OFFICE OF
THE CHAIRMAN

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

October 19, 1988

The Honorable William Proxmire
Chairman
Committee on Banking, Housing
and Urban Affairs
SD-534 Dirksen Senate Office Bldg.
Washington, D.C. 20510

Dear Chairman Proxmire:

The securities markets have made substantial progress in addressing the problems associated with the October market break. Enclosed is a memorandum which details the various steps which the individual markets have taken since October. This letter highlights those items which I believe are most noteworthy. In brief, while much remains to be done and it is impossible to guarantee that stock values will not decline, I believe the stock trading procedures are stronger today than they were in October of 1987.

1. Capacity

The market break highlighted the need for the markets to maintain systems that can process efficiently a high volume of trading activity. Since October the markets have taken numerous steps to improve their computer and communications facilities. For example, the New York Stock Exchange ("NYSE") has implemented system enhancements which will allow it to handle a 600 million share day without significant delays in their order processing and information dissemination systems. The NYSE also has engaged outside consultants to review their systems and by year-end will have undertaken two system stress tests. In addition, the regionals have made substantial improvements, as have the options markets. These steps range from adding additional computer hardware to revising software protocols and developing additional back-up facilities.

In this regard, I believe the securities markets should be commended for their ongoing commitment to increase systems capacity despite the reduced volume of trading which has occurred so far this year. The Commission recognizes that system capacity issues raise the need for continuous monitoring and is committed to continuing to maintain an active oversight role.

2. Individual Investor Access

During the market break, individual investors were concerned that they could not be assured of timely executions of their orders. The systems capacity issues discussed above will help to address this concern. In addition, the NYSE's proposed Individual Investor Express Delivery Service will provide individual investors with preferential access to the NYSE's Designated Order Turnaround ("DOT") System during volatile market conditions. Similarly, the National Association of Securities Dealers, Inc. ("NASD") revisions to its Small Order Execution System ("SOES"), e.g., mandatory participation standards, will help ensure that small customer orders in over-the-counter ("OTC") securities are promptly executed.

3. Market Maker Performance and Capital

Few issues raise more difficult questions of market regulation than assessing the adequacy of market maker performance during a period of extreme market stress. On the one hand, market makers cannot be expected to "buy the company" when everyone else wants to sell. On the other hand, market makers should strive to maintain liquidity and depth in the securities for which they make a market, even during periods of market stress.

Within this context, I believe the markets have taken important steps to reaffirm the pivotal role of market makers. The American Stock Exchange ("Amex") and NYSE have reallocated a significant number of stocks from specialists where inadequate performance during the October market break was identified. Moreover, looking to the future, the Amex and NYSE have increased specialist capital requirements, with higher increases planned for the future, and changed their rules to facilitate the ability of large, retail firms to acquire specialist units. Similarly, the NYSE has substantially increased the information available to it to effectively monitor specialist firms' financial positions. For example, since the October market break, the NYSE has improved its specialist surveillance system by, among other things, requiring each specialist unit to submit on a daily basis information on its capital and securities positions. The NASD has revised its SOES execution procedures and implemented its Order Confirmation Transaction in efforts to ensure that market makers are reachable. The combination of these actions should strengthen the ability of the market maker system to operate during periods of stress.

4. Market Information, Coordination, and Contingency Planning

As you know, one source of uncertainty last October was the availability of timely and accurate information about market developments. While the systems for reporting trade and quote information worked well, the break highlighted the need for better coordination between and among market regulators and participants.

In this area, a series of incremental steps have been taken to weave a better communications network so that major market participants can obtain timely information. The markets, for example, have created an intermarket communications system to facilitate joint discussions among all key market participants. The self-regulatory organizations ("SROs") are discussing procedures to enhance information sharing methods for detecting inter-market frontrunning. The clearing corporations are developing systems to share information. In addition, procedures have been, and are being, developed for enhanced information gathering on program trading activity. Finally, the Commission has developed contingency procedures, both domestically and internationally, to ensure efficient monitoring of the markets during periods of market stress.

