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.



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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

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.)

# C o n t e n t s



## 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.

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.

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.

## 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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