discussion of trade-throughs, Mr. Rickershauser, in his prepared statement, said that exchanges must make greater effort to encourage the use of ITS and to insure that all personnel are familiar with when and how to use the ITS. Could you—and this is a question to the panel—comment on what methods your exchanges are currently using to encourage the use of ITS and what systems you have to teach the use of ITS? We could start with the New York exchange.

Mr. BATTEN. In our statement filed on pages 10, 11, 12, and 13, we devote about four pages, or five pages, practically, to this matter of trade-throughs. Let me say that we, as an exchange, have a very serious commitment to reduce trade-throughs to an absolute minimum. We have been taking several very important steps which are outlined in detail in this document.

I just think it is important for you to know that we are as concerned about this as anybody; that we are committed to doing everything we can to cure the problem. I might say, to keep the matter in perspective, that today, in fact, trade-throughs account for less than one-half of 1 percent of all ITS trades. I know that the fact that all trade-throughs amount to only one-half of 1 percent of the total is absolutely irrelevant to the person who has a trade-through. He thinks it ought to be 100 percent. That is perfectly normal, but I think it is important not to build this up out of all proportion and make it something that really is bigger than it is.

The steps we've taken include several types: An educational effort with our members, technical improvements in the way the quotes are displayed, and all kinds of activities of that kind. John

Phelan is the head of one of our major firms on our floor, and I am going to ask him to talk about some of this more specifically.

Mr. PHELAN. We have done a number of things. We have been in consultation with other exchanges. Boston had a significant problem with trade-throughs at one time, and, indeed, a specialist up there was constantly talking about it. We had an individual in our market surveillance department contact him every 1 or 2 weeks, and we worked on every problem he brought up. Out of that learning experience we found we could attack the trade-through problem in a more scientific way than before.

Mr. Kasten is not here today, and I don't want to speak for him, but he seemed to be satisfied with our progress although obviously our new procedures are not yet perfect. Bill Lupien is here today, and he and I have had any number of talks about trade-through. After discussions with him, I brought the trade-through problem to the market performance committee of the New York Stock Exchange. We are actively and systematically monitoring trade-throughs; we are taking every complaint that comes in and following them out.

I think as a result of that, about 90-something percent of the complaints have been satisfied in one way or another, but that satisfaction, in itself, does not eliminate the trade-through problem, and if I were in Bill Lupien's shoes, sitting on the west coast, I would have an entirely different attitude toward it.

As Chairman Batten said, it may only be one-half of 1 percent of the recorded trade, but if you are on the other side of that one-half of 1 percent, you have a significant problem with it. So while the statistics show that the problem is a lot less than it was 1 year or 1½ years ago, it is, nonetheless, a problem. We are still working on it and we will work with not only Pacific but all of the other participants in the ITS program to eliminate it.

Mr. BATTEN. If I may say one more word, Congressman Lent. We have set up in the New York Stock Exchange a central point to receive all complaints about trade-throughs, and just to give you some feel for it, during the week of August 27 to 31, during those 5 trading days, we received a total of 56 trade-through complaints from other ITS market centers. As a result of our staff consultations with the New York Stock Exchange specialists and brokers, we found out when we analyzed these that 47 of the complaints did have some validity, and they were resolved to the satisfaction of the people concerned. In other words, there was immediate action taken to resolve those complaints.

One complaint was judged not to be valid; seven were attributable to technical difficulties, such things as failure of a machine card reader, erroneous print, and all the kinds of technical problems you have with any electronic system.

Mr. SCHEUER. Will the witness yield? Why do these trade-through problems have to be solved apparently on such an ad hoc basis? Why can't the exchange devise a way of preventing them, or why can't the exchange simply establish a rule prohibiting it?

Mr. BATTEN. Do you want to deal with that?

Mr. PHELAN. Yes.

Mr. SCHEUER. Why don't you pull up a chair and sit down and join your colleagues up there? Also, please identify yourself for the record, Mr. Phelan.

Mr. PHELAN. I am John Phelan, vice chairman of the New York Stock Exchange. We have several mechanical and facility problems. Up until 2 years ago, when we went into the ITS system, most of our trading was concentrated on the floor of the New York Stock Exchange.

Other exchanges monitored that marketplace, and in monitoring that, had in place Bunker-Ramo Quotron devices. We did not have that. With the establishment of the ITS system, we also had to monitor other market centers and their bids and offers. We did, in fact——

Mr. SCHEUER. How do you do this monitoring? Is it computerized?

Mr. PHELAN. Yes, taken from the quote stream, the composite quote stream, and displayed above each specialist's spot, listing the stock, bid and offer of the size in New York and best bid and offer identifying the marketplace and size outside New York.

When a broker comes into the marketplace, he looks at the screen and can tell what the best bid and offer is in New York and also what the best bid and offer is outside New York. If it is better outside New York than in New York, he can access that other market through a CRT device on the keyboard.

Mr. SCHEUER. Why can't you prohibit these trade-throughs?

Mr. PHELAN. Some of our facilities, the display apparatus is up too high because of the height of the post.

Mr. SCHEUER. It is a physical problem?

Mr. PHELAN. Yes, a visual thing. We are spending $10 million within the next 9 months to completely take out every post on the floor of the New York Stock Exchange, replace it with a new post, get a turnaround document that comes out of the ITS that will be on a mark-sense card so that rather than keying in, the broker can actually stroke it and put it in an optical reader.

Mr. SCHEUER. Are you suggesting that the problems associated with trade-throughs are only problems of rooms and ceiling heights and display of computers, and all of that? Are they the only problems?

Mr. PHELAN. I think in the less active stocks, about 80 percent of it is mechanical. In the more active, the other 20 percent has to do with the movement of market, and also with the educational awareness of people.

Mr. SCHEUER. Who are the people who have to be educated?

Mr. PHELAN. Brokers from member firms, as well as specialists on the floor.

Mr. SCHEUER. It seems to me with a little bit more aggressive leadership, both the people problem and the physical problem of facility and ceiling heights and all that could be solved.

You could give them a lead-time of 6 months or 1 year, whatever it takes to solve people problems and these physical problems, and then say after that date these trade-throughs are prohibited.

Mr. PHELAN. We are, Congressman, in the process of doing that. The Market Performance Committee has instructed the exchange

to get up an accurate surveillance system as to when the trade throughs take place——

Mr. SCHEUER. I think we should get beyond the surveillance stage and simply prohibit them and give them enough lead-time to complete the education of specialists.

Mr. PHELAN. I think, Congressman, so we can take a look back on the record, when we first started, the trade throughs were perhaps 5 or 6 percent; took place in 5 or 6 percent of all the trades that took place. Now we are down to one-half of 1 percent so we are making significant progress in that area. It is a very small thing, although, as I said in respect to my friend Bill Lupien, if you are on the other side, it is not small.

Mr. SCHEUER. It seems to me it is manageable.

Mr. BATTEN. It is manageable, we agree.

Mr. LENT. Perhaps we could have comments from the Pacific or Midwest Exchange about the trade-through problem.

Mr. WALBERT. Yes, I think the whole evolution of the ITS is very encouraging. This was a radical change, and it was not acceptable at first to a lot of our floor people in New York and Midwest, but I think the important point to get across here is that as a result of substantial cooperation, at least from the standpoint of our traders, we have made great progress, and we see great improvements in the system. We are very pleased with the cooperative attitude, both from our firms and the New York Stock Exchange. It has been helpful.

Mr. RICKERSHAUSER. I think it would be useful to hear from Mr. Lupien, who deals with the trade-through problem.

Mr. LUPIEN. I welcome the opportunity to discuss the trade-through problem, since it is one of the things that has bothered us in the use of the ITS system, and although the New York statistics indicate that it is less than one-half of 1 percent, I believe that unless I am mistaken, that is one-half of 1 percent of the reported trade-throughs—No. 1.

No. 2, the resolution of the problem is not one in which I believe necessarily that a specialist on another exchange should be required to, let's say, fill the better bid or better offer on the competing exchange. In my opinion, I think the system is designed to help the public get the best price. I think unless I am mistaken, John, that the way it has been resolved is the specialist on the New York Exchange is required to satisfy the trade through, and, in fact, it has been my experience, in discussing some of the trade-through problems, that the comment made maybe is, "Gee, the specialist didn't buy that stock at the inferior price, and why should he have to fill your better bid or better offer."

I hate to get the guts out on the table, but that is what it boils down to. I think the public is the one entitled to a better price, not to be arbitraged between the exchanges. That is one of the reasons it is a real problem, as I see it right now.

To put it in perspective, there is no question the ITS has been phenomenal for our exchange. I am a tremendous backer of the system. I personally probably account for 20 percent or more of all the trades currently done on the system, as one competitor, so obviously I like the thing. But I do think that we are not there 100

percent in terms of the thing working today, and I want this committee to know that and some of the reasons for it.

I happen to agree with the chairman asking the question, why can't we get the thing resolved?

Mr. SCHEUER. Why can't we?

Mr. LUPIEN. I think it is a question of having the brokers, particularly, educated, and demanding that they seek a better market. In my opinion, there is no excuse for not seeking a better market.

Now, one of the problems we have had with the ITS system is that the various regional exchanges that are on what is known as an auto-quote system are sometimes not there when the New York or American Exchange, or any market, for that matter, goes to reach for that better offer. And to be fair with the New York and American, and other exchanges, for that matter, I think that the quote system and the validity or the viability of it, or integrity, or whatever you want to call it, has to be looked at at the same time you are looking at the trade-through problem.

One of the arguments given to me, at least, is that we don't know for sure that the bid or the offer is going to be there, or that it is going to be good. I think John Phelan and the New York Stock Exchange know that at least in my stocks I am always good on them. Even if I have had to buy stock, I make good on the thing, and I try personally to try and make it 100 percent good if at all possible.

I grant you that that is not true all over, and some of my colleagues on the Pacific Exchange may or may not be using an auto-quote system, and I think that is a failing of the system.

Mr. PUTNAM. Mr. Lent, one of the reasons I think there may be trade throughs is the delay sometimes it takes to utilize the ITS system, and this is one thing the ITS system is continuing to improve, as Mr. Phelan mentioned, but it is one of the reasons why the NASD, in its approach to the ITS system, said we want to have something that is instantaneous, so when somebody comes in on the ITS system to a third marketmaker, once we are in a phase for the new facilities, he can be guaranteed he will get execution of that price, that size, immediately, instantaneously. I think that is one of the disincentives at the moment to utilize an ITS—one that we are working out, I think, throughout the industry.

Mr. LENT. Just turning to another point of contention, the so-called Cincinnati system versus ITS: On Friday, this committee heard a whole laundry list of witnesses who are very enthusiastic about the Cincinnati system and testified that it was superior to the ITS.

Now, today, in Mr. Rickershauser's statement, pages 13 and 14, he refers to the Cincinnati experiment as "a detour on the road to a national market system" and characterizes the Cincinnati system as cumbersome to use, and the markets there are seldom as good in price, depth and liquidity as the ITS market.

I would like to ask Mr. Niehoff, of the Cincinnati Exchange, what is the response of the Cincinnati Exchange to this sort of criticism?

Mr. NIEHOFF. Mr. Lent, the point that the markets are not deep in liquidity—is that what you were asking——

Mr. LENT. Perhaps it would be helpful if I read a paragraph from Mr. Rickershauser's statement. Basically he said it was a detour on the road to a national market system and said there was very little trading done out at his exchange. It was on page 13 of the Rickershauser statement.

> The Pacific Stock Exchange and its specialists were among the earliest users of the Cincinnati Stock Exchange system. Terminals providing access to the Cincinnati system are in place on the PSE floor. The experience of our specialists has been that the Cincinnati system is cumbersome to use and that the markets available through Cincinnati seldom are not as good in price, depth and liquidity as the ITS markets. For these reasons we have found that the Cincinnati system is seldom used by people on the PSE floor.
>
> On a more fundamental level, we believe that the Cincinnati system is not an appropriate design for the national market system. It is a design for a dealer market, destroying the advantages of the present auction market system. ITS, which preserves the advantages of auction markets while linking auction markets into a national market system, is, in our view, a much better design for a national market system. The Cincinnati Stock Exchange is a detour on the road to a national market system.

I would like to have your response to that.

Mr. NIEHOFF. Mr. Lent, I don't consider our system a detour on the road to development of a national market system. It is plain fact that there is little traffic in my system. There are approximately 100,000 shares a day being executed in my system. And if the markets aren't deep, it is because there are not a lot of participants in there. I welcome the day to have more participants and deeper markets, and I think this would begin to address some of the comments to the effect that we might be a detour on the road.

If the comments are that the Cincinnati system is cumbersome to use, I would appreciate that the PSE specialist direct those comments to me so that I would be able to respond to those particular items.

Mr. LENT. You don't have any specific response to that criticism, other than sort of a general response that you don't agree with it?

Mr. ECKHARDT. Will the gentleman yield?

Mr. LENT. I would be happy to yield.

Mr. ECKHARDT. I had understood the testimony the other day, and I had understood Mr. Niehoff's statement here today, that the question of the depth of the market in Cincinnati must be determined by those who are willing to participate in that system, and we had an indication the other day that it would be desirable that ITS should include Cincinnati, but for some reason this hasn't been done. I am not sure whether Mr. Niehoff would want it or not. I am not sure whether the New York Stock Exchange would want it or not.

I think we might have some comments there, but I would prefer at this time we might yield to Mr. Luken, who has a rather strong interest in the area of Cincinnati.

Mr. LUKEN. I don't want to cut off Mr. Lent, who was in midquestion, I believe, and I am interested in the question you were asking, too, if you want to continue.

Mr. LENT. Well, we had the response from Mr. Niehoff, so far, unless he wants to elaborate on that.

Mr. LUKEN. Do you want to pursue that, Mr. Niehoff?

Mr. LENT. We will hold the record for you to supply a more complete response, if you want to.

Mr. NIEHOFF. I would be delighted, if Mr. Lupien would care to detail those cumbersome features. I would like to ask that my associate from Control Data respond if Mr. Lupien will define them.

Mr. LUKEN. Do you want him to do that now?

Mr. LENT. I would ask unanimous consent that we hold the record open at this point for the response of Control Data.

Mr. EBER. I think we can give a response now.

Mr. RICKERSHAUSER. Do you want Mr. Lupien to tell you why he thinks it is cumbersome?

Mr. EBER. I am Kenneth Eber, with Control Data.

We find that the statement that the Cincinnati system is a detour from the national market system puzzling when, in fact, the Cincinnati system used the Securities Act Amendments of 1975 as its system blueprint design for the system. In fact, the system contains all of those items in the act that you passed back in 1975. So the statement that it is a detour befuddles us.

With regard to the depth of the market and use of the system, we are a new system; we are a new idea. As in any industry when a new way of doing business arises, there is normal reluctance to participate by those who have more or less conducted business in the same manner for more than 100 years, and people just don't all of a sudden cast aside the established practices in the industry and embrace a new method.

Our system is growing at what we feel is an evolutionary controlled rate, and some of our markets—in fact in 10 issues—we find our markets—are very deep, and I think if the Pacific Exchange would look, it would see, as a percent, they have specialists on the Los Angeles floor that have in fact transacted for a period of many months over 20 percent of their volume on the Cincinnati system.

So the system is not, in fact, shallow, and in some issues where we have good participation, we have deep markets, and we try to track those against what our participants would have gotten in other marketplaces and find the executions have been as good and in many instances superior. As we get more participants, we hope the depth of our market will continue to increase.

Mr. LUKEN. Sir, as I understand it at the present time, Cincinnati is capable of trading 41 issues.

Mr. EBER. That is correct.

Mr. LUKEN. It is being upgraded to something like 264?

Mr. EBER. 264.

Mr. LUKEN. I think your testimony just now is pertinent to what the capacity is to handle more.

Could you outline in more detail what that capacity is, what you expect to happen in that enlargement?

Mr. EBER. My name is Ken Eber, of Control Data Corp., facilities manager for the Cincinnati system.

Mr. LUKEN. I think you got the bad microphone. I do not know how Cincinnati got that. Give him the New York microphone.

Mr. EBER. OK.

With regard to our expansion, we are basically quadrupling the capacity of the system. Additional capacity is available, and we can expand the system further if we find it necessary.

Right now we have excess capacity, we want future participation, we want more participation. This system has plenty of capacity right now to handle a lot more volume and we are looking for more participation.

Mr. LUKEN. Could you comment as to when and the cost, when that enlargement of capacity might occur?

Mr. EBER. Most of it has occurred; within the next 2 weeks all of it will occur—within the next 2 to 3 weeks. We have received our new computers; most of our programing is complete. However, I want to say our current capacity, even without this expansion, exceeds our current requirements.

Mr. BIRNBAUM. Could I comment on that, Chairman Eckhardt?

Mr. ECKHARDT. Yes.

Mr. LUKEN. I guess we are on my time, are we, Mr. Chairman?

Mr. ECKHARDT. We are on Mr. Luken's time.

Mr. BIRNBAUM. Can I take some of your time?

Mr. LUKEN. Absolutely. I did not want to establish any prerogative, just a little order.

Mr. BIRNBAUM. I do not think the question of Cincinnati is whether it has a lot of capacity or a little capacity or whether the markets are deep there or thin there. It seems that the more important question is, is it really consistent with what Congress was talking about in the 1975 act amendments, which we read to be an endorsement of an auction type market system? It does not seem to us that it does that. Maybe we would be talking louder if the system was deeper and if it had more capacity, but it seems to us they could get that.

I do not think anyone ever denied—even when I was back at the SEC in 1961, we thought trading could take place in a computer. I do not think anybody ever thought that could not happen.

I think the question is, really, is that a better system? That is the question that has to be answered. We do not think it is. We think you end up diluting the liquidity. Unless you get everything in there, certainly your pricing efficiency is not good. Certainly even today Cincinnati in certain stocks is taking volume away from the market that is really setting the price, that basically Cincinnati is setting the price against the New York market, and if that market wasn't there today, what you would be having is the major firms would be setting the price with their own customers, which they do essentially in an over-the-counter market.

If that is the system we are supposed to move to, maybe that is fine, but it is nothing like an exchange auction market. It permits internalization. That is what is happening today. It permits firms to get around rule 390, internalize orders; that is really the question that has to be faced, not whether it has capacity.

I am sure the experts from Control Data concede it has capacity.

Mr. LUKEN. Sir, the Congress gave the power to SEC to work on this national market system in 1975, and actually certain elements have been worked on since 1972.

The GAO states that there has been a failure on the part of the SEC to develop the plan for the establishment of a national market system. They simply failed to follow through so that the Cincinnati experiment, the forerunner, has an opportunity. What is your comment on that?

Mr. BIRNBAUM. Well——

Mr. LUKEN. You are saying it is not working. Is it going to work if it has a chance?

Mr. BIRNBAUM. I think the GAO, in reference to the SEC not having a plan, is not accurate. If they mean they do not have something that you can look at that will say this is what the national market will look like in 1980, they are right, or 1981. But I think if you look at what SEC put out—I hate to defend them because I think they can do a good job for themselves when they come here tomorrow—certainly if you read the SEC statements that have come out, you look at the 1978 statement and the material in 1979, it certainly looks to us like that is a plan.

We got together recently to put together a limited order plan because of the material the SEC has been putting out. A tape came into existence because of the SEC; I think it is a general response to the SEC; we think basically the SEC has a plan.

The GAO is saying we cannot measure because we do not know what it is supposed to look like when it is all finished. I do not think anybody does, and maybe nobody should. I do not think much of the GAO criticism of the SEC in that regard.

Mr. EBER. I have some comment with regard to some of the statements that have been made with regard to the Cincinnati system.

One of the charges leveled against the system is that it is not an auction system. I think just saying it is not an auction system unfortunately does not make it so. We feel that the Cincinnati system probably is more of an auction-type system than currently exists in any other type of exchange environment today because the Cincinnati system has a price-time priority, meaning first-come, first-served; the first bid or offer with the best price gets the business.

Cincinnati also has the capability for participants to increase the bid or the offer or to show stock between the market spread. Now as far as auction principles are concerned, we feel those are auction principles in the truest sense where all people who have access to the system can bid and offer on an equal basis; the first person there with the best price gets the business.

Now if that is not an auction, I would like to know what an auction is.

Now as far as internalization is concerned, they have accused the Cincinnati system of permitting internalization. Internalization, as we understand it, is when a brokerage firm receives an order and either puts an order from two customers together without showing it to other orders that happen to exist in that issue at that time, or the brokerage firm as principal is the other side of that order.

The Cincinnati system, again we will state, shows all bids and offers. Every participant who has a Cincinnati terminal has the ability to see all bids and offers and to react to them. Cincinnati has price and time priority. With price and time priority, a brokerage firm cannot internalize unless it is appropriate. Internalization in the bad sense of the word is not a part of the Cincinnati system. If a broker happens to have the best price with the best time priority, then maybe it is appropriate that he is the other side of the order. His customer is getting the best available execution in

the system at that time. He is not able just to match orders without showing them to other participants.

Mr. LUKEN. Did you have any comment on that?

Mr. BIRNBAUM. We would be happy to submit the statement that we have submitted to the SEC on Cincinnati. I think they would cover all of those points.

Mr. EBER. I think one last——

Mr. LUKEN. Do you have any comment on his statement about internalization?

Mr. BIRNBAUM. All I would——

Mr. LUKEN. His attempted repudiation of the charge?

Mr. BIRNBAUM. In Cincinnati right now there is a lot of internalization going on. I would like to see a breakdown of the orders and who executes against the orders. I would say in many cases you will see the member firms that sent in the order executing against that order. If that is not internalization, I do not know what it is.

Mr. LUPIEN. I would like to comment.

I saw an example on Friday on one of the stocks that I trade that is also done on the Cincinnati. Evidently there were several buy orders in the marketplace for this security. Because of the competition—at least I am surmising this—on the New York floor for this particular piece of stock, most of the brokers went around the various exchanges to protect themselves so they would in effect be able to pay up if they had to, to get a participation in this block of stock that was for sale.

I commented to one of my associates that evidently this block of stock was of so much interest to so many people that they virtually had all of the ITS participant exchanges covered; namely, they had orders on all of the floors because I could see in their quote system each place would show up with an unusually large bid for this stock. About 5 minutes later the piece of stock traded on the Cincinnati exchange on the bid side of the market.

It is my own belief—I cannot prove this because you cannot go back and reconstruct it—but I believe it would have traded at a higher price had it been exposed to the auction concept. To say that that in effect exposes it is erroneous, because it was exposed to the individual that put the bid on the machine on the Cincinnati and hit it at the same time. Nobody else in the system had a chance to take that offering.

I do not care how fast you are, I would be delighted to have anybody in this room try to outtype the guy that knows what is going into that machine. I do not care how fast you can type, if you do not know what is going in there, you won't be there in time. It will have traded.

Mr. LUKEN. You just do not like the system?

Mr. LUPIEN. No; I wouldn't say that I don't like the system. I don't like a system that claims to be an auction principle when it isn't. If they come out and say exactly what it is, fine. In fact I would like to try it.

I will go on record and say I have asked the people from Control Data to come and see what our complaints are. We would like to try it; we have the machine at our post. I am sorry to say that none of the stocks that we trade that are on the system have a market that is of any interest, frankly.

I have to admit that the stocks that he is talking about, the 70 or 10 stocks that are traded that Merrill Lynch is diverting their order flow primarily in those stocks, none of them happen to be stocks that I trade. So I do not have the opportunity, you might say, to compete with that. When I trade a stock like Occidental Petroleum, that trades 800,000 shares on Friday at 24⅝, 5, or 28, or whatever, with five-eighths of $1 spread between the bid and the asked, 300-share market or 500-share market, that is not meaningful to me. I don't think it is meaningful to the public.

Mr. LUKEN. Mr. Eber.

Mr. EBER. I just find there is sort of a conflict here where people seem to be leveling charges at Cincinnati that it does not have depth of market. Cincinnati does not have depth of market because it does not have participation. We feel in the future, through positive systems enhancements and proper marketing, that we will have depth of market. However, we feel this industry should progress in an evolutionary fashion, not a revolutionary fashion. Yet these gentlemen may be saying we should have all the orders flow in a certain number of issues thrown into the Cincinnati system. We don't feel that is appropriate.

I don't think we should be penalized for having a small market share. We are gaining our market share slowly in an evolutionary way. These other marketplaces have had a 200-year head start on us. We should not be expected to have their share of order flow right now and should not be penalized for it.

Mr. LUKEN. In that connection, I wonder if I could ask one more question before my time may run out.

Mr. Niehoff, I understand Cincinnati has pending before the Commission application for renewal of the charter—is that not correct—it expires in several months?

Mr. NIEHOFF. Yes, sir; that is correct.

Mr. LUKEN. Now, is there any uncertainty, and if there is any feeling of uncertainty, how does that affect your operations?

Mr. NIEHOFF. Congressman Luken, I was informed on Friday that the staff had recommended and the Commission had recommended in principle that our extension would be made for 3 years.

Mr. LUKEN. So my question is dated, slightly anachronistic?

Mr. NIEHOFF. I was here sitting in this room.

Mr. LUKEN. I meant to ask it Friday.

Mr. NIEHOFF. Sir, I only found out about that after the hearings on Friday.

Mr. LUKEN. We will not ask how it previously affected you because apparently it will clear up now; is that right?

Mr. NIEHOFF. Yes, sir. I look forward to receiving the order.

Every time we have an extended life there is a renewed interest in our system. The first time when we were temporary for 9 months, we only had three participants come on to the system. When we became temporary for 1 year we were able to interest Control Data Corp. in buying the system, and in this 3-year period we have signed up more participants.

Yet as you know, based on the prospect of going out of business in 4 months, if we can put it that way, prior to Friday, we have additional broker-dealers still looking at our system and wanting to come on, but they have been concerned with that time frame:

We want to come on, we are going to try it. We recognize you may be going out of business in 4 months. What we put in here, we may have to call up Control Data and tell them to take out. In the meantime we are faced with fixed cost.

I am pleased that the Commission has approved in principle our extension.

Mr. LUKEN. On that happy note, Mr. Chairman, I will yield back the balance of my time.

Mr. ECKHARDT. Let me see if I can clarify one point.

I have always been concerned about maintaining an auction market, but I do not think an auction market necessarily means a more or less manual market. Do I understand correctly that in the Cincinnati there is what constitutes a limit order book, but it is virtually automatic and it is also known to everyone who is trading at the time? In other words, the bids and offers are publicly exposed?

Mr. NIEHOFF. That is correct, yes.

Mr. ECKHARDT. Now, Mr. Lupien, what you have said is extremely interesting about the proposition of an active stock being traded on ITS, which does seem, I agree with you, to be a fine extension of an opportunity to find the best bid and offer throughout the country. It seems to me that the problem you are describing was one which was the result of there being, in effect, two separate marketplaces: ITS and the exchange floors that were related to ITS, and the Cincinnati.

Suppose the Cincinnati were included within ITS as Professor Lorie recommended in his testimony last week. Would that obviate the possibility of a trade in Cincinnati which was not as good as what could have been completed in the ITS system occurring?

Mr. LUPIEN. I think it might. It depends on what the rules are on trade-throughs and so forth. As it currently stands, it would not stop it.

Mr. ECKHARDT. Why would it not be possible to make rules with respect to trade-throughs, and why would it not be possible to embrace Cincinnati within ITS, if that is really your answer? Professor Lorie seemed to think that it would be practical to move in that direction or to accomplish that objective.

Mr. LUPIEN. I think as far as we can make rules, I suppose, to require anything that we wanted to, and I think frankly I have been asking for that, but I don't think that combining the Cincinnati, which is essentially an electronic and still in my opinion not totally auction market, it is like having a blind auction, but not all of the participants are able to see what we are bidding or offering on. It is a—it is a double blind auction: In a box we have something you might have an interest in, would you like to bid on it?

Mr. ECKHARDT. Well, it is kind of an instantaneous sealed bid operation?

Mr. LUPIEN. Right. My complaint——

Mr. ECKHARDT. What is wrong with that, what is wrong with that if you also give the option of dealing in a market which is more the traditionally open auction type market?

I was suggesting in our last hearing that perhaps the inclusion of Cincinnati would achieve an opportunity for both types of markets, what amounts to an electronic market and a typical bidding market to compete with each other and given even greater oppor-

tunities for the best transactions being ultimately realized than either of the two alone.

Mr. LUPIEN. Well, it is possible that if the Cincinnati exchange required, for instance, that before an internalization of an order could take place that the offer be exposed or the bid be exposed for some time, that would allow competition to have a crack at it.

Mr. ECKHARDT. Well, that could be accomplished by a rule if Cincinnati were in the ITS system, for instance.

Mr. LUPIEN. That is correct, but as it stands today, in response to your question, that would not happen. That same trade would happen at the same price and none of us competing for it would have a crack at it.

Mr. ECKHARDT. I understand.

Mr. LUPIEN. I go back to the thing that you can't type fast enough, because if you know what is going to happen there is nobody that will be able to put the thing in faster.

Mr. ECKHARDT. I understand that. I think the points you make are good.

We also identified some problems involved with the ITS. And I think that you have indicated them, and that is that if there were a greater incentive or greater drive toward making ITS work, to responding to the broker in one of the stock exchanges through the ITS system from another exchange, that the system could be improved.

One of the problems, I understand, is that one may decide to use ITS and then he must wait for a period of time for a response. In the meantime, he might get a better bid or offer on the exchange where he is acting, particularly if it is a very active trading stock in a period in which there is great activity.

Mr. LUPIEN. Correct.

Mr. ECKHARDT. One thing that has been done, I think, is to shorten the physical time necessary to accomplish the communication between exchanges. Ultimately, I suppose, it might be a good thing to shorten the time in which the response must be had. I imagine there are many things that can improve it. I would like to have your comments on these.

Mr. LUPIEN. Well, I think the ITS system is a big step in the right direction as far as the national market system is concerned, at least in our opinion. I guess it is very hard to put it in perspective, but there is no question it has had a tremendous impact on the Pacific Exchange, and I believe on other regional exchanges in terms of their ability to compete. But we are only a part of the way there.

The reason for pointing these things out in our testimony is we want to continue to bring pressure on the New York and American Exchanges, which are the dominant competiors that we are trying to compete with to bring the system totally to its ultimate conclusion, namely, allow us to compete 100 percent of the time.

One of the major factors that has frustrated us continuously is the opening question. Although we accepted the pilot phase and we have been negotiating with New York, and I believe in good faith that they are negotiating with us right now, a year and a half into the system the opening question is still a huge problem and it is a very technical problem, but it probably represents in my opinion 30

percent of the trading activity in a day, certainly in terms of the impact on price it does.

We are nowhere near having that solved, in my opinion, today. I hope next month we have it solved but it is not done today.

Mr. ECKHARDT. I am interested in noting that Pacific does have a Cincinnati post. I think you said it had not been used too much at the present time.

Mr. LUPIEN. That is not totally accurate, sir. We have several of the Cincinnati machines on our floor and in the stocks that the order flow seems to be there, we do make every effort to use it. So I do not want to make the impression we are not trying to use it.

In fact, one of the reasons I talked to the Control Data people before this hearing this morning is to tell them some of the problems. I asked them, "Are you going to come out to the coast, because we want to show you what we think is wrong with your system?" In spite of what Mr. Eber might think, I am not one of those people not interested in trying something new. I have every new gadget there is, just about.

Mr. ECKHARDT. Clearly Pacific is trying in this respect and is utilizing whatever facilities may be available from Cincinnati, but I understand neither the New York Stock Exchange nor the American has a Cincinnati post.

Mr. LUPIEN. As far as I know, that is true.

Mr. ECKHARDT. Could you indicate why that is true, Mr. Batten?

Mr. PHELAN. As a market center are you talking about or as an individual thing?

For instance, Cincinnati is an exchange in itself and we have never had an exchange become a member of another exchange. As far as the Cincinnati linkage into the ITS, I think it is about 1 year ago that we sent a letter to Cincinnati asking them to answer certain questions of a technical nature in order to determine how, when and why we could link Cincinnati to the ITS system. I am not sure, but I do not think we have received an answer to that yet.

Mr. ECKHARDT. Why should not a specialist just use a terminal on the floor if he finds this may be the best way to make the best transaction? I just cannot understand why there would not be some cases, as exist in the Pacific apparently, where the Cincinnati is a useful way in order for a broker to ultimately have the execution conclusion with respect to his bid or offer.

Mr. PHELAN. I do not think we have any prohibition against him doing that. It is a matter of businessman's judgment.

Mr. ECKHARDT. But is there any place where he can do it, any equipment on the floor?

Mr. PHELAN. No, we really need the linkage. We really need a linkage and I do not think we have equipment that could handle it.

Mr. ECKHARDT. What kind of equipment? Do you mean within the ITS, as a member of ITS?

Mr. BATTEN. Yes.

Mr. ECKHARDT. The other question is, short of such linkage, why should there not be a post on the floor that could be utilized in order to deal with Cincinnati? Is that not a rather exclusionary process?

Mr. CALVIN. It is not the answer to the question.

Who would pay for the installation of the Cincinnati terminal? On the New York floor one terminal would not do much good.

Mr. ECKHARDT. I assume the New York Stock Exchange, in order to give the best opportunity to persons dealing on that exchange.

Mr. CALVIN. Why should the New York exchange pay for people taking orders to the Cincinnati Stock Exchange, Mr. Chairman?

Mr. ECKHARDT. In order to give people on that exchange floor the best and most complete opportunity for getting the best transaction. But I will leave it to Mr. Lupien. He knows more about this than I do.

Why does the Pacific do it?

Mr. LUPIEN. I think it has been our interest to find out—we do not know what the ultimate end solution is. Frankly, we have tried, as I say, almost every kind of a system that has come along. I have been one to actually force my own people to use this system when I think their own inherent, let's say, psychological feeling about it was not to try a computerized system. I said, "Look, I want you to try it, I just want you to find out what the bugs are in it. Tell me what your problems are," because we need to know what is going to be the future.

One of the big problems I see today is that the question of cost is, why should a specialist be required to pay to make a market in this system. I pay dues already on the exchange. And it frustrates me frankly to have to pay a fee to provide a service to another market center. So I don't do that.

One of the discussions I am going to have with Control Data when they come out is, if you really want our participation, you have to have it on the basis equal to what we have now. It doesn't make sense to pay for a service for them. I think I provide that service now on the Pacific. In fact, I asked the question, why doesn't the Cincinnati, for instance, have ITS machine on their floor to direct an order to me when it is the best market? It goes both ways.

We have been sitting here saying to the New York Stock Exchange, "Why don't you have a machine?" But Cincinnati doesn't have the ITS machine on their floor. They don't have protection, for instance, against my better market when they trade at an inferior price.

Mr. EBER. Cincinnati has indicated a willingness to look at the ITS system and participate in it. So that should answer that question.

Mr. ECKHARDT. This member of the subcommittee is not really concerned about who is willing to open up its gates to whoever.

Mr. LUPIEN. I couldn't agree with you more.

Mr. ECKHARDT. I cannot engage in the question of whether or not there has been a reciprocation, because I do not know. Really, it is not my concern. But it is this committee's concern that there be some system which moves powerfully toward a national marketplace.

This committee is not going to be persuaded, I think, that merely because, for instance, New York finds no advantage in putting Cincinnati on the floor, that we are going to recognize that as an ultimate reason why there should not be a linkage. I was very

impressed with Professor Lorie's suggestion that there be an inclusion of both Cincinnati and NASDAQ in the ITS system.

Are there any comments from New York Stock Exchange on that point or from American?

Mr. BATTEN. Mr. Chairman, could I go back to your previous statement first? I would like to set the record straight. The New York Stock Exchange has not opposed a linkage between ITS and Cincinnati. I think that is to be——

Mr. ECKHARDT. I have not said that. I have merely questioned why prior to a linkage there was not an opportunity to have at least the mechanism of a post on the——

Mr. BATTEN. That requires a linkage. A post requires a linkage. There is no point in having a terminal if it can't be linked.

Mr. ECKHARDT. What kind of linkage does that require?

Mr. BATTEN. Well, the same kind of linkage that we have in ITS with other markets.

Mr. ECKHARDT. Do you have a linkage on the Pacific because you have a post on the floor?

Mr. LUPIEN. No, I believe what we had to do was make sure that our rules allowed us to have a Cincinnati type piece of equipment on the floor and in fact, if my memory is correct, we either had exchange rules or exchange policy to allow it, which we did, in an effort to try an experiment with everything that is available.

All I can say is that we have tried to work with all of the things that we know that are available today.

Mr. RICKERSHAUSER. You have to understand when you have less than 5 percent of the total order flow an opportunity to add to it is important. Even though you may have some long term philosophical problems with how it develops and this and Cincinnati and other systems are opportunities for our market maker to see order flow and we try to make them available.

Mr. ECKHARDT. Mr. Rinaldo.

Mr. RINALDO. Thank you very much.

I want, first of all, to thank the witnesses. I have been here only a short time. I have had the opportunity to read some of your statements, however, and listen to some of the discussion.

On page 8 of the statement by Mr. Batten, in the last paragraph, he makes a distinction between the turnaround time on the ITS and CSC.

Mr. Batten, could you elaborate on that statement, because I think it is extremely germane to the discussion that we are having in regard to the two systems.

Mr. BATTEN. Perhaps the best way to do it is to read briefly from page 8 of the statement we filed for the hearing record. Is that all right?

We are talking about execution time now, which is different from what some of the language has been in the past where it has been talking about as response time. The thing that counts is the total time that it takes to execute a trade.

On page 8 of our statement we state:

> Execution time in ITS has two components: decision time and response time. During that overall period, a market maker in one ITS market center makes a decision to accept a commitment sent to him by a broker or market maker in another ITS market center; and the receiving market maker sends back a notifica-

tion that he has made that decision and, in fact, executed the trade. In effect, a pricing decision has been made and the sender's commitment has resulted in a transaction during the period defined as execution time.

By contrast, trades executed in an automated sytem are prepriced; that is, the pricing decisions are made by both parties to a trade, before the orders are entered into the system. Thus, while execution time in such a system is usually described as involving many fewer seconds than execution time in ITS, that description ignores the key fact that the parties to the automated trade may have taken minutes, hours—or even days—to arrive at a pricing decision that is in any way comparable to the pricing decision made in ITS in a matter of seconds.

So I think what we have to be careful of here, when we are comparing times, is that we are comparing apples and apples and not apples and oranges, and I think that this whole matter of time also needs to be put in a larger context. What really counts is the quality of the execution. It takes very little time and takes milliseconds to communicate this. It takes the same amount of time in our system it would take in other automated systems in terms of communicating the message. Where time is involved is in the decision and the entry time.

Mr. RINALDO. Would you also say that in the type of market that you have discussed and that the New York Stock Exchange currently has in the auction securities market, that if we went along, for example, with a strictly 100 percent automated system, perhaps along the lines that was suggested in the question that the chairman asked, would we then eliminate an essential ingredient, the human judgment, that is a component of the quality you just mentioned?

Mr. BATTEN. Mr. Phelan is the expert here.

Mr. PHELAN. I am worried about being called an expert. You cannot in any automated system eliminate the judgmental factor. Automated systems do what we try to do in our market: Get the order up to the decision point as quickly as possible, and then get it away as quickly as possible.

One of the things that Bill Lupien alluded to, which is a very important thing, and which Chairman Batten talked about here, is the decision time, and that decision time, in order to decide what to do with that order and the time it takes to key that into the system, takes as much time, in fact a longer time, in an automated system than it does in an auction system with you and I interfacing together.

You can come to me and say what is the market and I can say an eighth to three-eighths and I can say "sold" and no one can key that in that fast. So speed in an auction market is there. You and I can come pretty close to an execution in a millisecond, if not a millisecond, within a couple of seconds. What is important is the effort to get the data keyed into the system and then getting away from the system.

Mr. EBER. I would like to respond. With regards to the Cincinnati system, what we have done we feel is to convert the audible auction market into a visual market. I think the decision point is important. A trading professional must be able to assimilate all of the information that is available at a point in time and make a pricing decision.

Where the Cincinnati system differs from the current classical type trading arena is that we bring all information to wherever the

order originates or resides and display it in a visual format rather than an audible or a verbal format. Yes; the person has to price the order in the visual system. However, we feel more people can participate in the visual auction than in the audible auction.

In the classical type trading arena you cannot price the order unless you are at the post and are physically present in the auction arena. The Cincinnati system brings the auction arena visually to wherever the user is. The user has available to him the same information that other participants in the system have. He can make his pricing decision from wherever he feels is most economic and trigger that execution in milliseconds.

Mr. RINALDO. Mr. Lupien, would you care to comment?

Mr. LUPIEN. No. 1, I don't think that you have to be at the specialist post. Obviously specialist books by definition are orders that have been left for protection by any member of that exchange. As your book on the Cincinnati is really an order that has been left electronically, if you will, for the same kind of protection.

Mr. EBER. Everyone can see that book on the Cincinnati, whereas Bill Lupien is the only one who can see the book on the Pacific floor.

Mr. LUPIEN. I am willing to open up the book to anyone to see. If they want to pass a rule today, they are more than welcome to see what we have.

I think that the question that we are not allowed to see on the Cincinnati thing is the same thing I said earlier, and that is if somebody wants to internalize across, it can happen faster than anybody can type it up.

Mr. EBER. I am going to have to say if you wanted to participate in that cross you had the opportunity to be there with your firm bid and offer the cross could not have been executed without you participating. If you had been there first at that price, you would have participated in the Cincinnati system.

Mr. LUPIEN. That is correct as far as you go. I have to know that it is there, it is going to show up in the Cincinnati floor before I am allowed to protect myself there. If they come into an exchange floor and there are multiple buyers, he has to expose it to the crowd, he cannot say I am a quarter or three-eighths and cross it at a quarter without having a change that everybody takes it from him at three-eighths, which is the idea of an auction market.

Mr. EBER. I think you have never been a part of a very busy exchange floor auction market. It gets very hectic and all participants in the auction process have not had an opportunity to see all bids and offers that are being made or trades that are being consummated.

Mr. PHELAN. I would like to comment on that. I hold myself out to be no authority on systems, but I am surprised that Control Data Systems holds themselves to be authorities on trading.

One of the things that we have had in the New York market for years—and I think that the gentleman from Control Data will agree we have active markets—is to make sure that before anybody crossed any stock that a bid was audibly made and an offer was audibly made; a time pause occurs so that anybody in that crowd could act against that, and we are talking about the same thing that Mr. Lupien is talking about. So that in a public market

you do not have a private market, and I will tell you that if a firm is internalizing and it is going to cross stock in your automated system, that it knows beforehand what everybody else is bidding and offering, if it tops that bid and immediately crosses it in the system. No one has an opportunity to interact against it, and it is a private market and no other dealer or agent in that system can interact against it.

You also forget that aside from the specialists that are dealers there are thousands of agency orders acting in our market today representing individuals, institutions, trusts, pension funds, and everyone else, who are trying to interact against that order flow, and you cannot exclude or shut out or prohibit them from trading at a better price because somebody has prior knowledge that that trade is going to take place.

And if you are indeed going to run a public market, you must slow down the tyranny of speed, you must give other people who do not have the manual dexterity that a computer has with an automatic switch coming into it, you must slow down that trading so that they can in a comparative and competitive manner compete against those that are using automated systems and have prior knowledge of what is to take place.

Mr. EBER. In other words——

Mr. RINALDO. He raised an interesting point, in addition to what Mr. Phelan said. What is the potential for electronic manipulation under the CSC system?

Mr. NIEHOFF. Let me address that. I think we are talking surveillance here. The Cincinnati system has what we believe is probably the most extensive surveillance record of any exchange floor in the country. We have a locked-in trade. A year ago we employed Deloitte, Haskins & Sells to review the system. I have that report with me, if you would like it entered into the record.

We contract with the NASD for certain surveillance functions that pertain to the system and the system's users. Daily, I have employees at the in Cincinnati Exchange monitor trade records. Weekly we provide trade activity logs to the Commission. We provide tapes to the Commission. We provide analyses to the Commission. I think of any exchange in the country we are under a microscope.

