THE U.S. NATIONAL MARKET SYSTEM: PROGRESS, PROBLEMS, AND ISSUES

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I very much appreciate the invitation to participate in this important symposium, and I sincerely hope that I may be able to make a useful contribution to your deliberations.

I should acknowledge at the outset that I have only a very general familiarity with the emerging concept of a European Stock Exchange. However, I have been closely involved in the development of a National Market System in the United States, almost from the beginning. And while the U.S. and European securities markets are organized, regulated and function very differently, at least some of our experience to date may be relevant to the European Economic Community and to the various stock exchanges within the Community.

One way to organize a necessarily brief discussion of the U.S. National Market System is to pose a journalist's six traditional questions: Who? What? Where? Why? When? and How? Then, with that information as background, we should have ample time for you to ask additional questions of me and my associates -- Mr. Donald L. Calvin, Executive Vice President of the New York Stock Exchange for Market Development and Public Affairs; and Dr.

William C. Freund, Senior Vice President and Chief Economist of the Exchange.

ORIGINS OF THE NATIONAL MARKET SYSTEM

Let's consider first the questions of When and Why the U.S. securities industry began to develop a National Market System.

The roots of the concept go back to the 1960s -- a period when important changes began to alter the economics of the industry. The key factor stimulating those changes was the expanding use of the equity markets by institutional investors such as pension funds, life and other insurance companies, mutual funds, savings banks, foundations and others, and such financial intermediaries as commercial banks and trust companies.

In 1960, New York Stock Exchange studies showed that institutions and intermediaries --including broker-dealers who are not members of the Exchange-- accounted for only about 30% of public share volume in our market, while individuals accounted for 70%. By the mid-1970s, a dramatic reversal had occurred, with institutions accounting for about 60% of public share volume and individuals for only 40%.

No one knows what the proportions are today, but we are undertaking a new Public Transaction Study, covering the fourth quarter of 1980, that we believe will shed considerable light on the current mix of individual and institutional activity in our marketplace.

From the beginning, a key manifestation of expanded institutional participation has been a demand for "instant liquidity" --

and for more effective competition in both pricing and market-making.

Then, in the late 1960s, surging share volume nearly overwhelmed the industry with paperwork, precipitating an industry-wide operations crisis. Many of the problems stemmed from the antiquated or otherwise inefficient order-handling and processing methods used by many brokerage firms, banks, corporate transfer agents and virtually every type of organization involved in issuing and transferring securities. Problems were complicated, in some instances, when large numbers of inexperienced people were hired to help cope with the workloads, and by some organizations' hasty efforts to apply sophisticated computer technology to operations problems that had had not been adequately analyzed in advance.

Then, as the operational problems began responding to corrective measures, declining stock prices and volume exerted serious pressures on the industry, and many securities firms began finding themselves in critical financial difficulties. During most of 1970, massive rescue operations and emergency infusions of new capital helped a number of severely troubled firms to survive, while others simply disappeared through mergers or liquidation. Inevitably, the resurgence of share volume in early 1971 generated a good deal of public and industry-wide concern about the industry's ability to handle it.

In the aftermath of the paperwork and financial crises, the industry recognized the urgent need to improve and strengthen its performance, as a prerequisite to regaining public confidence. And this concern was echoed in Washington, as legislators and regulators expressed reservations about the industry's continuing ability to serve investors efficiently.

The result was a new industry-wide focus on automating many office and trading-related procedures -- both at securities firms and in the marketplaces. The industry quickly learned to adapt to rapid changes and improvements in communications and data-processing technology.

At about the same time --in the early '70s-- a movement to eliminate the fixed-commission-rate structure, which had been the basis for pricing services to customers for nearly two centuries, started gathering force. The Securities and Exchange Commission pressed for an industry-wide changeover to so-called "competitive" commission rates, which would require each securities firm to establish its own commission schedule. And, in fact, that changeover occurred, in stages, over the next few years.