5. Clearance and Settlement

The ability to move funds and ensure the integrity of clearing corporations is critical to avoiding market stress becoming financial panic. Recognizing the importance of this process, the various clearing corporations have strengthened their financial resources, banking relationships and cross-market communications. In particular, recent steps to develop cross-margining systems will help reduce the flow of funds pressure associated with inter-market positions.

In this regard, I would emphasize the importance of the markets' and Commission's commitment to same-day or next-day trade comparison. It is imperative from both a risk assessment and financing perspective to finalize a trade commitment as soon as possible. Accordingly, both the NASD and NYSE have committed to developing the procedures necessary for implementing such a change. I can assure you that the Commission actively will work to achieve this goal.

6. Portfolio Trading

Many academic commentators and market participants have suggested that there is a need for better procedures to trade a portfolio of stocks in a single stock market transaction. The underlying rationale is that such a procedure would allow investors to focus their trading activity in a single vehicle and provide a mechanism whereby market intermediaries, e.g., block positioners, could provide liquidity. The Commission supports this effort. Nevertheless, many technical and policy issues are raised by this initiative, e.g., how will trades clear and settle? What will be the role of market makers in such a system? Can a "standardized basket" be designed? Notwithstanding these difficulties, a number of market basket proposals have been advanced. The Commission will continue its ongoing efforts to develop such trading facilities.

7. Circuit Breakers

Despite the many initiatives discussed above and in the enclosed memorandum, the institutional nature of today's markets raises the potential of substantial market volatility. This potential for market stress underlies the need for pre-planned circuit breakers. From the Brady Report to the President's Working Group, there was a recognition that ad hoc market closures might create greater uncertainty, but that pre-planned circuit breakers would provide an opportunity for market participants to marshall their resources, assess the situation and respond to market volatility in a more orderly fashion. In this regard, the Commission has approved rule changes submitted by the NYSE, Amex, Chicago Board Options Exchange and NASD that implement the circuit breakers outlined by the President's Working Group. In addition, as a separate matter, the NYSE and the Chicago Mercantile Exchange have agreed to implement so-called shock absorbers to address volatility concerns. I believe these proposals provide a useful fail-safe procedure for the markets.

* * * * *

Substantial steps have been taken to improve the ability of the securities markets to handle dramatic increases in volume and price volatility. The Commission will continue its close monitoring of the markets in order to be sure that the progress made in the last year continues.

Sincerely,

David S. Ruder

David S. Ruder
Chairman

Enclosure

MEMORANDUM

TO: Chairman Ruder

FROM: Richard G. Ketchum, Director RK
Division of Market Regulation

RE: Recent Market Break Developments

DATE: October 18, 1988

Attached is a summary which details the various steps taken by the principal securities markets since October to address recent market volatility and other problems associated with the October 1987 market break.

A. Cross Market Matters

1. The stock, option, and futures exchanges should develop circuit breaker procedures for periods of substantial market declines.

The New York Stock Exchange ("NYSE"), concerned with the impact of index arbitrage during days of high volatility, submitted a proposed rule change to prohibit members and member organizations from entering into any NYSE automated order routing or trading system 1/ any order or other trading interest involving index arbitrage after the Dow Jones Industrial Average ("DJIA") moves 50 or more points from the previous day's close. 2/ On April 19, 1988, the Commission approved the NYSE proposal on a six-month pilot basis.

The Presidential Working Group ("Working Group") in its May 1988 Report on Financial Markets, recommended coordinated trading halts and reopenings for large, rapid market declines that threaten to create panic conditions. Specifically, the Working Group recommended that all U.S. markets for equity and equity-related products -- stocks, individual stock options, stock index options, stock index futures and options on stock index futures -- halt trading for one hour if the DJIA declined 250 points from its previous day's close. A second closing for two hours would occur if the DJIA declined 400 points below the previous day's closing level.