Mr. RINALDO. Let me stop you at that point, because the GAO report that just came out in September states that there are inadequate safeguards over data processing. Did you read that section of the report? They say, for example, "electronic trading network"—I am quoting it directly—

> Sponsored by the Cincinnati Stock Exchange and approved by the Commission in April, 1978, allows participants to enter, buy and sell orders through computer terminals. The orders are then automatically matched by a central computer and trade electronically executed.
>
> We found that basic protective safeguards over data processing operations were lacking. Power failures had occurred but the facility lacked the backup power sources. Anyone could walk into the installation and shut down the system because the main power switch is unguarded. Operating and backup computers were located side by side in the installation exposing them to the same risk.

Mr. EBER. I don't believe that deals with surveillance. I think that has to deal with central site computer——

Mr. RINALDO. I am talking about the whole problem of——

Mr. EBER. That has been significantly improved since that report and also power failures do affect all computers, as you know. It is just a matter of how much money you want to devote to a system to make systems redundant, to be unaffected by power failures.

Mr. RINALDO. This goes even beyond power failures. They conclude by saying that adequate technical staff could have been able to detect and point out the problems to the Commission for correction.

The question that I asked, I think logically followed what Mr. Phelan said, because there is the possibility of a manipulation and at first it was denied, then he said that it came about——

Mr. EBER. We do not see the relationship between that report and surveillance. Whereas the Cincinnati system generates a tape, it contains all of the inputs of every participant in the system. That is our definition of surveillance. You can recreate in automatic fashion every trade that occurred in the Cincinnati system. That is surveillance. You want to have control over trading.

Mr. RINALDO. Do you disagree with everything in the GAO report in this regard that I read?

Mr. EBER. With regard to the central site security——

Mr. RINALDO. Inadequate safeguards over data processing. You seem to be disagreeing with it. The gentleman on your right said since this report came out corrective measures were taken.

Mr. EBER. No. 1, corrective measures have been taken. If GAO were to look at the central site now versus when they did 1 year ago in preparation for the report, they will see an improvement. However, we fail to see the connection between surveillance and central site security.

Surveillance is what you are doing to monitor trading. It has nothing to do with central site security. They are two different issues.

Mr. RINALDO. Maybe I should say that we are all agreeing to disagree here, but let me reframe the question.

Mr. EBER. That measure has been corrected also.

Mr. RINALDO. Is there any possibility of manipulation under the system as you now see it?

Mr. EBER. If a system can be created by man it can be manipulated by man. However, because of the audit trail our system provides, it should be less prone to manipulation than other systems.

Mr. RINALDO. Thank you.

Mr. LUPIEN. Would you yield?

Mr. RINALDO. Yes, sir.

Mr. LUPIEN. I think from another part of the GAO report, with reference to ITS, on page 4:

> Because each year I can take as long as 2 minutes, as much as 10 minutes is needed to contact all participating exchanges. The Commission officials consider this system a more efficient communications device than the telephone but a marginal improvement.

They also believe the system does not provide a means for more effective competition among markets.

Mr. PUTNAM. Maybe we have got a little confusion going here.

Mr. LUPIEN. I just wanted to put a little something into the balance.

Mr. PUTNAM. It seems to me that we have two different types of time that keeps flowing around and I think Chairman Batten made a good point that we have a decision time and an execution time.

It seems to me what most of these systems that we are looking at are trying to do is to bring to the point of decision, whether that is in the auction crowd on the New York floor or in a broker/dealers office in some other system, or in the Pacific Stock Exchange, or hopefully in the near future, in a marketmaker's office, all the elements, as far as what the best bid and the best ask is, so that that particular decisionmaker can make a choice where he feels his customers order can best be executed. I think that is the decision process.

What we then should do is try to minimize the time following that decision process to the final execution of the trade. That is where we get into all this deal about the ITS time and how long it takes. That is what the ITS participants to date have been working on and they are going to continue to work on, so that they don't move the particular order from that, let's say, marketplace in the Midwest Stock Exchange, out to a marketplace in the Pacific and find that in the meantime that particular quotation is gone.

But I think the crucial element here is to try to get to the point of decision all the best information you can give to the person that has to make the decision, the human element that Mr. Phelan is talking about, so he can make the best decision for his customer and for himself in that particular regard.

We can maximize and speed up the execution following that point but you have got to have that particular human process, I think, take place in order to have a proper marketplace.

Mr. EBER. I would like to further comment on that. I believe that we should compare apples to apples. I think if you do, ITS, is a maximum of 2 minutes from entry time, Cincinnati is zero from entry time. You have an execution.

Mr. BIRNBAUM. I think if this discussion proves anything, it is that Chuck Rickershauser's statement was the most accurate. In which he said Cincinnati was a detour. We have done nothing but talk about Cincinnati system. If that is the most critical thing in the national market system I think we are all missing the ball. ITS does not take 2 minutes. The average time is 45 seconds and probably will be down to 30 seconds very shortly.

Mr. PHELAN. We should not let that go by. The average execution time in ITS is 43 seconds. We hope with the new enhancements coming on within 6 months it will be down in the 20-second range. That is down significantly from 80 seconds when we began ITS 18 months ago. So we have made steady improvements on that.

I think also that we are talking here about some of the problems in automated markets and why we have chosen one thing over another. I think as Cincinnati gets into the game they will find out that there are considerable difficulties in executing orders other than very small orders within an automated trading system; that the decisionmaking process and the need to input into that decisionmaking process and into the system will hamper them as much as other things hamper us.

We certainly are not here today to knock or castigate the Cincinnati system. They are experimenting with it and we assume other people will experiment with it.

I will say to you that if we who have had a great deal of experience, particularly in our automated bond system, in automated systems and executions and storing of orders, found that we could solve all of the problems and all the needs of our customers by doing that, we certainly would have done it and would be doing it now.

There is a significant difference in automated systems, between integrating institutional orders, whether they be for 800 shares or 80,000 shares, and the decisionmaking process that goes on in executing those orders, instant execution of 100-, 200-, 300-share orders.

In our market today we have a DOT system, designated order turnaround system, that instantly executes and orders up to 299 shares. We have no problem with that. The main difference between our DOT system and an automated execution system is before that order is executed it is exposed to everybody in that crowd and every order, whether institutional, or public, large or small, has adequate time to be responded to and to have a better price obtained for that order. That is just not so in an automated system.

We run an automated odd-lot system, which is a complete dealer system, which executes off the bid or the asked, the last sale or next sale, but there are significant difficulties in interfacing that with larger orders that are working in the marketplace and require human judgment.

So that I think that without going on as to who does things faster or who does things slower, there are significant problems in the decisionmaking process and the input of that decisionmaking process into any automated system, and that is why we have gone to ITS which allows each market center to use the best of what it has developed over the years and yet links that with other market centers which, for whatever reason, think that they have a better way. That, we find, is part of the evolutionary process that we are talking about.

Philadelphia, for instance, has developed Pace. Pacific Coast has developed Comex. Each, in some way or another an automated execution system. They are not excluded from the system. We have not spent a lot of time today promoting them. If customers see that it is to their business advantage to go to Pacific or to Philadelphia to use one of those systems, they will go ahead and do that.

But the problem with those systems and the problems that we have and the problems with Cincinnati are all interrelated and speed alone and time of execution alone will not solve the national market problem.

Mr. RINALDO. Thank you, Mr. Chairman. I have no further questions.

Mr. ECKHARDT. Mr. Scheuer.

Mr. SCHEUER. I find your statement very interesting, very thoughtful. It brings up some theoretical questions of some importance.

You talk about the decisionmaking process. I think that is a human decisionmaking process.

Now, if we had a computerized system, that pretty much eliminates the human element, does it not?

Mr. PHELAN. That would mean then if you eliminated the human element, you must assume——

Mr. SCHEUER. You put in a bid?

Mr. PHELAN. That is the human element, put that bid in. The human element must decide at what price that bid or offer is to be entered into the system. If you don't consider that then you consider that the execution process is really to have no thought, no judgment, no experience behind it, and it does have thought, judgment, and experience behind it.

Mr. SCHEUER. In what kind of transactions is this decisionmaking process appropriate and now takes place? I take it for the average routine sale what the customers want to get is——

Mr. PHELAN. The best price.

Mr. SCHEUER. The best price anywhere in the country, and he is not interested in the human decisionmaking, he just want the cheapest price available.

In what kind of transactions is that not appropriate, what you would get if you extended the Cincinnati plan nationally? You pretty much eliminate the human decisionmaking intervention in the system, right?

In what kinds of transactions do you think this human decisionmaking intervention is appropriate or necessary?

Mr. PHELAN. I think in all transactions. Even for 100 shares, even for somebody that wants to buy in Kansas City, wants to buy 100 shares of stock. That order may come into a market that is a half to three-quarters, and before he takes the three-quarters offer that bid may have been made five-eighths for him by somebody thinking and acting as an agent for him.

If that order is executed at five-eighths it would have saved $12.50 for the customer. If you do that, thousands of times over every day in 200 trading days in the year you have saved the public customer an awful lot of money. So I would say that the human element is never taken out of the execution process.

Mr. EBER. The Cincinnati system does not eliminate the human element. The Cincinnati system just makes it easier for you to expose that order to a national crowd, or just makes it easier for the person who has made the pricing decision to get it into the pricing mechanism and get that order executed.

Mr. SCHEUER. Let me read to you a couple of sentences from the testimony of James Lorie, who is a professor of business administration at the University of Chicago. I am sure you are all familiar with his work.

He talks now about the Cincinnati Stock Exchange, the system operated by the stock exchange:

> This system is theoretically far superior to any system currently in existence and to ITS, with all conceivable enhancements. The theoretical superiorities include the following: The system provides more efficient system of communication. The system eliminates, No. 2, the problems associated with lack of firmness of quotes, best execution and order routing.
>
> No. 3, the system provides strict price and time priority, a condition which almost everyone admires and advocates in the absence of serious adverse side effects.

No. 4, the system totally eliminates the advantages of being on the floor of an exchange or anywhere else, and thus enhances the ability of distant broker/dealers to compete in financial centers.

No. 5, the system has the promise of being much less costly to operate than current systems, which rely on lengthier chains of communication and are less automated.

What would your reaction be to that? I take it that he doesn't feel there is any particular role for human decisionmaking intervention?

Mr. EBER. Once the pricing decision has been made, which is based upon all the information being available to everyone who has to make a pricing decision, then you are correct.

Mr. SCHEUER. When you have a national market system based on a total network of instantaneous computer communications, those prices are available, and every second I would presume, or certainly many times a minute, bids are going to be plugged in and offers are being to be plugged in, and you have got your best price, or best bid and ask at all times, and I am a little puzzled as to why a national extrapolation of the Cincinnati system wouldn't give the customer, the ultimate consumer out there, the best deal?

Mr. CALVIN. May I try to answer that? And also what I would like to put in the record is a letter that we sent on that point to the SEC on October 30, 1978, and I would offer this up for the record.

Mr. ECKHARDT. Without objection, it is so ordered.

[Testimony resumes on p. 365.]

[The letter referred to follows:]

THE New York Stock Exchange

William M. Batten
Chairman and
Chief Executive Officer

Securities and Exchange Commission
500 North Capitol Street, N.W.
Washington, D.C. 20549

October 30, 1978

Attention: Mr. George A. Fitzsimmons
Secretary

Re: Securities Exchange Act Release No. 34-15190

Members of the Commission:

The Exchange is pleased to have this opportunity to comment on the Cincinnati Stock Exchange's proposed rule change to amend its Rule 9D3 to extend the period of the effectiveness of the pilot multiple dealer trading facility until January 31, 1980 as announced in the Commission's Release No. 34-15190 dated September 25, the date the proposed rule was apparently filed with the Commission by the Cincinnati Stock Exchange.

It is difficult to comment on the necessity for a lengthy extension of the Commission's tentative nine-month approval of the multiple dealer trading system, in view of the complete absence in the September 25 Release of any information on the Commission's experience with the CSE experiment since April 18, or any indication of what action the Commission may have taken during the preceding six months to review the operations of the experiment in line with the concerns expressed by the Commission in tentatively approving the pilot.

For example, in the April 18 order approving the CSE rule changes (Release No. 14674, hereinafter referred to as "SEC order" or "April 18 order") the Commission stated:

> "In the course of the experiment, the Commission has directed its staff to surveil CSE activity on a regular basis and carefully monitor its operation and results."
>
> (SEC Order, Page 6)

The April 18 order also asserted that the Commission will be closely monitoring the CSE experiment, stating:

> "To assist the Commission in evaluating the CSE experiment and its implications for the national market system, the CSE will provide the Commission with regular reports detailing the nature and extent of trading in the pilot program, as well as information concerning participants in the program. The CSE has undertaken to provide the surveillance and compliance system and personnel for the pilot program in order to protect the public interest and the interests of investors and to assure the maintenance of fair and orderly markets in securities traded in that program. As part of its own monitoring program, the Commission will endeavor to assure that the CSE promptly fulfills this undertaking and that the CSE's surveillance and compliance efforts are consistent with the requirements of the Act. In this regard, the Commission expects the CSE promptly to take all necessary steps to assure that it has the capacity to enforce compliance by its members, persons associated with its members and other participants in the pilot program with the provisions of the Act, the rules and regulations thereunder, and the rules of the CSE applicable to the pilot program, and to satisfy the Commission that it has done so."
>
> (SEC Order, Page 6)

We assume that the Commission has followed through with those plans and has collected and is evaluating the "regular reports detailing the nature and extent of trading in the pilot program as well as information regarding the participants in the program."

In addition, the Commission's April 18 order raised a number of specific concerns, stating, for example:

> "Nothwithstanding the auction features of the CSE's facility, widespread use of that facility to effect trades directly between dealers and their own retail customers might heighten already existing national market system concerns, just as concerns would be heightened by internalization of order flow on the floor of any exchange. Under such circumstances, the Commission would have to consider the desirability or necessity of broker-dealer segregation, application of

> Rule 10b-6, the proper method of dealing with the consequences of net printing of principal transactions which include the imposition of a transaction charge (i.e., a commission equivalent), and whether constraints should be imposed on trading of both equities and options by market-makers. Accordingly, while these problems need be addressed in a context broader than that presented by the CSE's proposal, because we are presently dealing with an experimental program approved as such by the Commission, the Commission is prepared to alter the experiment, or even terminate it, should such action appear necessary or appropriate in the public interest or for the protection of investors.
>
> (SEC Order, Pages 5-6)

To our knowledge, no information has been released by the Commission disclosing what data has been collected, and what analysis, if any, has been made of the CSE experiment in the past six months in light of the comments made in the April 18 order.

In our opinion, the issues outlined by the Commission are valid ones, especially in light of the CSE system's potential for reducing the basic protections of investors which currently exist in the New York and other exchange markets.

For example:

1. An approved CSE dealer can execute, as principal, a customer's order at his limit price when that limit price is reached in another market and thus bypass the opportunity of obtaining a more favorable price for the customer and disregard the time priority in the CSE file.

2. Since all orders in the CSE experiment must be priced limit orders, the lack of trading strategies limits the alternatives a broker may employ to achieve an execution within the current quote. This limitation not only impairs the ability of the investor to receive the most favorable price on his order but also provides a distinct advantage to the dealer.

3. Any CSE dealer can enter his own corresponding bids and offers when it appears that the existing spread would otherwise allow an immediate execution and thus provide the opportunity to engage in "self-dealing".

4. The integrity of the CSE experiment depends upon complete, accurate and timely reporting of trades by dealers operating "upstairs" -- with little or no means of overseeing or monitoring the accuracy of their reported -- or unreported -- trading activities.

As the Commission seemed to appreciate in April, other abuses could arise in the CSE experiment if participating dealers, subject to the most minimal surveillance and reporting obligations, were to internalize order flow by trading listed stocks in their offices in apparent violation of the off-board trading rules of this and other stock exchanges.

Again, the April 18 order indicated the Commission's keen interest in these potential problems, noting:

> "...the Commission will be especially interested in the extent to which the CSE facility is used by dealers to 'internalize' order flow and to buy from or sell to their own customers without affording other 'users' of the facility an adequate opportunity to respond to buying and selling interest represented by their customers' orders."
>
> (SEC Order, Page 5)

In addition to basic concerns about the adequacy of protection for customers whose orders are executed by firms under the umbrella of the Commission's approval of the CSE experiment, the Commission recognized equally important concerns about the impact of the experiment on the future development of the securities markets and the National Market System, stating, in the April order:

> "The Commission is not now in a position to determine what the full implications and consequences of the CSE rule proposal might be for the markets in the context of a national market system. The Commission, therefore cannot at this time, determine as a final matter whether such a rule would be consistent with the purposes of the Act."
>
> (SEC Order, Page 3)

The Commission also noted that the CSE system is, in fact, a hard CLOB:

"We recognize the concern that Commission approval of the Cincinnati proposal, even on a pilot basis, may somehow lead to development of a national market system predicated exclusively on an electronic limit order book -- a proposal to which the CSE's facility has more than a superficial resemblance." (emphasis added)

(SEC Order, Page 3)

We and other commentators have pointed out our concern with the CSE or "hard" CLOB approach. These concerns, involving seven interrelated areas, may be briefly summarized:

1. Discrimination Between Public Orders

Absolute priority in these systems is given to one single subset of public orders -- limit orders entered in the system -- to the disadvantage of all other public orders.

2. Elimination of Trading Strategies

The more than twenty existing different trading strategies are all subordinated -- if not eliminated -- in preference to one trading strategy -- the pre-pricing of orders entered in the system.

3. Leads to a "Two-Tiered Market"

While these systems are adaptable to executing smaller orders, they are not applicable to large institutional type orders. Thus, large orders will be traded outside the system with little or no pricing integration.

4. Restrictions on Competition

These systems lead to the creation of a single, monolithic system and market so favoring one class of orders that, in time, the ability of other market centers and market strategies to compete is severely restricted.

5. Impact on Trading Process

The CSE System, or any centralized facility like a CLOB which would provide for the direct execution of orders from scattered locations, gives rise to serious

operational, technological and supervisory problems. It would be a major task to integrate any such system smoothly and efficiently with the exchange auction market trading crowds in a half dozen or more markets. These problems are solvable only if the efficiency in executing orders in the other markets is reduced significantly, thus impairing their ability to effectively compete with the centralized system.

6. Cost Considerations

The building of a total system, whether an expanded CSE System or a CLOB, would be at a substantial expense to the securities industry and the investing public. Extenstive back-up systems would be required, and a variety of new broker-dealer facilities would be needed to integrate firms' computer systems with the central system.

7. Inferior Quality of Service

A single, monolithic system would inevitably provide an inferior quality of service to its users and public investors -- who nonetheless would have no choice but to use the system.

The April order goes to considerable length, as does the September 25 release, albeit to a lesser extent, to assure that the "... CSE's pilot program is not a Commission initiative, but is being approved as part of the Commission's effort to encourage experimentation...."

As the Commission is surely aware, this and comparable statements have been viewed skeptically by some, especially in view of the circumstances and timing of the Commission's April order and the not-so-tacit support we understand has been expressed privately for the system. Whether these rumors are valid or not, we assume and expect the Commission will practice the philosophy of full disclosure, as it has always been careful to do, in reviewing the CSE's request to extend the experiment until January, 1980. The Commission may agree, for example, that it has some responsibility to consider sharing the data it has collected since April 18 and any further observations it may have based on these data or the experience of the past six months as to the real or potential problems which have been disclosed and what, if any, present or future rules or actions might be appropriate to address these problems.

As you know, the Exchange opposed the Commission's tentative approval of the CSE experiment in comments submitted in response to the April 18 order. Absent a Commission updating on the CSE experiment that might provide a basis for commenting more specifically on the CSE experiment, we believe it is inappropriate to grant a lengthy extension of the pilot three months before its scheduled termination.

Very truly yours,

Wm Batten

Mr. CALVIN. Basically, we made at that time, seven counterpoints to the points Mr. Lorie is making, and rather than go through them all in great detail, let me just cover them briefly here.

First of all, the Cincinnati system only handles one type of order; that is, a limit price order, and to that extent other orders are either ousted or ignored or discriminated against. You can't do anything else other than put in a limited price order. So that raises the second point—the various trading strategies that investors use to get what they think will be the best price are eliminated.

In other words, you have no choice.

A third point is that it is a single monolithic system. There can be no competition outside that system.

Mr. SCHEUER. But there is almost total competition within the system.

Mr. CALVIN. But there is competition only on the terms of that system; in other words, that you have to put in the limit price order. Period. There is no opportunity to do any better for your order than at that price. That is what Mr. Phelan and Bill Lupien were saying before. You can never improve upon the price that you put into the system. What Mr. Lupien was saying before is, in an auction, someone can come in and bid better or try and improve the price.

Mr. SCHEUER. What you have is one continuous option.

Mr. CALVIN. No; you put in the order at a price, period. That order may be executed at that price. It is not going to be improved on.

Mr. ECKHARDT. If the gentleman will yield, isn't every order a limit price order for a given period of time? It is true that you have a limit order of a certain type that goes on the specialist's book that really says I will continue to make an offer at this price indefinitely until I withdraw it. But it seems to me every order is a limit price order. You are saying I will buy or I will sell for a different price.

Mr. CALVIN. No; the customer isn't saying that.

Mr. ECKHARDT. What is the customer saying?

Mr. CALVIN. The customer is saying, I want to buy at the best price. The broker goes into the crowd. The market——

Mr. ECKHARDT. He makes a judgment with respect to a specific price that he will buy for his customer at. And it seems to me the only difference is this: That in both instances a human judgment is made to offer to buy or sell at some point. The difference between the totally automated system is where is the last chance that there may be an intervention on the basis of judgment? Isn't that true?

Mr. CALVIN. That is right.

Mr. LUPIEN. I would agree with that. And I would like to comment as far as automating 100 shares, or 200, or 300, or 500; I think whether it is Cincinnati or the DOT system, or any automated system, I don't think we have any argument on that. I think where the discretion and human judgment comes into it, if I place an order in your hands to go buy 100,000 shares of XYZ stock, you have a much larger problem than just looking at a computer which may not ever have that kind of size offered at any price on it. And the problem I find with dealing with computers—and I really must

say I have tried to work with all kinds of them—is you cannot interact; you can't ask that computer, what is your offer on 100,000 shares; make me an offer on 100,000 shares. You have no way to tell the man that is what I want to get. And I don't see how you have that in the Cincinnati machine, unless you put out an order bid on 100,000 shares and hope somebody offers it at some price.

It is very difficult to negotiate over a computer.

Mr. RICKERSHAUSER. You should know how many screens he looks at at one time.

Mr. LUPIEN. Four different kinds of hardware.

Mr. RICKERSHAUSER. With keyboards.

Mr. LUPIEN. It is very difficult to communicate with a machine. When a man comes to your trading post, you can communicate and say, I will offer the stock at such-and-such a price, or I will stop you with such-and-such a price. I don't think he can be stopped on the Cincinnati machine. Do you understand what I mean by that?

Mr. SCHEUER. It is assurance the order will be filled at that price.

Mr. LUPIEN. Or better.

Mr. SCHEUER. What percentage of all the orders that get filled would you say fall into this category, where the order of magnitude is so great that the computer really can't indicate where and at what price there is a market for that large a scale trade?

Mr. LUPIEN. I would say the human element comes into about 70 percent of the transactions I am aware of.

Mr. EBER. I think with regard to blocks there already probably is a national market in place for blocks; they are negotiated outside of the normal trading arena and executed within the arena as they are today on all exchanges. I feel the normal market mechanism, as it stands today, is not sufficient to trade the large blocks, because no one has the capital to support it. You don't send a broker with 100,000 shares and tell him to get the best price. You negotiate it upstairs.

Mr. ECKHARDT. If the gentleman will yield on that point just a moment. I have come to the conclusion, from looking at this whole problem for a period of time, and I would like you to correct me if I am wrong, that most transactions do not actually take place on the exchange. The decision is not made on the exchange. It is made at some other place, and the exchange is a point where they are ultimately concluded. The exchange is, to a large extent, similar to a political opinion poll as to what the range of price is—such as politicians are concerned with the amount of votes they are likely to get.

There are some transactions, of course, that do ultimately achieve their price finality on the exchange, but I gather that the greatest amount of trading in America is traded elsewhere than the exchange, except that final transactions are ultimately formalized on the exchange. Would that be correct or incorrect?

Mr. LUPIEN. If you mean the decision is made on one side of the transaction, then I think you are accurate; if you are talking about both sides of the trade being consummated away from the floor, I don't think it is accurate.

Mr. ECKHARDT. What about block trading?

Mr. LUPIEN. Even in blocks, I can tell you in spite of what the Cincinnati people feel, there is a tremendous amount of negotiation

and competition going on for blocks. I, for one, compete very strenuously to get block transaction business, and, in fact, I just don't think it is accurate to say they are all done upstairs, and we don't have the capital to do it.

Mr. ECKHARDT. I am not suggesting that the exchange process and the auction process is not valuable. I am merely stating that the auction process does, in effect, establish price, and many other trades are made without going through the kind of active auction we are talking about here as the front cutting edge of the exchange process.

Mr. LUPIEN. Well, the last stop in any trade is when the man comes up to the post—let's assume he has prearranged a trade; that he has both the buyer and seller lined up at a price. The difference between the Cincinnati, the point I am trying to get across, or electronic system, where he can just do it, is he has to expose it to anybody else on the exchange floor that wants to better the price, including the specialists.

Mr. SCHEUER. Doesn't that happen in the Cincinnati system?

Mr. LUPIEN. No.

Mr. EBER. It would with a price and time priority. It has to happen. That is incorrect.

Mr. LUPIEN. I have to tell you there is no way I could have reacted to the block that went up on Friday; it happened instantaneously.

Mr. SCHEUER. You had the bid in before that; you did, in effect, react; and that computerized system that instantaneously competed with all the Ebers of the world took your bid into account and either accepted it or accepted a better bid; so you were part of that action.

Mr. RICKERSHAUSER. It is not in competition. But don't you see, when they come in to him now, he knows there is 20,000 shares for sale; he may step up, but when he just saw it go by, he didn't have a chance.

Mr. EBER. What about people in other crowds and other exchange places who don't have that luxury?

Mr. LUPIEN. That is accurate, but at least in every exchange there are competitors that are, in effect, keeping every trade honest, if you will. I believe you can't sneak a trade through on an exchange floor when you have a specialist and have people that want to compete for that. I tell you, I know that if I want to put a trade up on the Cincinnati exchange, I can do it; I can put my bid in and hit it.

Mr. SCHEUER. Isn't the very phenomenon of the trade-through symbolic of the fact there is a basic theoretical flaw in that system? Otherwise, trade-throughs couldn't happen.

Mr. LUPIEN. I agree with that.

Mr. PHELAN. I would like to point out in an automated system, if it is a half bid for 100, and a quarter for 200, and 500 shares come in to sell, and 1 goes through at a half and 2 at a quarter, you could sell down a half a point before anybody in the system has the ability to respond, even though there was an interest in the system.

You must understand in the marketplace not all the interest is represented at the bid and the ask. And there are orders working in which they only show a certain part of the bid or offer.

On blocks, I would support what Mr. Lupien said. If blocks were done automatically, then the institutional step-in problem, or stepping out to another market to avoid competition in another market, would not be a problem. Yet in putting up a block protection rule in the ITS system, this is one of the things that we had to address, why we had to make the system efficient and quick.

Once they knew what they were going to lose—because there are orders working in that system all the time that are competing for the transactions that go on and the crosses that go on—only after they have gone to all the marketplaces and assessed all the demand do these blocks finally go on in a certain marketplace; so there is competition within the blocks; there is competition in the breaking down in which most institutional orders are worked today, not putting 100,000 shares on at one time, but accumulating or distributing 100,000 shares over a period of time.

Mr. SCHEUER. Wouldn't that be done under the Cincinnati plan; break it down and feed it into the national market seriatim, in incremental bites? It seems to me it would be even more appropriate. That approach should be even more appropriate in a national Cincinnati play.

Mr. PHELAN. We would assume over a period of time if they found the ability to do this, OK, and if people found the ability to do that, more and more people would do it. But I can't sit here today and say they could, because I would support what Mr. Lupien said. Being a participant in the marketplace, it is difficult to watch two or three screens and keyboard in information. When we sought to report trades through the ITS system and our reporting system some years ago, we did a time and motion study and found individuals can mark a mark-sense card two to three times quicker than they can key in and verify and send, so that the input into these automated systems is very, very slow.

Mr. SCHEUER. Does anybody want to react to some of the questions that I posed, quoting Professor Lorie?

Let me make another stab at stimulating your adrenal juices, OK? I am going to read some very brief quotes from Bill Schreyer's testimony, president of Merrill Lynch, Pierce, Fenner & Smith, and give you five or six points he makes at the end, and see if we can get some reaction to that.

He says the current exchange environment suffers from three basic defects: "It is still to a significant degree noncompetitive; it is inefficient and it is expensive." Obviously to the extent that it is noncompetitive, inefficient and expensive, it is the ultimate consumer who ends up paying for all that. "One area which has remained largely immune to competition is the marketmaking franchise held by specialists on the exchanges."

Then he goes on to the question of inefficiency.

> Despite the advances in computer and communication technology over the last decade, the trading process remains a system where papers are shuffled and orders and reports are handled manually. There are unnecessary duplications of facilities which require separate staffs and elaborate communication links. We do have the technology to automate to a far greater extent than we presently have. In our opinion the need is imperative.

Third, he says.

Expensive because these inefficient aspects I have just mentioned make it people-intensive and cause the cost of execution to be out of proportion to the effort which is needed to provide it.

Then he says:

I want to repeat what we have said over and over again: we feel that a basic element of a national market system is competition among orders. We maintain efficient and liquid markets will come from the interaction of all orders with one another. Marketmakers will continue to be needed during periods of imbalance and for transactions of unusual size and—(Mr. Lupien) "anybody who wishes to risk his capital in that fashion should be permitted to do so. But when competition between market centers tends to fragment order flow instead of centralizing it, we believe neither the investor nor the market is served.

The ITS is a communication device and nothing more. It is as far from the concept of an automated, efficient marketplace as a tom-tom is from a communications satellite.

He talks about archaic manual systems, and I am going to give you six one-sentence criteria he establishes for a national market system. He says a national market system must have the following elements:

1. All orders must come together so that they have the opportunity to interact; 2, automatic execution.

I suppose that means apart from divine or human intervention in the decisionmaking process.

2. Automatic execution, particularly for active, liquid issues with narrow spreads.

I suppose by that he would exclude enormous orders of the kind you discussed.

3. Locked-in trades with automatic comparison and clearing so stock certificates can be immobilized or eliminated to a substantial degree; 4, fair and equal opportunity to compete for all who have the capital and willingness to make markets; 5, full limit order production so the public customer has incentive to come into the market; 6, market information, such as firm bids and offers, sizes and transaction reports, promptly and accurately available to all.

This is what he recommends, and he goes on to say the SEC should define the national market system as one that contains all of these elements, and if that were done, he suggests it would be a simple matter to direct the self-regulatory organizations and the industry to build a system incorporating these elements.

What is the reaction of this group to both his remarks and the six criteria he establishes as quintessential to a national market system that is real?

Mr. RICKERSHAUSER. I think we probably agree with all six criteria and have a dispute with how we get there from where we are now.

Mr. CALVIN. That is the New York Stock Exchange answer as well.

Mr. RICKERSHAUSER. And we totally agree with them.

Mr. LUPIEN. You are talking about a man from Merrill Lynch. One of the things the specific exchange has been doing is talk about the monopolistic franchise specialist post. We are asking member firms, anybody that is interested in becoming a specialist, to come out and apply. We are virtually begging people to come out; so if it is so monopolistic, I wonder why Merrill Lynch hasn't chosen to come out and put up their capital and talent. I mean that specifically to them, or any other firm, for that matter.

I don't see the consistency in his statement. And the second thing is we have asked them to hook up to our automated execution system. They have failed to do so. I don't understand that, frankly. We have an automated system for up to 300 shares. I don't see why Merrill Lynch, or any other firms not on the system, don't avail themselves. Obviously they see other reasons to go other directions.

Mr. WETHERILL. I think in Philadelphia Art Moore is as highly automated as any in the business, and we have an automated execution system and have asked Merrill Lynch to send orders, but they don't.

Mr. GARDINER. My name is Robert M. Gardiner. I am vice chairman of the exchange and vice chairman of Dean Witter Reynolds.

Mr. SCHEUER. New York?

Mr. GARDINER. Yes; and Dean Witter Reynolds is one of the larger securities firms in the country—second probably only to Merrill Lynch. So I want to comment on Mr. Schreyer's letter. First of all, as far as matters of specialists on regional exchanges, we are a specialist on the Philadelphia Exchange, as Mr. Wetherill can tell you, and have been for several years. So, there are large member firms who are committing their capital on exchanges in the specialist's role.

As far as joining both PACE and COMEX, we have in mind joining both, and the paperwork for both is underway. As far as joining the Cincinnati exchange, to make everybody happy, we are joining that, and all that is underway at the moment. So it is possible for member firms of the New York Stock Exchange, if they choose, to participate in the way that has been outlined by various speakers at this table, and I, as a representative of one, wanted the committee to know that.

Mr. ECKHARDT. This sort of brings up to date an answer to one of my questions that would have indicated to the contrary; I mean I had questioned why the New York Stock Exchange was not participating in Cincinnati.

Mr. GARDINER. I am speaking of the member firms of the exchange which are doing this, and we, as member firms, are doing this.

Mr. SCHEUER. Why hasn't the stock exchange plugged into Cincinnati? You are a vice chairman of the New York Stock Exchange?

Mr. GARDINER. Yes, but only for 3 or 4 months, so I can't answer that question. I was only referring to our own member firm.

Mr. SCHEUER. You are the new boy on the block.

Mr. GARDINER. Newer than anybody here.

Mr. SCHEUER. Mr. Batten, why hasn't the New York Stock Exchange plugged into Cincinnati?

Mr. BATTEN. We have been interested, along with the other exchanges, in building ITS, the Intermarket Trading System, and it has been our feeling that the Cincinnati Stock Exchange, if they so desired, should be a part of ITS and link up with us, as the others are all linked. Back in 1978, in October, we wrote a letter to the Cincinnati exchange, asking for information for a basis for that decision. To date, we have not received a response to that letter, and I think the testimony of the Cincinnati exchange here today

indicates one of the reasons probably why we haven't—although they can speak for themselves.

They, in their testimony, I believe, indicated that they did foresee some problems in that linkage. But, in any case, it is a fact that we have not been opposed to the linkage of Cincinnati in ITS.

Mr. ECKHARDT. If the chairman will yield for a question, suppose, for instance, you did this: I have heard both of your arguments concerning the automatic system of ultimately finalizing transactions and the value of the auction system. Suppose Cincinnati were a part of ITS and suppose that automatic system within Cincinnati that I understand links bids and offers automatically with respect to both time and price within that exchange, were for a short period of time interrupted for a better bid and offer within the ITS. Why wouldn't that interface to exchanges be effective and desirable? I might want Mr. Batten's comments.

Mr. BATTEN. No, I think that is something for the traders, like Bill Lupien, or John Phelan, or I think the question should be addressed to Cincinnati as well, because they might have objections to that. I don't know.

Mr. EBER. I think Cincinnati again reiterates our interest to look at ITS interface provided it does not destroy any of the characteristics of the Cincinnati system. One of the characteristics of the system is that there are firm bids and offers and instantaneous executions, and we feel if we had to perhaps destroy the instantaneous execution feature of the system, we might destroy the system.

Mr. ECKHARDT. It would destroy that, you feel?

Mr. EBER. If we had to wait 2 minutes.

Mr. ECKHARDT. I didn't say any particular time. In fact, I am not knowledgeable enough to know what the mechanics would be.

Mr. EBER. We feel generally we would like to look at it; we would like to participate in ITS and look at it and discuss it with the participants; look at it further, and if there is a fit, we would like to fit in.

Mr. LUPIEN. I would say as far as the Pacific is concerned, we are almost there right now in the sense that if the Cincinnati has a better market than the stock is traded on the ITS, we make ourselves available to it now. We are not prejudiced against the Cincinnati system. Frankly, like I say, in the two or three stocks that I create that are in Cincinnati, the markets are not there for whatever reason. I wish they were. I would like to have the chance to find out what it is like. I even asked one of the guys that has one of the active stocks if he would trade me, and, for whatever reasons, he wants to continue to trade that stock. I would love to experiment with it.

Mr. ECKHARDT. Let me tell you what concerns me about the present system in ITS. It seems to me that there is a situation that exists that is one in which the specialist really has the cards close to his vest in each one of the exchanges. Within a given exchange he is under a duty to respect his books, but as between exchanges there is no assurance at any time when a transaction is concluded that all of those bids and offers which are on all of the exchanges and are within all of the specialists' books are going to result in an

ultimate transaction where the buyer gets the stock at the best price he can possibly get it, or the seller gets the best price for it.

It seems to me that there is a failure of meeting the best bid and offer under that system. Also, I recognize that under Cincinnati, at least from your standpoint, that the finality of the human intervention is at a time when you feel it is earlier than it ought to be; there ought to be an opportunity to interject a better bid and offer immediately before the transaction is ultimately closed. And I would assume that would be even more true if you used an ITS or interexchange system nationwide as a general system involving all trades.

Now, can't these be reconciled? Ought you not have some sort of automatic method to select through an electronic device the best bid and the best offer that could be had on a particular stock on anybody's book, and then have some instantaneous or relatively short period of time in which it could be bested? Would that not be the ideal solution, and, if not, why?

Mr. RICKERSHAUSER. Mr. Chairman, on the New York testimony starting on page 15—we didn't include it in ours—is a description of the limit order protection system we have jointly just proposed to the SEC in response to their deadline. It is very new, like 2 weeks, and it is not in existence, and there is a timetable. The first problem you discuss we substantially address when that comes up and operates.

Mr. LUPIEN. I think the answer to your question is the thing that has frustrated us, and one of the reasons we complain about trade-throughs and the openings is the fact that in my belief the customer is, in fact, not getting the best price right now. I am not going to sit here and tell you that ITS does that for him. I think the seeds are there for that to happen. I am a strong backer of the system, and what frustrates me is that we haven't been able to enforce that at this stage.

I believe the gentlemen sitting at the table from the New York Stock Exchange, in their own minds, are working very, very hard to make that happen. They are frustrated, frankly, because some of the specialists and many of the floor brokers, and many of the member firms, either will not use the system or are not aware of how to use the system, or are afraid of using the system for a lot of reasons. One is the autoquote system I mentioned earlier. I think they are on the right track, and that is what I am saying, too, is I would like to see a system where the customer got the best price and not arbitraged between exchanges.

Mr. ECKHARDT. I have intruded heavily on my colleague's time.

Mr. SCHEUER. Mr. Lupien, I think we are all interested in the same thing, and I have thoroughly enjoyed your very stimulating and knowledgeable testimony. When I read Mr. Schreyer's 6-point program, the consensus I seemed to get is we agree on where we end up. We agree to all of those points. Our disagreement is how to get that.

Is there anybody on this panel who doesn't agree on the six points?

Mr. RICKERSHAUSER. It depends on how you define some of them. That is not a 2-minute discussion. Is it more efficient to have one

system, one set of exchange officials? Is it competitive enough? You have to get into some of those questions.

Mr. SCHEUER. Is it competitive enough?

Mr. RICKERSHAUSER. Should there be one House of Congress, or two, that kind of——

Mr. SCHEUER. If you ask us, that other body is totally superfluous.

Mr. ECKHARDT. At least we don't have six.

Mr. RICKERSHAUSER. For example, we are currently working on a computerized way of locking in the trade on our automatic system. Somebody else is working on it, too. Maybe that is inefficient, but I think the chances of a better solution are greater because more than one entity is working on it. That is the kind of—as you read off those six lists, they sound like the national goal, and they are, but we could come apart on some of the details. I didn't want you to just assume there was no chance of that.

Mr. WALBERT. I would like to take issue with the description by Merrill Lynch of ITS' progress or lack of progress. I think they are in a position, as the biggest and strongest element in the industry, to do certain things which might be good for Merrill Lynch, but not necessarily good for the industry, and I think we have to recognize that. We haven't had a chance to study their six points, but they appear to depart in significant ways from our concept of a national market system. I think it has to be considered that the industry and the exchanges have been spending 2 years or more in developing ITS. I think there is clear evidence that there has been progress made, and I think it is unfortunate that a suggestion would be made by anyone of the lack of progress.

Mr. PUTNAM. Mr. Chairman, point No. 4, fair and equal opportunity to compete for all who have capital or willingness to make markets, that brings us back to the experiment as far as the off-board trading restrictions go. We feel we should enhance the competition, at least on an experimental basis, not lock it in to require somebody to become an exchange specialist, even on a regional exchange, in order to compete for these markets.

Also, we see daily the equivalent of trade-throughs on the listed stocks, where we have third marketmakers, who have a better bid or better ask, that are continuously disregarded in that regard. I think those are the two points in the competitive area.

In the fifth point about limit-order protection, we have a great deal of problems with the present SEC proposal on limit orders, which effectively would block out broker/dealers' orders completely, or make them take a second seat, if you will, like any and every public customer. We feel this would destroy a great deal of the incentive for marketmakers. A hedge fund, or large institution, or anybody, could come in, and they are going to get a first priority of that price, or the marketmaker continuously puts up his money day after day, and this particular security is going to have to take a back seat. We have some problems with that because we feel long term the need for marketmakers, as Mr. Schreyer said.

Mr. SCHEUER. Why would Mr. Lupien have to take a back seat?

Mr. PUTNAM. Because effectively he would be representing a broker-dealer order, as we read it. Certainly that would be true with a third marketmaker, let's say. And I think that in the long

term in a national limited order file would make it very difficult for broker-dealers who continuously stand there and commit capital to take care of the imbalance that Mr. Schreyer mentions in here to continue to have that capability.

It would be easier and better for them to walk out the back door and forget about being a marketmaker and come in on and be a quote public customer like a hedge fund and have the first seat on the bus as opposed to the back seat.

Mr. SCHEUER. Maybe that will happen. It would be a disaster if it did.

Mr. PUTNAM. Mr. Schreyer in his own testimony has said where there are large imbalances of orders, there is a particular need for a marketmaker to come in to take care of this.

Mr. SCHEUER. That is right, occasionally enormous orders come down the pike. I take it there is a certain amount of agreement; as you footnoted, we might disagree on some of the details. There is a fairly wide agreement on where we want to end up. The question is, how do we get there?

Considering where we have not gotten anywhere with this sort of pluralistic approach, do you think that the SEC ought to define the characteristics of a national market system and then give the exchanges 24 months to 36 months or 48 months to get there, in effect saying "Get your act together and come up with a national market system that meet these criteria?"

And if you do not believe that the SEC should take more leadership than it has, how do you think we ought to get there? There are many roads to heaven. What is your road to heaven?

Mr. RICKERSHAUSER. I guess our testimony suggested they should go to the whip a little more but not to the drawing boards; we do not really want them to design it.

Mr. SCHEUER. Who is going to design it?

Mr. RICKERSHAUSER. We are designing it, but we feel their active participation would produce a little more speed.

Mr. SCHEUER. I think there is a feeling that this sort of ad hoc, incremental approach by fits and starts is not working very well. We have gone 4 years and progress has been almost glacially slow.

Mr. WALBERT. I don't think that is correct. We don't agree with that at all. The last year we had a remarkable improvement.

Mr. LUPIEN. What we are saying in our testimony is as Mr. Rickershauser just said, we would like to have the SEC keep the pressure on. If you think we are not fighting internally over all these issues, I can tell you we are.

Mr. SCHEUER. You say keep the pressure on. There is a school of thought that the SEC doesn't have any pressure on.

Mr. LUPIEN. They have some, I would like to see a lot more.

Mr. SCHEUER. You would?

Mr. LUPIEN. Yes.

Mr. SCHEUER. How do the rest of you feel about that?

Mr. WETHERILL. I think they certainly should keep some pressure on. But it seems to me the progress we have made in the last year especially is greater than any I ever thought we would do. When we first got started with this experiment 4 or 5 years ago, began talking about putting the markets, linking the markets in competition between markets, I thought that some of the problems were

insurmountable. I thought that the self-interests that were apparent would kill the whole thing. And I am just terribly pleased to see we have gotten this far.

And of course there are some things wrong, sell-throughs are a problem, the openings are a problem. But if you look where we come from, these problems are very small, I think.