The SEC also began exploring possible development of communications facilities that could link the exchanges and the over-the-counter markets into "a strong central market system" in which all buying and selling interest in securities of national importance "could participate and be represented under a competitive regime." Inevitably, these preliminary ideas about a National Market System led to wide-ranging discussion and debate about how the securities markets might be restructured.

By May 1, 1975, competitive commission rates had completely replaced the old fixed-commission-rate system and new economic forces were sweeping through the industry. Almost simultaneously, the U.S. Congress enacted the Securities Acts Amendments of 1975, which gave the National Market System concept the force of law.

This was not quite as dramatic an event as it might sound. In response to competitive pressures that had been building for some time, several National Market System elements were already being implemented. Chief among these was the Consolidated Tape for reporting all trades in exchange-listed stocks. A Composite Quotation System and a National Clearance and Settlement System were on the drawing-boards. In addition, some of the so-called "regional" exchanges had begun pioneering various automated small-order-handling systems.

At the New York Stock Exchange, we were readying our Designated Order Turnaround System --generally known by the acronym, "DOT"-- an automated small-order-handling system that specifically does not include any automatic execution capability.

NATIONAL MARKET SYSTEM PARTICIPANTS

That brings us to the next of our six questions: Who is involved? and: Where is the system located?

The participants in the National Market System are the New York, American, Boston, Midwest, Pacific and Philadelphia Stock Exchanges, the over-the-counter markets which are administered by the National Association of Securities Dealers and, more recently, the Cincinnati Stock Exchange, which operates an automated order-execution service known as the National Securities Trading System.

The government participants are the Securities and Exchange Commission, which Congress directed to "facilitate" and oversee the establishment of a National Market System; and various Committees of both the Senate and the House of Representatives which are specifically concerned with securities industry matters.

While many National Market System issues have generated debate and disagreement about the specifics of the system, the industry and government participants, early-on, reached a consensus on a number of key concepts.

One of these was that all of the markets should retain their individual identities. Another was that the National Market System would primarily involve electronic systems to be jointly created and used by all market participants. In addition, each market would be free to develop its own related systems. And, finally, there would not be a new, single physical or "central" marketplace, nor would trading be forced into any single, automated --or so-called "black box"-- configuration.

OBJECTIVES OF A NATIONAL MARKET SYSTEM

We come now to the two most difficult of our six questions: What should a National Market System consist of? And How should it come into existence?

Congress stated the over-all objective in the 1975 legislation: "The securities markets are an important national asset which must be preserved and strengthened." And while Congress did not attempt to design a system or specify its components, the legislators did identify certain characteristics that the system should have:

It should provide for economically efficient execution of securities transactions. It should promote fair competition among brokers and dealers, among exchange markets, and between exchange and non-exchange markets. It should make quotation and transaction information readily available to market professionals and public investors. It should enable brokers to execute customers' orders in the best market. And it should provide an opportunity for investors' orders to be executed without the participation of a dealer.

All of the participants --including government-- recognized, too, that the development of a National Market System should be an evolutionary process, not a revolutionary one, and that the process should be managed by the securities industry rather than by government.

The present Chairman of the Securities and Exchange Commission, Harold Williams, has summarized his concept of the appropriate roles of the industry and the Commission this way:

> "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 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."

I have already noted that some key elements of a National Market System were being developed and implemented while Congress was still shaping the 1975 legislation.

In addition to the Consolidated Tape, the Composite Quotation System displays in each market center the prices currently bid and offered for each listed stock --as well as the number of shares sought or offered at those prices-- in all participating market centers.

Another major component that came on-line not very long after Congress formally called for the development of a National Market System --a National Clearance and Settlement System -- permits single-account clearance and settlement of transactions for brokers and dealers in the clearing organization of their choice.

THE KEY ELEMENT TO DATE: MARKET LINKAGE

One National Market System issue about which Congress was relatively specific concerned the need to establish a communications and data-processing linkage among the participating market centers.

After a number of joint systems explorations by the six initial participating exchanges, the Intermarket Trading System --ITS-- began to take shape in late 1977, and a small-scale pilot operation was initiated in the Spring of 1978.