In response to the Working Group's recommendations, the NYSE in September submitted a proposed rule change to the Commission 3/ for approval. The proposed rule change would establish, on a one year pilot basis, a circuit breaker mechanism very similar to the Working Group proposal: a one hour trading halt for a 250 point decline in the DJIA and a two hour trading halt for a 400 point DJIA decline. The Commodity Futures Trading Commission ("CFTC") has received similar proposals submitted by the futures exchanges that trade stock index futures or options on stock index futures. Likewise, the Chicago Board Options Exchange ("CBOE") recently filed with the

---

1/ These systems include the Designated Order Turnaround ("DOT") System, which routes orders of up to 2,099 shares directly to the appropriate specialist post.

2/ See Securities Exchange Act Release No. 25599 (April 19, 1988), 53 FR 13371.

3/ See Securities Exchange Act Release No. 26061 (September 6, 1988) and Securities Exchange Act Release No. 26062 (September 6, 1988).

Commission its coordinated circuit breaker proposed rule change. That filing, among other things, provides for a trading halt in CBOE index and equity options when the NYSE's 250 or 400 point circuit breakers are triggered, and also provides for a halt in CBOE index options when a futures contract on the same index (on a closely related index designation by the Exchange) has been halted because of a decline of 30 points in the Standard and Poor's ("S&P") 500 index from the prior day's close. 4/ The National Association of Securities Dealers ("NASD") and the American Stock Exchange ("Amex") also have submitted proposals to the Commission to halt trading in their markets under such circumstances. The NYSE, CBOE, Amex and NASD filings were approved by the Commission on October 18, 1988, effective October 20. Commission staff has requested all other options and stock exchanges to take action on circuit breakers at their October Board meetings.

A second NYSE proposed rule change relates specifically to a Chicago Mercantile Exchange ("CME") proposal that would implement certain restrictions when the price of the S&P futures contract traded on the CME ("S&P 500 futures") falls 12 points (the approximate equivalent of a fall of 96 points of the DJIA). Specifically, at this "trigger value", the CME will not permit the price of any futures contracts on the index to fall further for one-half hour; in effect, the CME will impose a 30 minute price limit. Under the NYSE proposal, when this same "trigger value" is reached, market orders involving "program trading" in each of the stocks underlying the S&P 500 futures entered into the Exchange's DOT system will be routed into a separate file ("sidecar file") for each of the stocks. Buy and sell orders will be paired in the files, and five minutes later the orders in each of the files, and the order imbalances (if any), will be reported to the specialists for the stocks. At that point the orders will be eligible for

---

4/ See SR-CBOE-88-14. The Commission previously approved a rule change by the CBOE (SR-CBOE-87-47) establishing guidelines for trading halts in equity options at the CBOE under varying circumstances. During the week of October 19, 1987, trading in securities underlying CBOE options had halted on the primary exchange. While this resulted in trading halts in the overlying options, additional clarity as to the conditions requiring an option trading halt would have reduced confusion for market participants. The Commission believes that these two rule changes will be particularly helpful by providing clear procedures that market participants know are applicable in times of high volatility, such as during the October 1987 market break. See Securities Exchange Act Release No. 25906 (July 13, 1988).

execution. If there is not sufficient trading interest to allow for an orderly execution of a transaction in a stock, trading in that stock will halt.

These two proposals would replace the NYSE's pilot rule limiting use of DOT for index arbitrage trading after 50 point DJIA movements. This six-month NYSE pilot thus will expire on October 19, 1988. 5/

The NYSE also has submitted a proposed rule change which will provide priority delivery to the specialist's post for individual investors' market orders of up to 2,099 shares after the DJIA moves up or down 25 points from the previous day's close. The proposal also will introduce new order identification codes to facilitate the implementation of the limitations on trading pursuant to the "sidecar" proposal described above. 6/ The Commission approved the NYSE proposals on October 18, effective October 20.

2. The exchanges should examine ways to implement regularized monitoring and reporting of program trading.

Since the market break, the NYSE has sought to improve procedures to collect routinely information on the level of program trading. Since May 2, 1988, member firms have been requested to submit to the NYSE "spreadsheet" reports identifying each arbitrage or non-arbitrage program. These reports are submitted in a paper format from two to three days after trade date. The NYSE has used this information to issue public reports on aggregate levels of program trading on a monthly basis for July and August 1988.