Mr. PUTNAM. You know we are somewhat like the automobile industry was when we were back experimenting whether we were going to go to the gasoline engine, combustion engine, Stanley Steamer, this, that and the other. I think the SEC's job here is to allow certain of these experiments to continue, to allow Cincinnati to continue and to expand, to allow ITS to continue and develop, to allow perhaps 19c–3 to go into effect; to effectively monitor what is going on so that the final solution we come up with is the proper one.

These particular markets have been going for several hundreds of years and it is not appropriate to overnight say this is what the final solution is going to look like. I think the SEC has said these are the elements, as has the Congress, that the final solution must have. And I think that they are doing an appropriate job of monitoring, encouraging, having experiments. I think we ought to keep them in that particular mode.

Mr. SCHEUER. As to the way they are doing that, let me read a sentence or two from Professor Lorie's statement:

> Initially the SEC gave the Cincinnati experiment only a 1-year license to operate. That license was extended for 13 months near the end of the first year. Now the SEC appears willing to grant a 3-year extension. Under such conditions there is not much incentive for the operator of the system to offer broker-dealers to make the investments necessary to give the system a rigorous test with active stocks in large volume of trading.

He is in effect saying the SEC has failed to provide the institutional and financial environment by which the Cincinnati plan can succeed because it does not pay anybody to make the appropriate investment of capital and training and all of that for all these people problems, since they only have a 3-year lease, they are only likely to get a 3-year lease on life.

Mr. PUTNAM. Two points I make: Three years in our business is a long time. If you take a look at 3 years back where we were with ITS and all these other things, you will find we were way, way back in the Neanderthal stage. I think at this point 3 years of the Cincinnati is a good amount of time to get people to commit money.

Mr. SCHEUER. You say 3 years is long enough?

Mr. PUTNAM. I think we will know a lot more about the Cincinnati experiment in 3 years than we do now.

Mr. SCHEUER. That is not the question. He says 3-year time frame in which they have been given to function is not sufficient to induce firms to come into the system and make the up-front capital investments necessary and the training investments necessary to plug in.

Mr. PUTNAM. I would disagree.

The second point I make is the option experiment. I am not sure what the lifeline on that one was, but there certainly have been millions and millions of dollars of commitment in that one, went

right through a particular study that looked like they might shut off the option business and continue it. So I think the 3-year period of time gives us a sufficient——

Mr. SCHEUER. Do the rest of you think 3 years is adequate to—provides adequate incentive to encourage the up-front capital investment to plug into the system?

Mr. BATTEN. I think that is normal SEC procedure. They gave ITS 3 years.

In our registered competitive marketmakers, we have I believe 9 months now. We do not have a permanent franchise so to speak or for our registered competitive marketmakers. That may or may not be a deterrent. This is normal practice.

I think 3 years would be sufficient time to evaluate it.

Mr. NIEHOFF. Mr. Scheuer, I am particularly encouraged by the fact that we have been given a 3-year extension. This gives us a fair field in which to compete now.

As I remarked earlier, we have broker-dealers right now who will have the equipment installed in their offices. We and Control Data had already made the arrangements with them. We were until Friday looking at going out of business in 4 months. Perhaps Mr. Eber from Control Data would like to comment on what he thinks about the 3-year extension. Control Data put up the money to develop the system; they own it; they are at risk.

Mr. EBER. Three years is better than several months. We would like a permanent extension. I think a point should be made regarding ITS. ITS is on a similar basis with the Cincinnati system. However, if ITS goes out of business in 3 years, I don't think the New York Stock Exchange will go out of business. If Cincinnati's rule 9d–3 expires in 3 years, Cincinnati will be out of business, and yes, we would like a permanent extension if possible.

Mr. RICKERSHAUSER. I think it safe to say if ITS goes out of business in 3 years, we will be asking for a hearing.

Mr. SCHEUER. You will get it.

Mr. RICKERSHAUSER. In any place we can find it.

Mr. BATTEN. I would like to go back to the question you addressed about the slowness that has taken us to develop the system to this point of time.

I think first we have to recognize the complexity of the problem.

Second, we have to recognize the difficulty in asking competitors, so to speak, to sit down around the table and develop a common way of doing business, which in many cases is contrary to their own short-term self-interest, never an easy problem.

I do not have to tell you people that the democratic process, which is what we have been going through, is at best a little sloppy and a little untidy; a dictatorship is always, shall we say, neater and tidier. But I think we all believe basically that even though this kind of a process may take a little more time, it does have the great advantage of participation and developing a consensus, so that once it is in place it has a better chance of working because it was developed by the people who have to make it work, and therefore they have to make a commitment to it.

So I don't think you can measure the amount of time solely by the time it takes to develop the consensus. The important thing is the time it takes to have something better in place and working to

which we all have a commitment. And I do not know about the others here; speaking for the New York Stock Exchange, I have been there a little over 3½ years, and I can tell you that there has not been a day since I have been there that we haven't felt pressure, and we feel it today.

We also are exerting pressure on ourselves because after all, all of us sitting around this table want a better market system. I mean we have a great desire to have a better market system. We know we all have a responsibility as professional people sitting around the table, to take leadership in helping to develop it.

So it isn't only the SEC; it isn't only the Government. I think the indsutry feels a great responsibility and they have been trying hard. In our opinion the SEC has for the most part done a good job; they have not tried to design a plan, a system and mandate it. They have been acting prudently and they have been acting, I think, appropriately. We are talking about ITS and I am sure the same thing would go for the Cincinnati system or any other system; these are in a state of evolution. We have not reached the millenium in any of them.

Certainly the ITS participants realize that we haven't reached the millenium there. That is why we are working hard and have developed this approach to the SEC for developing limit order protection, which is a very important ingredient, and when that is in place it is going to be another important element in the market system. That is why we are proposing this marketmaker system to enable the dealers upstairs to access the listed market.

Those are two important steps that are right now in progress. We are addressing tradethoughs, and I know Bill is not happy with the progress, neither are we. We are not happy with any of the progress. We wish there was some magic wand that all of a sudden we could wave and create tomorrow all these things that we would like to have. It isn't that kind of an animal. It is not going to happen that way.

I think excellent progress is being made and I think that it would be best to continue on the same course with the SEC; when they feel that we are lagging and we need prodding, they will prod us, as they have in the past.

Mr. RICKERSHAUSER. Mr. Chairman, this may seem irrelevant but I do not believe it is.

Two years ago the Pacific Stock Exchange was looking for a new chief executive officer. The person selected recently resigned and I have the job on a temporary basis on leave from my law firm.

The applicants we are getting now are many, many times what we got last time and I think the single most important factor is the recognition of our ability to now compete—principally through ITS. I think it is a real straw vote in recognition of the future of the regional exchanges such as the Pacific. Lots of people who were available—I mean they have the same jobs they had 2 years ago—did not send in their applications and now they are.

Mr. WALBERT. I would like to echo that thought.

The Midwest Stock Exchange is 100 years old. It has been through a lot of crises in that time. I think we have been able to exist because we have provided a competitive arena. I think ITS is improving that result. It will allow the exchanges to compete as

they have in the past but more effectively. I think ITS is the vehicle to allow competition to increase.

Mr. EBER. Cincinnati feels that the SEC should provide a fair field of competition and make it very clear that no selection has been made between the Cincinnati system and the ITS system as the appropriate model for the development of a market system. We feel that market forces will dictate what characteristics of each system are adopted by the industry.

Mr. ECKHARDT. There is one thing that seems to me to be really salient to that question, and that is the question of the nature of the New York Stock Exchange limit order information system. And it goes to the same question I was asking Mr. Lupien to comment on as an ideal, ultimate system.

It seems to me it goes to the question of whether or not anyone really knows in an ITS system whether or not the bids and offers that are available to him, no matter how expanded the system is, are the best, particularly if he is not on the New York Stock Exchange? Would this sytem disclose the limit orders in the specialist book? Would it make them available publicly to brokers?

Mr. BATTEN. Yes.

First of all, it is not a New York Stock Exchange limit order protection system, it is the limit order protection system for ITS participants.

Mr. ECKHARDT. Yes.

Mr. BATTEN. I am going to ask Mr. Phelan to describe precisely how it would work so Bill Lupien and any of the others can use it.

Mr. PHELAN. The limit order protection system is an ITS enhancement and was agreed to by all ITS participants and was signed and sent to the SEC. It says that each market center would put up, into this limit information system, all the bids above and below the market so that anyone coming into a market center could access that information system and determine, if it was to put on a trade below the current bid and asked of a certain size, what was in the system and what he would lose if that trade were to go on. In addition, how those market centers would input that information into the system was left up to them. But the net result of it would be——

Mr. ECKHARDT. What do you mean by "left up to them"? Would there be a standard that required that each of the exchanges make available to persons dealing with ITS the depth of the market in the limit order books of all specialists on all the exchanges?

Mr. PHELAN. The answer to that is yes. And every ITS participant would require that when a trade of this nature goes on in this center that this information system be used and the execution go through the ITS system.

We would require also that any order that was to be protected away from the market on that trade must be in that information system. So for all practical purposes all the orders would be reflected in that system that are on specialist books.

Mr. ECKHARDT. Who decides which ought to be protected?

Mr. PHELAN. The customer.

Mr. ECKHARDT. The customer.

That is all I have. Thank you.

Mr. CALVIN. Mr. Chairman, before we get away from it, could we offer for the record the letter of October 4, 1978, that Mr. Batten and Mr. Phelan referred to? This is the letter to the Cincinnati Stock Exchange, asking for information about how they——

Mr. ECKHARDT. Without objection the record will be held open for that purpose and for, in addition, any reply or comment.

Mr. NIEHOFF. Thank you. We will reply.

[Testimony resumes on p. 399.]

[The letter and response follow:]

THE New York Stock Exchange

Robert C. Hall
Executive Vice President
(212) 623-2100

Mr. K. Richard B. Niehoff
President
The Cincinnati Stock Exchange
205 Dixie Terminal Building
Cincinnati, Ohio 45202

October 4, 1978

Dear Mr. Niehoff:

The purpose of this letter is to request the CSE to provide the Exchange with additional information pertaining to the operational and regulatory structures of the CSE. While the meeting of ITS participants in August in Cincinnati resulted in our acquiring important information about the CSE, we would like to receive answers to a number of open questions. These questions are set forth below under two subheadings.

Operational

1) From a technical and trading viewpoint, exactly how will the CSE "best" quote be transmitted to other ITS participants? Will the "best" quote reflect the quotes of all users of the CSE automated multiple dealer trading system (the System) or just some of them? Also, in what issues listed on the CSE will a "best" quote be provided?

2) Precisely how will the quotations of other ITS participants be displayed on the CSE floor, in the CSE System and in the offices of users of the System?

3) Concerning pre-opening notifications whereby a qualified specialist/market-maker notifies specialists/market-makers at other ITS participants when he intends to open an ITS stock at more than 1/4 of a point away from the previous day's closing price in CTA, how would this application be implemented by CSE? Who would be made aware of the notification and how? How would responses be gathered, possibly consolidated and transmitted to the originating market? Who in CSE would be allowed to issue a pre-opening notification when a CSE

user of the System intends to open a stock under conditions requiring pre-opening notification? What would be the mechanics of this notice? Would there be consideration of CSE interest?

4) On ITS commitments, the ITS Plan envisions a two-way flow of commitments both into and out of each participant market center. Accordingly, what are the precise procedures the CSE would follow to transmit commitments and to receive and handle incoming ITS commitments? (If our understanding is correct that the CSE does not intend to send commitments through ITS to other market centers, how would this be consistent with the spirit of the ITS Plan, the commitment of the ITS participants to encourage use of ITS within each market center, and the Congressional goal of enhanced competition and communications between and among market centers and market-makers?)

Regulatory

1) In September of 1974, the SEC sent a letter (copy attached) to several exchanges and the NASD setting forth a number of anti-manipulative rules which each was required to adopt in connection with the commencement of the CTA. Since the CSE was not a member of the CTA at that time and did not receive a copy of the letter, we would like to know if it presently has included in its constitution and rules, the anti-manipulative rules set forth in this letter and if not, when it intends to adopt and enforce them. Also, are such rules fully applicable to the System?

2) Which would become the ITS participant -- the physical CSE trading floor, the System, or both? Also, at the August meeting in Cincinnati, it was stated that the CSE has a trading floor in Jersey City. We would appreciate a general overview or description of each facility and would like to know what rules apply to each.

3) Concerning rules, we would like to know the status of the various CSE rule filings on both the CSE generally and the System. Also, we understand that the CSE has a "crossing" rule but are unclear as to whether it applies to the System. If it does, would you explain how it does? If it does not, why shouldn't there be an appropriate crossing rule applicable to the System?

4) Since the ITS Plan states that each participant must adopt various rules for ITS and assure adequate surveillance, we would like a description of the present CSE surveillance procedures and the plans it has for adopting the called-for rules and assuring adequate surveillance over ITS.

5) In August 1977, the NYSE testified before the SEC on off-board trading rules. During that testimony, we set forth those minimum rules which we believe should apply to all qualified specialists/market-makers in all market centers. These rules have guided our policy decisions on the national market system and our entry and continued participation in ITS. Attached as Exhibit A is a copy of the section of our testimony which discusses these matters. We would appreciate knowing from the CSE which of the rules we have called for it presently has adopted generally and particularly as to the System, and what its procedures are for enforcing them. Also, for those rules or policies that the CSE has not adopted, either generally or as to the System, we would like to know if and when the CSE intends to adopt and enforce them.

We realize the above is a comprehensive list of questions, but answers to them will greatly assist our Exchange in evaluating the interest of the CSE in joining ITS. As this issue is a policy matter, each participating member of the ITS Plan will need to address it individually. If you have any questions, please feel free to contact me.

Very truly yours,

Attachments

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

OFFICE OF THE CHAIRMAN

SEP 27 1974

American Stock Exchange, Inc.
Midwest Stock Exchange, Inc.
National Association of Securities Dealers, Inc.
New York Stock Exchange, Inc.
Pacific Stock Exchange, Inc.
PBW Stock Exchange, Inc.

Dear Sirs:

As you are aware, on October 4, 1974, a pilot phase of the consolidated transaction reporting system is scheduled to begin. The pilot phase will include reports of transactions in fifteen selected New York Stock Exchange listed securities. The consolidated tape plan filed with, and declared effective by, the Commission pursuant to Rule 17a-15 under the Securities Exchange Act further contemplates that the consolidated tape will become fully operational in February 1975.

In this connection, the Commission, from time to time, has expressed the view that certain regulatory problems should be addressed before the implementation of the consolidated tape. Two of these issues, the need for an adequate coordination of trading suspensions and minimum eligibility criteria for securities reported in the system were resolved in the consolidated transaction reporting plan itself. A third issue of importance has been the appropriate short sale regulation to govern participants whose transactions are reported on the consolidated tape. Today, the Commission has announced the adoption of amendments to its short sale regulation which prohibit short sales of a security listed on an exchange below the last sale thereof (a "minus tick"), or at the last sale thereof if the preceding different sale was effected at a higher price (a "zero-minus tick"), reported pursuant to the consolidated transaction reporting system. The new provisions apply the Commission's short sale regulation, for the first time, in a uniform manner to all markets in which transactions in listed securities occur.

An additional issue that the Commission believed important to address is the need for a uniform anti-manipulative rule to minimize the extent such reporting system might be misleading or conducive to market manipulation. This letter is intended as a report to you of developments with respect to anti-manipulative regulation.

As you may recall, the Commission's Advisory Committee on a Central Market System was requested to give the Commission its advice on the necessity for additional regulation to protect the integrity of the reporting mechanism. Besides recommending a uniform short sale rule and a method of coordinating regulatory trading halts, the Advisory Committee recommended that the self-regulatory organizations adopt the following general anti-manipulative provision:

> No broker-dealer shall execute or cause to be executed, or participate in an account for which there is executed, a purchase of any listed security which is reportable in the composite transaction reporting system at successively higher prices, or a sale of any such security at successively lower prices, for the purpose of creating or inducing a false, misleading or artificial appearance of activity in such security or for the purpose of unduly or improperly influencing the market price for such security or for the purpose of establishing a price which does not reflect the true state of the market in such security.1/

As of this date, all of the self-regulatory organizations participating in the pilot phase of the reporting system scheduled to commence on October 1, 1974 -- namely, the Midwest Stock Exchange, the New York Stock Exchange, the Pacific Stock Exchange, the PBW Stock Exchange and the National Association of Securities Dealers -- have adopted such a provision.

1/ Advisory Committee on a Central Market System, Interim Report, at 9 (Oct. 11, 1972).

In addition to the general anti-manipulative provision alluded to above, the New York Stock Exchange has suggested that the self-regulatory organizations sponsoring the consolidated tape plan consider certain additional regulations. The Commission's staff has met with representatives of the New York Stock Exchange on several occasions and, subsequently, with representatives of the Midwest, Pacific and PSE Stock Exchanges and the NASD, to discuss these suggestions. These self-regulatory organizations, after discussion and analysis of the various regulatory proposals suggested, and after conferring with the Commission's staff, have agreed upon the adoption of rules embodying the following substantive principles:2/

1.) A rule prohibiting a member from effecting transactions for any account in which the member is directly or indirectly interested, which purchases or sales are excessive in view of the member's financial resources or in view of the market for such security.

2.) A rule prohibiting a member from participating or having any interest, directly or indirectly, in the profits of a manipulative operation or knowingly managing or financing a manipulative operation. For the purposes of this rule --

a) Any pool, syndicate or joint account organized or used intentionally for the purpose of unfairly influencing the market price of an eligible security reportable in the composite transaction reporting system shall be deemed to be a manipulative operation.

b) The solicitation of subscriptions to, or the acceptance of discretionary orders from, any such pool syndicate or joint account shall be deemed to be managing a manipulative operation.

2/ At this time the NASD is adopting these rules for third market pilot participants and has indicated that during the course of the pilot phase it will give

c) The carrying on margin of a position in such securities or the advancing of credit through loans to any such pool, syndicate or joint account shall be deemed to be financing a manipulative operation.

3.) A rule prohibiting a member from making any statement or circulating and disseminating any information concerning any eligible security reportable in the composite transaction reporting system (such as a rumor of a sensational character) which he knows or has reasonable grounds for believing is false or misleading or would improperly influence the market price of such security.

4.) A rule prohibiting pre-arranged trades, such as an offer to sell coupled with an offer to buy back at the same or at an advanced price, or the reverse.3/

3/ The NASD has adopted a provision addressing such manipulative transactions which is broader in some respects than the provision in the text. The NASD provision states:

No third market pilot participant shall, for the purpose of creating or inducing a false or misleading appearance of activity in an eligible security reportable in the composite transaction reporting system or creating or inducing a false or misleading appearance with respect to the market in such security --

a) execute any transaction in such security which involves no change in the beneficial ownership thereof; or

b) enter any order or orders for the purchase of such security with the knowledge that an order or orders of substantially the same size, and at substantially the same price, for the sale of any such security has been or will be

5.) A rule prohibiting a member, or person associated with a member, from, directly or indirectly, holding any interest or participation in any joint account for buying or selling any eligible security reportable in the consolidated transaction reporting system unless such account is promptly reported to, and not disapproved by, the self-regulatory organization of which such person is a member.

6.) A rule prohibiting a member from (a) personally buying or initiating the purchase of an eligible security reportable in the composite transaction reporting system for his own account or for any account in which he or any person associated with him, is directly or indirectly interested, while such member personally holds or has knowledge that any person associated with him holds an unexecuted market order to buy such security in the unit of trading for a customer; or (b) personally selling or initiating the sale of any such security for any such account, while he personally holds or has knowledge that any person associated with him holds an unexecuted market order to sell such security in the unit of trading for a customer; or (c) personally buying or initiating the purchase of any such security for any such account, at or below the price at which he personally holds or has knowledge that any person associated with him holds an unexecuted limited price order to buy such security in the unit of trading for a customer; or (d) personally selling or initiating the sale of any security for any such account at or above the price at which he personally holds or has knowledge that any person associated with him holds an unexecuted limited price order to sell such security in the unit of trading for a customer.

7.) A rule prohibiting a specialist or market maker from effecting a transaction for his own account that would put into effect any "stop" order he may hold, unless the specialist or market maker

guarantees that the stop order will be executed at the same price as the electing sale.1/

8.) Finally, a rule prohibiting certain undesirable practices, namely offering to buy or sell securities "at the close," offering to buy or sell dividends and offering to bet upon the course of the market.

In addition to these provisions, the exchange participants mentioned above have each adopted rules which prohibit their floor traders from congregating in, or dominating, individually or as a group, the market in a particular security and which further requires that transactions by such floor traders be effected in a reasonable and orderly manner.

The Commission wants to take this opportunity to emphasize, on behalf of all the self-regulatory organizations involved, our understanding that these rules are being put into effect at this time as a prophylactic, cautionary measure, and that there is no evidence that the practices which these rules prohibit have been occurring or are likely to occur after the implementation of the pilot project. Nevertheless, the Commission believes it useful for the self-regulatory organizations to supplement the general anti-manipulative provision recommended by the Commission's Central Market System Advisory Committee with the more specific provisions noted above.

On the basis of the foregoing developments, we believe that all regulatory questions which have been raised in connection with the initiation of the consolidated transaction reporting system have been satisfactorily resolved and that the pilot project may commence as scheduled on October 4, 1974.

1/ The NASD has adopted a rule which is more stringent than the rule generally agreed upon. It prohibits a third market pilot participant from accepting any stop orders except a stop limit order and only then if the stop price and the limit price are the same.

We should also like to comment all the pilot participants for the cooperative effort displayed in deciding upon and implementing a common set of principles to regulate the activities of all parties reporting pursuant to the consolidated transaction reporting system. We believe the cooperative attitude displayed in this common endeavor will certainly ensure the success of the pilot phase of the consolidated tape and that the public interest will be the beneficiary.

Sincerely yours,

Ray Garrett, Jr.
Chairman

EXHIBIT A

Minimum Rules Applied To All Market-Makers

A set of minimum rules would apply to all qualified market-makers in all market centers. Any market center could establish higher, but not lower, standards, if it wished.

The minimum rules would cover such basic requirements as:

1. Registering to make markets in specific stocks.
2. Promptly reporting all last-sale information to the consolidated tape.
3. Making continuous firm two-sided quotes available to all participants in the system.
4. Meeting minimum capital requirements.
5. Protecting limit orders within a market center and, to the extent feasible, through the market linkage.
6. Keeping full audit trail records of all transactions.
7. Executing all trades through the system.
8. Participating in inter-market applications, such as pre-opening assistance, blocks, etc.
9. Complying with other minimum trading regulations, including anti-manipulative rules.

Each self-regulating market center would be responsible for regulation and surveillance of trading within its own jurisdiction. This would include insuring that mechanisms are in place to allow market-makers to compete for orders with other market-makers, both within that center and in other centers. Each market center would also be responsible for insuring its own market-makers' compliance with system-wide and local rules.

Qualified market-makers in all market centers -- whether on the floor of an exchange or in an "upstairs" office -- would operate under the same uniform, minimum standards and each could compete freely with the others.

THE CINCINNATI STOCK EXCHANGE
205 DIXIE TERMINAL BUILDING
CINCINNATI, OHIO 45202
513-621-1410

K. RICHARD B. NIEHOFF
PRESIDENT

D. ROSEMARY GOODRICH
EXECUTIVE SECRETARY

October 1, 1979

Mr. Donald D. Kittell
Sr. Vice President
New York Stock Exchange
11 Wall Street
New York, New York 10005

Dear Mr. Kittell:

This letter is a belated response to Robert Hall's letter of October, 1978. (Enclosed). As we previously explained, our delay in responding does not reflect lessened interest in ITS on the part of The Cincinnati Stock Exchange (CSE) but rather an all-consuming involvement through the first part of this year with securing a permanent facilities manager for our Multiple Dealer Trading System (the System) and, more recently, a patient wait while our new rules package was processed and approved by the S.E.C. The CSE remains vitally interested in ITS participation.

We will respond to your letter in the same sequence as your questions were posed.

OPERATIONAL

1. The CSE's participation in the ITS will be limited to the securities traded through the System which currently number 41 issues. The System emits current quotes, with size, on a continuous basis to all participants and to vendors. We have only one quote in each issue. It is both our "best" and "worst" quote. It includes all firm commitments in the subject issue currently extant on our "floor"; that is resident in the System. We propose to provide our quotes, automatically, to CQS in whatever manner appears most economical and feasible and through CQS to other ITS participants.

2. Quotations of other ITS participants will be displayed on the CSE floor in Cincinnati and to the offices of users of the System through quote montages.

3. At the present time, the System does not have a unique opening procedure. Our "opening price" is the same as the NYSE opening price. We believe this procedure is not dissimilar to that followed by other regional exchanges. Initially, until we develop our own unique opening procedure, we would not expect to have reason to notify other participants of our intention to open a stock at more than 1/4 of a point away from the previous close. Notification of such intent received by us from other participants would be relayed from our ITS center to those dealers registered in that issue and to all agency terminals through administrative messages sent over the System communication network. Should any market makers or brokers wish to participate in another market's opening, such information would be communicated to the CSE's ITS center for re-transmission over ITS.

4. The CSE envisions a balanced two-way flow of commitments over ITS. Incoming ITS commitments would be received on the CSE floor in Cincinnati, Ohio at our ITS center at which point they would be entered into the System for execution. If the System market is found to be changed from the market which was advertised over CQS, then the commitment would be unexecuted. Outgoing commitments would result from agency orders or market-maker orders being sent to the CSE's ITS center for re-transmission over ITS. These orders would result from indications of an improved market elsewhere through a quote montage or market information display. The broker or dealer participant in our System would communicate his desire to trade over ITS to the CSE's ITS center and the commitment would in turn be entered into the ITS system.

REGULATORY

1) We enclose a copy of our recently approved trading rules and direct your attention to Chapter XII, particularly Rules 12.1 through 12.5, 12.7 and 12.8 which we hope will satisfy our anti-manipulative requirements.

2) Effectively, the System becomes the ITS participant. Any orders represented on the physical floor of the CSE in issues traded in the System must be entered into the System in order to have standing.

3) We do not have any particular "crossing" rule with respect to issues traded in the System. Strict time within price priority applies to all transactions executed through the System.

4) The CSE would expect to adopt those operational rules called for under the plan. As to surveillance, through our computer dictated trading priorities and our hard copy record of all trading commitments, executions and withdrawals, we believe we have an adequate surveillance audit trail for market center activity. Inspections of participant's in-house activities and records are made periodically by personnel of the NASD operating on behalf of this exchange.

5) We refer you to our enclosed rules and request comments as to those areas where you may feel that our rules do not meet standards felt to be necessary by your Exchange.

The CSE looks forward to further comment from the NYSE or any other ITS participant. Response to requests for further information will be given immediate priority. You have our assurance that this exchange is approaching participation in ITS in good faith and with the expectation that the contribution of our markets and the participation of our members in ITS will develop a healthy, two-way flow of commitments between this exchange and others which should benefit all participants and particularly the public investor.

Yours very truly,

K. Richard B. Niehoff

K. Richard B. Niehoff
President

CHAPTER XII

TRADING PRACTICE RULES

Rule 12.1. Market Manipulation

No member shall execute or cause to be executed or participate in an account for which there are executed purchases of any security at successively higher prices, or sales of any security at successively lower prices, for the purpose of creating or inducing a false, misleading or artificial appearance of activity in such security on the Exchange or for the purpose of unduly or improperly influencing the market price for such security or for the purpose of establishing a price which does not reflect the true state of the market in such security.

Rule 12.2. Fictitious Transactions

No member, for the purpose of creating or inducing a false or misleading appearance of activity in a security traded on the Exchange or creating or inducing a false or misleading appearance with respect to the market in such security shall:

(1) execute any transaction in such security which involves no change in the beneficial ownership thereof, or

(2) enter any order or orders for the purchase of such security with the knowledge that an order or orders of substantially the same size, and at substantially the same price, for the sale of such security, has been or will

be entered by or for the same or different parties, or

(3) enter any order or orders for the sale of any such security with the knowledge that an order or orders of substantially the same size, and at substantially the same price, for the purchase of such security, has been or will be entered by or for the same or different parties.

Rule 12.3. Excessive Sales by Member

No member shall execute purchases or sales of any security traded on the Exchange for any account in which such member is directly or indirectly interested, which purchases or sales are excessive in view of the member's financial resources or in view of the market for such security.

Rule 12.4. Manipulative Transactions

(a) No member shall participate or have any interest, directly or indirectly, in the profits of a manipulative operation or knowingly manage or finance a manipulative operation.

(b) Any pool, syndicate or joint account organized or used intentionally for the purpose of unfairly influencing the market price of a security shall be deemed to be a manipulative operation.

(c) The solicitation of subscriptions to or the acceptance of discretionary orders from any such pool, syndicate or joint account shall be deemed to be managing a manipulative operation.

(d) The carrying on margin of a position in such security or the advancing of credit through loans to any such pool, syndicate or joint account shall be deemed to be financing a manipulative operation.

Rule 12.5. Dissemination of False Information

No member shall make any statement or circulate and disseminate any information concerning any security traded on the Exchange which such member knows or has reasonable grounds for believing is false or misleading or would improperly influence the market price of such security.

Rule 12.6. Customer Priority

(a) No member shall (i) personally buy or initiate the purchase of any security traded on the Exchange for its own account or for any account in which it or any associated person of the member is directly or indirectly interested while such member holds or has knowledge that any person associated with it holds an unexecuted market order to buy such security in the unit of trading for a customer, or (ii) sell or initiate the sale of any such security for any such account while it personally holds or has knowledge that any person associated with it holds an unexecuted market order to sell such security in the unit of trading for a customer.

(b) No member shall (i) buy or initiate the purchase of any such security for any account in which it or any

associated person of the member is directly or indirectly interested at or below the price at which it personally holds or has knowledge that any person associated with it holds an unexecuted limited price order to buy such security in the unit of trading for a customer, or (ii) sell or initiate the sale of any such security for any such account at or above the price at which it personally holds or has knowledge that any person associated with it holds an unexecuted limited price order to sell such security in the unit of trading for a customer.

(c) The provisions of paragraphs (a) and (b) of this Rule shall not apply: (i) to any purchase or sale of any such security in an amount less than the unit of trading made by a member to offset odd-lot orders for customers, (ii) to any purchase or sale of any such security upon terms for delivery other than those specified in such unexecuted market or limited price order; or (iii) to any unexecuted order that is subject to a condition that has not been satisfied.

Rule 12.7. Joint Activity

No member, directly or indirectly, shall hold any interest or participation in any joint account for buying or selling in a security traded on the Exchange, unless such joint

account is promptly reported to the Exchange. The report should contain the following information for each account:

(1) the name of the account, with names of all participants and their respective interests in profits and losses;

(2) a statement regarding the purpose of the account;

(3) the name of the member carrying and clearing the account; and

(4) a copy of any written agreement or instrument relating to the account.

Rule 12.8. Influencing the Consolidated Tape

No member shall attempt to execute a transaction or transactions to buy or sell a security for the purpose of influencing any report appearing on the Consolidated Tape.

Rule 12.9. Off-Exchange Transactions

No rule, stated policy or practice of this Exchange shall prohibit or condition, or be construed to prohibit or condition or otherwise limit, directly or indirectly, the ability of any member to effect any transaction otherwise than on this Exchange with another person in any security listed on this Exchange or to which unlisted trading privileges on this Exchange have been extended.

Mr. ECKHARDT. Will you take over?

Mr. SCHEUER [presiding]. Counsel Opper.

Mr. OPPER. Mr. Phelan I would like to explore LOIS a bit. Let's take an example—with a market of 32½ to five-eighths and a block is crossed at three-eighths, would it mean that the limit orders in the file at three-eighths will be protected?

Mr. PHELAN. No. We have to go back to the origin of the system. OK? Two things, the market center did not design this on their own but went to the block people and said "What do you have to have?" They said they have to have, much as Chairman Eckhardt suggested, a knowledge of all the limit orders on specialist books, in the system plus any other indications of participation at a price.

They must also have the ability to execute as promptly as possible once they know that information. We would provide them with that. As to whether if the last sale was a half and a block were to go on at a quarter, those down to but not including a quarter would go on the block; yes. Where the prices at a quarter would go, I don't know. We haven't worked it out. But it is similar to rule 127 of the New York Stock Exchange.

I think we have to sit down with the other ITS participants and work it out. New York has a rule today which basically says that down to the price, 5 percent or 1,000 shares or more; if the crosser is a principal, then the whole book goes; if he is acting as agent, then 5 percent or 1,000 shares or more go. We haven't gotten down to that nitty-gritty because we have a time frame within which to work, basically somewhere in that area.

Mr. OPPER. So it is possible not if the block, in the example I have used, crossed at three-eighths, some of the limited orders at three-eighths would not be satisfied?

Mr. PHELAN. It is possible all of them would be satisfied, or it is possible the orders would exceed the block at three-eighths and there would have to be an allocation.

Also, the Pacific, Midwest and Philadelphia and other market centers are concerned about whether dealer bids and offers can be placed in the system. As we envision it now, it would be up to each market center to decide which bids and offers they would put in that system so that dealer bids and offers could be reflected as well as public bids and offers.

Mr. OPPER. I guess I am having some difficulty. If the limit orders at three-eighths are not protected, I am trying to determine what the purpose of the whole system is.

Mr. PHELAN. We do not say limit orders to three-eighths are not protected.

Mr. OPPER. But you really do not know?

Mr. PHELAN. Suppose the size is not great enough to protect all the limited orders in the system; there would have to be some allocation made in the system, that is all we are saying.

Mr. OPPER. Suppose the size were sufficient to protect all the limited orders?

Mr. PHELAN. As far as we are concerned, as far as I understand, they would all be protected.

Mr. OPPER. In a sense then, that would seem to be an acceptance of a time-priority principle, would it not?

Mr. PHELAN. No. Time priority I think this has gotten out of context. We have always had time priority in our market. For instance, a specialist book has time and price priority in our market. What we have allowed in our market is other people to compete against that book and that time and price priority. So there is a horizontal line rather than just a complete vertical line. We do not opt for time priority.

What we are saying is at a price, providing that the order that goes on is big enough to satisfy all the orders within the system, it should do so. And if it is not large enough to satisfy all the orders in the system, some sort of allocation process should take place. That allocation process would take place in each market and those orders in the market I assume would be subject to the rules and regulations of that market, and if time and price priority were the major item that determined how those rules were protected, then that would be included. If it wasn't, some other means would be introduced.

Mr. OPPER. When do you think the final elements would be in place?

Mr. PHELAN. I think we talked about September of next year, didn't we?

Mr. CALVIN. Yes; September 1980.

Mr. PHELAN. On the pilot program.

Mr. CALVIN. Page 17 and 18, of the statement we filed for the record there is a time schedule as set forth in the letter to the SEC, the first step is October of this year.

Mr. OPPER. Why would it take so long to establish this system?

Mr. PHELAN. Well, the Commission gave us until December 1981. So we were coming in ahead of the Commission. I think it takes time, No. 1, to build the system, get up the parameters and find an efficient way to feed these orders into the system.

Mr. RICKERSHAUSER. You have to put up a display from each market. Some of those markets are not collecting that electronically.

Mr. OPPER. It takes time and expense?

Mr. RICKERSHAUSER. Yes.

Mr. PHELAN. Yes.

Mr. OPPER. You do feel this will be a fundamental block in a national market system?

Mr. RICKERSHAUSER. Absolutely.

Mr. OPPER. If you really want to test it without going to all that expense, and to narrow the time frame, it seems this could be accomplished by trying it on the Cincinnati, then if it doesn't work you do not have to commit all these dollars.

Mr. PHELAN. We could try it on our automated bond system if it doesn't work. We would not have to go to Cincinnati. We have competing systems as well.

Mr. OPPER. I am not suggesting an endorsement of the Cincinnati.

Mr. PHELAN. I understand that. We have been trying to preserve basic characteristics of each marketplace and allow them to compete. That is one of the reasons why we talked about linking Cincinnati into the ITS, so they could participate if they wanted to.

Mr. SCHEUER. When you are talking about a national market system, what are the characteristics of each market that are significant that somehow or other would benefit the consumer if it were preserved? It is not the idea of the national market system to create one national market that has the bids and the asked—for 220 million people?

Mr. PHELAN. I think——

Mr. SCHEUER. That may be a simplistic look.

Mr. PHELAN. I think we have a definitional problem here.

The national market system as we see it is the competing market centers linked efficiently, electronically with the other enhancements we talked about before. The 1975 legislation did not talk about one central market system in which all orders had to be in one marketplace at one time. That is a fundamental difference.

The ITS participants have walked down the road of competing market centers. The idea of competing market centers are severalfold, the main thing being that you don't build a monopoly and therefore you allow for the inventiveness and competitiveness of each market center to make it cheaper and more efficient for one to come into that system and compete for that order flow.

It is the same argument as whether we should have one national electric company, or one automobile company, or one this or that. It seems that one system certainly doesn't seem to be as desirable as competing systems in which that competition can bring in innovation and change as well as benefits to the customer.

Mr. OPPER. Let me raise another question. On Friday Merrill Lynch announced its best-price-selector switch, which presumably will guarantee to Merrill Lynch's customers that their orders will automatically flow to the best market. I think it would be very beneficial if we could have the comments of the panel as to what the effect may be of that development.

Mr. PHELAN. First of all, we testified before the SEC some time ago on whether you should have a central switch or each firm should develop an algorithmic switch for the best execution, the same as they did for the auto-routing system and we opted for the tack Merrill Lynch took. That is, if a member firm thought it was in its best interests or that of the customer, we would develop such a switch. We think it will be beneficial to them.

There will be problems. Mr. Scheuer listed some of those problems. As far as we are concerned, we think it would be beneficial to the system. We are a competitor in that system and we welcome that type of competition and we feel sure that our markets will stand up to that type of scrutiny by Merrill Lynch's system or anybody else's.

Mr. BIRNBAUM. I would say ditto to what Mr. Phelan said.

Brokerage firms should develop what they feel is in their competitive interest, rather than one universal system that everybody has to go on. If Merrill Lynch has developed this, we think that is fine.

Mr. WETHERILL. I have nothing further to say.

Mr. RICKERSHAUSER. Basically you have that system.

Mr. WETHERILL. Yes.

Mr. RICKERSHAUSER. Right.

Mr. WETHERILL. Yes.

Mr. RICKERSHAUSER. We do too.

Mr. OPPER. You have Pace or Comex?

Mr. RICKERSHAUSER. We have 300 shares, I understand from their testimony in a paper that we didn't see that, they are starting out at 100 shares, I am sure it won't go to 10,000.

Mr. OPPER. Do you think this will create any competitive pressures for you to meet the system?

Mr. LUPIEN. I personally think it would and I frankly looked at it with great interest because it is pretty frustrating to be on a regional exchange and have the best bid or best offer and have to go through a lot of machinations to attract that order flow to you.

Mr. SCHEUER. Is that what you call intervention in the decision-making process?

Mr. LUPIEN. Might be.

Mr. RICKERSHAUSER. What he means is he has to do a lot of leg work and selling to get that order flow.

Mr. SCHEUER. Is that not a matter to get away from?

Mr. RICKERSHAUSER. I agree.

Mr. SCHEUER. How come after 4 years we still have it? We embraced the principle of a national market system. Why are we still hassling around with all of these impediments and inefficiencies?

Mr. RICKERSHAUSER. My view is, of course, that Congress in its wisdom could not tell us to go to a national marketplace, which is as everybody thought it would be, so in support of Mr. Phelan's statement one of anything is not good, where you have two or more it takes more time, I think the price is worth it.

Mr. SCHEUER. You distinguish between national market system and national marketplace?

Mr. RICKERSHAUSER. I thought the Congress made that decision and there was a good bit of discussion before it enacted its law that might have gone another way.

Mr. WALBERT. I think there is a critical distinction between a national market system and a national market place.

Mr. NIEHOFF. I was delighted to hear Merrill's announcement. They are doing a lot of work in this area of the national market system, and I intend to visit with them in the next several weeks to understand how the switch works and how we can work with them.

Mr. PUTNAM. From my point of view, we feel it is a good experiment and we are looking forward to seeing how it operates. We feel once adequate facilities are in place we should be able to compete in a better manner to get some of that order flow as long as our marketmakers have the best price available at this particular time. Since we are firm on those prices, they are in that system.

Mr. SCHEUER. Mr. Opper.

Mr. OPPER. It does seem to be troublesome. Merrill Lynch testified that it cost somewhere in the neighborhood of $80,000 to develop the system. Can we assume that any other firm that wants to compete with Merrill Lynch will have to expend at least those kinds of funds, and probably more, if they do not have in place the very sophisticated systems that Merrill Lynch already has.

Mr. WEATHERILL. Most of them do have a system or use ADP. There are plenty of switches around.

Mr. OPPER. Would it probably cost the individual firm at least $80,000?

Mr. RICKERSHAUSER. I do not think you can assume that.

Mr. OPPER. Some firms may be able to do it less expensively than Merrill Lynch?

Mr. RICKERSHAUSER. Well, Philadelphia, ourselves, are offering that competing system.

Mr. PHELAN. I think that through ITS, some firms may not choose to do this—once they enter into a marketplace through the ITS mechanism, which we hope is becoming more and more efficient, that that decisionmaking process can be taken away from them and transferred to their agent and through the ITS system. So it is not necessary, although they may think that they would like to have it, OK, for them to do that, and for the firms that do it that is a double check. For the firms that do not do it, they still have that alternative, once they come into a marketplace, to access any other marketplace through ITS.

Mr. PUTNAM. I think one of the things to take a look at, designing a decisionmaking process within your own firm, really replacing, if you like, the trade-in, in the small firm that makes a decision where he is going to send the order, I think the most important thing and the most costly thing is to figure out exactly how that order is going to leave that firm and go to the destination marketplace.

We have the SIAC message switch right now which many firms utilize to move orders all across the country, back and forth. I think as long as that pipeline is there, the individual back at the firm and the individual system, deciding where he is going to write the order, that is not as expensive a job as one might believe, as long as they figure out in their own firm what algorithm they want to put into a computer system. It is to make sure that we all have and all the competing market centers have access to the main line, bringing that order to the right exchange or over the counter, that really is the costly part of the whole process.

Mr. OPPER. Thank you very much.

Ms. SEDDON. I do have some questions, but I do not want to be responsible for stampeding this crowd that must be hungry for lunch. If you would just hold the record open, we will plan to submit some additional questions by letter.

Mr. SCHEUER. Mr. Stewart.

Mr. STEWART. No questions.

Mr. SCHEUER. All right, then we will hold the record open to provide some written questions and we hope to get the answers back expeditiously.

[Testimony resumes on p. 432.]

[The following letters were sent to witnesses, with only the New York Stock Exchange responding in time for publication. Replies from the American Stock Exchange and the National Association of Securities Dealers are available for review at the subcommittee office. No reply was received from the Pacific Stock Exchange.]

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ACTING CHIEF CLERK AND STAFF DIRECTOR

Congress of the United States
House of Representatives
Committee on Interstate and Foreign Commerce
Room 2125, Rayburn House Office Building
Washington, D.C. 20515

October 16, 1979

Mr. William M. Batten
Chairman of the Board
New York Stock Exchange, Inc.
11 Wall Street
New York, New York 10005

Dear Mr. Batten:

Thank you for your participation in the hearings held by the Subcommittees on Oversight and Investigations and Consumer Protection and Finance regarding the progress towards the development of a national market system. The hearings were useful to the Subcommittees in understanding recent developments related to the implementation of the Securities Acts Amendments of 1975.

As a supplement to the record, we would appreciate your comments regarding the following matters. To facilitate printing of the record, we would appreciate receiving your answer by November 13, 1979.

- In your testimony, you described in general terms the proposed Limit Order Information System ("LOIS") which will provide some sort of limit order protection among the participants within the Intermarket Trading System ("ITS"). Please provide the Subcommittees with a more detailed description of how the system will work.

- In providing that description, you may find it useful to review the portion of the transcript from the day subsequent to your testimony in which there was discussion with the Securities and Exchange Commission regarding the proposed LOIS. (See attachment). We would appreciate your comments regarding the questions raised with the Securities and Exchange Commission. Please be specific as to what orders will go into the system, and which orders will not go into the system; as to who will and will not have access to those orders; and requirements as to executions against the central file. In response to a question from Chairman Eckhardt on September 24, Mr. Phelan indicated that "the customer" decides which orders ought to be protected. Please be more specific. How will this take place? What will be the practical effect in terms of the types and numbers of limit orders that will be protected system wide, and the types and numbers of orders that will not be protected system wide?