ITS consists essentially of a central computer and a network of interconnected electronic sending and receiving terminals in each participating market. It enables any broker representing a public customer --as well as exchange specialists and market-makers trading for their own accounts-- on the floor of any participating exchange, to reach out to any of the other participating markets for an execution, whenever the Composite Quotation System shows that a better price is available elsewhere within the ITS Network.

In October 1980, the most recent month for which full statistics are available, traffic through ITS averaged 3,200 trades and 1.7 million shares a day --or 8.5 million shares a week-- in about 850 stocks, with an average trade size of 535 shares. While these figures may seem small in relation to over-all volume in the participating markets, it is important to recognize that brokers and market-makers in any of those markets are expected to use the linkage only when a better price exists in another market.

When the volume figures are translated into dollar savings for investors they are quite impressive -- even though it is impossible to be precise, because we do not know precisely what proportion of ITS trades are executed for public investors, and what proportion for market professionals, in each of the participating markets. In any event, our estimates indicate, conservatively, that the opportunity to obtain a better price in a different market through ITS saved public individuals and institutions about $20 million in the first nine months of 1980 alone.

At the same time, I would not be candid if I did not acknowledge that the development of the linkage has been accompanied by a number of problems. To begin with, a comprehensive training program was essential to familiarize brokers and trading floor employees with the complex operation of the system -- and for them to gain sufficent experience to feel comfortable using it.

Critics have complained that brokers and market-makers tend to ignore the system during particularly active periods of trading. And they cite, as evidence for this, the fact that ITS volume often does not increase commensurately --or even declines-- as over-all volume increases substantially. But as I pointed out a moment ago --and as some members of Congress recently acknowledged-- the incentive for brokers and market-makers to use the linkage exists primarily when there is a better price in another market. In active markets, quotation spreads tend to narrow appreciably and, at such times, identical bid and asked prices are most likely to be available in all markets -- so brokers have no reason to seek an execution in a market other than their own.

One key point merits strong emphasis: The market linkage has never been envisioned as the forerunner of automatic trading. It has been specifically designed to respect the crucial importance of human judgment in making execution decisions.

MAJOR ADDITIONAL EFFORTS UNDERWAY

One of our major remaining tasks --and one of the most difficult issues for the participating markets to resolve-- focuses on how to protect limit orders held in the various market centers against inferior executions in other market centers. Limit orders, for those who may not be familiar with the term, are those orders which seek execution at a specific price above or below the current market price.

We think we are now well on the way to solving the problem. We expect soon to begin a pilot operation of a new Limit Order Information System, in conjunction with the Intermarket Trading System, which is designed to provide the desired protection. In keeping with our fondness for acronyms, this new pilot system is known as LOIS. Since the operation is fairly technical, I will not describe it here.

Another problem which has drawn some criticism in Washington and elsewhere has been the delay in bringing the over-the-counter markets and the Cincinnati Stock Exchange's automated execution service into the intermarket linkage. Here again, some --but by no means all-- of our government overseers recognize that difficulties in reconciling the differences in the basic characteristics of the different types of markets have been largely responsible for the delays.

However, we have finally resolved most of the key issues. The Cincinnati Exchange's National Securities Trading System is scheduled to become a full participant in the Intermarket Trading System later this month, and we are working with the National Association of Securities Dealers on a plan to link the over-the-counter markets into the system in 1981.

In conjunction with all of the developments I have described, the various markets involved in the National Market System have found it both desirable and necessary to improve and strengthen their individual operational capabilities. Our efforts at the New York Stock Exchange have centered on a multi-million-dollar program to upgrade our trading floor facilities to accommodate the vast array of new systems and equipment needed for us to compete effectively within the National Market System framework.

As part of our ongoing effort to reduce costs and increase services to our members, we have also developed more sophisticated order-transmission and data-processing techniques. Perhaps the most immediately visible result of the physical changes taking place is the installation of 14 specially designed new trading posts. The effect was described by one visitor to the trading floor who said: "It's beginning to look like the set for a new science fiction film."