At present, the NYSE staff is working on programming that would permit the electronic submission of these data from member firms in a more timely fashion (perhaps eventually on a next-day basis) and in a format capturing more detailed

---

5/ In this regard, the Division examined closely the effectiveness of the NYSE collar rule on April 6, 1988 (when the DJIA rose 64.16 points) and April 14, 1988 (when the DJIA declined 101.46 points). The Division found that the collar rule was largely ineffective because member firms reacted to the restrictions by manually routing orders to the NYSE as permitted under the rule. We understand that the experiences of April 6 and 14 influenced the NYSE's determination to propose alternative circuit breaker mechanisms in conjunction with the CME.

6/ *See* Securities Exchange Act Release No. 26115 (September 26, 1988).

information on each program (such as the number of derivative contracts used in a program and the approximate order execution times in the derivative markets).

In addition, the NYSE staff is studying the feasibility of using slight changes to the transaction audit trail to provide an on-line monitoring capacity, at least for programs using automated order-routing systems. The Commission staff is reviewing these NYSE projects, as well as similar systems proposed by the CFTC.

In addition, the Division wrote to the Consolidated Tape Association ("CTA") in May of this year requesting that the CTA develop procedures for identifying and reporting, on a real-time basis, aggregate program trading data. The CTA has committed in principal to the idea, and the Division staff has held meetings with the CTA, the broker-dealer community and vendors to discuss implementation of a program trade reporting requirement.

The Division believes that it would be beneficial for market participants to receive regularized, real-time reporting of program trading. Information on program trading may be as valuable to the market as is information on block trades, for which monitoring and reporting systems have been developed.

3. <u>The exchanges should improve their communication links to facilitate timely and accurate information exchanges.</u>

One area of concern to both the Commission and the various exchanges after the market break was the need to enhance the capacity of the national securities exchanges to monitor delayed openings, trading halts, and related order imbalances in primary market securities, particularly for key market segments or indexes such as the DJIA during periods of extreme market stress. In response to these concerns, the NYSE is seeking to develop by year-end automated systems to report on-line delayed openings and trading halts in stocks in key indexes. The NYSE's longer-term plans will consider the feasibility of capturing on-line order imbalance information directly from specialist posts, at least for key stocks. The Commission staff is working with the NYSE in enhancing this market volatility surveillance project. In addition, the exchanges have established a coordinating body, the Conference on Intermarket Communication ("CIMC"), that, among other things, has established an operations directory that identifies who at the exchanges should be contacted for information and a telephone conference facility that will tie all exchange trading floors together so that information can be shared effectively in the event of volatile market conditions. In addition, the CIMC is investigating the feasibility of establishing a computerized data base for index quotations. This quote line will permit exchanges to have a better knowledge of an index's real value when substantial numbers of the index's component stocks are not trading.

4. <u>The self-regulatory organizations ("SROs") and government agencies should establish contingency planning and information sharing procedures</u>

During the market break, the Commission staff monitored the effects of the extraordinary price volatility and trading volume by functioning in specialized teams with responsibility to stay in constant contact with the self-regulatory personnel at various markets and clearing organizations. In addition, senior Commission staff maintained contact with their counterparts at the CFTC, Federal Reserve Board, and securities and futures SROs. In view of the usefulness of this program during the market break, the Commission staff has formalized a Market Volatility Contingency Plan ("MVCP") that outlines the make-up and responsibilities of various staff teams during periods of extreme market stress, as well as specific contact persons (and telephone numbers) for each SRO or agency. The MVCP has been updated periodically to take into account changes in personnel and shifting regulatory responsibilities.