- In your testimony, you also mentioned the development of a plan for "enhancing market maker competition" within your own market. Please provide more details regarding the operation of that system. What are the benefits that will flow from stimulating additional market making in your market? You have described your current thinking as making it possible "for firm bids and offers in listed stock to be entered directly onto the trading floor from both member firm and non-member firm offices by way of a keyboard CRT device." Please be more specific as to what will happen to those bids and offers at the trading floor. Will upstairs market makers participating in the system be able to compete directly with other market makers in the ITS system? If so, how? If not, why not?

- Please describe the role of the market maker currently acting on the floor of the exchange. For each of the functions described, how often does the market maker perform those functions? How will the role of the upstairs market maker compare to the role of the market maker actually on the floor of the exchange?

- Please describe how the Designated Order Turnaround System operates. What percentage of the orders received are actually matched up with bids and offers in the crowd at the time the order is received at the specialist's post? If there is not actually a bid or offer in the crowd at the time, what happens to the order?

- What is the current status of the discussions with the National Association of Securities Dealers, Inc., ("NASD") regarding connecting the NASD with ITS? What effect, if any, does the Exchange's proposal with respect to upstairs market makers have on these discussions?

- How much money has been spent in the development of the Intermarket Trading System? How are the costs of the development and operation of the system paid for?

- In the past, the Exchange has voiced grave concerns about the possibility of internalization and this is one of the fundamental reasons for keeping Rule 390. Also, the Exchange does not favor a national market system with time priority. If a national market system is developed without time priority, how can internalization be avoided?

- If we are to be concerned about the potential abuses in internalization where a broker for public orders acts also as dealer, should we also be concerned about the specialist who acts as market maker, agent for orders left on the book as well as agent for DOT orders? It would be helpful if you could describe the process that now takes place on the floor where the specialist is acting in all three capacities.

- At the bottom of page twenty-one, your testimony mentions "the uncomfortably high potential inherent in the off-board trading rule experiment (19c-3) for impairing auction-type trading...". Would you explain what that means, with examples?

Thank you for your cooperation. If you have any questions please feel free to contact us, or the Committee staff: Kathryn Seddon, Counsel to the Subcommittee on Oversight and Investigations at (202) 225-5365 or Franz Opper, Counsel to the Subcommittee on Consumer Protection and Finance at (202) 225-7790.

Sincerely,

James Scheuer
Chairman
Subcommittee on Consumer
Protection and Finance

Bob Eckhardt
Chairman
Subcommittee on
Oversight and Investigations

THE New York Stock Exchange

William M. Batten
Chairman and
Chief Executive Officer

November 13, 1979

Hon. Bob Eckhardt
Hon. James H. Scheuer
House of Representatives
Committee on Interstate and Foreign Commerce
Room 2125, Rayburn House Office Building
Washington, D.C. 20515

Dear Congressmen Eckhardt and Scheuer:

The Exchange was pleased to learn from your letter of October 16 that the Subcommittees on Oversight and Investigations and Consumer Protection and Finance found our participation in the September joint Subcommittee hearings helpful. And we are pleased to respond to your request for additional information to supplement the hearing record with respect to developments related to the implementation of the Securities Acts Amendments of 1975.

Our responses will follow the sequence of questions posed in your letter.

In your testimony, you described in general terms the proposed Limit Order Information System (LOIS) which will provide some sort of limit order protection among the participants within the Intermarket Trading System (ITS). Please provide the Subcommittee with a more detailed description of how the system will work.

In providing that description, you may find it useful to review the portion of the transcript from the day subsequent to your testimony in which there was discussion with the Securities and Exchange Commission regarding the proposed LOIS. We would appreciate your comments regarding the questions raised with the Securities and Exchange Commission. Please be specific as to what orders will go into the system and which orders will not go into the system; as to who will and who will not have access to those orders; and requirements as to executions against the central file. In response to a question from Chairman Eckhardt on September 24, Mr. Phelan indicated that "the customer" decides which orders ought to be protected. Please be more specific. How will this take place? What will be the practical effect in terms of the types and numbers of limit orders that will be protected systemwide, and the types and numbers of orders that will not be protected systemwide?

The ITS Participants have made substantial progress since September in refining the LOIS concept and in working out procedural details of the pilot program we expect to inaugurate in September 1980. As we have explained to the SEC, the purpose of the pilot is to develop an effective method for systemwide protection of limit orders -- and changes will inevitably be made as the program evolves. Work is continuing in all areas, in accordance with a number of preliminary assumptions:

. Each participant exchange is currently determining how it will gather limit orders and prepare summaries to be transmitted by it to LOIS. Each such exchange will also be free to determine whether or not all of its limit orders will be summarized and sent to LOIS, or whether it will impose a size restriction or a restriction based on the type of limit order -- whether principal or agency. While each participant exchange will be free to decide such matters for its own market center, the LOIS facility will have the capability of receiving limit order summaries without restrictions. Thus, the new system will not itself impose any size or type restriction.

. LOIS will receive limit order summaries from each of the six participating exchanges, aggregate them, and produce a dynamic display that will be available on the trading floor of each exchange. Upon inquiry, that display will show the total number of shares covered by the LOIS-entered limit orders below or above the current market at 1/8-point increments. We now anticipate that the display will be able to show cumulative totals of such shares displayed at various incremental prices, as well as individual market center totals.

. A LOIS display will be installed at the Specialist location or trading post where a particular stock is traded, so that any Floor member contemplating a trade "away from the market" can conveniently

access the display and obtain a hard-copy printout.

. When a member wishes to effect a transaction away from the market that will necessitate price protection for limit order summaries displayed by LOIS, he will be required to view the LOIS display to determine the extent of his obligation to provide price protection. Once the member who intends to effect the transaction away from the market has determined the number of shares that will be required to satisfy the limit orders summarized in LOIS and entitled to protection, he will reserve the required number of shares and effect a transaction involving the balance. It should be borne in mind that LOIS simply displays the summary of limit orders received from ITS participants and is not involved in the transaction process; thus, the transaction being effected away from the market will continue to take place in the auction crowd, and existing Floor procedures and rules governing such transactions will prevail at each ITS participant exchange. The transaction will be reported to the Consolidated Transaction Reporting System in the normal fashion.

. Promptly after the away-from-the-market trade has been effected, commitments to satisfy the limit orders which were protected will be sent, through ITS, to each of the exchanges from which a protected limit order was sent to LOIS.

. Consistent with general ITS procedures, the Specialist will receive all commitments sent to satisfy limit orders displayed by LOIS and will be responsible for taking action to accept or reject such commitments. The participating exchange where a commitment is accepted, will report the transaction to the tape, and will be responsible for updating its summary to LOIS. A rejection of a commitment, resulting from prior cancellation or execution of orders included in

the summary display --which we expect to be minimal-- must be communicated promptly back to the market center initiating the commitment.

. All broker-dealers on the Floors of all the participating exchanges --either exercising their judgment as agents or at the direction of their customers-- can have their limit orders included in summary information sent to LOIS. All orders summarized in LOIS --from any participating market center-- will be protected.

While the procedures described above summarize the basic operation of LOIS as currently envisioned, our experience in developing other automated systems indicates that we can expect constructive suggestions from users and others. Thus, in the weeks ahead, we will continue to hold discussions which could result in changes to the present plan.

In your testimony, you also mentioned the development of a plan for "enhancing market maker competition" within your own market. Please provide more details regarding the operation of that system. What are the benefits that will flow from stimulating additional market making in your market? You have described your current thinking as making it possible "for firm bids and offers in listed stock to be entered directly onto the trading floor from both member firm and non-member firm offices by way of a keyboard CRT device." Please be more specific as to what will happen to those bids and offers at the trading floor. Will upstairs market makers participating in the system be able to compete directly with other market makers in the ITS system? If so, how? If not, why not?

Our present plans call for beginning a pilot test of the proposed Competitive Market-Maker system early in 1980. We presently expect to begin the pilot with about five member firms and five listed stocks, and we will soon begin soliciting interest from member firms, with the goal of attracting a suitable mix of local, regional and national firms -- both retail and institutional. Subject, of course, to experience gained during that test, we plan to expand the test by gradually phasing in additional firms and stocks -- with the over-all objective of building a strong new element of market-making competi-

tion into the evolving National Market System.

As is the case with the projected LOIS pilot --and, indeed, any pilot program-- we anticipate that experience with the pilot will provide insights and prompt changes as the pilot evolves. As currently envisioned, however, the system will operate as follows:

- The off-Floor market-maker will be able to enter dealer bids and offers to the NYSE trading floor via a CRT in his office.
- Those bids and offers will be received by a CRT at the post on the trading floor where the individual stock is traded.
- The cumulative best quotation --including bid and offer sizes-- will be displayed by a CRT at the post.
- The off-Floor market-maker's bids and offers, when they represent the best NYSE quotation, will become part of the over-all NYSE quotation that is disseminated over the Consolidated Quotation System to quotation vendors and displayed on video screens in all ITS participating market centers.
- Since the off-Floor market-maker's bids and offers will be part of the NYSE quotation in any given stock, any broker-dealer in the trading crowd at the NYSE --as well as any broker-dealer in any other ITS market center-- will be able to hit the bid or take the offer of an off-Floor market-maker.
- Immediately after an order involving an off-Floor market-maker's bid or offer is executed, an execution report will be returned to the market-maker via the same CRT network that brought the order directly to the Floor.

We are now preparing, and reviewing with the appropriate committees and prospective users, detailed operational procedures to be used during the pilot test. These include procedures for enter-

ing and receiving off-Floor market-makers' bids and offers, integrating those bids and offers into the Exchange auction market and ITS, and reporting executions back to the market-makers. We are also developing and reviewing regulations that will govern the pilot test, with particular attention to structuring them to enable upstairs firms to compete with dealers on the Floor with as few changes as possible in their current operations.

The essential objective of the pilot is to begin developing an efficient means to enable market-makers off the Floor of the Exchange to integrate their capital and market-making talents --if they wish-- with current market-making activities on the Floor and, thereby, to enhance the over-all quality of markets in our marketplace. And we anticipate that the test will provide operating experience and data --as well as comments and suggestions from participants-- that will enable us to evaluate the system and determine whether and how it might be expanded.

An important feature of the proposed system is that participating upstairs market-makers will be able to compete directly not only with market-makers on the NYSE trading floor but also with other market-makers in any of the ITS participating market centers.

Please describe the role of the market maker currently acting on the floor of the exchange. For each of the functions described, how often does the market maker perform those functions? How will the role of the upstairs market maker compare to the role of the market maker actually on the floor of the Exchange?

Two types of market-makers are currently active on the Floor of the Exchange -- Specialists and Registered Competitive Market-Makers.

A Specialist is accountable to the Exchange for the quality of the Exchange markets in each of the securities in which he is registered; and he is responsible for maintaining liquid and continuous two-sided markets in each of those securities on the Exchange Floor. He accomplishes this by acting as both agent and principal in those securities, in accordance with SEC and Exchange rules and policies, helping to assure that the market in each of his specialty stocks is fair, orderly and conducted in the public interest.

One of the Specialist's functions is to act as an agent for other brokers on the trading floor who hold customers' limit orders in his specialty stocks. If an order cannot be executed immediately at the specified price --or at a better price-- when the customer's broker-agent represents it in the crowd at the trading post, the broker may ask the Specialist to enter the order in his limit order book and to execute it whenever it becomes possible to do so. The Specialist thus relieves the customer's broker of the need to remain at the trading post until the specified limit price is reached, freeing him to handle business for other customers elsewhere on the trading floor.

As a dealer, the Specialist is required, within reasonable limits, to improve the market in his assigned stocks whenever there is a temporary imbalance between supply and demand for any of those stocks. He does this by trading against the trend of the market -- buying for his own account when others are selling, and selling from his own account when others are buying. In dealing from his own account, he must also act to minimize price fluctuations from one trade to the next.

The Specialist also acts as an auctioneer in his assigned stocks for the 76% of shares that are traded without his intervention as a dealer. In performing this function, he sees to it that all public orders have an equal opportunity to interact. Part of this job involves arranging orders to assure that all buyers and sellers can obtain a fair market price at the start of each trading session -- or when trading resumes after a delayed opening or trading halt caused by unusual circumstances that might prospectively affect the market price of one of his specialty stocks.

Finally, the Specialist serves as a market catalyst in helping to bring buyers and sellers together. He stands at the hub of the market in his assigned stocks, seeing to it that order traffic in those stocks moves smoothly. He also serves as an information base for other brokers who, in helping their own customers get better prices, may need to know whether another broker-agent wants to buy or sell a particular stock and, if so, how many shares and at what price.

The Specialist performs each of his functions throughout each trading day -- for example, making continuous two-sided markets in his specialty stocks, and dealing, when necessary, from his own account to minimize short-term disparities between supply and demand for any of those stocks on an "as needed" basis that is subject to and determined by market conditions at any given time. Of course, each Specialist's performance of his functions varies from one stock to the next. Where a stock normally attracts a significant measure of public interest and order flow, a Specialist is likely to spend more time fulfilling his agency responsibilities; a less active stock will normally require him to spend more time acting as a dealer.

Unlike the Specialist, the Registered Competitive Market-Maker does not register in particular securities; rather, he may be called upon at any time to help improve the market for any security traded on the Exchange.

In general, RCMMs form a corps of supplemental market-makers who commit risk capital to strengthen the quality of Exchange markets in terms of added depth, liquidity and continuity; to assist in maintaining fair and orderly markets; and to add an extra dimension of market-making competition on the Exchange Floor.

RCMMs are obliged to trade for their own or their firms' accounts --when called upon by an Exchange official-- by making a bid or offer in any stock that will narrow the existing quote spread or improve the depth of an existing quote. An RCMM may also be asked to assist a commission broker or a floor broker in executing a customer's otherwise unexecutable order.

The activities of RCMMs are subject to specific limitations. For example, an RCMM may act as either a broker or a dealer, but not as both in the same stock during a single trading session. In his capacity as a broker, he may only accept market or limit orders -- he may not accept any so-called "not held" order. And of course, his broker and dealer activities are subject to the same rules and regulations that apply to other brokers and dealers on the Exchange Floor.

As in the case of the Specialist, the amount of time an RCMM devotes to each of his duties and obligations is subject to many variables.

Please describe how the Designated Order Turnaround System operates. What percentage of the orders received are actually matched up with bids and offers in the crowd at the time the order is received at the specialist's post? If there is not actually a bid or offer in the crowd at the time, what happens to the order?

The Designated Order Turnaround System (DOT) receives orders from member firm branch offices across the country at the appropriate trading post on the Exchange Floor. The order is time-stamped and numbered before an Exchange employee takes the order from the printer and gives it to the Specialist at the post.

The Specialist, acting as agent for that order, exposes it to the trading crowd at the post and to all other NYSE orders in the stock. The Specialist effectively guarantees the current quote while attempting to better it, thereby assuring that DOT market orders have the same competitive status as all orders represented in the trading crowd. In the case of DOT limit orders, the Specialist enters them in his book behind any other orders previously entered at the same price.

When an order is executed, the Specialist issues an execution report, by means of a "mark-sense" card, which is immediately transmitted back to the originating member firm office.

The Specialist may also attempt to get a better execution for a DOT order by checking the other ITS participant markets -- and specific changes have been incorporated into the mark-sense cards to facilitate reporting DOT executions effected in other market centers through ITS.

Although we have not made a formal study of the frequency of DOT executions, our best estimate, based on the opinions of DOT users, is that between 70% and 80% of DOT orders are traded either with other orders in the trading crowd or with public limit orders on the Specialist's book.

As I believe you know, there must always be a bid and offer available for any issue traded on this Exchange. The Specialist is

obliged to provide a bid and offer in the absence of bids and offers in the trading crowd or orders on the book. Moreover, to assure that Specialists fulfill their obligations to maintain "fair and orderly markets" in their specialty stocks, NYSE Rule 104 requires that Specialists' quotes must be reasonably related to the preceding transactions in those stocks. The NYSE Market Surveillance staff continuously monitors compliance with this and all other NYSE trading rules.

What is the current status of the discussions with the National Association of Securities Dealers, Inc. (NASD) regarding connecting the NASD with ITS? What effect, if any, does the Exchange's proposal with respect to upstairs market makers have on these discussions?

Following some four months of negotiations with the NASD, and discussions with the ITS Operating Committee, the Exchange wrote to the NASD, detailing the open items relevant to the proposed six-month pilot program for NASD participation in ITS. At the same time, we outlined the essential features of our proposed Competitive Market-Maker Pilot.

While stressing the desirability of NASD participation in the evolving national market system, we raised the question of whether this might best be accomplished through an ITS/NASD interface or through the proposed Competitive Market-Maker Pilot.

With respect to the possibility of a pilot interface with ITS, we noted six open items:

1. How to finance a "quote concentrator" that would aggregate the various third-market-maker quotations into an NASD "best" quote to be displayed in the other ITS market centers.

2. The possible need to revise existing off-board trading rules to permit exchange members to send principal commitments to over-the-counter participants in ITS.

3. Permanent or temporary plans for an NASD Service Center where incoming commitments could be received, outgoing commitments sent, and responses and reports generated.

4. The need to amend certain NASD rules to assure compliance with the ITS Plan.

5. The need to finalize an agreement which each NASD market-maker would sign with the NASD, binding the firm to the ITS Plan and NASD rules.

6. Various unresolved issues relating to the latest draft of the ITS Plan.

We also pointed out that while the Exchange had not contemplated developing the Competitive Market-Maker Pilot when discussions of NASD participation in ITS began, the new concept could significantly influence any decision to proceed with the proposed six-month NASD/ITS Pilot.

The NASD responded on September 28, stating that:

- Manual interface between the NASD and ITS is unacceptable.
- The NYSE's proposed Competitive Market-Maker Pilot does not meet the requirements of NASD market-makers.
- As an alternative, the NASD would develop a direct computer interface and build a quote concentrator to release a consolidated third market quotation to SIAC, the ITS processor.

We are currently working with the NASD to understand their alternative and time schedule. Based on our preliminary assessment, open items 2, 4, 5 and 6, above, would continue to be open with the alternative. Our discussions with the NASD are continuing on a high-priority basis.

How much money has been spent in the development of the Intermarket Trading System? How are the costs of development and operation of the system paid for?

The total development costs of the Intermarket Trading System, from its inception through July 31, 1979, were $1,111,600. These costs were shared --as are operating costs-- according to the ITS Plan, as follows:

New York Stock Exchange	86.0%
Pacific Stock Exchange	5.5%
Midwest Stock Exchange	3.1%
American Stock Exchange	3.1%
Philadelphia Stock Exchange	1.5%
Boston Stock Exchange	0.8%

All ITS-related costs incurred by the New York Stock Exchange, including development and production, were funded with general revenues. The Exchange has levied no specific ITS charge.

In the past, the exchange has voiced grave concerns about the possibility of internalization and this is one of the fundamental reasons for keeping Rule 390. Also, the exchange does not favor a national market system with time priority. If a national market system is developed without time priority, how can internalization be avoided?

Juxtaposing our separate positions against internalization and giving orders precedence based on "time priority" underscores the need for clarification in these areas.

The Exchange first expressed opposition to the "time priority" concept in response to an SEC Release (No. 34-14416, dated January 26, 1978) calling for the development of a Central Limit Order File (CLOF) as a means of protecting public limit orders in a national market system environment. The Release described such a file as "a mechanism in which public limit orders can be entered and queued for execution in accordance with the auction trading principles of price and time priority and by means of which such orders can be assured of receiving an execution prior to the execution of any order by a broker or dealer in any market at the same or an inferior price..."

In detailing the Exchange's opposition to a CLOF approach to protecting public limit orders (in a letter to the SEC, dated May 31, 1978) we pointed out that:

> "Achievement of CLOF-type protection would require or lead inexorably to the centralization of the securities markets, rather than to the desired linking of competing market centers -- and to the creation of a monolithic mechanism that would force trading into a single computerized mold, diminishing competition among market centers and, ultimately, threatening their continued existence.

"[T]here is an inconsistency between the limit order protection that might be achieved by a CLOF and the several statutory objectives set forth in Section 11A of the Act which call for 'fair competition among brokers and dealers, among exchange markets, and between exchange markets and markets other than exchange markets' and '[t]he linking of all markets for qualified securities through communication and data processing facilities...[so as to] enhance competition... facilitate the offsetting of investors' orders, and contribute to best execution of such orders.'

"CLOF would give absolute but discriminatory priority to a single subset of public orders -- i.e., limit orders that are entered into the file -- to the great disadvantage of other public orders. This approach ignores the fact that entry of public limit orders into the book is only one of many trading strategies now available to the public.

"In a CLOF environment, public limit orders given to a broker on an exchange floor for execution in the public auction trading crowd would not be protected even if they reached the crowd ahead of an order entered in CLOF.

"Rather than giving all public orders in qualified securities the benefits of auction-type trading protections, CLOF would, in fact, specifically deny such protections to a great number and variety --perhaps the majority-- of public orders.

"[CLOF would] operate to force all trading into the CLOF mold by promising discriminatory benefits for only those orders entered into the file.

"CLOF would subordinate all other trading strategies to one strategy -- to the pre-pricing of orders and entering them into the file.

"The notion of a market in which all orders are pre-priced calls for centralizing the mechanics of the marketplace while dispersing the judgments. It suggests that the public derives no benefit from the judgments of professionals as to what constitutes appropriate pricing under any specific set of market circumstances.

"Acceptance of the concept of the supravening nature of limit orders would impair the flexibility of the auction markets, thus eroding and probably destroying the viability of the auction trading crowds. The ultimate effect, of course, would be to seriously weaken and lead to the demise of the exchange markets themselves -- as a direct consequence of trying to provide absolute time/price protection for a single category of orders."

The NYSE has not only pointed out the dangers inherent in a CLOF but we have also described, on several occasions, the pressing need

to resolve the issue of internalization before eliminating the existing off-board trading restrictions.

A trading system that incorporates strict time priority (such as a CLOF) would not necessarily resolve --or even address-- the internalization problem. That problem will continue to exist as long as the trading system permits a dealer to fill his customer's order for his own account, without first exploring the possibility of obtaining a better execution in the auction market.

A dealer could simply trade against his customer's order by entering that order in the CLOF at a price that would make it, momentarily and marginally, the "best" price. He could then immediately execute against it by entering an order for his own account at the same price. Thus, the dealer would internalize by trading against the customer's order without exposing it to the interests of others in the market. But if, instead, the dealer would expose the customer's order to the auction crowd, in accordance with long-standing trading rules such as those administered by the NYSE, the customer might very well receive a better execution without the unnecessary intervention of any dealer. (In other words, a public customer on the other side of the trade might have obtained an execution without having to pay the dealer's "turn.")

The Exchange believes that if the national market system objectives called for by Congress in Section 11A of the 1934 Act are to be achieved, it will be essential to address the internalization issue constructively and to require broker-dealers to expose their customers' orders to the total contra-interest, at any given moment, in the interlinked auction markets.

If we are to be concerned about the potential abuses in internalization where a broker for public orders acts also as a dealer, should we also be concerned about the specialist who acts as market maker, agent for orders left on the book as well as agent for DOT orders? It would be helpful if you could describe the process that now takes place on the Floor where the specialist is acting in all three capacities.

The most significant dangers of internalization are:

1) The potential for market fragmentation -- i.e., for broker-dealers to execute their customers' orders in-house without allowing those orders to interact with the orders of other firms' customers, to the obvious detriment of the auction market process; and

2) The potential for "overreaching" -- which the SEC has defined as "...the possibility that broker-dealer firms might take advantage of their customers by executing retail transactions as principal at prices less favorable to those customers than could have been obtained had those firms acted as agent."

Although Exchange Specialists regularly act as both brokers and dealers, the dangers of internalization are precluded by the array of specific rules which govern Specialists' activities. The key rules here are Exchange Rules 91 and 92 which, in fact, apply to all members representing orders in the trading crowd, and the Specialist's specific "negative obligation."

Under Rule 91, the Specialist is prohibited from dealing from his own account in a specialty stock in which he holds an order unless he has first exposed that order to the open market. This assures that other brokers in the crowd --who may also be representing public orders-- can participate in the trade ahead of the Specialist, thereby optimizing the potential for public orders to meet and be executed without the intervention of a dealer.

Rule 92 prohibits the Specialist from competing with orders that have been entrusted to him for execution. Essentially, this

rule provides that:

1) No member may buy stock for an account in which he has an interest while he is holding a customer's unexecuted order to buy the same stock "at the market," and

2) No member may buy stock at a specified price for an account in which he has an interest while he is holding a customer's unexecuted "limited price" order in that stock which is capable of being executed at that price.

The same principles apply to any situation in which the Specialist holds customers' orders to sell any stock in which he is registered as a dealer.

In other words, Rules 91 and 92 assure that the Specialist's agency obligations take precedence, at all times, over his dealer activities.

The Specialist's "negative obligation" prohibits him from dealing in a specialty stock for his own account --either buying or selling-- unless such dealings are necessary to assist in maintaining a fair and orderly market in the stock. This limitation on Specialists' dealer activities supplements Rules 91 and 92 and does not, in any way, provide any exception to them.

DOT orders which are entrusted to the Specialist must be executed in accordance with all of these rules and requirements and all other rules and requirements governing the handling of orders on the Exchange trading floor -- including, for example, due diligence in execution; the "crossing" procedures set forth in Exchange Rule 76 (where a Specialist may be acting as agent for both a buy order and a sell order); the practice of a Specialist "stopping" an order (i.e., guaranteeing the order a particular price) while he attempts to obtain a better price for the order in the open market; and so on.

At the bottom of page 21, your testimony mentions "the uncomfortably high potential inherent in the off-board trading rule experiment (19c-3) for impairing auction-type trading..." Would you explain what that means, with examples?

The Exchange has long recognized --and we believe most economists share this view-- that an efficient auction pricing mechanism, particularly for securities that are actively traded, requires that all buying and selling interests have the opportunity to meet and interact, so that the price at which the security trades reflects the full and complete forces of supply and demand.

Indeed, this principle is fundamental to the operation of organized national securities exchanges in this country.

The trading system employed on the Exchange floor --whereby all brokers and dealers who are interested in trading a particular security gather at a single trading post and compete in a two-way auction to establish the highest bid and the lowest offer to determine the price at which a trade will occur-- permits that essential interaction among orders, and helps maximize the efficiency of the auction market.

The key danger of proposed SEC Rule 19c-3 is that allowing unrestricted over-the-counter trading in securities listed on an exchange after April 26, 1979, without any compensating constraints with respect to market-making obligations --and without resolving the internalization issue-- would set the stage for changing the entire securities trading environment in ways that cannot be anticipated. And we believe this thoroughly invalidates the claim that the rule would simply be an "experiment" having "limited impact." We disagree that an unpredictable impact can be characterized, in advance, as "limited."

The Rule 19c-3 proposal does not define a purpose or a conclusion to be tested. It does not analyze the costs, risks and possible consequences of the "experiment." And it offers no means of monitoring the consequences, or of collecting and analyzing any data on which future decisions might be based. The proposal does, we believe, have very serious implications for the emerging national market system.

If the Rule 19c-3 experiment is adopted, and a significant amount of off-board trading results in the stocks subject to the experiment, the internalization of trading will automatically withhold a significant proportion of orders in those stocks from --and significantly impair-- the auction trading process. We anticipate, for example, that a reduction of order flow to the auction will result in exchange quotations with wider spreads between the bid and asked prices and deprive the auction market in those stocks of significant depth and continuity.

Also, to the extent that a sale might occur in the over-the-counter market at a price less favorable than the price buyers in the auction were willing to pay, both the buyer and the seller will be disadvantaged. The seller will obviously receive less for his stock; and the buyer will lose the opportunity to acquire the stock even though he was willing to pay a higher price than the seller obtained.

Apart from these very important and practical public interest considerations, it is clear that reducing the opportunity for public orders to meet and interact without the intervention of a dealer would frustrate one of the specific key goals of a National Market System that Congress so clearly identified in the Securities Acts Amendments of 1975. Moreover, the proposed Rule 19c-3 "experi-

ment" would promote even greater market fragmentation than we have today -- a result that would be diametrically opposed to the entire concept and purpose of a National Market System.

We believe, in short, that the risks of the proposed Rule 19c-3 "experiment" are unacceptably high in relation to the comparatively modest benefits that even the proposal's supporters suggest it might produce -- benefits that we do not believe would result from such an "experiment."

Because this issue is so crucial to the ongoing development of a National Market System, I am taking the liberty of enclosing a copy of the Exchange's July 22, 1979 letter to SEC Chairman Harold M. Williams, in which we responded to the written and oral presentations of other participants in the June 1979 hearings held by the Commission on the subject of off-board trading rules and proposed Rule 19c-3. And I request that this enclosure be included in the joint Subcommittee hearing record as part of the present response.[1/]

I hope the Subcommittees will find our responses to your specific questions helpful in the full context of continuing progress toward the goals of a National Market System. We stand ready, of course, to respond to any additional questions, or to provide any additional information you may wish.

Very truly yours,

William Batten

[1/] This material is available for review in the subcommittee files.

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ACTING CHIEF CLERK AND STAFF DIRECTOR

Congress of the United States
House of Representatives
Committee on Interstate and Foreign Commerce
Room 2125, Rayburn House Office Building
Washington, D.C. 20515

October 16, 1979

Mr. Robert J. Birnbaum
President
American Stock Exchange, Inc.
86 Trinity Place
New York, New York 10006

Dear Mr. Birnbaum:

Thank you for your participation in the hearings held by the Subcommittees on Oversight and Investigations and Consumer Protection and Finance regarding the progress towards the development of a national market system. The hearings were useful to the Subcommittees in understanding recent developments related to the implementation of the Securities Acts Amendments of 1975.

As a supplement to the record, we would appreciate your comments regarding the following matters. To facilitate printing of the record, we would appppreciate receiving your answer by November 13, 1979.

- In your testimony, you praised the Intermarket Trading System (ITS). You stated: "We firmly believe, however that the increased use of ITS in recent months clearly demonstrates its pivotal role in enabling brokers to obtain the best price for their customers and in stimulating competition among market makers throughout the system." Yet, the testimony submitted by the Pacific Stock Exchange was critical of the American Stock Exchange for its slowness in installing ITS terminals on the floor and of the Exchange's specialists for largely ignoring the ITS. What is the reason for such relatively small participation by the AMEX?

- Recent national market improvements you listed in your testimony included the automatic execution of odd-lot orders and round lot orders of limited size. Please explain how the automatic execution system on the American Stock Exchange operates. Are these offers and bids represented in "the crowd"? If so, how? How often do the orders get matched with offers or bids in the crowd?

- In your testimony, you stated that "there are still imporant issues to be resolved." What are these issues? What is being done to resolve them?

- The New York Stock Exchange indicated approval of the use of CRT units to allow upstairs members firms to make competitive markets through the facilities of the NYSE. Do you have any comment?

Thank you for your cooperation. If you have any questions please feel free to contact us, or the Committee staff: Kathryn Seddon, Counsel to the Subcommittee on Oversight and Investigations at (202) 225-5365 or Franz Opper, Counsel to the Subcommittee on Consumer Protection and Finance at (202) 225-7790.

Sincerely,

James Scheuer
Chairman
Subcommittee on Consumer
Protection and Finance

Bob Eckhardt
Chairman
Subcommittee on
Oversight and Investigations

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KENNETH J. PAINTER,
ACTING CHIEF CLERK AND STAFF DIRECTOR

Congress of the United States
House of Representatives
Committee on Interstate and Foreign Commerce
Room 2125, Rayburn House Office Building
Washington, D.C. 20515

October 15, 1979

Mr. Stephen Putnam
Chairman of the Board
National Association of Securities
Dealers, Inc.
1735 K Street, N.W.
Washington, D.C. 20006

Dear Mr. Putnam:

Thank you for your participation in the hearings held by the Subcommittees on Oversight and Investigations and Consumer Protection and Finance regarding the progress towards the development of a national market system. The hearings were useful to the Subcommittees in understanding recent developments related to the implementation of the Securities Acts Amendments of 1975.

As a supplement to the record, we would appreciate your comments regarding the following matters. To facilitate printing of the record, we would appreciate receiving your answers by November 12, 1979.

- In your testimony, you referred to the importance of competition among market makers. What is the role of the market maker today in the over-the-counter market? on the exchanges? What should be the role of the market maker in the new national market system? From the perspective of investor protection and the maintenance of good markets, what obligations, if any, should be imposed on market makers?

- What is the status of discussions regarding the interconnection of the National Association of Securities Dealers, Inc., with the Intermarket Trading System? What is the status of necessary discussions regarding the proposed linkage of the National Association of Securities Dealers, Inc., through an order routing switch with the Securities Industry Automation Corporation message switch?

- Can you provide the Subcommittees with an estimated time frame in which the facilities described at the hearing to be developed by the National Association of Securities Dealers, Inc., will be completed?

- On page seven of your testimony you stated that because the ITS "links marketplaces to each other and not broker dealers to marketplaces and requires the manual reentry of orders received in a marketplace before processing," it cannot be relied on to distribute large volumes of orders. Would you elaborate on that? Can you suggest how that might be remedied?

Thank you for your cooperation. If you have any questions please feel free to contact us, or the Committee staff: Kathryn Seddon, Counsel to the Subcommittee on Oversight and Investigations at (202) 225-5365 or Franz Opper, Counsel to the Subcommittee on Consumer Protection and Finance at (202) 225-7790.

Sincerely,

James Scheuer
Chairman
Subcommittee on Consumer
Protection and Finance

Bob Eckhardt
Chairman
Subcommittee on
Oversight and Investigations

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DAVID E. SATTERFIELD III, VA.
BOB ECKHARDT, TEX.
RICHARDSON PREYER, N.C.
JAMES H. SCHEUER, N.Y.
RICHARD L. OTTINGER, N.Y.
HENRY A. WAXMAN, CALIF.
TIMOTHY E. WIRTH, COLO.
PHILIP R. SHARP, IND.
JAMES J. FLORIO, N.J.
ANTHONY TOBY MOFFETT, CONN.
JIM SANTINI, NEV.
ANDREW MAGUIRE, N.J.
MARTY RUSSO, ILL.
EDWARD J. MARKEY, MASS.
THOMAS A. LUKEN, OHIO
DOUG WALGREN, PA.
ALBERT GORE, JR., TENN.
BARBARA A. MIKULSKI, MD.
RONALD M. MOTTL, OHIO
PHIL GRAMM, TEX.
AL SWIFT, WASH.
MICKEY LELAND, TEX.
RICHARD C. SHELBY, ALA.

SAMUEL L. DEVINE, OHIO
JAMES T. BROYHILL, N.C.
TIM LEE CARTER, KY.
CLARENCE J. BROWN, OHIO
JAMES M. COLLINS, TEX.
NORMAN F. LENT, N.Y.
EDWARD R. MADIGAN, ILL.
CARLOS J. MOORHEAD, CALIF.
MATTHEW J. RINALDO, N.J.
DAVE STOCKMAN, MICH.
MARC L. MARKS, PA.
TOM CORCORAN, ILL.
GARY A. LEE, N.Y.
TOM LOEFFLER, TEX.
WILLIAM E. DANNEMEYER, CALIF.

W. E. WILLIAMSON, CHIEF CLERK AND STAFF DIRECTOR

Congress of the United States
House of Representatives
Committee on Interstate and Foreign Commerce
Room 2125, Rayburn House Office Building
Washington, D.C. 20515

October 15, 1979

Mr. Charles E. Rickershauser
President
Pacific Stock Exchange, Inc.
618 South Spring Street
Los Angles, California 90014

Dear Mr. Rickershauser:

Thank you for your participation in the hearings held by the Subcommittees on Oversight and Investigations and Consumer Protection and Finance regarding the progress towards the development of a national market system. The hearings were useful to the Subcommittees in understanding recent developments related to the implementation of the Securities Acts Amendments of 1975.

As a supplement to the record, we would appreciate your comments regarding the following matters. To facilitate printing of the record, we would appreciate receiving your answers by November 12, 1979.

- You testifed that specialists on the Pacific find the Cincinnati trading system cumbersome to use. Can you be specific regarding the aspects of the system that are cumbersome?

- In your written testimony, you commented regarding the impact of the Securities and Exchange Commission's approval of the merger and expansion of the National Stock Clearing Corporation regional clearing operations. Would you please submit to the Subcommittees copies of the most relevant comments recently submitted to the Commission? The Commission has had under consideration on remand from the District of Columbia Court of Appeals two issues: geographic price mutualization and the anti-competitive consequences of the letting of a contract for services without competitive bidding. How would you evaluate the adequacy of the manner in which the Commission has examined these issues on remand? Do you have any comments regarding the substantive outcome of that reconsideration?

- You listed several problems related to the Intermarket Trading System. To your knowledge, what is being done to solve these problems?

- The New York Stock Exchange voiced approval of the use of CRT units to allow upstairs members firms to make competitive markets through the facilities of the NYSE. Do you have any comment?

Thank you for your cooperation. If you have any questions please feel free to contact us, or the Committee staff: Kathryn Seddon, Counsel to the Subcommittee on Oversight and Investigations at (202) 225-5365 or Franz Opper, Counsel to the Subcommittee on Consumer Protection and Finance at (202) 225-7790.

Sincerely,

James Scheuer
Chairman
Subcommittee on Consumer
Protection and Finance

Bob Eckhardt
Chairman
Subcommittee on
Oversight and Investigations

Mr. SCHEUER. Let me thank you all for your patience. You have been here almost 4½ hours and we very much appreciate it. It has been very thoughtful and very stimulating testimony. We are very grateful.

The hearing is adjourned.

[The following letter was received for the record:]

THE SERVICE BUREAU COMPANY
30 Montgomery Street
Jersey City, N.J. 07303
212-482-8688

October 5, 1979

The Honorable Bob Eckhardt
Chairman
Subcommittee on Oversight and Investigations
Room 1741
Longworth House Office Building
Washington, D.C. 20515

The Honorable James H. Scheuer
Chairman
Subcommittee on Consumer Protection and Finance
Room 2402
Rayburn House Office Building
Washington, D.C. 20515

Dear Congressmen Eckhardt and Scheuer:

This letter pertains to the topics of "crosses" and the physical security of Control Data's computer system and comments relating thereto which were made on September 24, 1979, during the hearings held by the Subcommittee on Oversight and Investigations and the Subcommittee on Consumer Protection and Finance of the House of Representatives' Committee on Interstate and Foreign Commerce.

The subject of "crosses" was referred to in Mr. Lupien's testimony. Mr. Lupien's concern, as we understand it, was that a block of stock was available, and because the broker who entered the block order on the Cincinnati System was also physically able to enter the other side of the transaction faster than other users of the System, other brokers and dealers did not have an opportunity to compete for the block.

Our response is that other users of the Cincinnati System had a wonderful opportunity to participate; all they had to do was to enter their bids or offers on the System in advance of the "cross". If these were equal to or better than those of the broker/dealer who eventually effected the "cross", those users would have participated in accordance with the price/time priority feature of the System. There are those, however, who apparently want to be able to sit on the fence, enjoy the luxury of keeping their options open, and then wait until the absolute last moment to make their "best" bid or offer. We see very little social purpose in creating an environment which would allow dealers this luxury. Rather we believe that a system -- such as Cincinnati's -- which operates on a "first come, first served" basis and which rewards those who step up in advance, taking the risk of placing an order in full public view, is far fairer and will ultimately create a market of greater depth and liquidity.

We would also like to point out that despite the concern expressed on this point, a specialist on another exchange has more of an opportunity to participate in such situations by using the Cincinnati System than he would if the "cross" were effected on an exchange other than his own, for the following reasons:

1. the specialist could not physically be part of the "crowd" on the floor of each exchange, although he can achieve a nationwide exposure through the Cincinnati System, and

2. even if he were part of a "crowd" in the verbal auction which takes place at a trading post, both sides of the transaction can be verbally spoken so quickly that, as a practical matter, it would be almost impossible for anyone else in the "crowd" to participate.

Therefore, we feel that the nationwide visual auction conducted on the Cincinnati System, with its price/time priority feature, should be more beneficial to brokers and dealers, including specialists on other exchanges, than participating in the verbal auction "crowd" at a single trading post.

The subject of "crosses" is complex. With the growth of our System, both through the addition of participating firms as well as expansion in the number of issues traded, there will undoubtedly be suggestions made by users regarding refinements to procedures relating to "crosses", and we will certainly be receptive to these suggestions.

In regard to physical security of the computer facility through which the Cincinnati System service is provided, reference was made to comments contained on page 15 of the Comptroller General's Report to The Congress dated September 19, 1979.

Since Control Data took over operation of the facility in February of this year, physical security has been improved including that of the power source area. The facility, powered by Public Service Electric and Gas Co., does not have its own back-up power so an outage would cause the System to go down. However, since the System began operation in June 1978, we are aware of only one power failure which affected the operation of the System and that was of very short duration. Consideration is being given to back-up power in relation to factors such as cost, zoning restrictions affecting the installation and use of diesel generators in densely populated areas, fuel storage, floor loading limitations and the like.

While the operating and back-up computers are located in the same area, this is a normal practice, and one which we understand is followed at various SIAC installations which service the New York, American and other exchanges. General operating advantages outweigh the risk involved in fire or other disasters which might make both computers inoperable.

We are constantly reviewing these and other considerations affecting overall security of the System, and we will make changes from time to time which in our judgment are appropriate.

Sincerely yours,

Peter R. du Pont

Peter R. du Pont
Vice President
Electronic Trading Services

[Whereupon, at 2:20 p.m., the subcommittees adjourned, to reconvene on September 25, 1979.]

PROGRESS TOWARD THE DEVELOPMENT OF A NATIONAL MARKET SYSTEM

TUESDAY, SEPTEMBER 25, 1979

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS, AND SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCE, COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,

Washington, D.C.

The subcommittees met, pursuant to notice, at 9:30 a.m., in room 2322, Rayburn House Office Building, Hon. Bob Eckhardt, chairman of the Subcommittee on Oversight and Investigations, presiding.

Mr. ECKHARDT. The Subcommittees on Oversight and Investigations and Consumer Protection and Finance resume their hearings regarding the progress toward the development of a national market system.

Today we are pleased to have with us the Chairman of the Securities and Exchange Commission, accompanied by his fellow Commissioners.

As you know, when we are dealing with issues of major policy we like to have, on occasion, the full Commission present. We very much appreciate your cooperation in this. We know you have much to do and we appreciate your valuable time spent on this matter.

Over the last 2 days we have heard some mixed views with respect to the positiveness and the effectiveness of the direction of the Commission. One view seems to point toward the adoption of a rather definitely chartered approach to a national market system—which I would say is something of the GAO's admonitions here. The other view points toward the evolutionary process which the committee favored in the beginning. However, I think the question still remains open. At any given period of time, the amount of direction and the amount of precision with respect to that direction, of course, must to some extent change. Therefore, our consideration of these matters I think is of extreme importance here today.

We have been repeatedly told that the development of the national market is a step-by-step evolutionary process. But we would like to get some sense of where this step-by-step process is at the present time, where it has led us, and where it is likely to lead us in the future.

With that introduction, I will do the customary thing on this Oversight and Investigations Subcommittee and swear in the witnesses.

Gentlemen, do you swear to tell the truth, the whole truth, and nothing but the truth, so help you God—and lady, also. I assume a lady would always tell the truth, the full truth, and nothing but the truth.

Mr. WILLIAMS. I do.

Mr. LOOMIS. I do.

Mr. EVANS. I do.

Mr. POLLACK. I do.

Ms. KARMEL. I do.

Mr. KLEIN. I do.

Mr. ECKHARDT. Chairman Williams, you may proceed.

TESTIMONY OF HON. HAROLD M. WILLIAMS, CHAIRMAN, SECURITIES AND EXCHANGE COMMISSION, ACCOMPANIED BY PHILIP A. LOOMIS, JR., JOHN R. EVANS, IRVING M. POLLACK, AND ROBERTA S. KARMEL, COMMISSIONERS, AND ANDREW KLEIN, DIRECTOR, DIVISION OF MARKET REGULATION

Mr. WILLIAMS. Thank you, Mr. Chairman, Mr. Devine.