ECONOMIC IMPACT OF NMS DEVELOPMENTS

Although all of the changes to date have been managed in an orderly fashion --with careful attention to planning, design and implementation-- they necessarily have had a strong economic impact throughout the U.S. securities industry.

If we step back and look at what has occurred in just five years, it becomes clear that the industry has faced the challenge of dealing with --indeed, with managing-- major changes during a period when the rate of change itself has been accelerating.

We have had to adjust to the major economic upheaval of changing from fixed commissions to competitive rates -- a development which, in general, has lowered the costs of securities trading for investors and may have helped stimulate some of the increased market activity that we've been experiencing over the past few years. Rising volume, in turn, has generated strong pressures to improve the industry's order-handling capabilities. And, at the same time, we have not only been changing many of the industry's traditional ways of doing business, but we have been designing, testing and implementing major industry-wide structural changes. All of this has been rather like trying to rebuild your house, in a heavy snow-storm, while you are still living in it.

Throughout this period, of course, strong competitors in all of our markets have been able to take advantage of potentially profitable new business opportunities. At the same time, some industry professionals whose support-type activities have proven most susceptible to automation have felt their livelihoods threatened -- although, in fact, the continuing high volume of trading has opened up new auxiliary market-making and other opportunities to them. Nevertheless, some individuals and firms continue to express concerns about potential economic dislocations.

The changing economics of the industry also led us to re-examine the Exchange's own prospects for the future. And we soon realized that our dependence on a highly cyclical income stream --derived almost entirely from operating a marketplace for equities-- was not very satisfactory. Accordingly, several years ago, we began actively seeking opportunities in which our unique experience and capabilities might enable us to expand into other useful economic activities.

The first major development in this area has been the creation of the New York Futures Exchange as a wholly owned subsidiary of the New York Stock Exchange. We are --pardonably, I hope-- quite proud of having built an entirely new organization and the most modern financial futures trading floor anywhere, from the ground up, in just about one year. Trading on the new Futures Exchange began in

August, in two contracts based on U.S. government debt instruments and in five contracts based on foreign currencies: British pounds, Canadian dollars, Japanese yen, Swiss francs and West German marks.

We recognize, of course, that it will take time to build market share, in competition with other U.S. financial futures markets, but we believe --if you will permit a small pun-- that this new market has a very bright future.

We have also done a great deal of planning toward possible establishment of a New York Stock Exchange Options Market, and we continue to consider options as a leading candidate for future product diversification. At the same time, we are continuing to examine additional opportunities to diversify our product line -- on a highly selective basis.

EVALUATION OF NMS PROGRESS TO DATE

So, as you can see, the continuing evolution of a National Market System in the United States has had consequences that reach far beyond the equity markets. And with the first five years of development behind us, it may seem appropriate to try to evaluate the progress to date.

One member of a key Committee of the U.S. Congress characterized the National Market System effort this way:

"We in Congress," he said, "have asked the Securities and Exchange Commission, 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

... 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."

Most of us in the industry believe it is a considerable achievement that --despite the difficulties inherent in that task-- the competing markets have succeeded, admittedly with some prodding from the SEC, in jointly creating the major National Market System elements for use by all. The cooperative effort has also helped clarify incentives for independent markets and market-makers to compete for public order flow by upgrading their own systems, facilities and services.

Has it been worth the effort? My own feeling is that it is still too early to make any conclusive judgment. Many of the changes I have described would have occurred even in the absence of any movement toward a National Market System -- spurred by the changing economics of the industry, major increases in trading volume, and a growing demand for high-quality services.

However, it is possible to identify some positive factors -- as well as some unresolved problems.

For example, on the positive side, more intense competition for public orders has led to greater cost-effectiveness in the markets and specific benefits to investors. These include an increased flow of market information on which to base investment decisions, increased order-handling efficiency throughout the industry and, as I noted earlier, an opportunity for substantial dollar savings when investors can obtain, through the intermarket linkage, better prices than might otherwise be available to them.