B. <u>Routing and Execution Systems</u>

1. <u>NYSE should increase efforts to improve the processing of orders by continuing to upgrade order-handling equipment through implementing new and more efficient, higher-speed printers, and adding new disk drives, minicomputers, and improved software. The Division also encourages the NYSE to increase the number of stocks on electronic display books and to complete the connection between the electronic display book system and limit order system, so that fewer orders will have to be printed and then handled manually.</u>

The NYSE has made improvements to virtually every exchange order processing system since the market break. The NYSE created an Operations Advisory Committee with the objective of synchronizing planning and operational efforts to provide the capacity to handle routinely a 600-million share day by the end of 1988. The NYSE has doubled the number of stocks on electronic display books and has implemented the Post Support System that routes both market and limit order traffic directly to the display books, thus averting backlogs at the universal floor device controller switch and reducing the number of orders that must be printed. In addition, the NYSE has increased substantially the number of printers on the floor and implemented enhancements to those printers. In

February 1988, the NYSE completely replaced its odd-lot system and in April 1988, the NYSE upgraded the limit order system, resulting in a 50% increase in capacity.

In addition, the Security Industry Automation Corporation ("SIAC") improved its PC monitoring system, which permits SIAC to monitor how DOT and other NYSE systems are performing on a continuous basis. SIAC enhanced the system and now has installed PCs on the floor of the NYSE. In the future, the NYSE plans to include a "railroad timetable" feature that will enable the NYSE to track the amount of time it takes orders to be routed through the system. Finally, the NYSE is exploring different methods of reporting the results of its monitoring, which now are reported numerically on the PC screens. For example, the NYSE is considering pictorial representations and graphs.

2. <u>Amex should review conditions that led specialists to shut off AUTO-PER.</u>

Amex has taken several steps to address the conditions that led some specialists to shut-off their AUTO-PER screens during the week of October 19. First, Amex has relocated some terminals that were behind specialists so the terminals will be in the front and thus easier to use. Amex also has redesigned the AUTO-PER screen to eliminate the need, in some situations, to use an additional page to complete execution of an order. Amex believes this redesigned screen will permit specialists to execute orders more quickly and thus reduce the possibility of having orders printed and executed out of sequence, a concern that caused some specialists to shut-off their screens. Finally, Amex is conducting a pilot program with one equity security testing an electronic book that it believes will provide smoother integration of AUTO-PER and booked limit orders.

3. <u>Regional Exchanges' Systems Enhancements</u>

The Boston Stock Exchange ("BSE") has recently been granted permission to proceed with full scale implementation, for a six-month trial period, of its automated communication, order routing and execution system, known as BEACON. 7/ The BSE was virtually unique among the regional exchanges because it only had manual systems for the routing and execution of small orders.

7/ File No. SR-BSE-87-1 was partially approved for a six-month pilot in Securities Exchange Act Release No. 26029 (August 25, 1988), 53 FR 27584. "BEACON" is an acronym for Boston Exchange Automated Communications and Order-routing Network.

BEACON will represent a major improvement for the BSE in terms of the speed and efficiency with which it can process and execute retail orders and provide reports of executed trades. Once the system is fully operational, the BSE expects that BEACON will have the capacity to process at least 40,000 orders per day. This capacity would be over eight times the BSE's current average daily order volume and three times the number of orders BSE encountered during the peak days of the October market break.

As of September 1, 1988, all BSE specialists were trained on how to use BEACON and 15 specialists in 102 stocks were using the system. The BSE is continually adding new securities to BEACON and currently has approximately 140 stocks in the system. Under the pilot program, only market orders are eligible for routing and execution through BEACON; however, the BSE currently is testing limit orders in the system. The BSE conducted capacity tests before it put BEACON into operation and will continue to conduct stress tests as it increases the load on the system and will report results to the Commission on a monthly basis.

The Cincinnati Stock Exchange ("CSE") has responded to the volume surges and high volume levels of the October market break by substantially increasing capacity. The CSE has doubled its hardware and redesigned its software to allow multi-tasking of its computers. In addition, the CSE has improved and increased the amount of communications equipment, phones and modems connecting the CSE to SIAC.