If I may this morning—let me begin by noting the presence at the table with the Commission of Mr. Andrew Klein, who is Director of the Division of Marketing Regulation.

We appreciate the opportunity to appear before the subcommittees to discuss what you appropriately characterized as one of the most difficult and challenging tasks which Congress has entrusted to the Commission; namely, that of facilitating the development of a national market system.

In order to address some of the comments and inferences in your opening statement, may I request that the full text of my statement be included in the record and then I can focus on summarizing it and touching more specifically on certain points.

Mr. ECKHARDT. Without objection, that will be done. [See p. 443.]

Mr. WILLIAMS. The Commission believes that meaningful progress has been made in alleviating many of the concerns that were addressed by the 1975 act amendments, and in moving toward a truly national market system, although it is clear that much yet remains to be accomplished.

Particularly, I would note that progress toward a national market system has accelerated markedly since the last oversight hearings in 1977.

I recognize that it is difficult for Congress in its oversight function to assess whether an agency is moving fast enough in something as complex as the national market system. By the same token, it is difficult for us to establish by any objective standards that we indeed are moving fast enough.

Your opening statement puts it in part in the context of Commission rulemaking authority. I would urge that the measure of the progress of the Commission and of the development of the national market system in its totality be looked upon more in terms of progress in the marketplace, and the changes that have occurred and are occurring, rather than in terms of the extent to which the Commission may have exercised its rulemaking authority, although I would agree clearly that the rulemaking authority of the Commission is extensive.

In relation to, again, the question of whether we are moving fast enough, without arriving at any value judgment it does appear that the assessment of progress at least as it would appear from the witnesses over the last 2 days seems to break out rather interestingly between those who might be viewed as exchange base in their orientation versus those who might be more inclined toward an automated marketplace.

But regardless, if one looks at the question of the extent to which the Commission has established a course of direction, and implemented it, I would urge that we begin with the Commission's 1978 statement—February 1, 1978—and its statement of April 4, 1979.

Both of these were well considered and carefully crafted articulations of those dimensions which the Commission considered to be important facilities toward the establishment of a national market system.

In 1978 we articulated those as a composite quotation system, market linkage order routing systems, nationwide limited order protection, off-board trading restrictions, and a consolidated transaction reporting system in qualified securities.

We noted also the impact of surveillance, governance, 11(a) and clearance of settlement. I submit, Mr. Chairman, that the April 1979 statement was I think an updating of the status and progress in relation to those issues, and that since the issues remain the same, the focus in terms of facilities remains the same.

The changes either in timing or in specifics are primarily matters of phasing and responsiveness to perhaps a greater awareness of the impact on the marketplace of the timing of certain of those activities.

Considerable progress has been made, for example, and perhaps most notably, in a functioning consolidated quotation system which has long been considered a cornerstone of a national market system.

It has become operational, not totally debugged, but quotation information for reported securities is now an integral part of the Nation's securities markets.

I would suggest, Mr. Chairman, that the Merrill Lynch proposal announced last Friday is an understandable and logical follow-on of the availability of quote information and the kind of market development or the kind of development out of the private sector that one should anticipate as the facilities of the marketplace are established and evolve.

In addition, the Commission has approved two pilot linkage programs, the Intermarket Trading System and the Multiple Dealer Trading System, the so-called Cincinnati system, which evidence considerable progress in linking both traditional exchange trading floors and upstairs market makers.

On September 21 the Commission extended for 3 years both systems. The Commission's order specifically noted that those two systems and the third market should be linked through computerized interfaces.

In the March 22, 1979, status report, the Commission among other things, detailed an agenda of near-term national market system goals. In implementation the Commission has proposed three rules which would if adopted establish nationwide price pro-

tection for all display limit or public limit orders, would eliminate off-board trading restrictions with respect to newly listed securities and provide procedures for the designation of securities which are qualified for trading in a national market system.

If I may, I would request that the March 22 status report be incorporated as part of the record.

Mr. ECKHARDT. Without objection.

[The status report referred to was printed in the Federal Register April 4, 1979, 44 Fed. Reg. 20360.]

Mr. WILLIAMS. In addition, each exchange and the NASD has indicated in writing to the Commission its commitment to the near-term achievement of price protection for display public limit orders.

The ITS participants have recently submitted a preliminary plan for providing such limit order protection through the ITS.

As a second matter the NASD has recently announced its intention to make substantial enhancements of the NASDAQ intermarket quotation system to provide brokers and dealers with the ability to route orders through NASDAQ to other broker/dealers and to exchange floors, and to provide over-the-counter market makers with the opportunity to make their quotations automatically accessible to other brokers and dealers.

I might note in addition that the regional exchanges, particularly the Chicago, is in negotiation with the New York and the AMEX, to work out the use of the common message switch to facilitate the routing of orders to exchanges from upstairs market makers.

I would expect that that activity may take on an additional significance now in the context of Merrill Lynch's best price selector.

In summary form, I might indicate considerable progress has been made during this past period as well in the clearance and settlement area, which is a significant part of a national market system, and in surveillance, inspection and oversight.

The ability of the Commission to conduct an adequate program in this area is essential to the integrity of the marketplace, particularly to a changing marketplace. I might provide my own personal sense that in many ways it is more important to the protection of investors than even the national market system, although by no means as glamorous.

Rather than elaborate further on history in this opening presentation, I would like to concentrate for a few moments on the fundamental assumptions which underlie the Commission's national market system program.

The 1975 act amendments neither defined the term "national market system" nor mandated specific minimum components of such a system. Congress recognized that our securities markets were the finest in the world, and while it contemplated significant changes it also wished to assure that the so-called delicate mechanisms associated with the capital raising process would not be harmed.

Accordingly, Congress created a statutory scheme which allows the Commission maximum flexibilty in working out specific details of what should be elements of a national market system consistent with congressionally detailed goals and objectives.

The Commission shares the Congress appreciation for the critical importance of a healthy and efficient securities market. We believe that they are the heart of our economic system, that they provide the essential mechanisms for the capital raising process by which America's industry and indeed, therefore, the American economy can obtain the resources necessary to provide jobs, create goods and services and ultimately to create and define our standard of living.

Against the benefits of rapidly achieving particular aspects of a national market system must therefore be weighed the possible risks to investors, to the securities industry, and securities markets themselves, in the event the Commission's assumptions in any particular instance are wrong or because other events make these assumptions no longer valid.

Now, some have estimated, for example, that the creation of an automated trading system might result in annual savings of up to $100 million and perhaps even more. But we must be cognizant of the fact of cost not only in terms of system design and computer hardware but more particularly in terms of the possible damage to the securities markets which may result.

It has been suggested that implementation of a fully automated trading system would probably result in the elimination of exchange markets and the replacement of that structure by an untested and untried system.

Given the importance of the securities markets to the American economy, we cannot permit our desire for facilitating innovation to result in the elimination of the desirable features of the current trading system without adequate assurance that its successor will be superior.

The loss of investor trust and confidence and the resultant cost to the Nation would be too high. I might note that a good part of the effort of the Commission in that context, as I will touch on further in a few moments, relates to an effort to substitute knowledge and experience and judgment for opinion and theory and emotion and ideology.

While the Commission believes it is important to move expeditiously in facilitating the implementation of those facilities which are fundamental elements of a national market system, or which may be accomplished without unnecessarily disrupting the current market structure, with respect to other decisions which implicate more profound changes in the markets the Commission perceives a special need to grasp clearly and as completely as possible the consequences of its decisions.

Those who have particularly been concerned about the fact that the Commission has not developed and published an all-encompassing plan, such as the GAO, have argued that the industry itself with more certainty would better be prepared for trading in the new system, that the Commission would be able to assess progress toward the creation of the system.

But our sense is that this ignores the magnitude and the complexity of the Commission's task.

In my prepared statement we take it at some length through the issues involved in the development of a single component of the national market system; namely, the consolidated quotation system.

I would commend this discussion to your consideration. What it suggests is the difference between what I might characterize as a mechanical approach and one that addresses the policy issues that are involved in achieving just one component of the national market system.

The Commission's experience with developing and implementing and monitoring its quotation rule illustrates the complexity and the interrelationships associated with each of the various facilities designed to achieve a national market system.

Each facility or rule which the Commission has adopted or implemented or currently has under consideration involves an evaluation of how that facility or rule relates to the overall goals of the act and to other facilities or rules, and how, more importantly, it influences and changes the marketplace.

Because of the interrelationship between the different aspects of the national market system, the Commission believes that it is appropriate to approach its task of facilitating the establishment of a system in an evolutionary manner.

Now, there is a common misconception that notwithstanding the significance and complexity of the system if the Commission possessed sufficient technical expertise it would be in a position to provide the industry with a coherent plan which would describe the ultimate configuration of the system and its detail.

Our sense is that the Commission's proper role is not that of systems analyst or designer, but one of facilitator, with the expectation, as Congress expected also, that the securities industry would assume primary responsibility for the design and development of the technical components of the system; that the Commission's role would be to monitor and encourage industry progress to serve as a catalyst, and when necessary to take appropriate action to achieve a goal or to eliminate obstructions toward achieving goals.

Moreover, it is essential to remember that no amount of computer or communications expertise could permit the Commission to predict with confidence the substantive effects that a particular market system component might have on the various participants in the securities markets.

The Commission believes at this point that it cannot responsibly construct a comprehensive plan for the development of a national market system—not for lack of technical expertise, but because the major complex policy concerns which will define the essential characteristics of that system are not fully resolved at this time.

Since we are not in the position—nor should we be—to be the builder, owner, and financier of the system, change will be accomplished through the efforts of the industry to use its resources to implement the necessary facilities.

Implementation of these systems requires a period of monitoring and of adjustment in order to assure efficient operation and to permit the industry time to adapt its trading behavior to these new systems.

After the Commission has had an opportunity to evaluate the trading environment which evolves from the achievement of these near-term goals and pilot programs, it will be in a far better

position to determine what additional steps are necessary to achieve the congressional objectives.

Now, while the Commission may have deferred resolution of certain fundamental policy decisions until further evolution, it is actively collecting the data and getting practical experience which may permit it to make decisions in the future.

For example, during the past 2 years the Commission has considered several complementary means of addressing the issue of market maker competition. The Commission has considered whether it would be feasible to implement a system of nationwide price and time priority for limit orders.

In addition, the Commission has considered whether competition might be engendered by requiring order-by-order routing of retail orders to the market center, disseminating the best quotation accompanied by a quotation size equaling or exceeding the order in question.

Finally, the Commission has also considered encouraging the market maker competition by removing off-board trading restrictions and thereby permitting exchange members to make markets over the counter in listed securities.

The Commission is concerned, however, that any of these actions might fundamentally alter the role played by existing trading mechanisms before the Commission has had an opportunity to test and evaluate the capabilities of alternative systems.

As a result, the Commission has chosen to move cautiously in its effort to increase market maker competition, so that it might acquire a better understanding of the effects its decisions might have on the securities markets, and therefore balance more accurately any competitive effects of a particular action and, I might add, the impact on investor confidence and the quality and integrity of securities markets.

During 1978 the Commission approved on a temporary basis the so-called Cincinnati system. It represents an experiment in the use of a fully automated electronic trading system based on the principles of time and price priority, with the exception that public orders receive absolute preference over all other orders at the same price.

The continued operation of the Cincinnati system should assist the Commission in assessing the effect on the markets of increased dealer competition. Moreover, the Cincinnati system may provide an indication as to whether certain regulatory concerns resulting from the participation of integrated firms as market makers in that system are ameliorated by the public preference and price and time priority requirements of the system.

Finally, it will also provide insight into the effects a fully automated trading system may have on the competitive position of various segments of the securities industry.

The Commission has also proposed rule 19c–3, which would preclude the application of remaining off-board training restrictions to certain securities which were not traded on an exchange on April 26, 1979 or which were traded on such an exchange at that time, but failed to remain so traded thereafter.

The Commission is concerned that as companies continue to list their securities on exchanges which have rules precluding their

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members from making over-the-counter markets in securities listed on those exchanges, competition between the over-the-counter market and exchanges will be effectively precluded in an ever-increasing number of securities.

Rule 19c–3, if adopted, might enhance competition by preserving over-the-counter market making in such securities. In addition, the rule if adopted may provide the Commission and the securities industry with an opportunity to gain valuable experience as to the dynamics of competition between exchange-oriented trading and dealer-oriented trading, while also allowing the Commission to evaluate the sufficiency of existing and developing national market system facilities to assure an appropriate integration of trading in disparate locations.

The Commission appreciates that the knowledge it may gain from both the Cincinnati and the rule 19c–3 activities may not permit it to generalize about the type of trading environment which might exist if all trading were done through a fully automated system, or all overboard trading restrictions were eliminated.

Nevertheless, the Commission believes that experimentation is essential in fulfilling its mandate to facilitate the establishment of a national market system and that the information derived from pilot programs will provide meaningful data in the decisionmaking process.

In summary, during the past 2 years the Commission has consistently moved toward the creation of a national market system through the implementation and continuing enhancement of a number of facilities and rules.

In addition, the Commission has defined and marshaled industry commitment to achieve a number of near-term goals over the next 2 years.

Finally, the Commission is encouraging pilot programs so that as it addresses certain future policy decisions which implicate more profound changes in the markets it will be able to draw on actual exprience with those experimental programs.

The Commission believes that this evolutionary approach will permit it to move forward in the most expeditious way possible, consistent with the congressionally stated objectives to create a national market system.

That completes my opening statement, Mr. Chairman.

[Testimony resumes on p. 463.]

[Mr. Williams' prepared statement follows:]

OPENING STATEMENT OF HAROLD M. WILLIAMS, CHAIRMAN, SECURITIES AND EXCHANGE COMMISSION, BEFORE THE SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS AND THE SUBCOMMITTEE ON CONSUMER PROTECTION AND FINANCE, COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE OF THE HOUSE OF REPRESENTATIVES, AT JOINT OVERSIGHT HEARINGS ON THE FUNCTIONING AND ADMINISTRATION OF THE SECURITIES ACTS AMENDMENTS OF 1975 (September 25, 1979).

The Commission appreciates the opportunity to appear before these subcommittees to discuss one of the most challenging tasks which the Congress has entrusted to the Commission -- facilitating the establishment of a national market system. At the time Congress was considering the Securities Acts Amendments of 1975 ("1975 Amendments") the House Committee on Interstate and Foreign Commerce underscored the importance of this task when it stated that:

> It is a basic teaching of this nation's financial history that continued economic health fundamentally depends upon the maintenance of investor confidence, the continuous availability of investment capital and efficient secondary trading markets in securities. Events of recent years have placed considerable stress on the ability of brokers and dealers to maintain a constant flow of debt and equity instruments available for public investment and serious questions have been raised whether the securities markets themselves are sufficiently resilient and flexible to meet the challenge of the changed economic cir-

> cumstances of today. The Committee believes that the need to develop a modernized national system for effecting securities transactions is imperative, its importance unassailable.

While I believe we all agree that much remains to be accomplished, the Commission also believes that significant progress has already been made in alleviating many of the concerns noted by the House in 1975 and in moving towards a truly national market system. In particular, I believe that progress towards a national market system has markedly accelerated since the last House Oversight Hearings in 1977. During the past two years, the Commission has continued the task of defining many of the characteristics and facilities which must comprise the ultimate system. Moreover, considerable progress has been made toward achieving a number of near-term goals set by the Commission. Most notably, a functioning consolidated quotation system, long considered a cornerstone of a national market system, has become operational, and quotation information for reported securities is now an integral part of the nation's

securities markets. In addition, the Commission has approved two pilot linkage systems, the Intermarket Trading System ("ITS") and the Cincinnati Stock Exchange Multiple Dealer Trading System ("Cincinnati System") which evidence considerable progress in linking both traditional exchange trading floors and over-the-counter market makers. On March 22, 1979, the Commission issued a status report on the development of a national market system ("Status Report"), which provides, among other things, a detailed discussion of this progress and an agenda of near-term national market system goals. Since the issuance of the Status Report, the Commission and the industry have made considerable progress in achieving many of those goals. The Commission has proposed three rules which would, if adopted, establish nation-wide price protection for all displayed public limit orders, eliminate off-board trading restrictions with respect to newly-listed securities and provide procedures for the designation of securities which are qualified for trading in a national market system. In addition, each exchange and the NASD has indicated in writing to the Commission its commitment to the near-term achievement of price protection for

displayed public limit orders and the ITS participants have recently submitted a preliminary plan for providing such limit order protection through the ITS. Finally, the NASD has recently announced its intention to make substantial enhancements to the NASDAQ interdealer quotation system to provide brokers and dealers with the ability to route orders through NASDAQ to other brokers and dealers and to exchange floors and to provide over-the-counter market makers with the opportunity to make their quotations automatically accessible to other brokers and dealers. However, rather than recount this history in our opening presentation, I believe it would be more useful to concentrate on the fundamental assumptions which underlie the Commission's national market system program.

The Commission's Role in the Establishment of a National Market System

As you are aware, the 1975 Amendments neither defined the term "national market system" nor mandated specified minimum components of such a system. Congress recognized that the nation's securities markets are "the finest in the world" and, while it contemplated significant changes, it also wished to assure that the "delicate mechanisms"

associated with the capital raising process would not be harmed. Accordingly, Congress created a statutory scheme which allows the Commission "maximum flexibility in working out specific details" of what should be elements of a national market system consistent with Congressionally determined goals and objectives.

The Commission shares the Congress' appreciation of the critical importance of a healthy and efficient securities market. We believe that the securities markets are at the heart of our economic system. They provide an essential mechanism for the capital raising process by which America's industry can obtain the resources necessary to provide jobs, create goods and services and, ultimately, define our standard of living. Accordingly, against the benefits of rapidly achieving particular aspects of a national market system must be weighed the possible risks to investors, the securities industry and the securities markets themselves, in the event the Commission's assumptions, in a particular instance, are wrong or because other events make these assumptions no longer valid. For example, some have estimated that the creation of a totally automated trading system might result in an annual savings of up to one hundred

million dollars. Indeed, it may be that the actual dollar benefits of such a system may be much higher. However, we must also remain cognizant of the cost, not just in terms of systems design and computer hardware, but also in terms of the possible damage to the securities markets which may result. It has been suggested that implementation of a fully automated trading system would probably result in the elimination of exchange markets and the replacement of that structure by an untested and untried system. Given the importance of the securities markets to the American economy, we cannot permit our desire for facilities innovation to result in the elimination of the desirable features of the current trading system without adequate assurance that its successor will be superior. The loss of investor trust and confidence and the resultant cost to the nation would be too high.

It is for these reasons that the Commission has consistently attempted to fulfill its mandate without unduly disrupting the existing market structure. Some commentators, such as the General Accounting Office, have criticized the Commission's efforts because it has not developed and published an all-encompassing

plan for the creation of a national market system. It has been suggested that such a plan would provide members of the securities industry with more certainty as to the characteristics of the future securities market and therefore permit them to better prepare for trading in that system. Furthermore, these critics have argued that the Commission would be better able to assess progress towards the creation of a national market system (and that the Commission itself could be better evaluated), if there was a comprehensive plan for the system. This criticism, in our view, ignores the magnitude and the complexity of the Commission's task.

The creation of a national market system does not lend itself to simple problem solving techniques. There is not one, but a number of interlocking and complex policy decisions which must be made. These decisions, over the long term, may have profound effects on the securities industry and the investing public as they alter the environment and the manner in which securities are traded. Accordingly, while the Commission believes it is important to move expeditiously in facilitating the implemention of those facilities

which are fundamental elements of a national market system or which may be accomplished without unnecessarily disrupting the current market structure, with respect to other decisions, which implicate more profound changes in the markets, the Commission perceives a special need to grasp clearly and as completely as possible the consequences of its decisions.

Evolution of the Consolidated Quotation System

An example may further an understanding of the complexity involved in implementing a single component of the national market system. As mentioned earlier, during the past two years, a functioning consolidated quotation system has become operational. As early as February 1972, in its Statement on the Future Structure of the Securities Markets, the Commission had identified a composite quotation system as a fundamental building block of a national market system. The Commission clearly recognized at that time that quotation information from all markets was a prerequisite to providing investors with the ability to assure that their orders received the best possible execution. I believe that the public may have perceived the Commission's role, once it had identified the need for a consolidated quotation system, as one of marshalling the technical capabilities of

the securities industry toward achievement of that system. However, the actual process was far more difficult and complex. The Commission's recognition that a composite quotation system was an integral component of a national market system was merely the first of a number of significant policy decisions the Commission was required to make before that system became a reality. Moreover, in order to assure that the system works properly and evolves in a manner consistent with the creation of a national market system, the Commission has continued to monitor the system and will be faced with additional policy decisions in the future regarding the refinement of that system.

As an initial matter, the Commission had to determine the minimum characteristics which quotation information disseminated through a consolidated quotation system had to possess in order to make that information useful to securities market participants in their investment and order routing decisions. For example, the Commission had to determine whether to require exchanges to collect quotations from all floor members or only from its specialists. While interest in the crowd is an important aspect of the exchange market, there were significant questions as to whether that interest could be accurately captured.

Similarly, the Commission also had to determine whether each bid or offer should be accompanied by an indication of quotation size and whether the broker or dealer making such bid or offer should be required to be "firm" at the price and for the size indicated. Finally, the Commission had to determine whether to mandate participation by each exchange and third market maker or allow participation on a voluntary basis.

In addition, in answering these questions, the Commission had to assess the possibility that its regulatory proposal might result in operational problems for either the exchanges or third market makers or, more importantly, create disincentives to market making which might adversely affect the depth and liquidity of the markets. Thus, while the Commission believed that quotations should be "firm," it designed a number of exceptions to this requirement in order to assure minimal disruption of the trading process. Balanced against this desire to avoid disruption of the current market structure was the concern that additional exceptions to firmness might emasculate the Rule.

In addition to resolving numerous questions relating to the coverage and operation of a "firm" quotation rule, the Commission had to take into account, in determining to

adopt Rule 11Ac1-1, the impact of that rule on other aspects of its national market system program. For example, the Commission considered whether implementation of a quotation system must be supplemented by order routing facilities which permit brokers to access those quotations. Without such order routing facilities in place, it was argued, serious questions would exist regarding the economic incentive to disseminate quotations. Similarly, the Commission was required to address whether, as a result of the exceptions to "firmness" permitted under the Commission's rule, it would be appropriate, or even feasible, to adopt a "best execution" rule requiring brokers to route each order to the best displayed market.

The Commission also had to consider whether to impose requirements on vendors to assure the accurate and prompt display of quotation information. While the Commission initially felt that appropriate vendor displays could be achieved through the operation of competitive forces, this did not result. Therefore, in October 1978, the Commission determined to propose a rule designed, among other things, to assure that consolidated quotation information is properly displayed.

Similarly, prior to adoption of its "firm" quotation rule, the Commission had to consider whether

exchanges would be permitted to charge vendors and their subscribers for receipt of this information. Having determined that some charge would be permitted, after adoption of the Rule, the Commission was required to review these proposed charges and to evaluate whether charges which differentiated between exchange members and non-members were consistent with a national market system.

In addition, implementation of the Rule resulted in a joint industry plan filed by various exchanges and the NASD governing the specifics of collection and dissemination of this information. The plan raised issues regarding the circumstances in which regulatory halts called by the primary exchange should be imposed on regional stock exchanges. Similarly, the regional exchanges, which often base their market on quotations from the primary exchange, filed rule changes which required the Commission to consider whether to permit regional specialists to cease disseminating quotations during a trading halt in the primary market. The regional exchanges and the NASD have also requested the Commission to consider modification of its short sale rule to permit market makers to honor their quotations when they would otherwise be precluded from doing so by the short sale rule.

The Commission's experience with developing, implementing and monitoring its quotation rule illustrates the complexity and interrelationships associated with each of the various facilities designed to achieve a national market system. Each facility or rule which the Commission has adopted or implemented, or currently has under consideration, involves an evaluation of how that facility or rule relates to the overall goals of the Securities Exchange Act of 1934 and to other facilities or rules, and how it changes or influences the market place. Because of the interrelationships of the different aspects of the national market system program, the Commission believes that it is appropriate to approach its task of facilitating the establishment of a national market system in an evolutionary manner.

Technical Expertise

There is a common misconception that, notwithstanding the significance and complexity of creating a national market system, if the Commission possessed sufficient technical expertise it would be in the position to provide the industry with a coherent plan which would describe both the ultimate configuration of the system and all of its detail. The Commission's proper role is not that of system's analyst or designer of facilities. The Congress directed the Commission to "facilitate the establish-

ment of a national market system" not to unilaterally create one. The Congress expected that the securities industry would assume primary responsibility for the design and development of the technical components of the system. The Commission's role in this process is to monitor and encourage industry progress, to act as a catalyst and, when necessary, to take regulatory action to achieve a particular goal or eliminate unnecessary or inappropriate barriers to competition. Moreover, it is essential to remember that no amount of computer or communications expertise could permit the Commission to predict with confidence all of the effects a particular national market system component might have on various participants in the securities market. While the Commission agrees that it would benefit from additional technical expertise, particularly as the system moves more from the planning to implementation phase, the Commission believes that the most vexing issues regarding the development of a national market system relate not to technological feasibility, but rather to fundamental policy concerns over the effects that system may have on each segment of the securities industry and public investors. While the task of resolving these policy concerns requires a certain level of

technical expertise, computer and systems experience cannot ultimately help to resolve the more basic policy questions facing the Commission.

The Commission cannot, at the present, responsibly construct a comprehensive plan for the development of a national market system. This conclusion arises not from lack of technical expertise, but because the major and complex policy concerns which will define the essential characteristics of that system have not been resolved at this time. Because of the complexity of these issues and the inability of any person in the industry, government or academia to predict with certainty the ramifications of these decisions, the Commission has been unable to reach a consensus. Therefore, the Commission has taken what it calls an evolutionary approach to development of the system. It has first, through the issuance of two policy statements, focused the industry's attention on the achievement of particular national market system goals and the implementation of particular facilities. Because the Commission cannot be the builder, owner and financier of a national market system, change must be accomplished through inducing the industry to use its resources to implement these facilities. Finally,

implementaion of these initial systems requires a period of monitoring and adjustment in order to assure efficient operation and in order to permit the industry time to adapt trading behavior to these systems. After the Commission has had an opportunity to evaluate the trading environment which evolves from the achievement of these near-term goals and pilot programs, it will be in a far better position to determine what additional steps are necessary to achieve the Congressional objectives.

Commission's Use of Experimental Programs

While the Commission may have deferred resolution of certain fundamental policy decisions until further evolution of a national market system, it is still actively collecting data and gaining practical experience which may permit it to make these decisions in the future. For example during the past two years, the Commission has considered several complementary means of addressing the issue of market maker competition. The Commission has considered whether it would be feasible to implement a system of nationwide price and time priority for limit orders. In addition, the Commission has considered whether competition might be engendered by requirng order-by-order routing of retail orders to the market center disseminating the best quotation accompanied by a quotation size equalling or

exceeding the order in question. Finally, the Commission has also considered encouraging market maker competition by removing remaining off-board trading restrictions and thereby permitting exchange members to make markets over-the-counter in listed securities.

The Commission is concerned, however, that any of these actions might fundamentally alter the role played by existing trading mechanisms before the Commission has had an opportunity to test and evaluate the capabilites of alternate systems. As a result, the Commission has chosen to move cautiously in its efforts to increase market maker competition so that it might acquire a better understanding of the effects its decisions might have on the securities markets and therefore more accurately balance the competitive effects of a particular action and investor confidence in the quality and integrity of securities markets.

During 1978, the Commission approved, on a temporary basis, the Cincinnati System. The Cincinnati System represents an experiment in the use of a fully automated electronic trading system based on the principles of time and price priority, with the exception that public orders receive absolute preference over all orders at the same price. The continued operation of the

Cincinnati System should assist the Commission in assessing the effect on the markets of increased dealer competition. Moreover, the Cincinnati System may provide an indication as to whether certain regulatory concerns resulting from the participation of integrated firms as market makers in that System are ameliorated by the public preference and price and time priority requirements of that System. Finally, it will also provide insight into the effects a fully automated trading system may have on the competitive position of various segments of the securities industry.

The Commission has also proposed Rule 19c-3 which would preclude the application of remaining off-board trading restrictions to certain securities which were not traded on an exchange on April 26, 1979, or which were traded on an exchange on April 26, 1979, but fail to remain so thereafter. The Commission is concerned that, as companies continue to list their securities on exchanges which have rules precluding their members from making over-the-counter markets in securities listed on those exchanges, competition between the over-the-counter market and exchanges will be effectively precluded in an ever-increasing number of securities. Rule 19c-3, if adopted, might enhance competition by preserving over-the-counter market making in Rule 19c-3 securities. In

addition, the rule, if adopted, may provide the Commission and the securities industry with an opportunity to gain valuable experience as to the dynamics of competition between exchange-oriented trading and dealer-oriented trading while also allowing the Commission to evaluate the sufficiency of existing and developing national market system facilities to ensure an appropriate integration of trading in disparate locations.

The Commission appreciates that the knowledge it may gain from the Cincinnati System or Rule 19c-3, if that Rule is adopted, may not permit the Commission to generalize about the type of trading environment which might exist if all trading were done through a fully automated system or all off-board trading restrictions were eliminated. Nevertheless, the Commission believes that experimentation is essential in fulfilling its mandate to facilitate the establishment of a national market system and that the information derived from pilot programs will provide meaningful data in the decision-making process.

Conclusion

In summary, during the past two years, the Commission has consistently moved towards the creation of a national market system through the implementation and continuing

enhancement of a number of facilities and rules. In addition, the Commission has defined and marshalled industry commitment to achieve a number of near-term goals over the next two years. Finally, the Commission is encouraging pilot programs so that, when it addresses certain future policy decisions which implicate more profound changes in the markets, it will be able to draw on actual experience with those experimental programs. The Commission believes that this evolutionary approach will permit it to move forward in the most expeditious way possible, consistent with the Congressionally stated objectives, to create a national market system.

Mr. ECKHARDT. Are there any further comments around the table before we get into the discussion questions?

Mr. Scheuer?

Mr. SCHEUER. I will wait for you, Mr. Chairman. Why don't you go ahead.

Mr. ECKHARDT. I would like to ask a few questions about the limit order information system that the New York Stock Exchange was discussing yesterday.

As I understood their proposal, the limit order information system would constitute the opening up of the book of all specialists on all the exchanges connected through the ITS.

Now, do you understand it that way?

Mr. WILLIAMS. I believe that is correct. Yes, sir, that is correct.

Mr. ECKHARDT. Now, if that were done, you would at least get an opportunity, and I suppose there would be a fiduciary duty on those brokers and dealers to accomplish price priority in that sort of system.

Would that be correct?

Mr. WILLIAMS. The objective of our proposed rule would be achieved, yes.

Mr. ECKHARDT. Would require it.

Mr. WILLIAMS. Yes.

Mr. ECKHARDT. Why should there not also be time priority?

Mr. WILLIAMS. I can respond to that several ways.

No. 1 the Commission has not made any final determination regarding whether time priority should eventually be a characteristic of national market system.

The Commission is concerned at this time, however, that the introduction of time priority, without awaiting the development of other national market system components, could make a radical change in the trading environment and trading processes that exist today.

There are those who contend, with a logic to it, that in effect time priority can be achieved only through an automated system which if implemented today would result in the demise of the exchange.

Mr. ECKHARDT. Well, aren't both price and time priority protected, say, within the New York Stock Exchange by its present system?

Mr. WILLIAMS. Not time priority, sir, I don't believe.

Mr. KLEIN. Mr. Eckhardt, I believe that orders entered on the book do not lose their time priority among each other in the event of a trade, but that otherwise, all orders present in the market after an execution are on a parity.

I would like to check the answer to that. We have only recently communicated with the exchanges and asked them to give us a comprehensive explanation of their rules of priority which are in practice a good deal more complex than they appeared on the surface, and perhaps we could give you some supplemental information on that.

Mr. ECKHARDT. I would ask unanimous consent that the record be left open at this point for such further amplification of that point. Without objection, it will be so left open.

[No further response was received by the subcommittee at time of publication.]

Mr. WILLIAMS. I think, Mr. Chairman, as I understand it—and again we can amplify it—on the New York today there is time priority within the book, and that the proposed system should be capable of maintaining that time priority within the book.

We will have to see. I am not sure of that.

Mr. ECKHARDT. Well, now, I understand this to be the case. If there are a number of orders of different magnitude in the book, it is the specialist's duty to satisfy the earlier orders and, if necessary, put the offers together to satisfy a larger bid, in order of their time priority—not merely to exercise the convenient expedient of accepting bids and offers of approximately the same magnitude.

Would that not be true?

Mr. WILLIAMS. I don't believe so, sir. I think as between orders on the limit order book they are normally executed, to be executed—we will check—in time priority. But as to other orders that come to the marketplace at the same price as orders that are on the book, those are not required to be secondary to the prior orders on the limit order book.

Mr. ECKHARDT. I see.

Now, that is some degree of time priority, within the New York Stock Exchange.

Mr. WILLIAMS. Within the book itself, yes, sir.

Mr. ECKHARDT. Is that contemplated to exist when the limit order information sytem is put into effect as between the many orders on the many books that would be then involved; in other words, within the ITS the same degree of time priority would exist as within the New York Stock Exchange?

Mr. KLEIN. Mr. Eckhardt, the letters that the Commission has received from the various self-regulatory organizations as to the limit order information system promises to supply the Commission I believe by the end of the year with a more detailed plan which presumably would reflect the exchange's best thinking as to how to handle that problem.

They have not informed us at this point as to whether or not that detail would be part of their plan submitted in response to our policy statement asking for such a plan and coupled with the Commission's rulemaking that would provide for price protection on an intermarket basis, but price protection only.

It was the contemplation of the Commission's rulemaking proceeding that its price protection rule would not interfere otherwise with the priorities which each market had settled upon as in its view appropriate priorities for the execution of competing orders in its particular market.

It may be that the exchanges working in concert will develop a more sophisticated idea when they file that plan with us. But at this point we cannot tell.

A second point I think to be made with respect to the establishment of time priority among limited orders in a beginning system to provide nationwide protection for limit orders is that in part it will depend upon the sophistication and flexibility of the device used for one market to reach another market to satisfy those orders.

As those systems become more sophisticated, more flexible, more easily used as you see for example the ITS progressing systematically toward making it easier to use and reaching more rapidly to other markets, ideas which today may seem difficult, and I think the idea of time priority among limit orders as a beginning idea is probably more difficult of achievement than price protection, may become more feasible.

That is something that the Commission and the staff is going to have to work out and observe very carefully how they are going to use their ITS mechanism to provide this kind of protection and what its capabilities are in this respect, something that absent their plan I don't think we can do a very good job of predicting for you.

Mr. ECKHARDT. Maybe you ought not only to predict, but to lead in this area.

Do I understand, then, that within the New York Stock Exchange there is a partial time priority protection; that is, time priority of orders within the limit order book?

Mr. KLEIN. That, I believe, as I indicated a moment ago, is my understanding, though I would like to verify whether that is ever lost. I don't believe it is.

Mr. ECKHARDT. Now, the limit order information system would not only have the effect of permitting a person dealing in stocks to know all of the exchanges limit order reservoir, so to speak—let me ask first, would it do that?

Would it permit a person who is dealing in stocks to have the opportunity to know what limit orders there are over the various exchanges? I understood that the New York Stock Exchange said it did yesterday. If not, I would like to know that that is not so because that makes a considerable difference.

Mr. KLEIN. Mr. Eckhardt, until they have filed a plan with us describing those kinds of details, I don't think that the Commission is in a position to speak to what they propose to do. If what they propose to do seems inadequate to the staff at that point the staff would be recommending to the Commission that it make clearer what it ought to do.

I think in the first instance an opportunity is being afforded to the self-regulatory organizations to marshal and come forward with the particulars before the end of the year as to exactly what they are going to do, including whether or not they are going to display every single limit orders on the book, limit orders down to a certain price, limit orders to some level, and then more upon inquiry.

I think until a plan has been submitted to us, I don't know what they are going to select.

Mr. ECKHARDT. I recall specifically asking yesterday who had the opportunity to determine what limit orders would be disclosed. I understood the answer to be the customer.

Now, if that is not true, I would like to know whether it is true. Perhaps there could be some consultation on this matter while we answer the rollcall.

If I did not understand correctly yesterday, we ought to be able to establish that with the Commission here, and I presume with

some of the witnesses here who were here yesterday. I want to be sure what the situation is with respect to that question.

We will be recessed for about 10 minutes.

[Brief recess.]

Mr. ECKHARDT. The hearing will resume.

I have before me a letter of September 7 from the various exchanges participating in ITS, to Mr. Andrew P. Klein, Director of the Division of Market Regulation of the Securities and Exchange Commission. It says, in part:

> As presently envisioned, each individual ITS participant will gather those limit orders it desires to protect and send a summary to LOIS. The new facility will then total up to the various limit order summaries received from the participants and produce a total display of limit orders entered by ITS participant exchanges at various price levels. When a broker/dealer on any ITS exchange contemplates a trade below the bid or above the offer, he will be able to request a LOIS display which will show him, in advance, the limit orders he must protect. In executing the transaction on an exchange, the broker will reserve the appropriate number of shares that the LOIS display tells him must be protected on the various participant exchanges through the ITS linkage. Immediately after the execution, responses will be sent to the participant exchanges.

Now, I do not understand that to be the opening of the limit order books of all the ITS participating exchanges, yet I did understand the answer to my question to be yesterday from the New York Stock Exchange that the limit order information system would envisage the opening of the specialist books on all the participating exchanges.

You have a better understanding of the description than I do. Would that also be your conclusion that the two are not the same and that the description here in this letter is far short of opening and making public to customers the limit order books of the participating exchanges?

Mr. WILLIAMS. Mr. Chairman, what do you mean by opening? Visible to whom? To broker/dealers?

Mr. ECKHARDT. Yes.

Mr. WILLIAMS. I think it would depend upon how you read that paragraph. I do not read it as limiting, I read it as an example of how the facility would work or how it would be used.

Mr. ECKHARDT. I see.

Mr. WILLIAMS. I would agree with you that if it is narrowly construed and it is only a broker/dealer who contemplates a trade, who can request it, in a sense one would say why would a broker/dealer request it if he doesn't contemplate a trade? Normally the purpose of looking at the limit order file would be to determine what is in it in relation to some contemplated trading in the security.

Mr. ECKHARDT. It also depends on who makes the decision, how fast the information is affordable, it seems to me.

Mr. WILLIAMS. Mr. Chairman, may I back up a minute on this?

Mr. ECKHARDT. Surely.

Mr. WILLIAMS. In April of 1979, in our statement, our statement as reported at that time, we were very explicit in terms of the importance of a limit order file. I don't want to burden you by reading the entire statement on nationwide price protection. I might read just a brief portion of it:

While the Commission cannot predict accurately the consequences of implementing a limit order protection system based on affording orders entered in a Central File priority over all other buying and selling interest, the Commission recognizes the possibility that introduction of a system based upon the absolute time priority concept could have a radical and potentially disruptive impact on the trading process as it exists today. Therefore, industry and Commission efforts should be concentrated on the achievement of nationwide protection for all public orders based on the principle of price priority.

Mr. KLEIN. This says:

Chief nationwide protection, all public limit orders price priority.

The Commission believes that nationwide price protection—whereby any appropriately displayed public limit for a qualified security is assured of receiving an execution prior to any execution by a broker or dealer at an inferior price—should be a basic characteristic of a national market system. As an initial step toward this end, the Commission believes that the proponents of the ITS should be afforded time to experiment with and further enhance that system as a means of providing intermarket price protection for public limit orders.

The commentary submitted by most self-regulatory organizations evidences a common commitment to achievement of protection and a willingness to take all technical steps necessary to reach this goal.

Now, that is the posture we have taken. The industry, they have committed to be back to us in December with a plan that meets our objectives, and rather than our being involved in tinkering with them on it we expect the plan they will come up with in December will meet that. If it doesn't it will not be an acceptable plan.

At that time, we have a proposed rule out that calls for price protection of limit orders and will be in a position as we judge it to be appropriate to implement that rule and to require the protection of public limit orders and perhaps of all limit orders.

Mr. ECKHARDT. Well, I really haven't gotten to the price and time protection in the questions I have been asking up to now. I would like to get to that. But, in the meantime, I would like to know why the limit order book should not be absolutely open? If information can be obtained from those who are dealing in that particular stock, what is the advantage of keeping it closed at all?

Mr. WILLIAMS. It is not my sense that it will be closed but——

Mr. ECKHARDT. Why do we have to go through all this language to say that it won't be closed? It seems to have been said very simply in answer to my question yesterday, I thought that the limit order books of all those on ITS would be open upon the determination and request of the customer, yet I don't know precisely what that means or how they intend to implement it. I suppose there is no point in discussing it here with you until we have their response. I would like that the record be kept open at this point to clarify that question, because I think it is somewhat unclear at this time.

Mr. KLEIN. Mr. Chairman.

Mr. ECKHARDT. Without objection the record will be kept open for that purpose.

[The information requested was not available to the subcommittee at the time of publication.]

Mr. ECKHARDT. Now, with respect to price and time priority: Why should not the same degree of time priority which would exist in any one of the exchanges, as for instance, in New York, also be protected in ITS?

Mr. WILLIAMS. That is a question that I know is being or will be addressed as part of the efforts of the various exchanges. I think part of the answer depends upon what then calls for in effect for a single book or at least for a common data repository, because the timing of the various books has to be integrated, and I think part of the answer will depend upon the extent to which individual exchanges have the ability to feed information in on that basis.

Mr. ECKHARDT. Does the Commission intend to look into the desirability and the shortcomings or the difficulties of establishing such a degree of time priority prior to the exchanges coming in with the plan?

Mr. WILLIAMS. That is not a matter that has been on our agenda; no, sir.

Mr. ECKHARDT. Do any of the members of the Commission have any expressions of whether it should be?

Mr. EVANS. I think it should be. I think eventually that is where we should be.

Mr. ECKHARDT. If it is—and I don't mean to foreclose that question—you are the ones that determine it, but if it should be, how will you bring it up? It does appear to be a basic philosophic and practical question.

Mr. WILLIAMS. Mr. Chairman.

Mr. ECKHARDT. How will it arise? Will it arise in a Commission meeting with discussion between the Commissioners? I gather that there might be differences of opinion amongst you on the point, if you operate as we do. Sometimes it looks like it is a great melee but it finally comes out in some kind of a solution, perhaps a better solution than any one of us would have been able to envisage alone.

Or will you use some other process, by the recommendation for instance, of the securities fraternity and a yes and no treatment of a recommendation from staff? What is your process in that respect, if such a question should arise?

Mr. WILLIAMS. I think initially when we receive the proposed plan from the participants in this effort the plan will be analyzed by the staff and their analysis and assessment and recommendations will come to the Commission in one of several forms. It might come by way of information memoranda, if no particular action is called for by the Commission at that time, otherwise it may come up as a recommendation to the Commission, at which point individual Commissioners will have an opportunity to input. If there is a concern that calls for Commission deliberation, that deliberation will take place.

Mr. ECKHARDT. Has that been the way that you arrived at the action taken last spring, and then, I think, again this year, with respect to the market system? Have you had general meetings discussing these basis questions?

Mr. WILLIAMS. We have had some meetings discussing these basic questions. In terms of the spring, I presume you are talking about the March 1979 statement?

Mr. ECKHARDT. Yes.

Mr. WILLIAMS. That essentially is, that, as I said, is a very carefully drafted statement in which every Commissioner participated very actively, as obviously did the staff.

Mr. ECKHARDT. How did they participate? Did you participate in a Commission meeting?

Mr. WILLIAMS. No, no; it was not a formal Commission meeting or informal Commission meeting on that statement. That statement involved I would say the kind of detailed consideration on the part of each Commissioner and the staff. That is best handled on an individual basis rather than trying to settle, trying to have five people draft a statement in a Commission meeting or redraft a statement.