SURGING SHARE VOLUME

We also now have the ability to handle vastly greater trading volumes than ever before. And I might digress here, for just a moment, on the subject of surging share volume.

Back in 1968, average daily volume of 13 million shares on the New York Stock Exchange strained the industry's order-processing capacities to the utmost and nearly brought the entire industry to a standstill. By 1975, when the National Market System legislation was enacted, the industry was able to handle daily average volume of close to 19 million shares --and a record 35 million shares on the busiest day of that year-- fairly routinely.

By way of dramatic contrast, last year, on a single day --October 10th-- nearly 82 million shares changed hands on the New York Stock Exchange alone -- and while there was understandably a good deal of excitement, there was no panic. The industry was able to handle the workload confidently and efficiently.

And that record was surpassed just last Wednesday --November 5th, the day after our national elections-- when more than 84 million shares were traded on the New York Stock Exchange.

Earlier this year, volume for the month of January averaged more than 52 million shares a day; and through the end of October, the daily average was more than 44 million shares. In fact, by September 25th, volume for the year to date in 1980 had already exceeded last year's record.

This tremendous increase in activity has focused our attention on the virtual certainty that we will have to be able to take peak days of 100-million and 150-million shares in stride in the not-too-distant future. And we are giving very high priority to assuring that we will have that capability when the need arises.

A NEW ROLE FOR THE SEC

With respect to the problems generated by the movement toward a National Market System, it is a fact that government intervention in the internal operations and economics of the securities industry is much greater than ever before. For example, we have witnessed a significant change in the basic role of the Securities and Exchange Commission.

That Federal agency was conceived --and for its first 40 years functioned-- as a regulator, responsible for establishing and enforcing rules and regulations governing the issuance and trading of securities. Its authority did not generally involve matters that might have major economic consequences for the U.S. capital markets.

All of that changed dramatically, first, with the elimination of fixed commission rates, and then more drastically, when Congress instructed the SEC to "facilitate" the establishment of a National Market System. That new assignment, in effect, required the SEC to add to its traditional regulatory duties the task of overseeing a major restructuring of the U.S. securities markets.

Quite literally, Congress ordered the SEC to assume additional decision-making responsibilities with immense implications for the continuing effectiveness of our entire national economic system. Congress did not offer the SEC specific guidance on how to carry out its enlarged role. But clearly, one pre-requisite should be the ability to evaluate the economic consequences of any and all decisions that affect the structure of the securities industry and have an impact on the quality of the capital markets. And the SEC itself appears to have recognized this.

Former Commissioner Roberta Karmel, the first woman ever to serve on the SEC, stressed, back in 1978, the need for the industry's self-regulatory organizations --including, principally, the stock exchanges-- to work closely with the Commission in meeting the challenges of developing the National Market System. And in a statement that did not enhance her popularity among government regulators, she noted, and I am quoting now:

> "Although the need for capital on Wall Street is serious, the promotional role of the SEC with respect to market structure does not include the granting of subsidies for the development of a national market or clearance system. Further, a government agency is not a profit-making institution, and so the SEC has a limited capacity to formulate ideas for systems on the basis of their economic feasibility. Even though the Commission has been given promotional duties, it remains a basically regulatory agency with neither the mandate nor the resources to solve fundamental economic problems."

COMPETITION IN THE SECURITIES INDUSTRY

We also have concerns with respect to some fundamental misunderstandings about the economics of competition in the securities industry -- particularly with regard to the essential distinctions between price and value.

Value, of course, involves much more than price. In the securities business, for example, non-price factors --such as quality of service, professional judgment, market continuity and liquidity, quality of execution, and both the willingness and ability to deal with problems-- can and do influence customers' decisions as to where to send their orders. If the market system is to serve the ultimate customer's best interests, it must offer brokers and dealers the opportunity to send each customer's order wherever, in their professional judgment, execution of the order will yield the greatest total value to the customer.