The Midwest Stock Exchange ("MSE") has increased the capacity of its MAX system from 36,000 trades per day to 60,000 trades, more than a 65% increase, since the market break. According to the MSE this increase means that, assuming a normal mix of orders, its system could process, with no delays or problems, the volume of orders experienced during the market break. The MSE also has developed a "performance management measurement methodology" to improve MSE capacity forecasting and to increase capacity with their current systems on an as-needed basis. Both staff and software tools have been added to implement this program throughout 1988.

The Philadelphia Stock Exchange ("Phlx") estimates that PACE system capacity has been increased from approximately 12,500 orders per day to over 20,000 orders per day without queuing. Further, the Phlx plans to replace its current computer system for PACE by the second quarter of 1989, which, the Phlx estimates, will increase capacity to 40,000 orders per day and will allow Phlx to handle its anticipated share of volume on an 800 million to 1 billion share day. Further, when its new computer system is in place, Phlx believes it will be able to increase capacity to accommodate volume surges with less than a 24-hour turnaround time.

Phlx also has made modifications that permit automatic reporting to continue when the automatic execution feature of the system is disengaged. This will allow Phlx to switch to manual execution of orders, which was done on October 20-22, without encountering the reporting delays that occurred at that time.

Phlx also is in the final stages of testing enhancements to its CENTRAMART System, which processes incoming quotation and transaction information. The enhancements will increase capacity in CENTRAMART to handle Phlx's expected share of 600-million share days. By the second quarter of 1989, computer enhancements should increase CENTRAMART capacity to the 800-million to 1-billion share level and allow additional capacity to be added quickly when needed.

By March of 1988, the Pacific Stock Exchange ("PSE") had increased SCOREX's capacity to 50,000 messages per day, a 50% increase. 8/ In addition, the PSE believes that its ongoing computer replacement project, to be completed within the next couple of years, will increase capacity to 100,000 messages per day. The PSE also has increased the speed at which its systems process data from 9800 bits per second to 17,200 bits per second. The PSE believes its systems now are capable of handling the volume levels experienced during the Market Break without difficulty.

The PSE also has decreased the unnecessary load on its systems that extraneous quotes from the Consolidated Quotation System ("CQS") created. Although the PSE only trades approximately 50% of the stocks included in the CQS feed, they receive quotes on all the CQS stocks. The PSE recently has developed the capability to filter out quotes on those CQS stocks that are not traded on the PSE.

Finally, in response to bottlenecks that existed in the lines between the PSE's two communications processors, the PSE added two additional lines and added an additional communications processor, raising the number in operation from two to three.

8/ "Messages" include incoming orders, order status report requests and order cancellations. By comparison, On October 19 and 20 SCOREX received 47,000 messages per day.

4. <u>Regional exchanges' contingency plans to cope with order routing and reporting difficulties during periods of unusual volume; including back-up systems, personnel training, and improved communication with public customers.</u>

In 1988, MSE improved back-up capabilities including a communications link between MSE and large member firms and service bureaus. Further back-up capabilities are being planned for future years. The MSE is also developing a contingency capacity fall-back plan that will identify any non-essential MAX activity that could be eliminated during unusual volume surges to accommodate more volume.

MSE also has developed a program to train upstairs personnel to supplement floor staff in "volume breakout situations." The staff has been trained in Trade Input and MAX customer interface functions. MSE procedures provide for the additional staff to be on the trading floor within 15 minutes when needed.

Phlx believes that it currently has adequate back-up personnel at all levels including data processing, operations and marketing/customer communications. In addition, the PACE system is adding a back-up system so that all computer functions will be performed in duplicate and cross-checked to detect any breakdown immediately. Also, because the new computers are modular, additional temporary capacity can be added within a day.

The PSE is refining its contingency plans to re-route orders manually to floor booths if its other enhancements prove insufficient at a particular time. PSE also has formed a working group to plan the training of staff to meet the requirements of a market disaster, such as providing relief for regular staff and training for both options and equities floor duties.

5. <u>Improve exchange communication with retail firms concerning problems, delays, and changes.</u>

BSE will notify BEACON users of delays and other system problems through administrative messages, supplemented by direct contact with member firms. In addition, BSE has appointed a new officer who, among other things, will be responsible for improving communications with member firms.