Mr. ECKHARDT. I suppose we try to do the same thing in our own deliberations. What we attempt to do, of course, is get considerable staff work and several different options, ordinarily from the staff. There may be a recommendation from the staff. The matters that we deal with, of course, have to be done in public, and we ultimately have to take a vote on them.

I understand, for instance, the Supreme Court ordinarily relies heavily on their clerks and recommendations are made. Someone had the leadership role in writing an opinion. But ultimately, as I understand it, the Court gets together and has a discussion with respect to the question. But you do not proceed——

Mr. WILLIAMS. We do if any of the Commissioners feel a discussion is called for, yes, sir.

Mr. ECKHARDT. But none of the Commissioners felt that discussion was called for in the March situation. Is that correct?

Mr. WILLIAMS. I would say not beyond either the input to the staff or individual discussions with each other.

Mr. ECKHARDT. Not beyond, just individual discussions without a meeting?

Mr. WILLIAMS. That is right.

Mr. ECKHARDT. We have a rollcall on the committee. We must recess for a moment to answer that.

[Brief recess.]

Mr. ECKHARDT. We will proceed at this time. I would like to elicit some views of members of the Commission on the question of whether or not a question such as the nature of the limit order information system and its acceptability, the question of time priority and so forth, deserves sort of an active give and take in the Commission. Perhaps that is too hypothetical a question, but I would like to have your informal views on it.

Mr. WILLIAMS. I might begin. I think we ought to separate, if we can, the form of meeting, the form of dialog from the substance of it, and my own sense is that the Commission substantively will engage in whatever form of deliberations it feels it needs in order to arrive at a considered decision.

Mr. ECKHARDT. I suppose that depends on what you decide on a particular issue. This is a very particular issue, that seems to me to be of grave importance.

Ms. KARMEL. Mr. Eckhardt, if I may, I think all of these issues are important not only in terms of the ultimate configuration of the national market system but each issue also seems to assume an importance to the various participants in the marketplace depending upon their point of view.

If you take, for example, the question of time priority, about which you have already asked us questions, I think it is a problem

that certainly has to be addressed by the Commission, which the Commission has already raised in our policy statements and in our proposed rule making and which we undoubtedly will continue to address as the national market system falls into place.

But after all, when we talk about the national market system in its totality we are talking not only about the marketplace at each of the existing exchanges, and the over-the-counter market place.

Now, ultimately I think it is everybody's concept that these different marketplaces will in some way and some degree be integrated.

They are not the same time priority systems now in each of these marketplaces. The over-the-counter market, for example, has no real time priority system, it is a negotiated market. So it is not, although in theory the question of time priority might seem to be a very simple one to answer, to which different people can give various theoretical answers, I think in terms of the kind of leadership that the Commission is attempting to provide and which, in my opinion, we should be providing, is a question of leading these various disparate marketplaces into a system where everybody can participate and trade.

So when you have that kind of evolutionary integration going on, I don't think it is always possible or appropriate to start off with some sort of a theoretical ideological solution which may be such a drastic change in the way in which various marketplaces operate that it would change the way in which trading is conducted, that it might change the confidence of the public in the system, or it might mean that some of the marketplaces can't participate.

Mr. ECKHARDT. What about a question like the implementation of rule 19c-3? I don't know, perhaps you did have a meeting for discussion of that question. That is pretty specific. Yet there was considerable disagreement in our panel yesterday about rule 19c-3. There were those who opposed it rather strenuously and those who favored it.

Rule 19c-3, like everything else, rests on a very delicate question of how the total marketplace is affected. You very greatly changed rule 394 by present rule 390. It is a very significant change to permit transactions to go to the third market if they are agency transactions. I asked yesterday if that had any deleterious effect on the pressures on the security industry to come to a central marketplace and the testimony we got was that there was no evidence that it did.

The question then is about rule 19c-3, which relates to a relatively small number of stocks, and could, as the Chairman says, afford a broadening of the opportunity to continue competition between the third market and the exchanges and afford a means of experimentation. Whether or not a change of this nature would be good or bad seems to me to raise some very broad questions.

The rule itself is very specific. What about that? Did you come to your conclusions in a discussion in an open meeting or was that done otherwise?

Ms. KARMEL. That is a proposed rule. We haven't come to a conclusion yet. We had about a week of hearings.

Mr. ECKHARDT. How about prior to the promulgation of a rule?

Mr. LOOMIS. In that instance the staff sent up a recommendation, a lengthy document with the reasons for proposing it. The Commissioners read those documents. I talked to members of the staff about it to get further information and then we did have a meeting and at that meeting we discussed it and there was not quite unanimity but we decided at that meeting to publish it.

We, of course, haven't received the comments or analyzed them completely so we haven't reached a final decision.

Mr. EVANS. Mr. Chairman.

Mr. POLLACK. Perhaps I can add to Commissioner Loomis' statement and explain, but I would like to back up just a minute, if I can.

If you were attempting to create a national market system where you had no trading market structure existing, you might proceed in an entirely different fashion. What you have here is an existing structure which is working, and you have to determine the steps that you think are appropriate at a particular time, and I think among five individuals there probably will be differences, some in degree, some in nuances, as to how fast to proceed.

The rule 19(c)(3) I think is a good specific example to discuss. Two of the Commissioners, including myself, felt that one of the important things was not to allow rule 394 or rule 390 to have further anticompetitive impacts beyond those that presently existed, and so when we had an application from the American Stock Exchange to expand or increase or change, however you want to describe it—its listing requirements so as to attract certain foreign securities—two of us felt that that was fine, provided you did not apply the anticompetitive aspects of rule 390 to those particular securities.

There was an open discussion of this difference of view among the Commissioners at an open meeting when we were considering that application.

The other three I think, if I can describe them accurately, felt they wanted to deal with it more generically and so without going through all the intricacies that followed, up came the rule 19(c)(3) as a general application saying that if securities were going to move from the over the counter market to the listed market, then the anticompetitive impacts of Rule 390 should not be applied to those securities.

Mr. ECKHARDT. Did they satisfy both sides of the original——

Mr. POLLACK. Well, I think those of us who felt we should not permit further anticompetitive aspects of it felt that was a minimal move required in order to maintain competition while you moved to the national market system, because you are dealing in two things. You want to create an effective structure, you want to maintain the market making and the danger is with anticompetitive rules that exist when you don't have the national market system, because then I think the anticompetitive rule will dissipate itself because everything will go into the system. I think it is in those areas where people have different views as to how fast you shall proceed.

That brings me to your time and price priority. My own personal view is ultimately in a national market system, you will have to have some form of time as well as price priority. The Chairman

has expressed the view that people believe that doing it at the present time would be so adverse to existing structures that people would not move at all in an evolutionary manner to complete at least the first kind of kindergarten step in trying to get better limit order protection.

I would hesitate to say here that I think that the limit order book that is being proposed may accomplish that. It may not. But in effect, what you are trying to do in small steps, as distinguished from building the system in one swoop, as the GAO thought you could do, not recognizing the fact that you are dealing with existing structures and existing trading that is of considerable significance and importance to our society.

So I think in all of these things there will be differences of views among various of the Commissioners and we don't have to get together everyday to discuss those, because I think by this time the five of us know the differences of view of each one of us and three may think one way and two may think the other way.

I don't think we are monolithic in this area. There are those of us who feel it is more expeditious, because that would act to accelerate the evolutionary stage. There are others who believe we should be more cautious because they want to be more certain as to what they think the implications will be. So it is in that context that these rules flow out and they don't come out of thin air, they represent sort of a consensus in a collegial body as to how you should move with the differences that I expressed.

Mr. EVANS. I think that the comment made by Commissioner Pollack at the end that our views are rather well known among the five of us is certainly a true one. We have been considering some of these issues for at least 4 years.

As early as 1978, in a statement beginning in 1978, we did have time and price priorities as an element of the national market system. So we generally know the types of things that each of us agrees on, and there are differences. You expect those, I think. I think that it is important for us to reconsider these issues as we go along. This can be done in an open meeting and, anytime any member of the Commission desires to have one, generally and to the extent that it can be done without a meeting, we have tried to have our input to the staff or through the staff and do the best we can for individual positions.

Now, it is just like it is in Congress. Having been on the staff of a committee, I know that you don't always get exactly what you want. Sometimes you get very little and sometimes you get nothing, but you get as much as you can toward your own views because obviously you wouldn't have those views unless you believed they were correct. So it is a similar process to what you have here.

We do the best we can. We try to make our views known either publicly or otherwise and at the same time, we need to act as a body. Our purpose cannot be to try to have disharmony among ourselves to the extent that we can't move forward. And so often you won't see as much controversy as there really is and that is probably the way it should be, but we try to work to support some movement by the Commission, some movement that is a compro-

mise between the various positions of those who are members of the Commission at that time.

Mr. ECKHARDT. Well, let's look for a moment at another example of an area in which we have already identified considerable difference of opinion. That is with respect to the Cincinnati type of operation, which is virtually wholly automated. Of course, I think it was well pointed out yesterday, that no system is without human input and judgment. The question is, how late in the system does that human input and judgment affect the result?

There were some that felt that there were greater values to being assured that the best bid and offer met and that an automated system by itself takes into account all of the bids and offers from everywhere, and treats them in a manner in which they are equally considered on some rigid priority basis. There were others who felt that there is value in a human input that comes into the picture again at the time that the transaction is ultimately made. They gradually favored the ITS as presently operated.

Of course, to a certain extent, I think if you opened the limit order books on all the exchanges you would somewhat change that. That is one reason I was asking the questions about the limit order information system.

But there is that question of argument between the automated approach and what has sometimes been called the value of "the crowd." Of course, you don't have a "crowd" like you have at some foreclosure on the Rockefeller estate with a crowd buying the furniture. All of us know that the crowd is considerably smaller and perhaps interested in other things besides the particular stock that is being exchanged at that moment. I think you have the question of how valuable is the question of flexibility and judgment at a later time that is occasioned by the present system on the exchanges, and how must that be weighed against the value of something that you know is uniform and instantaneous in the Cincinnati system. There was considerable argument on these points.

Maybe the best solution is to try them both. As I understand the chairman, you have taken the view that Cincinnati ought to be folded into ITS. Am I correct on that?

Mr. WILLIAMS. We have requested in our rule or release approving the extension of both that they link together; yes, sir.

Mr. ECKHARDT. But then, of course, the question arises, "How will they be connected?" For instance, when I suggested that there might be the possibility of connecting them and giving some instantaneous or short period of time in which the input of the Cincinnati could be overturned by bids on other exchanges, the Cincinnati seemed somewhat resistant to that idea. They were very much committed to a very automatic system in which persons know that their bids and offers will be ultimately decided on the automated basis. So you run into the question of how these should be linked.

On the other hand, the New York Stock Exchange said, "Why should we simply feed orders into the Cincinnati without receiving any advantage?" So it seems to me that all of these questions need to be brooded about in the Commission, perhaps before a proposal is made. Maybe you need to afford some leadership in that area

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where there are rather strong views in contrary directions by persons involved in the system.

Mr. WILLIAMS. Mr. Chairman, I suspect all of the views—we can recite those pretty well—I think the posture we have endeavored to take has, I think, two basic dimensions to it. One is that the objectives are better implemented by the people who have the deeper understanding of the markets, who have the design capability, who have the user interest, because when it is all said and done, the question is what is their value and probably economic value to the marketplace that arises out of these changing dynamics.

I would suggest to you that the desirability of a linkage between ITS and Cincinnati becomes enhanced with the passage of time, if Cincinnati becomes a center for much more trading activity than it has been. And there is reason to believe that it is moving in that direction. What might appear to be an issue which one can theorize about at length takes on a practical dimension that at times creates—will create—answers, and they are not answers that we necessarily have, and we tried to get ourselves out of the position of being the ones who come up with ideas that the industry can then say that won't work and turn the thing around and get at least a basic frame that they believe can be delivered and one which we can build on.

ITS is different today than it was when the thing was put up, with 4 months of work, and it will be different a year from now than it is now. We have not tried to scope all of the characteristics that ITS should ultimately have because many characteristics it should have depend upon the extent to which it is utilized.

When one begins to look at ITS as a linkage for limit order execution it takes on a different sense of urgency than if it wasn't used for limit order execution, and if ITS is to compete effectively, say, with Cincinnati in terms of which direction orders should flow to, the desirability of ITS to be able to communicate more rapidly than it now does takes on a greater sense of urgency.

Mr. SCHEUER. Will the chairman yield?

Mr. ECKHARDT. Yes, certainly. I have taken a lot of time. You proceed.

Mr. SCHEUER. We ought to be letting 1,000 flowers bloom. We ought to be encouraging market forces. I have the feeling that the Commission is inhibiting a full and fair chance for the Cincinnati plan.

It seems to me that there are several inhibitions that you place in the way of a free pilot project.

First, you have given them another 3 years of life.

Mr. WILLIAMS. We have given them 3 years.

Mr. SCHEUER. For a plan that requires a good deal of up-front capital, one wonders whether a 3-year life provides enough time and enough incentive for private firms, even some exchanges, to make that investment.

It seems to me you ought to give them a far longer experimental period to loosen those bonds, and eliminate those impediments for the front-end investments that are acquired to get the plan operational.

Second, as I understand it, the Cincinnati plan is required to make a charge per customer, whereas the ITS facility is free.

Third, it seems to me the Cincinnati plan ought to be given a fair crack. They ought to be given a chance to put a terminal in each of the major exchanges.

The SEC ought to be encouraging that, and perhaps even requiring that, of each exchange in order to see how these market forces are going to work and in order to see what the fallout is going to be.

I doubt if there is anybody wise enough to estimate or extrapolate what the implications and ramifications of free competition between these two systems will produce.

But if we believe in the free enterprise system, we will let market forces tell us those things.

It seems to me you have placed real inhibitions in the way of a free trial for the Cincinnati plan.

Mr. WILLIAMS. Mr. Chairman, apart from your application of the principles you relate to Cincinnati, I would say we agree completely. We are trying to encourage interpretation, we are trying to provide an opportunity for market forces to work.

Mr. SCHEUER. How are you doing that?

Mr. WILLIAMS. Let me go back and give you a little history of Cincinnati, if I may. Remember, first of all in relation to any activity such as Cincinnati, the Commission is required to make a finding as to whether that activity is consistent with the principles of the act.

Difficult to do on a permanent basis—and other than the fact that as an experiment it would appear, if it works the way it is conceived as working, to be consistent with the act.

If we go back on the history of Cincinnati, when the Cincinnati application first came to the Commission, there were a number of characteristics.

No. 1, the sponsor of that program was of limited financial means. It appeared at that time that there might be—there was one broker-dealer, the largest, that indicated an interest in that program.

There was clearly inadequate administrative and surveillance capability in relation to Cincinnati. The Cincinnati exchange is in many ways almost a figment.

Finally, the system in many ways is a jerry-rigged system. Yet despite that, we gave it 1 year to see what would develop. Then we extended it a year. But in that period of time, several things have happened.

One is that there is a new sponsor, in Control Data, that brings to it not only capital but also some very significant computer expertise, both hardware and software, and some marketing capability that didn't exist before.

The involvement of the NASD in terms of some of the surveillance activity is also supportive.

We have developed initially with Cincinnati, and with Control Data, the ability to gain the kind of information that would give them the ability to surveil and us the ability to understand what it is that is going on in that market.

There was from the beginning some very real substantive concerns about the fairness and equity of the way that market would

work, which we were not in a position to prejudge, and we are not interested in prejudging.

Also in this interim period other broker-dealers have determined to go on to the Cincinnati, which suggests that the capital requirements are not that onerous.

In addition, both at the staff level—and I personally have been in contact with all of the major retail houses over time, with the inquiry of have you considered Cincinnati, what is your consideration, why have you determined to go or not go. Not in an effort to bulldoze anyone going on the exchange, but rather to understand what the considerations were, and to the extent to which the market provided an opportunity that they saw as an advantage, or the extent to which there were economic considerations that would mitigate against it.

The ultimate test, again, will be just to what extent does the industry see that it is to its advantage to utilize it.

So to respond to you, specifically, it is not clear that the front-end investment is that serious.

As far as the charge that Cincinnati imposes, it is not required to, but it chooses to, for economic reasons, impose a charge, which ITS does not. As they compete with each other, it is our judgment we should not be involved in ratemaking or in determination of which activity should bear a charge and which should not.

Finally, in terms of requiring a terminal in each of the major exchanges, in part it is a matter of leading a horse to water. If there is a perceived economic interest in it, I would expect over time there will be terminals.

Ideally, as we point out in our order of approving the rule changes on both ITS and Cincinnati, the ideal would ultimately be that they be in one terminal because if you are requiring a busy floor to consult another terminal, there is a real question in terms of the extent to which it will as a practical matter be utilized.

At the same time, in terms of—maybe this would be appropriate as a bit of a setting. As I indicated in my testimony, we begin with the premise that the capital markets of this country are really quite good.

Mr. SCHEUER. They are quite good, Mr. Chairman, now, quite good. But they haven't begun to apply the present state of the art in terms of instantaneous computer communication. My fear is that, as a competitive matter, over perhaps not only the long pull, but the middle pull, quite good may not be good enough.

I think it is a matter of common knowledge that other Nations are experimenting now with applications of computer communications to set up their own exchanges.

Now, I can envisage the day where, if we still have inhibited the application of the full current state of the art, that you will be able to make a phone call from Grand Island, Neb., and be hooked up to an exchange in Kuwait or Tokyo or West Berlin or London or Paris or Stockholm and get a better market for your security——

Mr. WILLIAMS. Why?

Mr. SCHEUER. Because you may, through time and price assurances that you don't provide now, get a quicker and a more fuller access to every bid and every ask. I don't say this is going to happen, but we have seen foreign Nations catch up with us and

pass us in the application of sophisticated technology in specific areas.

I represent New York City. I am concerned about the viability of the securities market in New York City. I am concerned about maintaining New York as the financial headquarters for the world.

I fear we are going to be faced with very serious competitive thrusts from abroad. I might mention Canada, as well as those other places I mentioned.

Mr. ECKHARDT. Will the gentleman yield.

Mr. SCHEUER. Let me just ask my question. Have you made any investigations as to the reality of this threat, that a competitive trading system abroad, based on the application of the highest technology, could offer a threat to our own market system, if through inhibitions to progress we keep it essentially in the horse and buggy stage?

Mr. WILLIAMS. Mr. Chairman, apart from I might say tracking our own activities, I would urge that we separate two things. One is that there is no necessary correlation between the application of technology and better markets. They can correlate, but they don't necessarily.

The Concorde may be an example of an enhancement in transport, but it doesn't necessarily make it economically viable. What attracts people——

Mr. SCHEUER. I don't accept that analogy at all because it seems to me that given a free crack at it, that the new technology would provide a far more efficient, a far more capital intensive and less labor intensive enterprise.

Now, let me read you just a couple of quotes along these lines, from the statement of William Schreyer that we had Friday.

On page 2 of his testimony:

> The securities industry is still very much a closed shop. It is inefficient because it is still largely manual. The trading process remains a system where papers are shuffled and orders and reports are handled manually.
>
> There are unnecessary duplications of facilities which require separate staffs and elaborate communication links. These inefficiencies are bearable now under current conditions and with the present volume of trading.

Going to the middle of the page:

> The system is expensive because these inefficient aspects I have just mentioned make it people-intensive and cause the cost of execution to be out of proportion to the effort which is needed to provide it.

On page 5, he says, "* * * We feel that a basic element of a national market system is competition among orders." A few lines down, "But when competition between market centers tends to fragment order flow instead of centralizing it, we believe that neither the investor nor the market itself is served."

"ITS * * * is a communications device and nothing more. It is as far from the concept of an automated, efficient marketplace as a tom-tom is from a communications satellite."

Now, that is rather harsh language coming from a knowledgeable professional, representing the most successful member firm in the country.

Next page, page 6, about a third of the way down. "We do have modern technology available to us in the forms of advanced com-

puter and communications devices, but these have not been exploited to the fullest."

That is a pretty direct statement from a responsible person.

Mr. WILLIAMS. There are responsible people who take different views. He is responsible. I don't question that.

Mr. SCHEUER. Now, we get the clear signal from many of the most prominent member firms, as well as a clear preponderance of the academics, that the Cincinnati system has not been given a free, fair, competitive access to the market.

We get the clear impression—and we get this consistently from the academics, and from the practitioners—that the SEC has not defined the criteria of a national market system, and then created the environment by which free market forces could move us toward such a system expeditiously.

There is an absence of leadership and imagination, imagination in defining many of the elements and components of what a market system would look like.

I am concerned, as a Representative from New York, and as a national Congressman, too, that unless we act now to liberate all of these dynamic forces, we could find our industry in very severe competition from forces abroad where there hasn't been concern with protecting elements of the industry that may still be in the horse and buggy age.

I suspect that the exchanges would like to see things remain the way they are. Like the Bourbon kings, there are some representatives in that industry who learn nothing and forget nothing.

Life being what it is, very little remains the same. Life being what it is, it is clear to me that the exchanges are going to have to use all the imagination that they can summon to find what their true role is in a future where instantaneous communications seem to impinge on what their traditional role has been.

Over the centuries it has been to provide a market and to provide communications. Now it seems that the computer and instantaneous telecommunications seems to be able to provide many of the elements of a market and a great deal better communications.

I am sure that the exchanges have a vital and dynamic role. I am not sure we are encouraging them to go through the effort to find out what that role is because I have the perception that we have sort of wrapped them in a cocoon and created some sense that, "all right, fellows, we are not going to let too much change take place, we are going to protect your traditional role that you had evolved before the age of advanced technology and we are not going to let any of these things hurt you."

Now, it may be that they are going to have to go through a period of change, and part of that change may be wrenching and agonizing. But I suspect there is enough imagination and talent in that industry and in the exchanges for them to find their role and carve it out, if we just leave them in an environment where there are normal competitive pressures for them to survive by accommodating and by adjusting to the new demands of a whole new age of technology.

My feeling is that the Securities and Exchange Commission is not producing that kind of environment; it is not producing an environment where either the exchanges feel a little hot breath

down their necks to really look at the future, and carve out a dynamic and constructive role for themselves, nor have you created the environment where as between ITS and the Cincinnati pilot the market forces can really begin to work, and to tell us something.

These are my concerns. They are echoed, by the overwhelming preponderance, of the academics, and by significant leadership in the securities industry itself.

Mr. WILLIAMS. That is a long statement. I don't know where——

Mr. SCHEUER. I would like to hear from all of you on this because this is basically where it is at and what it is all about.

Mr. EVANS. I will make a comment on it. I have some of the same concerns as you do. I have seen what happened to our steel industry, I have seen what has happened on a lot of other industries on the basis of what we have had and the ability to update things.

Mr. SCHEUER. I am glad you said something about steel because you are right on target. Steel is a capital intensive industry. It doesn't depend on slave labor. In a capital intensive industry it requires the summum, the maximum of research and development, of investment in new plant and equipment.

We have found in a capital intensive industry we can't compete with the Swedes, the West Germans and the Japanese. We not only cannot compete with them in London or Paris and Rome, but we cannot compete with them f.o.b. Pittsburgh.

Now, something is really rotten in Denmark, where in a capital intensive industry——

Mr. ECKHARDT. Pittsburgh?

Mr. SCHEUER. Sure. —where in a capital intensive industry we cannot sell steel f.o.b. Pittsburgh in competition with the West Germans, the Japanese and the Swedes, and we have had to wrap that steel industry in a cocoon of protectionism by tariffs and limitations on imports that are costing the American consumer billions and billions of dollars a year.

Mr. ECKHARDT. Is the gentleman suggesting that the reichsmark will ever be as stable as the dollar?

Mr. SCHEUER. If the gentleman has any questions on that score, I would like to do a little arbitrage with him. But really, you couldn't have it on a more appropriate point. I fear the same thing happening, where we can't sell securities in New York City as expeditiously and as cheaply and as fairly as you could sell those securities with a 10-cent phone call in an exchange in Kuwait or Tokyo.

I don't think that danger is beyond the realm of imagining. I fear it.

Mr. EVANS. I think you have been a little bit harsh on some segments of the industry. But certainly some of the fears you have and some of the questions you have are ones that I think have concerned us as a Commission, too.

As I read your conference report, when the act was put into effect it said, "It is the intent of the conferees that a national market system evolve through the interplay of competitive forces as unnecessary regulatory restrictions are removed."

That was the prime approach. We have not gone that prime approach. We have done it somewhat, and we have tried the other approach which was suggested, and that is by rules and regulations we try to facilitate the development of a national market system, too.

I think my comments would be that in the beginning the Cincinnati approach may well have been jerry-rigged because it is possible that that was the only way something like that could get started in the system that then existed.

It may have been done for that purpose. I think, however, that despite serious problems perhaps in the beginning and serious lack of interest by many members of the securities fraternity, there is becoming greater and greater interest, and I think there will continue to be greater and greater interest.

If the system works well, the interest will follow. If it doesn't then the interest should follow it. It seems to me——

Mr. SCHEUER. It seems to me the Commission ought to be creating the environment where it will have a crack at working well and where we can see if it is working well.

Mr. WILLIAMS. It has.

Mr. SCHEUER. As I see it you have not done that. You have placed it under severe impediments where it is going to be hard to see whether it could work well if it hasn't been under these competitive disadvantages.

Mr. EVANS. I think we are removing gradually those impediments to some extent. Now it may not be as fast as some of us would like.

Mr. SCHEUER. Why does it have to be a gradual?

Mr. EVANS. That is the view of the consensus of the Commission. That is the way it should be done.

Mr. ECKHARDT. Let's pass this on. Mr. Lent has been very patient here.

Mr. LENT. Thank you, Mr. Chairman.

Gentlemen, most of the members of our panel yesterday, the stock exchange and the NASD, expressed the position that the Commission ought to keep the pressure on the industry to facilitate the NMS but should not impose a plan on them.

I just want to go on record in agreeing with the evolutionary approach to the NMS. I would hate to see the day when we attempt to run the stock markets of this country of ours with all the efficiency employed by the U.S. Postal Service in delivering the mails.

I would not want to see a Commission plan forced or imposed upon this industry. Your testimony seems to go in this direction, if I read it correctly.

The GAO report, however, has recommended that the SEC impose a plan. My question is how as Commissioners would you plan to keep the pressure on and thus negate the necessity of an SEC imposed plan on the industry?

Mr. WILLIAMS. In answering your question, I will be picking up to some extent on some of Chairman Scheuer's observations.

We feel we are keeping the pressure on. The pressure is on from a number of ways.

One, we made it clear back in 1977 that one of the alternatives available is the removal of rule 390, and we reiterated as we have gone along that as long as reasonable progress is made toward developing a national market system that the need to remove rule 390, which to many in the industry would have some very horrendous consequences, is not a necessary course for us to follow.

Second, the very existence of Cincinnati itself has a stimulating force competitively in terms of the exchange structure.

Third, by several rules that are now in the process, we can and will be in a position to establish rules that will require certain developments to occur in a certain period of time.

Whether the pressure is adequate or not is clearly a judgment issue. Reasonable people may differ. It is something that we keep asking ourselves. We believe that the pressure is on. We believe that the movement is appropriate.

I think we believe that individuals may differ in terms of degree on the extent to which technology is an end in itself.

I might say from my judgment what we are dealing with here, the capital markets of the country, the best capital markets in the world at this point, and that the decision as to where the best capital markets should be stem much more from trust and confidence and a sense of certainty and many other issues that are not dealt with directly through technology.

The concerns about the effectiveness of these markets today, complaints from consumers, from investors, do not relate to technology. The expectation that $100 million or even $200 million could be saved, which boils down to between 1 and 2 cents a share, is inconsequential in terms of the consequences that would flow from a disruption of the quality and integrity of these markets.

Mr. SCHEUER. Would flow from what?

Mr. WILLIAMS. From anything that disturbs or disrupts the sense of either the integrity or the sense of confidence in these markets. But the cost of a transaction is essentially—it is not inconsequential, not something to be ignored.

But it is not the determinant that brings a person to this market as contrasted to other markets. Two cents a share isn't going to cause someone to go to Abu Dhabi to trade securities.

Therefore, while we need to be concerned about technology and we need to do what we can to enhance the quality of these markets we do not have a sick patient on our hands. The extent to which risk is taken in the interests of moving along, in the interest of complying with the mandates or the requirements of the 1975 act, should be measured.

Now, it is easy for an academic to design the ideal system. It is something else to go through the process of implementing it. I have been both an academic and implementer. They are a far cry from each other.

The ability to implement with confidence—put it a little differently—I am not about to be the person to come back to Congress and say I am sorry I implemented your program and it blew, the capital markets of this country are too important.

Mr. LENT. We tinker with a lot of things that work in this country and we——

Mr. WILLIAMS. We tinker in many ways we don't know how to tinker, but it is only easy to give advice.

Mr. LENT. Mr. Chairman, on page 9 of your statement you speak of the interest in the crowd as an important aspect of the exchange market, and you suggest that this interest possibly cannot be captured on a computer. Do you feel that specialists and floor traders provide a unique service to the operation of the market?

Mr. WILLIAMS. I think different Commissioners might answer this somewhat differently and they may want to.

One of the questions that we need more insight into, one of the objectives of any system would be to enhance depth and liquidity and one of the questions is the extent to which multiple market makers engage in making markets on the same security in competition with each other, will provide either a tighter market or more probably more hopefully, greater depth and liquidity.

At this point the specialist provides, at least on the major exchanges, provides that dimension. Whether he provides it as fully or whether there would be more of it under the alternative setup, I can't give you an answer at this point. I would be concerned to some extent about losing the affirmative obligations of the specialist but there are others who say it isn't that important.

Mr. LENT. The reason I asked that question, we heard some persuasive testimony yesterday by Mr. Lupien and Mr. Phelan that these specialists and floor traders do provide a unique service.

Let me ask you this. Suppose, for example, that the computer had a limit order to be executed at $50 but circumstances that would be known to a specialist but not to a computer meant that the State, that the stock would not stop in a decline but would go from say $53 to $50, but was going to race down hill even further to $45 or $40, is there any way that a specialist's judgment in a situation like that could be built into a fully automated system?

Mr. WILLIAMS. Offhand I don't see any, no. Some of those orders on an automated system would have been introduced into the system by a market maker, by a dealer for his own account and one would assume that, one would hope in a system of competitive market makers that even absent an affirmative obligation on their part that they would feel some obligation to be in there and to work in maintaining a responsible and effective market.

But we also face the question of, for example, rule 19(c)(3), whether affairmative obligation should be imposed upon market makers who deal in competition with the specialists.

Mr. LENT. I wonder if any of the other Commissioners have a different point of view on that?

Mr. LOOMIS. Well, I agree generally with what the Chairman has said. First, on pressures on the New York Stock Exchange. I have been around here a long time and for many years they were a monolith. You couldn't move them. But now they have changed. They are much more responsive to change than they were. Ten years ago they would not have conceived of allowing such a thing as ITS where orders can go out from their exchange to somewhere else. They would have been horrified. But now they are all behind ITS. That is part of the evolutionary process.

They are feeling the pressures and they are changing. Whether they are changing as fast as they should, I don't know. I am

inclined to feel they are not. But I can understand why it is hard to move people, particularly when their livelihood is involved. But nevertheless, there is a lot of motion.

With respect to automation, I do believe that that is coming but I don't think that we or at least I, know enough to say right now that a fully automated system will accomplish all the purposes that it might when there is a human element and human emotion and human judgment involved in this process, and as has been said, the system works fairly well and so I don't think because of the great value of some of these computer technologies, it is being used by the New York Stock Exchange too much more than it ever was, that a purely automated market will, I don't now how it would work.

I don't know how investors would fare in it and whether the investors might come out on the wrong end of the stick. So that I would like to see this move more gradually and not make any major changes which, for example, might eliminate the exchanges as we know them, until I had more assurance that what that new system was and how it worked and where investors were protected in it, are simply unknown. I think we had better move more slowly and perhaps keep the exchanges until we have something better.

Mr. EVANS. In direct response to your question, certainly specialists provide services in today's markets. If they didn't they wouldn't be there. They do assist the markets. In your exact question of the $50 price in an automated system, there are people who can add to and take from those limit orders at any time they want, those that are away from the market. So a person could remove his order of $50, if he thought the market was going to $48, or to $47, and put it in at this level. There is human judgment used in connection with an automated system just like there is in the system we have today. It is not devoid of human involvement.

Mr. WILLIAMS. In that simple example, let me speak for myself as an investor—not while I am at the Commission—but I want my order worked, I don't want it static in a system where somebody with later information may be able to hit my static order before I have been able to do anything about it. That is one personal bias.

Whether I am right on the bias or not the dynamics of that system is different and the order is in there until you pull it, which in many ways is a lot different than what it may be on the crowd of the New York Stock Exchange.

I am not trying to advocate one versus the other and Commissioner Loomis touched on it, what we are looking at, it isn't like going to the moon, which had a lot of technical, more technology than this would involve, but very little human dimension to it, apart from the ability to design the system and the few very unusual people who were able to pilot it there.

This is the kind of a system that would involve probably thousands of people, inputting information, real live time, with all kinds of error opportunity, with all kinds of people with thumbs trying to put information in, with all kinds of apprehensions about black boxes and how one deals with technology and everything else. At the ultimate it is a very revolutionary change in terms of how one interacts with the marketplace. And further, from an investor standpoint, and including the little investor, there is a

certain degree of confidence, in some cases lack of confidence, in our markets today. I don't believe the lack of confidence relates to the system as such.

Mr. LENT. I am not talking about confidence, I am talking about what you were talking about in your interest, the interest of the crowd or interest in the crowd as being an important aspect of the exchange market, and your estimate seemed to imply that human judgment and the nuances of person-to-person dealing in the auction market, traditional auction market, cannot be captured on mechanical equipment.

Mr. WILLIAMS. My own sense is I would like for the opportunity for a crowd to be there. I don't know over time how important that crowd really is. I do know that if I am working a large block order I would like to be able to get a sense of where the market is and where people are. That goes beyond what I might find on a montage.

But apart from that, I don't know at this point whether the importance of the crowd is, how much of it is real, how much of it is gossip, because it supports the existing concept, but I would like to find out in a more systematic way than making a judgment which in many instances is ideologically based, based on those who want to see it change because it is to their economic advantage or because they think it is a great idea versus those who want to maintain the status quo because they have too much invested in it. I can't sort that out.

Mr. ECKHARDT. I think Ms. Karmel wanted to comment.

Ms. KARMEL. Well, I generally agree with the response that the Chairman has given both to Mr. Lent and Mr. Scheuer. I think I would elaborate on the questions asked by both of them by mentioning a principle that I think is very important to this discussion and which hasn't really been raised so far today, and that is the system of self-regulation, which has always been very important to us as a Government regulator and to the industry in approaching both the regulatory and promotional aspects of developments in the securities industry. And I think what we are talking about is really what the role of the Government should be in acting as a promotor of the national market system.

As I read the history of the 1975 act's amendments, when Congress generally addressed this question it reaffirmed the principle of self-regulation, and it seems to me that one direction that we have been taking that I think is appropriate for us to be taking, is to encourage the various self-regulatory organizations to come up with some of the initiatives and some of the solutions to the problems presented by the national market system. I think it is a question of how we can encourage and give leadership to the private sector to make maximum use of existing technology and yet not lose that confidence in the marketplace that I believe is there in part because of the overall regulatory system that is in place.

I don't think that you can really separate out the importance of having the regulatory system and the regulations which make for a fair and orderly market and so to enable people to have confidence in the marketplace, from the need to enhance existing marketplaces with modern technology.

But the Commission is not a computer company and I don't think that we could or really should come up with computer designs or computer applications or enter onto a regulatory system where we are going to give out franchises or give out bids or give out grants for people to be developing these systems. I think thus far the securities industry and the country has been very well served by putting the primary responsibility for both, for economic developments upon the private sector, the self-regulatory organization and the industry, and I would be very concerned about a drastic change by the Government in that approach to the industry.

Mr. LENT. I have just one last question.

Mr. POLLACK. May I give you a complete answer. I think implicit in some of the suggestions that people make is that automation someday may replace judgments or crowds. It just is a different manner of capturing those judgments and the ultimate execution of them. But I expect even with a fully automated system, maybe down the road sometime, people would still talk with other people before they did indicate into whatever the automated system their offers or their bids were. So that automation is merely directed toward one element of a market system, it doesn't eliminate the need perhaps for market making activity which would come into that machine by the judgments of people.

Indeed, some would argue that you get bigger crowds when you have automation system because everybody has access to show his bids in this particular area.

I would like to comment back on the questions that have been rasied as to such pressure is being put on people. That, of course, as the Chairman said, is a judgmental factor, I do think the fact that a hearing such as this has been held may have some pressure exertions as well as what the Commission does in its own little bailiwick.

Mr. LENT. One last question. We are going to have a series of votes, Mr. Chairman, apparently.

Chairman Williams, I am sure by now you have read the GAO report of September 21, 1979, in which certain criticisms are leveled at your agency, and they talk about a lack of qualified SEC staff devoted to the project. That is on page 14. And they also call for the employment of qualified data processing personnel.

My question is with respect to your own shop, do you have in your opinion, enough of the right kind of experts working on the NMS project and, if not, do you have any plans to assign or recruit more, in addition to the 14 additional positions in the 1979 budget, and do you expect to be asking Congress for any kind of an additional appropriation?

Mr. WILLIAMS. Mr. Lent, I appreciate your question. Let me answer it several ways. One, and fairly generically, the Commission in the 1980 fiscal year will be functioning with some 44 fewer people than we had in 1975. During the interim we have been charged with a number of additional responsibilities, including national market system and including real burgeoning of options trading and a number of other things.

In addition, as we pointed out in our recent submission to OMB, there are areas of Commission activity that we are not in our

judgment discharging adequately. We are requesting a rather substantial increase in personnel for the year 1981 and a supplemental for 1980. While we strongly understand and support the desire of the President and the administration and the Congress to curtail the growth of the Federal budget, we feel that we must make clear the extent to which we are not discharging our responsibilities, so that those charged with budgetary oversight can share in the consequences with us.

Insofar as the national market system is concerned, No. 1, there are more people applied to this program than the GAO is willing to count and our judgment is that we have, this is a priority project of the Commission, that even within our tight budget we will apply to it within some practical constraints whatever we need to apply, and we will be and are recruiting additional people to work with us on it, but that is because there is an incubation before they really know enough about it to be very effective.

I would say in principal we have adequate resources applied to the national market system and our inability or as it is perceived to discharge certain projects within the dates we have provided for them, reflect other substantive kinds of considerations and not just enough cooks.

Mr. LENT. I am not seeking a firm answer here, as we probably will conclude this segment, at least my segment here, can you give us any kind of target date at which point you feel a fully functioning national market system will be in place, just a general idea?

Mr. WILLIAMS. I have got to answer you two ways. One is, it ties back to Chairman Scheuer's question, in many ways, to the extent that technology—to the extent that there will always be change both brought by technology and by the economic and behavioral conditions of what is put in place, so in a very real sense we will never have the ultimate market system.

I said several years ago that I expected that by the time my term as Chairman was up that the rudiments of a national market system will be in place. As I look back to the 1978 statement on the part of the Commission and the facilities that were articulated at the time I would suspect in essence those will have been implemented by that time.

Mr. LENT. I have no further questions.

Mr. ECKHARDT. We have a series of votes. We will take about 20 minutes. The subcommittee will be recessed for 20 minutes.

[Brief recess.]

Mr. ECKHARDT. The subcommittee will resume.

The Commission has conducted several proceedings to explore the elimination of the restrictions on off-board trading restrictions yet, several of the proposed rules are still outstanding.

Hearings were held in August 1977, on the June 1977 rule proposal, to remove restrictions on in-house agency crosses—that is, transactions where the member acts as an agent on both sides of the transaction, where the member acts as a principal in the transaction.

When will a decision be made on that proposal?

Mr. WILLIAMS. My delay in responding, Mr. Chairman, is because I am looking back at the language we used in our 1978 statement, February 1, 1978, which essentially at the moment is unchanged.

We indicated there that the Commission is willing to postpone removal of off-board trading restrictions—let me find it here—"The Commission is willing to postpone removal until further progress has been made toward implementation." We worded it in kind of a backward way:

> While the Commission has not yet concluded whether its option of proposed rule 19c-2 at this time must be necessary or appropriate to conform exchange rules to the requirements of the act or otherwise in furtherance of the act's purpose, the Commission does not wish its determination to defer consideration of rule 19c-2 at this time to be perceived as indicating that the Commission is willing to postpone removal of off-board trading restrictions indefinitely or until further progress has been made toward the implementation of any particular element of a national market system.

Mr. ECKHARDT. As I understand, you said you were delaying it at that time because you wanted to see what would happen.

Mr. WILLIAMS. What we said then was many commentators were concerned about the impact of removal and so long as meaningful progress was being made toward implementation of a national market system we would consider defering it.

That is still the status, Mr. Chairman.

Mr. ECKHARDT. So the rule proposal is still available and outstanding?

Mr. WILLIAMS. That is right.

Mr. ECKHARDT. You have no intention of taking action on it at the present time?

Mr. WILLIAMS. This is not a matter that we have discussed as a Commission in the last short period of time at least. I would say there is no present intention to dispose of that.

Mr. ECKHARDT. When was the last time the Commission sat down to discuss this?

Mr. WILLIAMS. The last time that there was specific consideration in which there would have been a communication with each other would have been in conjunction with the 1979 release dated April 4 in which we reaffirmed that position.

Ms. KARMEL. I think you would also have to really include the discussion that Commissioner Loomis referred to before when we had a meeting on the 19th on the three-rule proposal, which is a related rule proposal.

Mr. EVANS. Also, the decision with respect to the change of the listing standards for the AMEX would have had some of the same elements in that discussion.

Mr. ECKHARDT. In April of 1979 the Commission proposed a prohibition on application of rule 390 to stocks listed on the exchange after April 26, 1979. That was rule 19c-3, I believe.

Mr. WILLIAMS. That is right.

Mr. ECKHARDT. Hearings were held this summer. What are your plans with respect to a decision on this matter? Do you have any kind of timetable in mind?

Mr. WILLIAMS. No, not a specific timetable. We have an extensive comment period including some comments after the hearings. Those are being collected and I would expect that—I cannot give you a specific date, but I would expect that will be coming before the Commission rather soon.

Mr. ECKHARDT. In the March status release the Commission identifies certain problems with quotation information which is dis-

seminated to broker dealers. You were concerned about timeliness of this information and its reliability.

You stated each of the principal vendors of market information should commit themselves to the goals of displaying transactions and quotation information within a very few seconds after receipt.

What is being done to assure that such improvements are in fact being done?

Mr. KLEIN. Mr. Eckhardt, the staff sent letters to each self-regulatory organization recently asking them generally about their whole program of surveillance and enforcing the quotation rule.

In addition, compliance with the quotation rule has met the specific focus of our oversight examinations of exchange, and we are gathering data by that means as well as awaiting responses to our staff letter.

We have not yet submitted as a staff to the Commission a status report on that, but are giving it a good deal of attention currently.

Mr. ECKHARDT. Thank you.

Mr. Scheuer?

Mr. SCHEUER. Thank you, Mr. Chairman.

I would like to get back to what I was discussing before, and hope that I can get as many reactions from as many of you as possible to my concerns.

I wasn't intending to communicate any desire that the SEC impose any specific systems, any specific technology on that big wide market out there. I wasn't asking for more regulation.

What I am asking you for is for less regulation. What I am suggesting is what the Commission ought to do is to make some broad policy decisions as to what some of the elements of a national market system should be and then leave it to the forces of competition to work their way toward a national market system, or the technology that a national market system would provide, in a competitive market.

I get a clear signal, most of the academics that we talk to have confirmed this, important leaders in the securities industry have confirmed this, that the technology that we are applying now is far less than the best, to use a well-known phrase, and that you have created an inhibiting environment in terms of how we can move toward the best.

There is a certain amount of risktaking here. There will be dislocations, there will be some players who get hurt, some players who get helped. But that is free private enterprise.

If you don't believe in that, you don't believe in market forces. Nobody can predict how it is all going to turn out. Our confidence and our trust has been placed in the operation of all of that ingenuity and resourcefulness that has traditionally been in our American society.

I fear now we are overregulating and that we have permitted the exchanges in a sense to continue overregulating. What I am talking about is liberation, not more regulation.