Congress seemed to recognize this, in the Securities Acts Amendments which called for the establishment of a National Market System, by specifying that one of the key factors in strengthening competition in the securities markets would be "to assure ... the practicability of brokers executing investors' orders in the best market."

But since 1975, when those Amendments were enacted, much discussion and debate has focused on whether and how to increase the number of competitors -- an exercise that we find, in itself, not very meaningful. It is true, of course, that in most businesses, including the securities business, competition generally can be strengthened by adding more competitors. But competition in the securities business involves the additional essential element of competition among orders. In the ideal competitive situation, all orders would meet and interact to establish a price at which each particular order can be executed -- subject to additional competitive interaction for each of the other factors that help determine the best over-all value for the ultimate customer.

What many participants in the ongoing National Market System dialogue seem not to recognize is that unless the system can be structured so as to enhance all of the competitive elements that determine best over-all value, the mere addition of more competitors will fragment competition among orders and ultimately diminish, rather than strengthen or enhance, competition over-all.

THE IMPORTANCE OF SELF-REGULATION

We are also concerned that the proliferation of government regulation related to the National Market System could ultimately erode the concept of self-regulation in the securities industry -- a concept that, in practice, has served public investors and the U.S. capital markets well.

Experience has shown that when an industry is closely regulated by government, there is an ever-present danger that centralization, inflexibility and insensitivity to changing needs and circumstances will operate to the disadvantage of both the industry and its customers. By contrast, a strong, responsible self-regulatory presence --both in concept and in practice-- helps mitigate that danger. In the U.S. securities industry, for example, the self-regulatory organizations --principally, the exchanges-- are closer to what is happening and, therefore, more alert both to the changing needs of the marketplace and to potential problems, and well-equipped to act swiftly and decisively when action is required.

There are, of course, those who suggest that self-regulation is rather like assigning the fox to patrol the chicken farm. But, in fact, the self-regulatory responsibilities of our securities industry organizations have tended to impose strong disciplines --in terms of integrity, efficiency and cost-effectiveness-- that have won high praise from government and the public.

With respect to the evolving National Market System, the self-regulated U.S. securities industry has examined each proposed new development from the standpoint of whether it will strengthen the effectiveness of our capital markets system. Where proposed changes have offered the prospect of improving our capital formation and allocation processes by encouraging informed risk-taking, we have embraced and implemented them. Where proposed changes seem to represent a step backward, rather than a step forward, we have sought alternative solutions to problems. In short, we have striven for change with improvement, and we have rejected the idea of change for its own sake.

The difficulty in making over-all value judgments at this stage of progress toward a National Market System is further complicated by the fact that the major developments and expenditures have occurred during a period of significantly increased market activity, when the necessary funds and manpower have been available.

On the surface, this may seem to validate the effort and expense. But we have no assurance that the industry could support the new structure under adverse economic conditions. And we are troubled by the likelihood that, in such circumstances, government would claim a still greater role for itself.

In any event, the National Market System is still evolving. It is unlikely ever to stop evolving. As new needs may arise or be perceived, new efforts will be launched to meet them. Evolution is, in the most practical sense, a process that can never be completed.

CONCLUDING REMARKS

I have tried to offer, in these comments, a reasonably concise account of how the National Market System has been evolving in the United States. Some of our experiences may be relevant and helpful as you explore the various options that may be available to you toward strengthening your markets -- but you will necessarily be much better judges of that than I.

Because of differences in traditional business practices, the use of different currencies, differences in EEC and individual national policies --and the fact that European exchanges differ both from those in the U.S. and from one another-- many of the approaches we have taken may be inappropriate here in Western Europe. Again, you are the best judges of that.

But we will certainly be happy to assist you in any way we can -- in any area in which you may think our expertise and insights might be helpful. And I extend a cordial invitation for you to visit us in New York and see our present system in operation.

And now, Mr. Calvin, Dr. Freund and I are at your service to respond to any questions you may wish to ask.

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