The CSE has made certain improvements, including a direct line to retail firms, to expedite communication concerning system problems and delays.

MSE recently has implemented procedures to shorten the amount of time it takes to notify retail firms of problems or changes to MAX by both administrative message and telephone. Under the procedures, MSE will first notify firms of problems, delays or changes to MAX through administrative message and will follow-up with phone calls to the firms.

PSE is upgrading and reformulating its current procedures for contacting retail firms when system operational problems or delays occur. PSE also will notify SCOREX users that during periods of extremely heavy volume the automatic execution feature may be disengaged to enable additional "throughput." Both firms and the SEC would be notified prior to any actual disengagement of the automatic execution features.

6. Improve coordination between exchanges concerning problems with, or shut-down of, small order systems.

The exchanges have developed an intercom system that will link all of the exchanges through dedicated phone lines. Each exchange will have a phone installed that will provide instantaneous communication among the exchanges: as soon as the receiver is lifted the caller can be heard on speakers installed at all the other exchanges. AT&T now is installing lines and equipment and the system should be operational by mid-October.

7. Exchange Operational Stress Tests

In reaction to the systems problems experienced during the market break, two exchanges have conducted stress tests with independent outside auditors on-site to assess the modifications. The NYSE in April 1988 conducted an operational stress test to measure the performance of the internal order receiving, routing, and delivery functions. The NYSE compressed the actual trading activity from October 19 into a 5-hour replay in order to stress the modified systems. The General Accounting Office, the SEC and outside auditors were in attendance. This test demonstrated that the NYSE's enhanced capacity on all levels could handle a 600-million share day without the queuing and other overload problems experienced during the market break.

In addition, the PSE conducted a stress test in March and determined that most of the problems (i.e., losing orders due to overloads and "wrapping") had been addressed.

In September, the Division sent a letter to each exchange asking for specific information on systems' upgrades and testing plans for the future by October 15, 1988. The Division intends to formulate a policy statement regarding acceptable standards for systems' testing and intends to maintain on-going oversight of exchange operations and capacity issues.

8. The NYSE should include a review of operational capacity of firm order handling systems in broker-dealer examinations.

The NYSE intends to establish operational standards to apply to all market participants. In addition, the NYSE is planning a stress test of its order handling systems in conjunction with broker-dealers and service bureaus in November, 1988.

C. Stock Exchanges

In the Division's Report on the October Market Break and subsequent Congressional testimony, the Commission recommended that the exchanges and other market participants examine their operations in many areas. Set forth below are recommendations made by the Commission and a description of responses.

1. The exchanges should review minimum capital requirements for specialists.

The Commission approved proposed rule changes by the Amex and the NYSE to raise capital requirements for specialists. The Amex rule change 9/ raised capital requirements for a specialist unit from the greater of $100,000 in cash or net liquid assets or an amount sufficient to assume a position of 20 trading units to a new level of $600,000 or an amount sufficient to assume a position of 60 trading units.

The NYSE rule change 10/ raised capital requirements for a specialist unit from the greater of $100,000 or 25% of trading unit position requirements to $1 million or 25% of trading unit position requirements. In addition, the NYSE rule change tripled all applicable position requirements for specialists. For example, a specialist who previously was required to be able to assume a position of 50 trading units (5,000 shares) in each stock in which he is registered is now required to be able to assume a position of 150 trading units or 15,000 shares. In its filing the NYSE indicated that this increase in specialist capital and trading unit position requirements was an interim measure. The Division anticipates additional changes to specialist capital requirements as the NYSE continues to study this issue.

9/ File No. SR-Amex-88-14 was approved in Securities Exchange Act Release No. 25863, June 28, 1988, 53 FR 22870.

10/ File No. SR-NYSE-88-12 was approved in Securities Exchange Act Release No. 25677, May 6, 1988, 53 FR 7458.

Both the NYSE and the Amex have increased the financial monitoring of their specialists by, among other things, requiring the specialists, or their clearing firms, to submit on a daily basis information on the specialist's securities positions and financial conditions.