I am talking about a little bit of risktaking now, which traditionally has been part of the process, and part of the environment, in order to avoid the very much greater risk that if we don't move forward now we will find other people have moved forward and filled that vacuum.

What I am asking for, Commissioner Karmel and all of you, is not more regulation, not a more structured environment, not more burdens to be placed on initiative and the free play of market forces, but less regulation, a less structured environment, a more positive environment for this rather mysterious and unpredictable process called change.

We know that there is a price tag on change. In any organization, when things are changed, there is a price tag. But the question is on a cost and benefits basis, how do you minimize the cost of progress?

I do want to make it clear that I am not talking about any rigid structure being imposed. I am talking about a system that will liberate all of the talent out there and provide for the experimentation and the trial and error methods that have served us very well in the past.

I would like to hear from any of you who wants to address yourselves to that. I would like to see free competitive forces determining whether the ITS or the Cincinnati system seems to offer the most advantages and the least cost.

I would like to see a system whereby the Cincinnati process was not under competitive structured competitive disadvantages. I would like to see a system whereby it would be available as an option in each of the exchanges.

We will soon see, I would think, within a comparatively short period of time, once it were available, I would think that competitive market forces would be sending us some signals.

Ms. KARMEL. Well, it is very hard to disagree with a plea for less regulation and more competition in the marketplace because I think probably the last thing the public is demanding today is more regulation.

At the same time, if the free forces of competition were sufficient to make the public securities markets the kind of markets that we want to have in this country, we wouldn't have a Securities and Exchanges Commission to begin with because it really was the failures of the marketplace in 1929 that led to the creation of the SEC.

Again, it was the failure of the marketplace in free competition in the 1960's that led to the 1975 act amendments. So we are operating under a regulatory scheme that was a response to marketplace failure.

I think that—I certainly speak for myself—in the discussions we have had the rest of the Commission agrees that to the extent that we can permit the private sector to come up with dividends of experimental suggestion and to embark upon dividends of trading experiments, we have been encouraging those experiments.

That is really why we have chosen what we have called an evolutionary approach to the market system instead of trying to impose a system on the whole industry.

I suppose my judgment is that the securities industry today is not stultified. It seems to me it is a very rapidly changing and dynamic industry. That doesn't mean that greater improvement isn't called for or that better and greater application of modern technology would not be helpful.

I think that, however, we do have to keep in mind that we have our present regulatory scheme in order to maintain fair and orderly as well as competitive markets. And that in trying to protect the public investor and give investors confidence in the marketplace is very important in some cases not to have totally free competitive market forces, because that sometimes leads to the kind of abuse that made Congress put in the present regulatory scheme and made Congress amend the securities laws in 1975.

Mr. EVANS. I think what is being discussed here may be two different things. As far as maintaining a fair and orderly market and avoiding fraud or misrepresentation, we obviously have a definite responsibility.

Mr. SCHEUER. No question about that. Nobody raised that as an issue.

Mr. EVANS. You suggest we have perhaps created an environment that discourages innovation. I don't believe we created it. It was already there. What we haven't done, we haven't taken care of removing that.

Mr. SCHEUER. I will accept that.

Mr. EVANS. That may be what you are saying.

Let me remind you that every time we have tried to remove anticompetitive barriers we have had great opposition from the industry.

Mr. SCHEUER. From what segment of the industry?

Mr. EVANS. I would say probably 95 percent of the industry. The segment that doesn't want to change, and that is about 95 percent of the industry. Whenever we have had this we have had great opposition from a majority of the responses we have had from Congress and all kinds of suggestions as to what would happen to the system.

There are very few people, it would appear, that believe that competitive forces really will work out to make the best markets, or perhaps they do believe they would and are concerned about their own position in that competitive system. I don't know which it is.

Mr. SCHEUER. Let's take the last major step in encouraging competition when we unhook commissions. Now that did cause some hardship in the industry. It did shrink the industry somewhat.

Is there any great question in your mind that the consumer, the investing public, is better off now?

Mr. EVANS. In my mind it is better off and the industry is better off, and it is stronger and more efficient than it was before.

Mr. SCHEUER. I agree with you.

Mr. EVANS. There are still arguments, however——

Mr. SCHEUER. Were they the best predictors of how they would be affected before the act?

Mr. EVANS. Well, those that suggested there be firms go out of business predicted well and should have predicted that marginal firms should have gone out of business.

Mr. SCHEUER. They predicted that the whole industry would be hurt.

Mr. EVANS. There was a great concern about that.

Mr. SCHEUER. There is no great evidence that the securities industry is the best judge of its own best interests, to be very frank

with you. They opposed the Securities Act of 1934 or 1935. They opposed the basic intellectual underpinnings of security regulation, which was full disclosure, right?

Mr. EVANS. Yes.

Mr. SCHEUER. Wouldn't you say that full disclosure today constitutes the intellectual underpinnings of the very real credibility and confidence that the American public has in the securities market?

Mr. EVANS. We ought to agree with that or else we shouldn't be here.

Mr. SCHEUER. Now, I have talked about the competitive disadvantages under which I perceived the Cincinnati system has been placed. I would like to see at least on an experimental basis equal access to that system in at least some if not all of the major exchanges.

I would like to see them given a sufficiently long lease on life to eliminate the problem of front-end investment, which we have had testified is a problem, with only a 3-year lease on life.

I would like to see at least an experiment by which ITS is not subsidized by the New York Stock Exchange, and providing a free service when the Cincinnati system, which is only one business, providing that communication services has to charge a fee for it.

Ultimately, the consuming public is paying for ITS, even though it is being subsidized by the stock exchange. The stock exchange is carried by the whole securities market, really.

I would like to see at least some experiments in equal access to ITS and the Cincinnati system without a price encumberance on one let's say by removing the subsidy on the other.

Mr. EVANS. Would you suggest we use direct regulatory authority to preclude the New York Stock Exchange from providing subsidies, as you call them, to the ITS system?

Mr. SCHEUER. I am saying as a matter of principle that we ought to structure an environment, at least on an experimental basis, whereby the investing market has equal access to both of those systems, on fair terms, and maybe it would include, telling some of the exchanges this thing has to pay its own way.

I fear you don't have an equal competitive environment in which to test and innovate and experiment and come up with some judgments based on actual experience.

Ms. KARMEL. As a regulator, I would have to say that, listening to what you are suggesting, it sounds to me like the same kind of Government ratemaking which the Commission got out of by having Commission rates becoming unfixed.

Mr. SCHEUER. There are lots of Government activities in ratemaking that is designed to encourage fair competition and eliminate unfair trade practices. We prohibit loss leaders, don't we. We prohibit railroads from offering rebates to large customers.

It seems to me that, in other industries this kind of practice would be called certainly an unfair competitive practice. It seems to me it would be in the interest of our country to have a controlled experiment with ITS and Cincinnati on equal terms.

Mr. WILLIAMS. Mr. Chairman, I guess in terms of the principle you articulate, the generalized ones they be, I don't think anybody can disagree with them.

In terms of what you commented earlier that we ought to do these things within the parameters of our own best judgment, I would have to say that is in the eyes of the beholder. This at the moment is our best judgment. We will consider your views, yet I think we have to acknowledge that. Let me put it this way.

Commissioner Karmel talked about the regulatory scheme under which the Commission functions or has functioned traditionally, which is one of essentially oversight and not economic regulation.

I think it is more than coincidental that the Commission in the context of that kind of regulatory scheme has developed the recommendation it has as an effective Government agency by contrast to those that engage in economic regulation.

I don't relish, because I don't think we have to, the competence or know where to draw the lines that this Commission engages in economic regulation any more than is just unavoidable, and indeed to require that the ITS bear a charge.

Mr. SCHEUER. You are permitting the securities exchanges to say we want this system instead of that system, and to frustrate a fair test between A and B we are going to subsidize A. They may feel that the interest of the exchanges are best protected by serving the status quo.

It may be their perception that ITS is very much closer to the status quo than the Cincinnati system, and that it threatens that. I am not saying this is. I am just suggesting that we get these vibes in the air.

Mr. WILLIAMS. I have no doubt that there are self-interests involved. There are self-interests in both schemes and there is a way to make those work within the context of investor protection and fragmenting markets and other things don't enhance the quality of executions or the protection of investors. It is not merely a matter of enhancing competition among markets and market makers, there is an objective in mind and that is the investor and the protection of that investor and in the scheme of things. The price an investor gets on an execution of an order has a lot more significance in many ways than the cost of the execution, although I don't minimize the importance of the cost.

There is an enormous amount of increased interest and activity involved with Cincinnati and we are continuing to look at Cincinnati and watch it very carefully. That is why we came out with the 3 year just as we watch ITS and each of the others and why we have been engaged in conversation with the retail firms.

We are not insensitive to the Cincinnati experiment. We are trying to create and are creating, in my judgment, an environment in which the Cincinnati can function and in which it can be determined by the users of the system to what extent it is effective, if it were, to turn out that 2 cents a share, I think it is 2 cents a share, that Cincinnati—it is a variable charge—that that becomes a very significant or threshold factor, it is something that we certainly will look at.

But Cincinnati is alive and well at this point and to me it is a matter of at what time and in what context the Commission trades off different aspects of its responsibility and engages in the kind of activity and economic regulation that we have a very real philosophical reluctance to engage in.

Mr. SCHEUER. What I am suggesting is, that you are engaging in economic regulation by creating economic impediments. It is economic regulation if you have given them such a short time frame for life that they have difficulty raising the up-front capital to put their systems in being.

I am not sure how great an impediment that is but this is sort of a question of the Chinese drip treatment and every layer of economic penalty sort of becomes an accumulative add-on to everything else.

Mr. EVANS. Mr. Scheuer, could I make a couple of comments on your earlier line of discussion, and also on the latter one?

I would have real serious problems in trying to limit any group from participating in a market system that they wanted to participate in.

I can understand why you would like to have equal clean laboratory type competition between two different systems. But even if we were to take away the support given by exchanges to the ITS, this would not necessarily mean there would be equal competitive opportunity.

There are other relationships which exist which are very important. These wouldn't all disappear. What we are dealing with is an existing system and how it works as compared to a new type of system. There is a lot of inertia connected with what is happening now.

Mr. SCHEUER. I agree with you. But in order to begin to learn some lessons on how the market values those personal relationships with the specialists, the crowd, you have got to put them on a cinder track by which they can all run at the speed at which they are capable of running.

It is just because I want to get some signals on how the market values the dealer relationships, the specialist relationships, the crowds, and so forth, that I say give them the environment in which we can fairly test these things.

Mr. EVANS. With respect to your second issue, that of establishing criteria or making certain policy decisions, I think there is a lot of merit to that.

I certainly don't agree with the GAO that we should establish a system and say what it is going to be. But I do think there are certain policy decisions that can be made and that these would be helpful to people.

Now, we have made some, and we have made others, and we have changed with respect to some on the basis of what we have seen perhaps or differing views. But I think that is important, to have some parameters within which we expect people to operate.

Still, there would be a lot of give and take and a lot of changes. I think you would have to expect that as we went along.

Mr. SCHEUER. There should be give and take. There should be a very flexible environment. There should be a crucible in which change can take place, under your careful scrutiny, under your continuous surveillance, with an opportunity for you to send up the red flag signal at the first sign of trouble but at least letting that crucible bubble and boil a little bit.

This is what we hope you will be doing.

Mr. LOOMIS. I would like to venture some observations on the specific matter of ITS and Cincinnati.

I hope that Cincinnati develops and is used more than it is now. But there are problems. You can say that there is this price matter. But I don't see an easy answer to that because I also want to see ITS developed and used for all the various exchange markets.

If we should attempt to impede ITS by saying—reducing their funds or something like that, the consequence might be that we would be going backward toward a national market system, insofar as the regional exchanges can participate in ITS.

So, it is not just a simple thing. We want ITS to go and we don't want to put any unnecessary impediments to its development.

Mr. SCHEUER. We don't, either. What we want to do is create an environment where the individual investor, the individual stock exchange house, in making its decision as to which system it wants to plug into, can compare apples with apples and peaches with peaches.

Mr. LOOMIS. I understand.

Mr. SCHEUER. That is all we want to do, leave it to the marketplace.

Mr. LOOMIS. I understand, but the only way to do it, since we are not in a position to subsidize Cincinnati, is to either leave this matter where it is or attempt to impose burdens on ITS.

Mr. SCHEUER. You might very well want to say that in order for investors and security houses to make rational decisions, ITS shouldn't be artificially subsidized by the exchanges.

Mr. LOOMIS. If you did that, with all respect, you would discourage the use of ITS, you would merely concentrate trading on the New York Stock Exchange, which is maybe something we don't want to do.

Mr. SCHEUER. As a New York Member of Congress I would see no objection to that at all.

Mr. LOOMIS. I am sure you would have no objection. But the regional exchanges probably would have some objection to that. So it is not all that simple.

So far as the longer life of the Cincinnati, I don't know whether there is any magic in 3 years, but they are a new organization and we have to have some hold on whether they can and will meet the standards that are expected under the statutes for all exchanges.

This being very new, we didn't choose to say that they were released in perpetuity. Now, maybe 3 years is too short a period of time. Maybe it should be more. But we have to maintain our surveillance for the protection of investors over this operation.

There are possible implications of the way they work, which might turn out badly for investors if the firms engaged in executing their customers' orders were themselves through Cincinnati, which can be done. That bears watching.

I agree with you that we shouldn't impose any burdens on Cincinnati, that we should try to promote its ability to compete. But it is not as simple as you think because we don't want to hurt the regional exchanges, and the importance to the national market system of the ITS succeeding.

We would have to intervene there and say, no, you can't spend your money the way you want to on ITS, as a regulatory decision, which I have some trouble reaching at this stage.

Mr. SCHEUER. Well, if none of you have anything further to say, let me thank you for coming here. You have been here almost 5 hours. You have been very patient in bearing with us.

We are going to submit some further questions in writing as we sort of think through this morning's hearings. So we will keep the record open for 2 weeks.

I would think that early in the year we would be wanting to have some further hearings on this general matter. So with those words, thank you again for your patience, your forebearance, and your exceptionally thoughtful testimony.

Mr. WILLIAMS. Thank you, Mr. Chairman.

[The questions referred to and the response follow:]

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Congress of the United States
House of Representatives
Committee on Interstate and Foreign Commerce
Room 2125, Rayburn House Office Building
Washington, D.C. 20515

October 19, 1979

Honorable Harold M. Williams
Chairman
Securities and Exchange Commission
500 North Capitol Street
Washington, D.C. 20549

Dear Mr. Chairman:

We appreciate the participation by you and your fellow Commissioners in the hearings held by the Subcommittees on Oversight and Investigations and Consumer Protection and Finance regarding the progress towards the development of a national market system. The hearings were useful to the Subcommittees in understanding recent developments related to the implementation of the Securities Acts Amendments of 1975.

As a supplement to the record, we would appreciate your comments regarding the following matters. To facilitate printing of the record, please provide the Subcommittees with your answers by November 9, 1979.

A. In March of this year, the Commission modified the position it had taken the previous year with respect to time priority in a national market system:

> "absolute time priority proposed to be afforded public limit orders entered in the Central File would have significant deleterious effects on the exchange trading process. Therefore, the Commission decided to allow the participants to develop some sort of limit order protection through the Intermarket Trading System." ("Status Report on the National Market System," 44 Fed. Reg. 20360, (1979), hereinafter, " March release")

What specifically are the "significant deleterious effects" on the trading system which the introduction of time priority would have? On what analysis is this conclusion based? What plans does the Commission have for study and consideration of this issue in the future? If an inter-market price protection system is developed, as is currently contemplated by the Commission, and later the Commission returns to its earlier position with respect to time priority, how easy will the transition to time/price protection be? [That is, will systems currently being developed to meet the price protection requirements be readily adaptable to time/price priority or will entirely new systems and devices have to be developed?]

In the March release, the Commission stated that a price protection system should be implemented, on a pilot basis, by the end of December, 1980. Why is one year and nine months required to put such a pilot program into operation?

In footnote 31 of the March release the Commission suggested that a rule may not be necessary to assure intermarket price protection. Following the suggestion of the New York Stock Exchange, you observed that "voluntary procedures" may be adequate to assure price protection. In light of testimony by witnesses appearing before the Subcommittees that specialists and brokers sometimes are not now using the ITS system to send an order where the better price is, how does the Commission expect such a "voluntary procedure" to provide adequate price protection?

B. At the hearings, Chairman Williams stated that with respect to removal of the New York Stock Exchange's Rule 390, the Commission has indicated to the industry that "so long as meaningful progress was being made towards implementation of a national market system," the Commission would consider deferring removal of the rule. What is "meaningful progress?" What is the criteria used to determine whether or not "progress" is being made? What is the criteria for determining the point at which progress is no longer being made? In view of the lack of certainty as to the ultimate configuration of a national market, how can the Commission judge whether particular developments constitute "progress" towards the development of a national market system?

1. In administrative hearings regarding the off board trading restrictions, witnesses have raised a variety of reasons for opposing removal of the restrictions [for example, "internalization," lack of equal regulation]. What specifically is the agency doing to try to determine which of these issues are problem areas, and to develop techniques for solving the problems?

2. There has been considerable concern expressed by the exchanges and by the Commission about the problem of "internalization," or the misuse of public orders by the broker acting also as dealer. Does the Commission consider internalization or the prospect of internalization a significant problem? If it does, and if the Commission does not mandate time priority in the national market system, please describe with some detail a possible market system structure which avoids "internalization."

How does the potential misuse of public orders by the broker acting as dealer differ from the specialist acting as market maker, plus acting as agent for orders left on the book, plus (in the case of the New York Stock Exchange) acting as agent for Designated Order Turnaround System orders?

Is the Commission satisfied that present surveillance systems are sufficient to preclude abuse in this area?

C. At the hearing, it was reported that inquiry has been made of the self regulatory organizations regarding their enforcement of the quotation information rule. What have been the results of this inquiry? What is the most egregrious problem with respect to compliance with the rule which has arisen? What enforcement actions has the Commision brought for violations of the rule?

In the March release the Commission stated it expected exchanges to take "prompt action" to correct quotation problems. What action did the exchanges take? When did they take it? Is the Commission satisfied with the response of the exchanges to that admonition? If not, what will the Commission do?

In the March release, there is a footnote urging vendors to comment on the costs of achieving the goal of "displaying transaction and quotation information" a short time after receipt of the information. Have you received such comments? Generally, what have been the results of the inquiry?

D. In the March release, the Commission stated that it believed "the CSE System offers a unique opportunity for the study of certain issues," and that if exchanges and broker-dealers are not currently participating in the system, they should consider doing so. The Commission also suggested non-participants should consider letting the Commission know of their reasons for not participating in the system. How many responses have you received to these inquiries? What reasons have been given for non-participation in the system? Has the Commission done anything else to find out why there is not more participation in the system? If so, what are the results? What has the Commission done to find out why "[a]lthough CSE System terminals are installed on the floors of the BSE, MSE and PSE, specialists have made little or no use of the System"?

E. In the March release, the Commission observed that "the self-regulatory organizations and the securities industry have increased their collective commitment to enhance and perfect market linkage and information systems." Today, systems continue to operate rather independently of each other. What has the Commission done to "facilitate" the linking of these various systems? In the Commission's view, how important is a linkage between the third market, the ITS, and the Cincinnati facilities? If it is important, what incentive is there for the parties to accommodate each other?

In the case of a stalemate in discussions between the parties, what will the Commission do?

How do you anticipate that the Cincinnati system should interact with the ITS system? Specifically state how the mechanics of the interconnections would operate and describe hypothetical transactions which would be made through the system.

F. In the March release, the Commission adopted the New York Stock Exchange's proposal that the existing NYSE/AMEX switch be adapted so that it will have the capacity to perform "message routing." The New York Stock Exchange indicated that it felt the project could be completed in three to six months following agreement on specific terms. The Commission indicated its acceptance of the New York approach. Further, the Commission acknowledged the existence of talks between the Midwest and the NYSE/AMEX regarding the availability of the switch. It urged those discussion be continued and that "a satisfactory agreement...be promptly reached." What is the status of the adaptation of the switch? What is the status of the discussions between the New York and the Midwest Stock Exchanges? What action has the agency taken in the last six months with respect to these matters?

Also in that release, the Commission deferred its decision with respect to imposing any requirements for order by order routing of retail orders to the best market. When and under what circumstances will this issue be considered?

G. In September, 1978, the D.C. Circuit Court remanded for reconsideration by the Commission two issues in Bradford National Clearing Corporation v. SEC, 590 F.2d 1085 (D.C. Cir. 1978). Six months later, the Commission solicited comments on the issues which were remanded.

What has the agency done to examine these issues? When will a decision be made regarding these issues?

H. The General Accounting Office criticized the Commission for the small number of and the nature of the qualifications of staff assigned to national market issues. On the other hand, the Commission has indicated there are more staff working on the issue than the GAO is willing to acknowledge. How many staff are assigned to national market issues? What proportion of their time is spent on these issues? How many of these positions are currently vacant?

The GAO raised questions about the length of time required to develop the composite quote system and the transactional tape. Much of the Commission's testimony was devoted to listing the issues which had to be addressed in conjunction with implementation of a consolidated quotation system. Can you be more specific as to why several years were required to resolve the questions related to the implementation of a consolidated quotation system? Was it a problem of obtaining adequate information on which to base decisions or of accommodating diverse views on certain matters? What other factors are involved?

Did the Commission evaluate the data processing capability of the Securities Industry Automation Corporation? If so, could you furnish the Subcommittees with a report on that evaluation?

I. In his testimony, Mr. William Schreyer of Merrill Lynch, Pierce, Fenner and Smith, Inc., raised a question about the ability of the current system to cope with high volume trading days on a sustained basis. What is your assessment of the ability of industry to handle a sustained level of high volume?

Also in his testimony, Mr. Schreyer announced the development by Merrill Lynch of a system designed to route orders to the market showing the best quote for a stock. What is your assessment of the competitive implications for the securities industry of such a development? What does this mean for the Commission's role in facilitating the development of facilities designed to insure a fair field of competition?

J. Some witnesses in their written testimony raised concerns about the promptness with which the Commission handles the rule changes of the self regulatory organizations proposed under the requirements of Section 19(b) of the Securities Exchange Act of 1934. Please comment regarding the agency's problems in meeting the statutory deadlines. What is being done to resolve those problems? How many proposed rules subject to the Section 19(b) requirements are pending before the Commission? What is the average actual time that has elapsed for each of the steps in the process of consideration of the rule [i.e., from the date of receipt of the proposed rule to publication of notice of the filing; from publication to approval of the rule change, etc.]?

The Commission was also criticized for its failure to grant any unlisted trading privileges since December, 1977. How many such requests are pending? Why has the Commission not acted on these requests? Has it devised standards for the granting of such requests? If not, when will it do so?

Several witnesses raised the question of the manner in which options will fit into a new national market system environment. Please describe specifically what the Commission is doing to consider the question of options trading in the national market system.

Other witnesses raised concerns about the display requirements for quotations on the composite quotation system (CQS). Under the Commission's proposed rule, the CQS will show only the highest bid and lowest offer, not a montage of all bids and offers. How difficult would it be for the vendors to display all quotes, and what are the objections to doing so?

K. In what manner has the Commission considered the matter of the role of the market maker in today's system - i.e., the specialist as a market maker and the "upstairs" market maker - and what the role of the market maker should be in a new national market system? Has the Commission considered the question of the nature of affirmative and negative duties which should be imposed on market makers in a new system? If so, how has this been done? If not, what plans does the Commission have to consider this question?

L. In both the Commission's recent orders approving continued operation of the Intermarket Trading System (ITS) and the Multiple Dealer Trading System (CSE), there are footnote comments to the effect that the Commission will continue to consider the policy issues related to the ability of firms to transact business on a principal basis with their own retail customers and the need to ensure that order flow in every particular market center is exposed to buying and selling interests represented in other market centers. These deliberations, which "may well lead to regulatory initiatives which have a significant impact" on the CSE and ITS System, are matters which you said should be addressed in "a broad and generic context." What plans does the Commission have for addressing these issues? What is the staff doing to study issues which would bear on the Commission's final decision? What regulatory initiatives are contemplated?

M. Should the national market system accommodate odd lots trading within its environment or does odd lot trading have to be handled in a fully dealerized system as at present?

N. In the March status report, the Commission focused attention on the ITS, and stated that certain operation characteristics of the system must be "substantially improved." One of these enhancements was "reduction in the length of time required to enter commitments to trade and receive execution or rejection reports." In the six months that have elapsed since the March release, how much has the time required to use the ITS actually been reduced?

Thank you for your cooperation. If you have any questions please feel free to contact us, or the Committee staff: Kathryn Seddon, Counsel to the Subcommittee on Oversight and Investigations at (202) 225-5365 or Franz Opper, Counsel to the Subcommittee on Consumer Protection and Finance at (202) 225-7790.

Sincerely,

James Scheuer
Chairman
Subcommittee on Consumer
Protection and Finance

Bob Eckhardt
Chairman
Subcommittee on
Oversight and Investigations

cc: Commissioners:
Philip A. Loomis, Jr.
John R. Evans
Irving M. Pollack
Roberta S. Karmel

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

OFFICE OF
THE CHAIRMAN

November 9, 1979

The Honorable Bob Eckhardt
Chairman
Subcommittee on Oversight
and Investigations

The Honorable James Scheuer
Chairman
Subcommittee on Consumer
Protection and Finance

Dear Congressmen:

On behalf of the Securities and Exchange Commission, I respectfully submit the following response to your letter dated October 19, 1979. As a matter of convenience we have, where possible, answered groups of questions with a single response.

A. In March of this year, the Commission modified the position it had taken the previous year with respect to time priority in a national market system:

> "absolute time priority proposed to be afforded public limit orders entered in the Central File would have significant deleterious effects on the exchange trading process. Therefore, the Commission [has] decided to allow the participants to develop some sort of limit order protection through the Intermarket Trading System." ("Status Report on the National Market System," 44 Fed. Reg. 20360, (1979), hereinafter, "March release")

What specifically are the "significant deleterious effects" on the trading system which the introduction of time priority would have? On what analysis is this conclusion based? What plans does the Commission have for study and consideration of this issue in the future? If an inter-market price protection system is developed, as is currently contemplated by the Commission,

and later the Commission returns to its earlier position with respect to time priority, how easy will the transition to time/price protection be? [That is, will systems currently being developed to meet the price protection requirements be readily adaptable to time/price priority or will entirely new systems and devices have to be developed?]

One of the essential elements of the Commission's program announced in its statement on the development of a national market system issued in January 1978 ("January release") was the nation-wide protection of public limit orders. The Commission initially proposed that such protection be achieved through the development of a central public limit order file ("Central File") through which public agency limit orders would be provided a preference over all other orders at the same price and ranked within the facility in accordance with time and price priority. However, a number of commentators argued that the implementation of the Central File would have significant adverse effects on the exchange trading process. Specifically, those commentators asserted that the provisions of an absolute preference for public limit orders would provide a major trading advantage to these orders, thereby creating a disincentive to the commitment of market making capital by dealers. In addition, because of the preference provided public limit orders over all other orders, commentators suggested that virtually all public orders would be entered as limit orders in the Central File, thus eliminating the role of exchange floors and inexorably forcing all trading into a fully automated trading system.

As noted in the Commission's status report issued in March 1979 ("March release"), the Commission cannot predict accurately the consequences of implementing a limit order protection system based on affording orders entered in a Central File an absolute preference over all other buying and selling interest. However, it recognizes the possiblility that introduction of such a system might fundamentally alter the role played by existing trading mechanisms before the Commission has had an opportunity to test and evaluate the capability of alternate systems. Therefore, the Commission determined to initially concentrate industry and Commission efforts on the near-term achievement of nation-wide price protection initially for public limit orders and eventually for all displayed quotations.

The Commission has made no final determination regarding whether either an absolute preference for all public limit orders or the ranking of all limit orders on the basis of time should eventually be characteristics of a national market system. After nation-wide price protection for public limit orders has been achieved and the Commission and the industry have had an opportunity to evaluate the trading environment which results, the Commission will be in a better position to determine the necessity and desirability of implementing systems to permit nation-wide ranking of all public limit orders at the same price on the basis of time.

In connection with its proposal to provide price protection for all public limit orders, the Commission has provided the proponents of the Intermarket Trading System ("ITS") an opportunity to experiment with and further enhance that system as a means of providing intermarket price protection for public limit orders. The Commission has indicated, however, that, if the ITS is to be employed to achieve this goal, the ITS participants need to continue their efforts to improve the efficiency of that system, particularly in the area of response times, and to promptly take whatever steps are necessary to assure the creation of computerized interfaces between the ITS and both over-the-counter market makers and the Cincinnati Stock Exchange Multiple Dealer Trading System, recently renamed the National Securities Trading System of the Cincinnati Stock Exchange ("CSE System"). In addition, it will be necessary for each exchange to develop a means of storing, disseminating and displaying limit order information. The Commission believes that, if such steps are taken, the ITS could provide a suitable mechanism for ranking public limit orders on the basis of time of entry. Alternatively, the CSE System would appear to provide a mechanism for ranking public limit orders on the basis of time and instantly accessing those orders. Accordingly, the Commission believes that the experimental linkage systems currently operating provide it with the flexibility to define additional characteristics with respect to the protection of public limit orders, as the national market system evolves, without making existing systems redundant or obsolete.

A. 2. In the March release, the Commission stated that a price protection system should be implemented, on a pilot basis, by the end of December, 1980. Why is one year and nine months required to put such a pilot program into operation?

The Commission chose the time period in question to provide sufficient time to permit collective action among the self-regulatory organizations with respect to systems development and enhancement and to allow the Commission time to assure that the systems developed will be sufficient to efficiently provide nation-wide price protection for public limit orders.

The Commission noted in its March release that in order to achieve nation-wide price protection for displayed limit orders by means of the ITS, the self-regulatory organizations and the securities industry must resolve various practical and technical problems associated with disseminating and displaying public limit order information from each market center and promptly enhance the ITS so that it may serve as a means by which price protection for displayed public limit orders can be afforded on an intermarket basis. Specifically, each self-regulatory organization must develop a means of storing public limit order information and disseminating that information for electronic display in all other market centers. In addition, the ITS participants need to improve certain of the operating characteristics of the ITS, particularly response times, and to promptly take whatever steps are necessary to assure computerized interfaces between the ITS and both the CSE System and over-the-counter market makers.

In furtherance of this necessary collective effort and to assure that any proposed system would responsive to the Commission's goal, the Commission requested the self-regulatory organizations to develop in concert, and submit to the Commission for approval, a joint plan specifying a series of planned steps by which the mechanisms to provide price protection for all public limit orders will be developed and implemented. In September, the ITS participants jointly submitted a letter which provided an overview of how they intended to achieve nation-wide price protection for public limit orders through the ITS.

In October, the ITS participants jointly submitted a second letter which explained in more detail the operational and systems issues which had to be addressed before they could provide the Commission with a plan which provided a complete description of how this goal would be achieved.

In particular, the ITS participants noted that each participant had to determine what steps needed to be taken to allow that participant to produce a summary of limit orders to disseminate to all other market centers. Specifically, the ITS participants stated that:

> In the two joint meetings, we have held to-date, considerable discussion has focused on this aspect of limit order protection. We have discussed the number of orders entered on exchanges on a daily basis and the number of cancellations and reductions of existing limit orders. Also we have discussed the fact that limit orders flow into exchanges via a number of different avenues - switching systems, teletype, telephone, etc. All of these factors must be considered in gathering limit orders into summary fashion and then, keeping the summary current.

The ITS participants have indicated that they anticipate submitting a complete plan regarding the achievement of the goal of nation-wide protection of public limit orders by the end of the year. Once the Commission receives the plan from the ITS participants it will publish it for comment and, after evaluating the comments received, address any policy concerns arising from the plan.

In addition, the Commission also indicated in the March release that the achievement of nation-wide price protection for public limit orders would also necessitate the proposal of a Commission rule prohibiting any broker or dealer from executing any order to buy or sell a national market system security at a price inferior to the price of any displayed public limit order. Subsequently, the Commission published for comment proposed Rule 11Ac1-3 under the Securities Exchange Act of 1934 ("Exchange Act") which, if adopted, would require intermarket price protection for all displayed public limit orders in certain securities. In addition to the basic question of whether it is necessary to require such price protection by Commission rule, the Commission must resolve a number of questions with respect to the

rule. For example, the Commission must determine the appropriateness of the "gap print pricing" provision of the proposed rule, which provides that, if a transaction is executed 1/4 point or more outside the best quotation, all displayed public limit orders at superior prices would be satisfied at the transaction price. Specifically, the Commission requested comment on whether "gap print pricing" should only be required with respect to block transactions and, if so, how the term "block" should be defined for this purpose. The Commission must also consider the sufficiency of this provision in today's environment since a broker now is permitted to "walk down the book", i.e., satisfy all displayed public limit orders at prices superior to his proposed block cross price prior to the execution of the block cross so that, at the time of execution, no limit orders would require "gap print pricing".

The Commission anticipated, and has received, substantial comment with respect to these and other policy questions raised by the rule proposal. The Commission will carefully consider these comments in determining whether, and in what form, to adopt the rule.

Accordingly, the Commission believes that its decision to set December 31, 1980, as the date by which the mechanisms to provide price protection for all public limit orders will be developed and implementated, at least on a pilot basis, was appropriate because of the substantial systems development and enhancements needed and the difficult policy concerns which the Commission must resolve, prior to achievement of that goal.

A. 3. In footnote 31 of the March release the Commission suggested that a rule may not be necessary to assure inter-market price protection. Following the suggestion of the New York Stock Exchange, you observed that "voluntary procedures" may be adequate to assure price protection. In light of testimony by witnesses appearing before the Subcommittees that specialists and brokers sometimes are not now using the ITS system to send an order where the better price is, how does the Commission expect such a "voluntary procedure" to provide adequate price protection?

The Commission stated in its March release that one initiative necessary for the achievement of nation-wide price protection for public limit orders was the proposal of a Commission rule prohibiting any broker or dealer from executing any order to buy or sell a national market system security at a price inferior to the price of any displayed public limit order. Subsequently, the Commission published for comment proposed Rule 11Acl-3 under the Exchange Act which, if adopted, would require intermarket price protection for all displayed public limit orders in certain securities.

While the Commission preliminarily believes that a rule requiring nation-wide price protection for displayed public limit orders is appropriate for the protection of investors and will further facilitate the establishment of a national market system, it recognizes that a number of self-regulatory organizations believe that such a rule is not necessary because they believe that market forces alone would ensure that public limit orders represented in the various market centers are protected against inferior executions. Although the Commission had determined to propose a rule requiring that such intermarket price protection be provided, it believed that such arguments deserved further exploration, and therefore requested, in both the March release and the release publishing proposed Rule 11Acl-3, that commentators provide their views as to whether competitive forces alone would be sufficient to ensure intermarket price protection for all displayed public limit orders. The Commission did not, however, and has not made a determination that intermarket price protection could be achieved on a voluntary basis.

Subsequently, each ITS participant submitted commentary arguing against the adoption of a rule requiring nation-wide protection for displayed public limit orders at this time. The ITS participants urged the Commission to postpone any further consideration of a price protection rule until they had developed and implemented the mechanisms and trading procedures to provide nation-wide price protection for displayed public limit orders, so that the Commission could first obtain additional information from monitoring that pilot system. The Commission will consider these comments, especially in light of the continued existence of trade throughs in the ITS, during its deliberations regarding the proposed rule.

B. At the hearings, Chairman Williams stated that with respect to removal of the New York Stock Exchange's Rule 390, the Commission has indicated to the industry that "so long as meaningful progress was being made towards implementation of a national market system," the Commission would consider deferring removal of the rule. What is "meaningful progress"? What is the criteria used to determine whether or not "progress" is being made? What is the criteria for determining the point at which progress is no longer being made? In view of the lack of certainty as to the ultimate configuration of a national market, how can the Commission judge whether particular developments constitute "progress" towards the development of a national market system?

As noted in the Commission's prepared statement submitted to the Subcommittees, the Commission has not established the ultimate configuration of a national market system. However, in the January and March releases on the development of a national market system, the Commission has set forth near-term goals which should be met by the securities industry. The extent of progress toward these goals, as modified from time to time, provides an indication of whether there has been "meaningful progress" toward the implementation of a national market system and is an important factor in the Commission's determination whether to continue deferral of consideration of the removal of off-board trading restrictions.

However, the Commission wishes to reiterate that progress toward the implementation of a national market system is only one of a number of factors which the Commission must consider in determining whether to continue deferral of consideration of the removal of off-board trading restrictions. In the January release, the Commission noted:

> the Commission does not wish its determination to defer consideration of proposed Rule 19c-2 at this time to be perceived as indicating that the Commission is willing to postpone removal of off-board trading restrictions indefinitely or until

further progress has been made toward implementation of any particular additional element of a national market system. To the contrary, the Commission has repeatedly expressed the view that the present restrictions, must ultimately be eliminated, and remains concerned that retention of those restrictions in addition to impeding competition, may retard achievement of a national market system.

B. 1. In administrative hearings regarding the off-board trading restrictions, witnesses have raised a variety of reasons for opposing removal of the restrictions [for example, "internalization," lack of equal regulation]. What specifically is the agency doing to try to determine which of these issues are problem areas, and to develop techniques for solving the problem.

The issues associated with the effects of removal of off-board trading restrictions are among the most complex faced by the Commission and have received considerable attention by the Commission and its staff. As you know, off-board trading restrictions have been the subject of numerous Commission studies and regulatory proceedings. In addition, the Commission is currently studying the issues which have been raised in connection with the removal of off-board trading restrictions, including the issues of internalization and equal regulation, in a number of contexts. Among these contexts are the operation of the CSE System and the ITS, the operation of the Communications and Execution System ("COMEX") and Philadelphia Automated Communication & Execution System ("PACE") and various rule filings pursuant to Section 19(b) of the Exchange Act.

In April of this year the Commission proposed Rule 19c-3, which, if adopted, would preclude the application of off-board trading restrictions to securities which were not traded on an exchange on April 26, 1979. That rule would provide the Commission, in a situation affecting a limited number of securities, the opportunity to observe exchange and over-the-counter competition in the trading of exchange traded securities. The Commission is hopeful that, if Rule 19c-3 is adopted, the experience

obtained will assist the Commission in further considering the various issues relating to removal of off-board trading restrictions and in fulfilling its statutory mandate to facilitate the establishment of a national market system.

B. 2. There has been considerable concern expressed by the exchanges and by the Commission about the problem of "internalization," or the misuse of public orders by the broker acting also as dealer. Does the Commission consider internalization or the prospect of internalization a significant problem? If it does, and if the Commission does not mandate time priority in the national market system, please describe with some detail a possible market system structure which avoids "internalization."

The Commission shares the concern that "internalization", may be a significant problem in the structure of the nation's securities markets. Thus, as indicated in your question, internalization is a problem when it results in a broker-dealer's execution of a customer order as principal at a price less favorable than otherwise available, a type of internalization which is known as "overreaching". However, internalization also occurs in other contexts as well. For example, internalization occurs when a broker-dealer executes a customer order as principal without exposure at a price equal to the best bid or offer available, i.e., a customer order is afforded what is known as price protection. In addition, internalization occurs when a broker-dealer executes a customer order as principal without exposure only at a price better than any other market participant.

To a greater or lesser extent, all intermarket linkage systems ameliorate certain of the concerns relating to internalization since they enhance the interaction of orders. However, no system currently designed or described would necessarily eliminate internalization entirely. Indeed, even a fully automated system into which all orders were entered would not preclude internalization absent trading rules requiring exposure of all orders.

However, in connection with its consideration of off-board trading restrictions, the Commission continues to consider whether it may be appropriate to address some of the concerns raised by internalization, at least with respect to integrated retail firms, through rulemaking. In 1977 the Commission proposed four so-called "overreaching" rules designed to address those concerns. For example, the Commission proposed Rule 15c5-1[A] which would, in effect, require broker-dealer segregation for integrated firms. Specifically, that rule would, if adopted, preclude integrated firms from internalizing order flow by prohibiting them from trading with any customer other than a broker, dealer or financial institution. As alternatives, the Commission proposed (i) Rule 15c5-1[B] which would, if adopted, require an integrated firm to match the best quotation in size disseminated pursuant to the Commission's firm quote rule, Rule 11Acl-1 under the Exchange Act, (ii) Rule 15c5-1[C] which would, if adopted, require confirmation disclosure to a non professional customer of the inside machine-displayed quotation, and (iii) Rule 15c5-1[D] which would, if adopted, require dealers to consider certain factors, such as the size of a transaction and the dealer's knowledge of other buying and selling interest, when establishing prices as which they deal with non professional customers. The Commission will address the appropriateness of each of these rules as well as other possible regulatory action to ameliorate concerns raised by internalization in conjunction with its consideration of proposed Rule 19c-3.

B. 3. How does the potential misuse of public orders by the broker acting as dealer differ from the specialist acting as market maker, plus acting as agent for orders left on the book, plus (in the case of the New York Stock Exchange) acting as agent for Designated Order Turnaround System orders?

B. 4. Is the Commission satisfied that present surveillance systems are sufficient to preclude abuse in this area?

The potential for "overreaching" with respect to public orders may raise different concerns when those orders are executed by an exchange specialist or an "upstairs" market maker. In the former situation, the potential for overreaching is diminished because of the operation of exchange rules which limit overreaching or which provide other broker-dealers on the floor of the

exchange access to the specialist's order flow so that one side of the transaction may be displaced at a better price. Moreover, because exchange trading generally occurs in a single physical location, exchanges may be better able to conduct surveillance of specialist activities to discover instances of overreaching. To the contrary, it has been argued that "upstairs" market makers would overreach their customers because of the inability of the self-regulatory organizations to adequately monitor their activities. While it may well be that as a result of competitive pressures and the availability of last sale and quotation information with respect to most exchange traded securities "upstairs" market makers will not overreach their customers in listed securities, the Commission shares the concern expressed by commentators. As a result, the Commission's staff is conducting a series of inspections of the National Association of Securities Dealers ("NASD"), and the exchanges as well, to determine whether additional surveillance measures should be taken by the self-regulatory organizations.

C. 1. At the hearing, it was reported that inquiry has been made of the self-regulatory organizations regarding their enforcement of the quotation information rule. What have been the results of this inquiry? What is the most egregious problem with respect to compliance with the rule which has arisen? What enforcement actions has the Commission brought for violations of the rule?

Following the issuance of the Commission's order extending its temporary approval of ITS until January 31, 1983, the Commission's staff wrote representatives of the American ("Amex"), Boston ("BSE"), Cincinnati ("CSE"), Midwest ("MSE"), New York ("NYSE"), Pacific ("PSE") and Philadelphia ("Phlx") Stock Exchanges and the NASD requesting a detailed explanation of the steps that those organizations would take to detect violations of and vigorously enforce compliance with the Commission's firm quotation rule, Rule 11Acl-1 ("Quote Rule") under the Exchange Act. As of this date, the Commission has received responses to those inquiries from the BSE, MSE and NYSE.

The BSE indicates that it has stationed on the BSE's trading floor a "full-time and experienced [e]xchange employee" to monitor compliance with the Quote Rule. The BSE states that its employees monitor compliance via a Quotron interrogation device and a

"hard copy printout" of all quotation changes. In addition, the BSE anticipates that "[i]n the very near future" it will be receiving from the Securities Industry Automation Corporation ("SIAC") "a timed recap of all quotations and trades" on a daily basis.

The MSE reports that it has established "a complete 'on-line' audit trail of all quotations" which "is listed in time sequence." According to the MSE, this audit trail allows the specialist to be "held to his market . . . unless one of the exceptions provided for in the [Quote] Rule was in effect at the time." In addition to random day surveillance of all ITS commitments to trade received at the MSE, the MSE ITS Supervisory Station responds to complaints from users that an ITS commitment to trade was cancelled even though the commitment was priced at the applicable MSE displayed quotation. The MSE states that "[i]n all cases where there was not an intervening trade with an accompanying quotation change the expired or cancelled commitment was requested to be resent and was executed by the MSE specialist."

The NYSE describes the procedures employed by its ITS Center to monitor compliance with the Quote Rule as follows: (1) on-line surveillance of each trading post in a cycle which assures that each post is reviewed twice every two months, (2) off-line quotation surveillance which provides a daily review of the specialists with the highest percentage of trades outside their published quotations, (3) on-line quotation size surveillance which provides for random monitoring "to ensure that the published quotation size accurately reflects the market in the stock," (4) monthly conferences with specialist units with the highest percentage of trades outside their published quotations, (5) ITS commitment analysis which provides a daily review of "all ITS commitments sent to the NYSE which have been automatically cancelled," and (6) investigation of public inquiries. In addition, the NYSE described further procedures it follows in the event that any of the preceeding surveillance techniques reveals significant abnormalities.

As of this date, the Commission has become aware of a number of problems associated with compliance with the Quote Rule. The more prominent reasons for the apparent unreliability of quotation information are the failure of some brokers and dealers (1) to provide

quotations, (2) to honor their quotations, (3) to provide quotations which reflect the actual prices at which they are willing to trade and (4) to update their quotations on a timely basis.

C. 2. In the March release the Commission stated it expected exchanges to take "prompt action" to correct quotation problems. What action did the exchanges take? When did they take it? Is the Commission satisfied with the response of the exchanges to that admonition? If not, what will the Commission do?

In the March release the Commission noted its concern "that, during periods of active trading, revised quotations from certain exchanges (principally the NYSE) are not disseminated to vendors in a timely fashion." On the NYSE trading floor, a reporter at each trading crowd records quotations on "mark sense" cards for entry into a machine card reader ("MCR"). Because MCRs are not located at every trading crowd, an exchange employee must carry the "mark sense" cards to the nearest MCR for insertion in the reader. Thus, delays may occur if the card carrier is delayed in carrying cards to the MCR or if the cards are backlogged in the MCRs. The Commission stated that it "expects the exchanges to take prompt action to correct this situation" and that "the NYSE . . . must provide facilities sufficient to assure that quotation . . . information is made available to vendors within a very few seconds of [its] communication on the floor, even during periods of active trading."

The NYSE responded to these concerns by letters to the Commission, dated May 4, 1979 and October 23, 1979. The NYSE declared that it had ordered 15 additional MCRs and that as part of its facilities upgrade program, to be completed by October 1980, it planned to have 126 MCRs on the trading floor. The NYSE predicted that with the increased number of MCRs each quotation reporter will be "within reaching distance" of a MCR. The Commission is not now in a position to evaluate the net impact of the NYSE's facilities upgrade program on quote reporting. The NYSE has only recently completed its own assessment of a pilot trading post and plans to commence phased implementation of the program this fall. Nevertheless,

the Commission believes that the provision of additional MCRs is an important step toward more timely quotation reporting on the NYSE and will continue to monitor whether the program ultimately assures that timely quotation information is made available to vendors, even during periods of active trading. We also understand that programming modifications to the computer equipment used by regional exchanges to collect and disseminate quotation information now assures that quotations will be rapidly and accurately disseminated to vendors from those exchanges.

C. 3. In the March release, there is a footnote urging vendors to comment on the costs of achieving the goal of "displaying transaction and quotation information" a short time after receipt of the information. Have you received such comments? Generally, what have been the results of the inquiry?

The Commission has received no formal comments from the vendors regarding the costs of achieving or the technical problems, if any, in implementing the goal of displaying market information within a very few seconds after receipt by a vendor. However, since the Commission initially raised this concern, the vendors have made substantial improvements in the timeliness of displaying most market information, even during the recent periods of active trading resulting in record volume. The Commission continues to believe that the prompt display of market information is an important objective and will closely monitor the vendors efforts to achieve such display.

D. In the March release, the Commission stated that it believed "the CSE System offers a unique opportunity for the study of certain issues," and that if exchanges and broker-dealers are not currently participating in the system, they should consider doing so. The Commission also suggested non-participants should consider letting the Commission know of their reasons for not participating in the system. How many responses have you received to these inquiries? What reasons have been given for non-participation in the system? Has the Commission done anything else to find out why there is not more par-

ticipation in the system? If so, what are the results? What has the Commission done to find out why "[a]lthough CSE System terminals are installed on the floors of the BSE, MSE and PSE, specialists have made little or no use of the System"?

Although participation in the CSE System has been limited, several additional broker-dealers have recently joined the System. During 1979, Paine, Webber, Jackson & Curtis Incorporated and Wedbush, Noble, Cook, Inc. joined the System as both dealers and agents. In addition, the Ohio Company and A. G. Becker Incorporated joined the CSE System in an agency capacity. The Commission understands that other brokerage firms have indicated an intention to join the System.

The Commission has not received any written comments from broker-dealers or the exchanges explaining their reasons for not participating in the CSE System. On the basis of informal inquiries, however, the Commission believes that non-participation in the CSE System has been caused, at least in part, by negative perceptions regarding the financial viability of the CSE and Weeden & Co., the former sponsor of the System, and the limited time period for which the CSE System pilot program had been approved. Action has been taken in both of these areas. On February 3, 1979, Control Data Corporation ("CDC") acquired the hardware and software owned by Weeden & Co. and used by CSE for operation of the CSE System. The Service Bureau Company, a data services division of CDC that markets various other data processing services to the financial community, now operates the CSE System pursuant to an agreement with CSE. Since it became facilities manager of the CSE System, CDC has engaged in the active solicitation of broker-dealers to participate in the System and has significantly upgraded the quality of the System. In addition, on September 21, 1979, the Commission extended its approval of the CSE System for an additional three-year period. The Commission believes that the three-year extension and sponsorship of the System by CDC will greatly facilitate increased participation by broker-dealers and the exchanges in the CSE System to the extent the System provides economic advantages to them.

In response to informal inquiries by its staff, the Commission has been told that there are several reasons for the limited use of CSE terminals on the floors of the BSE, MSE and PSE. First, specialists indicated that they generally do not use the CSE System because they believe that the prices quoted through that System are generally inferior to those quoted on their own floor or through the ITS. In addition, specialists indicated that their use of the System was limited because of the inconvenience of monitoring a separate terminal which provides very little trading activity and because of additional costs associated with executions through the CSE System.

E. In the March release, the Commission observed that "the self-regulatory organizations and the securities industry have increased their collective commitment to enhance and perfect market linkage and information systems." Today, systems continue to operate rather independently of each other. What has the Commission done to "facilitate" the linkage of these various systems? In the Commission's view, how important is a linkage between the third market, the ITS, and the Cincinnati facilities? If it is important, what incentive is there for the parties to accommodate each other?

In the case of a stalemate in discussions between the parties, what will the Commission do?

How do you anticipate that the Cincinnati system should interact with the ITS system? Specifically state how the mechanics of the interconnections would operate and describe hypothetical transactions which would be made through the system.

On September 21, 1979, the Commission issued two orders (collectively, the "Orders") extending its temporary approval of the ITS and the CSE System until January 31, 1983. In the Orders the Commission concluded that ITS "linkages with over-the-counter market makers regulated by the NASD and with the CSE System are essential to achieving nation-wide protection for public limit orders."

Regarding the ITS, the Commission stated:

> The ITS Participants should promptly take whatever steps are necessary to (i) conclude discussions with the NASD with respect to implementing a linkage between the ITS and over-the-counter market makers regulated by the NASD, and (ii) arrive at a satisfactory basis for a linkage between the ITS and the CSE System.
>
> . . . If the ITS is to . . . be a permanent feature of a national market system once intermarket price protection for public limit orders is mandatory it will be necessary to establish computerized interfaces between the ITS and over-the-counter market makers regulated by the NASD and between the ITS and the CSE System (and such other systems as may emerge in the future) permitting two-way communication.

Regarding the CSE System, the Commission stated its view that:

> [T]he CSE and the System operator should move expeditiously to resolve whatever technical problems the CSE has in achieving a linkage between the CSE System and the ITS, and . . . the CSE should take whatever steps are necessary to arrive at a satisfactory basis for such a linkage. Automated trading systems such as the CSE System have many desirable features -- increased speed and efficiency, as well as the ability to generate a complete "audit trail" for surveillance purposes -- which may make such systems appropriate as national market system facilities for linking and integrating brokers and dealers trading over-the-counter. However, in order for such systems to be consonant with the objectives of a fully operational national market system, they must be linked to the markets existing on traditional exchange floors so that there is the maximum degree of order interaction between the two different types of markets.

> . . . [I]f the CSE System is to become a permanent feature of a national market system [once intermarket price protection for public limit orders is mandatory], it will be necessary to provide a link between the CSE System and the other market centers (whether exchanges or over-the-counter markets) by achieving a computerized interface with the ITS (and such other market linkage or automated trading systems as may emerge in the future) permitting two-way communication.

Concerning both Systems, the Commission stated that because of "the experimental nature" of the Systems it "intends to monitor closely" the two Systems, including linkage of the two Systems with one another and provision for the inclusion of over-the-counter market makers. In addition, the Commission requested the ITS participants and the CSE to file annual status reports, not later than November 30, describing developments with respect to their respective Systems. On the basis of these reports and its ongoing monitoring programs, the Commission will make periodic assessments of the respective Systems and the steps each is taking toward linkage with other systems.

In the Orders the Commission specifically reserved the right to take further regulatory action to modify either or both of the respective Systems. The Commission has plenary authority to take such regulatory action under Sections 11A, 17(d) and 19(c) of the Exchange Act. However, the Commission continues to expect that the ITS participants and the CSE will implement such linkages voluntarily in the near future.

In a recent letter, dated October 1, 1979, K. Richard B. Neihoff, President, CSE, has written to Donald D. Kittell, Executive Vice President, Operations, NYSE, proposing that the CSE System be linked to ITS and describing how such a linkage might operate. As described by Mr. Neihoff, the CSE System would establish a manual interface with the ITS, i.e., an ITS terminal would be located on the CSE's trading floor in Cincinnati and would be staffed by CSE personnel. If a broker-dealer on one of the present ITS participant exchanges sought to execute an order against a bid or offer in

the CSE System, the broker-dealer would send an ITS commitment to trade through ITS to the CSE's ITS Center where a CSE employee would physically receive the teleprinted commitment and would then execute the commitment by entering an order to match a bid or offer displayed in the CSE System. If the CSE System bid or offer had been executed before the commitment could be executed by the CSE's ITS operator, the commitment would be returned unexecuted. In the alternative, if a broker-dealer in the CSE System sought to execute an order against a bid or offer on one of the present ITS participant exchanges, the broker-dealer would route the commitment to trade to the CSE's ITS operator for entry into the ITS.

The Commission believes that the ITS participants and the CSE should be permitted to attempt to design and establish an interface without Commission intervention because, as an initial matter, the specifics of their interface should be determined by the users of the Systems. We believe the proposed CSE manual interface is a first step in this direction. However, as we indicated in both the ITS and CSE System Orders, the Commision believes this interface should ultimately consist of a "computerized interface" between the Systems. The Commission intends to continue to monitor closely progress toward linkage of the two Systems. In addition, the Commission remains prepared to take further regulatory action to modify either or both of the Systems, if such modifications prove to be necessary.

F. 1. In the March release, the Commission adopted the New York Stock Exchange's proposal that the existing NYSE/AMEX switch be adapted so that it will have the capacity to perform "message routing." The New York Stock Exchange indicated that it felt the project could be completed in three to six months following agreement on specific terms. The Commission indicated its acceptance of the New York approach. Further, the Commission acknowledged the existence of talks between the Midwest and the NYSE/AMEX regarding the availability of the switch. It urged those discussions be continued and that "a satisfactory agreement . . . be promptly reached." What is the status

of the adaption of the switch? What is the status of the discussions between the New York and Midwest Stock Exchanges? What action has the agency taken in the last six months with respect to these matters?

The Commission understands that discussions between the MSE and the NYSE and Amex regarding MSE access to the common message switch have been discontinued due to the unwillingness of the MSE to pay development costs associated with modification of the switch. In a letter dated February 15, 1979, from Robert C. Hall, Executive Vice President of the NYSE to John G. Weithers, Executive Vice President, MSE, the NYSE estimated development costs of $150,000. We understand that the MSE independently verified that this estimate was reasonable for the type of programming charges contemplated, but the MSE indicated to the Commission's staff that it might not be prepared to proceed with the project absent participation by the other regional exchanges. Although the PSE and Phlx expressed some interest in access to the switch, both exchanges indicated that the costs involved would only be justifiable if the switch were directly interfaced with their automated execution systems, COMEX and PACE. The NYSE, however, has indicated that it is now prepared to proceed with such interfaces and is studying the ramifications of this issue.

The Commission continues to believe that brokers routing retail orders must at least make periodic assessments of the quality of competing markets and that, for most brokers, the availability of order routing facilities which would permit a firm easily to shift its order flow from one market to another would better enable that firm to satisfy its duty of best execution. In addition, development of neutral order routing facilities may contribute to an environment in which dealers and markets will be able to compete more effectively for order flow. Currently, most large wire houses and several independent service firms, such as Associated Data Processing ("ADP") and Broker Transactions Systems, Inc. ("BTSI") maintain order routing systems which permit the routing of orders to any exchange market. However, those brokers which are currently linked only to the common message switch only have the ability to route orders to the Amex or the

NYSE. Therefore, the Commission continues to believe that the message switch should be modified to permit any market center desiring (and willing to pay for) such linkage to send and receive messages through the system. The Chairman and staff will be meeting with the parties in the near future to evaluate problems and determine the course of action to be followed.

F. 2. Also in [its March] release, the Commission deferred its decision with respect to imposing any requirements for order by order routing of retail orders to the best market. When and under what circumstances will this issued be considered?

I.2. Also in his testimony, Mr. Schreyer announced the development by Merrill Lynch of a system designed to route orders to the market showing the best quote for a stock. What is your assessment of the competitive implications for the securities industry of such a development, what does this mean for the Commission's role in facilitating the development of facilities designed to insure a fair field competition?

In its March release, the Commission indicated that it was deferring consideration of whether to require order by order routing of retail orders to the best market in size because, in the current trading environment, in which adequate order routing facilities do not exist, quotations are not firm under all circumstances and there are practical limitations on access for execution purposes and differences in costs, such as clearing, it is questionable whether such a requirement is feasible. The Commission believes that the efforts of Merrill Lynch in developing its Best Price Selector are laudable and may provide the Commission with useful information in addressing this issue in the future. However, notwithstanding Merrill Lynch's voluntary determination to create an order routing system which directs hundred share orders to the best market, the Commission continues to believe that order by order routing should not be mandated by the SEC at this time.

Notwithstanding this determination, we believe that order routing facilities, such as the type developed by Merrill Lynch, will not only contribute to the best execution of customers orders, but may also create an environment in which market centers may more effectively compete for order flow. If the Merrill Lynch pilot proves to be effective and efficient, the Commission believes that competitive pressures will generate responses from other retail firms and will have positive effects on the usefulness of quotation information by encouraging market makers to make tighter and more competitive markets. As the Commission stated in its March release:

> If market makers in a particular market center have reasonable expectations that they will receive a greater amount of order flow if they make markets which are consistently better in terms of price, depth, or ease of execution, the Commission believes they will be more likely to compete aggressively - thereby providing a better and more efficient market.

Experience with the Merrill Lynch pilot may well cause the Commission to reconsider its position on order routing facilities and whether they should be required.

G. In September, 1978, the D.C. Circuit Court remanded for reconsideration by the Commission two issues in Bradford National Clearing Corporation v. SEC, 590 F.2d 1085 (D.C. Cir. 1978). Six months later, the Commission solicited comments on the issues which were remanded.

What has the agency done to examine these issues? When will a decision be made regarding these issues?

As indicated, the United States Court of Appeals for the District of Columbia Circuit in the Bradford decision upheld the Commission's decision to grant temporary registration as a clearing agency to National Securities Clearing Corporation ("NSCC") but remanded two issues involved in that proceeding to the Commission for further study and explication. Those two issues were NSCC's use of the pricing policy known as geographic price mutualization ("GPM") and NSCC's selection, without competitive bidding,

of the SIAC as facilities manager of the consolidated clearing system.

Earlier this year, after analyzing the court's decision and reviewing the NSCC registration proceeding, the Commission requested that NSCC submit reports on those two issues and invited interested persons to submit comment on NSCC's reports and on the GPM and competitive bidding issues generally. Subsequently, the Commission extended the comment period at the request of NSCC and several other interested parties. The Commission received eleven letters in response to its request for comments, including letters from all but three of the registered clearing agencies. More recently, the Commission received letters from NSCC rebutting the joint comment letter submitted by the MSE and the Midwest Clearing Corporation and by the PSE and the Pacific Clearing Corporation. In addition, the Commission understands that NSCC shortly will submit a letter rebutting the comments submitted by Bradford National Corporation.

At this time, the Commission is concluding its analysis of NSCC's reports on GPM and competitive bidding issues, the comment letters, the record of the NSCC registration proceedings, the testimony and statements given at the Commission's March and April 1978 hearings on the national clearance and settlement system as well as other relevant information. The Commission expects to complete that analysis in the near future and to determine its response to the Bradford remand early next year at the latest.

H. 1. The General Accounting Office criticized the Commission for the small number of and the nature of the qualifications of staff assigned to national market issues. On the other hand, the Commission has indicated there are more staff working on the issue than the GAO is willing to acknowledge. How many staff are assigned to national market issues? What proportion of their time is spent on these issues? How many of these positions are currently vacant?

The staff resources allocated to the development of a national market system have increased significantly since 1975. The GAO's assertion that the number of staff responsible for national market system questions has not increased was apparently arrived at by employing differing accounting methods for the two time periods compared. The GAO's 1979 computation only counted staff persons who spent 100% of their time on national market system questions. However, GAO's 1975 computations included all of the personnel in the Office of Assistant Director (Market Structure/ Trading Practices) which included staff who were required to spend a significant amount of time in other areas. The most egregious result of this differentiated accounting method was the inclusion in the 1975 national market system staff of a Special Counsel whose job description required devotion of all of his time to work relating to trading practices. In addition, GAO failed to recognize that in 1975 the Branch of Market Structure had responsibilities in areas other than the development of a national market system. As a result, the GAO's computation included two persons who devoted all or a substantial percentage of their time to questions relating to the regulation of municipal securities.

Moreover, the GAO has ignored the actual structure of the Commission's present national market system staff. While the GAO is correct that only six persons are assigned to work full time on the national market system program, a number of other persons participate in national market system projects. During the past two years the Director, Deputy Director, Special Counsel to the Director and two Associate Directors of the Division of Market Regulation directly participated in the resolution of national market sytem issues and spent substantial portions of their time on work related to the continued progress toward that system.

Additionally, other offices in the Division of Market Regulation participate in national market system projects. Staff in the Office of Self-Regulatory Oversight directly participated in the (1) review of certain options market structure issues, including questions regarding the expansion of multiple exchange trading of options, (2) review of questions relating to the Commission's grant of unlisted trading privileges, (3) the inspection of self-regulatory organizations to assure sufficient capability to detect violations of and enforce compliance with national market system rules, (4) review and approval of the CSE System,

(5) review of applications from securities information processors and (6) review of appeals from denials of access pursuant to Section 11A(b) of the Exchange Act.

Finally, the Division's Chief Economic Officer and personnel within the Commission's Directorate of Economic and Policy Research have conducted an ongoing monitoring program with respect to major national market system projects. Their efforts resulted in the preparation of a series of monitoring reports with respect to two major National Market System facilities now in operation on a pilot basis -- the ITS and the CSE System. Those reports were crucial to the Commission's recent determination to extend its approval of those two Systems for an additional three years.

In addition, the Commission's staff which is responsible for the implementation of a national clearance and settlement system is jointly responsible with the market structure staff for review of issues that effect both the national market system and the national clearance and settlement system. For example, the existence of "one account" clearing and the elimination of differences in clearing costs directly effect the Commission's national market system program. Similarly, the existence of efficient clearing interfaces is a prerequisite to the use of market linkage facilities. Finally, clearing fees which may be imposed on the use of national market system facilities raise questions regarding the financing of a national market system.

The Office of Market Structure presently consists of six attorneys (including one attorney fellow). The Office has one vacancy which it is actively trying to fill with an experienced professional.

H. 2. The GAO raised questions about the length of time required to develop the composite quote system and the transactional tape. Much of the Commission's testimony was devoted to listing the issues which had to be addressed in conjunction with implementation of a consolidated quotation system. Can you be more specific as to why several years were required to resolve the questions related to the implementation of a consolidated

quotation system? Was it a problem of obtaining adequate information on which to base decisions or of accommodating diverse views on certain matters? What other factors are involved?

Both the Commission and the Congress have long recognized the importance of a consolidated quotation system ("CQS") to the development of a national market system. The availability on a widespread basis of comprehensive quotation information is, in our view, essential to ensuring that market makers operating in physically separate geographical locations can compete effectively with one another.

However, we believe it is important to recall that the collection and dissemination of firm quotations with respect to listed securities represents a significant change in the type of information made available away from the floor. This change was perceived by many as having possibly radical effects on the way in which trading occurs. Prior to 1975 only the Amex and the NYSE made comprehensive quotation information available outside of the trading floor. That information was only provided to members of the exchanges and was not firm at the prices indicated.

Because the Commission wished to avoid prescribing behavior by rule where possible, it first attempted to assure public disclosure of quotation information by urging the exchanges to voluntarily provide vendors with quotation information for dissemination to the public. As a result, while the regional exchanges and Amex failed to respond, the NYSE did make quotation information available. However, the vendors providing that information to subscribers indicated to the Commission that there was very little demand for quotation displays because the information made available often did not reflect the current market on the NYSE during trading.

In 1976, the Commission determined that its initial approach was not sufficient and first proposed a "firm quotation" rule. However, in proposing this rule, the Commission was aware that it was mandating fundamental changes in the activities of both self-regulatory organizations and their members. Not only were market professionals on the various exchanges unfamiliar with the concept of holding themselves out to buy and sell securities on a continuous basis through the dissemination of quotation

information, but the exchanges themselves, with the exception of the NYSE, had little experience with quotation information collection and therefore facilities or procedures to permit this information to be transmitted to vendors on a current basis were not in place.

The transition from this environment to the current CQS could not be accomplished in a matter of months. First, as the Commission indicated in its written statement, a number of policy questions had to be to be resolved. Perhaps the most perplexing problem was to assure that the Commission's regulatory approach adequately recognized the practical problems associated with (1) collecting quotations during active trading situations, (2) handling orders presented for execution at a time when a quotation is changing or had just changed and (3) providing appropriate flexibility to avoid burdens on smaller exchange markets where markets are usually derivative in nature.

As a result of these concerns, the Quote Rule, as initially proposed in 1976, would have required every exchange and the NASD to collect quotations and quotation sizes in reported securities from its specialists and third market makers and to make such quotations available to vendors for public dissemination. The 1976 rule proposal would have also generally required that quotations made available pursuant to the rule be firm. However, quotations of specialists and third market markers would not have been required to be "firm" for a period of three minutes ("The Three Minute Exception") following the execution of a transaction in the particular security on the floor of the specialist's exchange or by the third market maker (as the case may be) or following the report of a transaction in the security in the consolidated system.

Industry comment on this original proposal raised significant questions regarding the utility of quotation information which did not reflect buying and selling interest other than the specialist's and which was subject to an exception such as the Three Minute Exception. As a result the rule was reproposed in 1977 in significantly revised form and modified again when adopted in January 1978. During this process, the Commission revised the rule to require the exchanges and the NASD to collect quotations and quotation sizes from all "responsible brokers and dealers" and deleted the Three Minute Exception.

In addition, the eighteen-month period during which the rule was finalized provided the regional exchange markets time to develop computer facilities necessary to comply with the Quote Rule. Specifically, the regional exchanges developed systems which permitted their specialists, who generally make markets in a far greater number of securities than do specialists on the Amex or NYSE, to automatically update their quotations in securities they are not actively trading each time the Amex or NYSE bid or offer quotation for those securities is revised.

After the adoption of the Quote Rule, further time was necessary to assure that vendors were provided with a unified, sequenced data stream of quotation information. On July 25, 1978, pursuant to explicit Commission encouragement, the reporting self-regulatory organizations filed a plan for the purpose of implementing the Quote Rule. On July 28, 1978, the Commission declared the plan effective on a temporary basis and shortly thereafter, pursuant to the plan, the plan participants commenced disseminating quotations to vendors in a single data stream.

In summary, once the Commission settled on a basic approach for assuring the public dissemination of accurate and complete quotation information, it took only a year and a half to propose, repropose and adopt a "firm" quotation rule. During that period the Commission and the industry resolved a number of important operational, systems and policy concerns. Once the Quote Rule was adopted, it took a period of less than eight months for the Commission and the self-regulatory organizations to implement a functioning CQS.

H. 3. Did the Commission evaluate the data processing capability of the Securities Industry Automation Corporation? If so, could you furnish the Subcommittees with a report on that evaluation?

In granting the registration of the SIAC as a securities information processor under Section 11A(b)(3) of the Exchange Act, the Commission found that SIAC was so organized, and had the capacity, to be able to assure the prompt, accurate and reliable performance of its functions

as a securities information processor. To assist the Commission in making that determination, members of the Commission staff in the Division of Market Regulation, Office of Data Processing and Office of Economic Research reviewed the technical data processing information submitted by SIAC as part of its application. The staff concluded that SIAC had demonstrated the organization and capacity necessary for the prompt, accurate and reliable performance of its functions as a securities information processor. Further, the staff stated that SIAC appeared to possess the potential to expand its capacity as required by the demands of entities which SIAC serves. The staff noted, however, that definitive findings concerning SIAC's technical capability could not be made without an exhaustive on-site inspection of its facilities by an independent team of experts in data processing. Accordingly, the Commission findings recognized only a threshold level of competence on the part of SIAC. At the time both SIAC and the Commission understood that SIAC would be subject to the Commission's authority under Sections 11A(b)(4) and (6) of the Exchange Act should subsequent information come to light which might suggest that SIAC was unable to perform its functions as a securities processor.

In granting temporary registration to the NSCC in 1977, the Commission reviewed the performance of SIAC which at that time provided facilities management services to both the Amercian Stock Exchange Clearing Corporation ("ASECC") and Stock Clearing Corporation ("SCC"), the two clearing corporations which combined with the National Clearing Corporation to form NSCC. Based on that review, the Commission determined that (1) SIAC's performance had provided ASECC and SCC participants with prompt and accurate service, (2) SIAC's technology in securities processing had enabled ASECC and SCC to operate in a continuous netting mode and to be interfaced with three other clearing systems and had enabled ASECC and SCC participants to make settlements in the Depository Trust Company by book entry and (3) those advances had enabled participants to reduce significantly the number of settlements which had to be made by physical delivery of securities certificates.

As some indication of SIAC's current operations capacity, the Commission reviews the evaluations prepared by the Consolidated Tape Association ("CTA") Operations Committee on the operation by SIAC of the consolidated transaction reporting system ("consolidated system"). After reviewing SIAC's operation of the consolidated system over the past year, the CTA Operations Committee concluded that SIAC's performance has been acceptable. In connection with this evaluation, SIAC stated that during that year the portion of the consolidated system for which it is responsible was operational for all but 38 minutes of the total time the consolidated system was scheduled to be in operation. While improved reliability is always desirable, 99.96% reliability would appear to be acceptable given the current state of computer technology.

I. In his testimony, Mr. William Schreyer of Merrill Lynch, Pierce, Fenner and Smith, Inc., raised a question about the ability of the current system to cope with high volume trading days on a sustained basis. What is your assessment of the ability of the industry to handle a sustained level of high volume?

As part of its ongoing regulatory responsibilities, the Commission during August 1979 requested information from various segments of the securities industry concerning the operational ability of the industry to handle a sustained level of high volume. The entities contacted included broker-dealers, clearing agencies, and a major service bureau.

All of the entities contacted believed that they could handle a single 100 million share day or a series of fifty million share days without significant disruption. They felt, however, that protracted high volume could create difficulties. More specifically, they indicated that, while they had the computer capacity to handle extended periods of high volume, the labor pool available to the securities industry may be inadequate.

Firms and clearing agencies normally handle high volume days by temporarily delaying non-essential work and by having employees work overtime. That is recognized as a short-term solution, however, and the entities surveyed indicated that, if high volume continued for several weeks, it would become necessary to add additional personnel in order to maintain efficiency and complete delayed tasks. The entities surveyed also indicated that, if volume were to increase gradually, inexperienced personnel could be hired and trained, minimizing the disruption to the industry. If the volume increased precipitously, however, they felt the industry could have a serious deficiency of trained personnel.

During the week of October 8, 1979, the securities industry experienced record trading volume. For example, reported trading volume in the NYSE for October 8-12 was approximately 254 million shares with a record high of approximately 81.6 million shares on October 10, 1979. In order to determine what effect that high volume was having on the processing of securities transactions, the Commission contacted registered clearing agencies and other self-regulatory organizations. Based on the information obtained, it appears that the securities industry did not experience any significant operational difficulites.

The Commission's staff is continuing to monitor operational difficulties which may arise during periods of active volume in order to anticipate problem areas before they become disruptive to the trading process. The NYSE has commenced a study of how to expand its capability to handle increased volume and the Commission will track its development.

J. 1. Some witnesses in their written testimony raised concerns about the promptness with which the Commission handles the rule changes of the self-regulatory organizations proposed under the requirements of Section 19(b) of the Securities Exchange Act of 1934. Please comment regarding the agency's problems in meeting the statutory deadlines. What is being done to resolve those problems? How many proposed rules subject to the Section 19(b) requirements are pending before the Commission? What is the average actual time that has elapsed for each of the steps in the process of consideration of the rule [i.e., from the date of receipt of the proposed rule to publication of notice of the filing; from publication to approval of the rule change, etc.]?

The processing of self-regulatory organization rule filings pursuant to the requirements mandated by the 1975 Amendments places a substantial additional responsibility on the Commission. Specifically, each year since 1975 the Commission has received approximately three hundred filings of proposed rule changes and stated policies, practices and interpretations deemed not to be rules.

The amount of time required to act on any proposed rule change varies greatly depending on the complexity of the proposed rule and on the issues presented. For example, a number of extremely complex filings on which action was completed during fiscal year 1979 required more than one month of a staff attorney's time plus a significant amount of supervisory time. In addition, many filings require significant amendment either because of the policy issues raised or because the filing was deficient and did not comply with the requirements of Rule 19b-4 under the Exchange Act. Other filings require very little time to process. As a general matter, however, the number and complexity of proposed rule changes filed pursuant to Section 19(b)(2) of the Exchange Act make it difficult to consider them within the thirty-five day period provided for in Section 19 of the Exchange Act. Accordingly, it often is necessary to provide for an extension of the time period in which the Commission has to consider the filing.

Recognizing that extension of the statutory time periods for most proposed rule changes that will be considered by the Commission are made necessary by the notice provisions of the Government in the Sunshine Act and the comment periods required by the statute, the Commission has

delegated to the Division of Market Regulation authority to extend the time periods for up to ninety days. Within that period the staff ususally has an opportunity to work with the self-regulatory organizations to isolate issues which must be resolved before approval can be recommended. Based on this understanding, self-regulatory organizations often consent to further extensions of statutory time periods in order to work out problems the staff has identified. At the same time, the Commission has endeavored to reduce processing time for routine filings by training para-legals to publish notice of such proposed changes and by delegating authority to the Division of Market Regulation to approve proposed rule changes which do not present substantive policy questions under the Exchange Act. Finally, the Commission has proposed amendments to Rule 19b-4 which are designed both to clarify the kinds of information that the Commission must have to act on proposed rule changes and to provide a mechanism for more SRO rule proposals to take effect without formal Commission action.

During the fiscal year 1979, self-regulatory organizations have filed 269 proposed rule changes with the Commission pursuant to Section 19 of the Exchange Act and Rule 19b-4 thereunder. Of those 269 filings, 103 were filed pursuant to Section 19(b)(2) of the Exchange Act which provides for public comment prior to the Commission determining whether to approve the filing or to institute disapproval proceedings. Thirty-nine of those 103 filings filed since October 1, 1978 still are pending before the Commission. In addition, during fiscal year 1979, the Commission received 149 proposed rule changes that became effective on filing pursuant to Section 19(b)(3) of the Exchange Act, 12 that were withdrawn voluntarily by self-regulatory organizations and 5 that were rejected as not meeting the requirements of Rule 19b-4. Finally, there are 67 proposed rule changes pending before the Commission that were filed pursuant to Section 19(b)(2) of the Exchange Act prior to fiscal year 1979. The proposed rule changes in this latter category generally involve policy issues that the Commission believes should not be addressed in the context of a specific rule change, proposals that the staff believes require amendment and proposals that have become dormant by mutual consent.

Of the proposed rule changes filed in fiscal year 1979 pursuant to Section 19(b)(2) of the Exchange Act, the average time from receipt of the filing to publication of notice in the Federal Register was 25 days. For the filings in this category on which action has been completed by the Commission, the average time from publication of

notice in the Federal Register to completion was 47 days. For filings in this category on which action was not completed, the average time from publication of notice in the Federal Register to October 24, 1979 was 120 days.

J.2. The Commission was also criticized for its failure to grant any unlisted trading privileges since December, 1977. How many such requests are pending? Why has the Commission not acted on these requests? Has it devised standards for the granting of such requests? If not, when will it do so?

As you are aware, the 1975 Amendments revised the standards by which the Commission is required to consider applications for unlisted trading privileges. As a result of this revision in the Exchange Act, the receipt by the Commission of one exchange application which requested unlisted trading privileges in approximately 900 securities and a court challenge to the grant of unlisted trading privileges in one security on the BSE, the Commission determined to study the issue generally with a view to formulating a uniform and comprehensive policy on unlisted trading privileges. Pending the formulation of that policy and the revision of its rules implementing Section 12(f) of the Exchange Act, the Commission determined to refrain from granting or denying any further requests. As a consequence of that decision, there are presently approximately 100 applications for unlisted trading privileges pending before the Commission.

Now that the Court of Appeals in Ludlow Corporation v. SEC, Fed. Sec. L. Rep. (CCH) ¶96,946 (August 9, 1979), has confirmed the Commission's broad discretion in granting unlisted trading privileges, the Commission is committed, within the limitations of available resources, to the expeditious resolution of the remaining policy issues associated with those trading privileges. The Commission expects to address these issues further in the next few weeks.

J.3. Several witnesses raised the question of the manner in which options will fit into a new national market system environment. Please describe specifically what the Commission is doing to consider the question of options trading in the national market system.

On February 22, 1979, the Commission announced a program for implementing certain of the recommendations made by its Special Study of the Options Markets and for terminating the voluntary moratorium on further expansion of the standardized options markets. In addition to announcing its program, the Commission stated that it intended to address, prior to the termination of the moratorium, certain market stucture issues, including the addition of new standardized put and call options classes and the expansion of multiple exchange option trading.

In addressing questions regarding the expansion of multiple trading in the options markets, the Commission has considered whether it would be appropriate, either before or simultaneously with its determination regarding the expansion of multiple trading, to focus industry attention on the development of market integration systems which might alleviate market fragmentation and fair competition concerns arising from multiple trading. However, because of the unique characteristics of options, including the derivative pricing nature of those securities and the use of competing market maker systems by some options exchanges, the implementation of an options national market subsystem raises significantly different questions and may result in a different configuration than a national market system for stocks.

The Commission has not reached a determination with respect to whether, and under what conditions, options multiple trading will be expanded.

J. 4. Other witnesses raised concerns about the display requirements for quotations on the composite quotation system (CQS). Under the Commission's proposed rule, the

CQS will show only the highest bid and lowest offer, not a montage of all bids and offers. How difficult would it be for the vendors to display all quotes, and what are the objections to doing so?

Although the Commission believes that a montage display of quotations is more informative to investors and to their brokers than a best bid and offer display, it did not require in proposed Rule 11Acl-2 under the Exchange Act that vendors provide a quotation montage. The Commission has been informed by vendors that the hardware, software and linkage costs inherent in providing a dynamic montage service on interrogation devices supplied to each registered representative would be far more significant than those associated with a best bid and offer display. In addition, the Commission recognizes that most users of interrogation devices are registered representatives who, for the most part, do not possess either the interest, the authority or the means to route customer orders to the market displaying the best price. Accordingly, the Commission believes that the marginal benefit that may be provided to investors by a quotation montage, as compared to the best bid and offer display, would not warrant the expense involved in requiring that a montage be provided on all interrogation device displays.

K. In what manner has the Commission considered the matter of the role of the market maker in today's system - i.e., the specialist as a market maker and the "upstairs" market maker - and what the role of the market maker should be in a new national market system? Has the Commission considered the question of the nature of affirmative and negative duties which should be imposed on market makers in a new system? If so, how has this been done? If not, what plans does the Commission have to consider this question?

The role of specialists and market makers in today's environment has recently been considered by the Commission in numerous contexts. Since the Securities Acts Amendments of 1975, the Commission has considered the role of the market maker in connection with, among other things, the adoption of the Quote Rule, adoption of rules to implement Section 11(a) of the Exchange Act and a rule proposal providing for reallocation of securities among specialist units on the NYSE.

The role of specialists and market makers in the future national market system is, of course, difficult to predict at this point in time. The Commission has considered this question in the context of its efforts to facilitate a national market system.

Most recently, in the Commission's hearings on Rule 19c-3, considerable attention was paid to the competitive status of specialists and over-the-counter market makers. The NASD and the National Security Traders Association ("NSTA") noted that, in the event Rule 19c-3 were adopted exchange specialists would have considerable competitive advantages due to the existence of order routing systems such as Designated Order Turnaround System ("DOT"), PACE and COMEX which permit firms to route their retail orders efficiently to the exchanges employing those systems. On the other hand, the exchanges argued that, if the rule were adopted, integrated firms in which the role of broker and market maker was combined would have significant advantages over specialists due to their ability to internalize retail order flow. In addition, the exchanges argued that the affirmative and negative obligations and other burdens imposed on exchange specialists would place them at a competitive disadvantage vis a vis over-the-counter market makers in the event the rule were adopted. The Commission believes these are all significant arguments which will have to be addressed in the context of further regulatory action on this proposal.

While it is not possible at this time to describe the roles various types of market makers will play in the national market system of the future, ultimately the Commission believes that the trading rules and obligations which govern the behavior of market makers are significant aspects of the overall scheme of the national market system and will continue to pay particular attention to these subjects.

L. In both the Commission's recent orders approving continued operation of the Intermarket Trading System (ITS) and the Multiple Dealer Trading System (CSE), there are footnote comments to the effect that the Commission will continue to consider the policy issues related to the ability of firms to transact business on a principal basis with their own retail customers and the need to ensure that order flow in every particular market center is exposed to buying and selling interests represented in other market

centers. These deliberations, which "may well lead to regulatory initiatives which have a significant impact" on the CSE and ITS System, are matters which you said should be addressed in "a broad and generic context." What plans does the Commission have for addressing these issues? What is the staff doing to study issues which would bear on the Commission's final decision? What regulatory initiatives are contemplated?

As indicated in the Commission's recent orders extending the operation of the CSE System and ITS, the Commission views consideration of these market structure questions as fundamental to the evolution of a national market system. These questions reflect the importance which the Commission believes should be attached to maximizing interaction between orders regardless of the market of origin. For example, because of the absence of a linkage between the CSE System and ITS, orders entered into the CSE System and ITS do not have the opportunity to interact with each other. Consequently, the Commission has indicated the importance of establishing a linkage system between these Systems during the extended period of their operation.

However, the issues posed by these questions are present in numerous other contexts. For example, Rule 19c-3, if adopted without qualification, would permit integrated broker-dealer firms to transact business on a principal basis with their customers without the requirement that this order flow be exposed to any other market. Similarly, in the operation of automated execution systems by various regional exchanges, regional specialists execute transactions as principal with their customers without exposure of that order flow to any other markets. Furthermore, order flow on the primary exchanges is generally not exposed to buying and selling interest on the regional exchanges or third market. In view of the numerous contexts in which these issues arise and their importance to the overall structure of the securities markets, the Commission intends to address these issues in a generic context. The quoted sections in the ITS and CSE System Orders were designed to provide the sponsors of these systems with an indication of the Commission's concerns regarding these issues.

M. Should the national market system accommodate odd lots trading within its environment or does odd lot trading have to be handled in a fully dealerized system as at present?

Historically, the odd-lot market has been a derivatively priced dealer market which has been segregated from the traditional round-lot market. Because of the unusual characteristics of odd-lot trading and the fact that most odd-lot orders are placed by small investors, the Commission has been especially concerned to assure the fairness and liquidity of that market.

For example, in 1976, the Commission cited various exchange rules which provide for the execution of odd-lot limit orders at the limit price plus or minus an odd-lot differential as being inconsistent with the Exchange Act, Securities Exchange Act Release No. 13027 (December 1, 1976). Similarly, in 1978, the Commission amended Rule 10b-10(a)(3), the confirmation rule, to require, under certain circumstances, disclosure of odd-lot differential or equivalent fees. Moreover, in order to assure the liquidity of the odd-lot marketplace and to remove unnecessary burdens on competition, in 1975 the Commission stated

> any construction of existing off-board trading rules which would prevent exchange members from effecting odd lot transactions in exchange listed securities off-board would represent the imposition of burdens on competition which cannot be justified by reference to the purposes of the [Exchange] Act.

Securities Exchange Act Release No. 11942 (December 19, 1975). Since the issuance of this statement, a number of brokerage firms have begun to make odd-lot markets "upstairs" offering customers a choice of an over-the-counter execution which, under certain circumstances, provides customers with the opportunity to obtain better execution of their orders than would be available on the exchange floor.

On the other hand, because of the derivative nature of odd-lot trading, the Commission has at present excluded odd-lot trading from its national market system initiatives.

Thus, odd-lot sales are not reported through the consolidated system and odd-lot market makers and orders are exempted from the Commission's Quote Rule. Similarly, the Commission has proposed to treat odd-lots differently in its two most recent national market system initiatives. See Proposed Rule 11Aa2-1(a)(8) and (a)(9)(ii), (Designation of National Market System Securities); and Proposed Rule 11Ac1-3(a)(f), (Price Protection for Displayed Public Limit Orders).

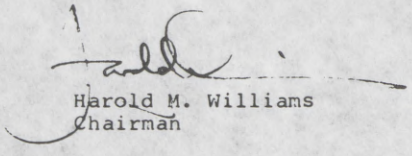
The Securities Acts Amendments of 1975 and the legislative history of the 1975 Amendments did not specifically address the role of odd-lot trading in a national market system. The Commission believes that, to the extent it is practicable to include odd-lot trading within the evolving facilities and initiatives designed to further the objectives of Section 11A of the Exchange Act, odd-lot trading should be included in a national market system. Even so, in light of the special trading characteristics of odd-lots (especially the Commission's concern for the protection of small investors), the Commission has pursued a particularized approach to the inclusion of odd-lot trading in national market system facilities or initiatives to assure that such inclusion is beneficial for the national market system and odd-lot trading. As the securities industry increasingly develops new data processing and communications techniques, in accordance with Section 11A(a)(1)(B) of the Exchange Act, and the national market system continues to evolve, it may be possible for odd-lot trading to be increasingly included within the facilities and initiatives of that system.

N. In the March status report, the Commission focused attention on the ITS, and stated that certain operation characteristics of the system must be "substantially improved." One of these enhancements was "reduction in the length of time required to enter commitments to trade and receive execution or rejection reports." In the six months that have elapsed since the March release, how much has the time required to use the ITS actually been reduced?

The most recent information obtained from the ITS Operating Committee indicates that there has been no improvement in the response times of the ITS over the past six months. In both March 1979 and September 1979, the average response times for all ITS commitments entered into the System was 44 seconds. The Commission understands, however, that several technical enhancements

designed to improve response times will be added to the System in the next few months. These include (1) the use of a "Universal Template" for sending or responding to commitments to trade, which will eliminate the need to call up different templates depending upon the type of message to be sent through the System and permit storage of up to seven "live" commitments to trade on the screen at one time (thus reducing the number of key strokes required to accept a commitment to trade), and (2) the use of "mark sense" cards on the NYSE to send and respond to commitments to trade. Participants in the ITS Plan have indicated that these enhancements may result in a reduction in average response times to between 20 and 30 seconds.

Sincerely,



Harold M. Williams
Chairman

[Whereupon, at 1:40 p.m., the subcommittees adjourned.]

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