Prior to the market break, the BSE had planned to increased specialists' equity capital requirements (effective December 31, 1987) from $80,000 to $125,000. 11/ The Phlx, MSE and PSE are continuing their review of the adequacy of their specialists' capital, particularly in view of the increased capital requirements adopted by the Amex and the NYSE.

2. The NYSE should develop relative, objective standards for evaluating specialist performance.

The Commission approved in May 1988 a two year pilot program to revise NYSE Rule 103A. In general, Rule 103A establishes general standards of specialist performance and permits the NYSE to withdraw approval of a member's registration as a specialist when the specialist consistently has received quarterly evaluations that are below acceptable performance levels specified in the rule. The revisions to Rule 103A include the adoption of objective specialist performance criteria, the adoption of minimum standards for acceptable performance, codification of reallocation procedures, and broader performance improvement action procedures for specialists with below standard performance. 12/ During the pilot period the NYSE will develop more precise objective standards for measuring specialist market making performance.

The NYSE has stated that it will review the suggestion that it adopt relative performance criteria for specialists. The exchange has refrained from using relative criteria because of its concern about the appropriateness of mandating performance improvement actions for specialist units that receive low performance scores relative to their peers but that still satisfy performance standards under Rule 103A.

The NYSE has been developing revisions to its rules for granting new allocations of securities. The revisions will include objective specialist market making evaluation criteria.

11/ File No. SR-BSE-87-2 was approved in Securities Exchange Act Release No. 24562, June 5, 1987, 52 FR 22870.

12/ File No. SR-NYSE-87-25 was approved in Securities Exchange Act Release No. 25681, May 9, 1988, 53 FR 17287.

The NYSE also has submitted a proposed rule change to revise the NYSE's specialist job description. The proposed revision is intended to specify more clearly the important obligations of specialists in their role on the NYSE (e.g., the obligation of a specialist to make firm and continuous two-sided quotations that are timely and accurately reflect market conditions) and the rules of the NYSE applicable to a registered specialist. 13/

3. The SROs should examine individual specialist performance during the market break and, where appropriate, bring disciplinary actions or reallocation proceedings to remedy poor specialist performance during the market break.

The Division's March 4 Implementation Memorandum 14/ outlined a number of post-break developments in this area by the NYSE and Amex, 15/ as well as various regional stock exchanges. The most significant developments since the Implementation Memorandum involve the unprecedented number of stock reallocations announced by the NYSE. In response to isolated instances of egregious failures of specialists to maintain fair and orderly markets in their specialty issues during the market break, the NYSE has reallocated a total of eleven issues involving seven specialist units. The following table presents these reallocations in chronological order.

Specialist Unit	Stock	Date
Spear, Leeds & Kellogg	J.P. Morgan ("JPM")	Jan. 18
M.J. Meehan & Co.	Gould, Inc. ("GLD")	Feb. 4
Lawrence O'Donnell & Co.	Neiman Marcus Group ("NMG")	Mar. 3
Wagner Stott & Co.	Carter-Wallace ("CAR")	Mar. 10
LaBranche & Co.	E.F. Hutton ("EFH") &	Mar. 31
	A.G. Edwards ("AGE") 16/	Mar. 31

13/ File No. SR-NYSE-87-38. Notice of the proposed rule change was given Securities Exchange Act Release No. 25398, February 26, 1988, 53 FR 7458.

14/ See Memorandum from Richard G. Ketchum to Chairman Ruder dated March 4, 1988.

15/ The Amex has reallocated two stocks: Washington Post ("WPO") from Alter, Englander on February 29, 1988; and Continental Materials Corp. ("CUO") from Greenwald and Cohen on February 24, 1988.

16/ In view of the pending acquisition of E.F. Hutton by Shearson Lehman Co., LaBranche & Co. agreed also to withdraw from registration as specialist for A.G. Edwards.

Fowler & Rosenau	Panasophic Systems ("PNS")	Apr. 21
Spear, Leeds & Kellogg	Allegheny Corp. ("Y")	Sept. 2
	Greyhound Corp. ("G")	Sept. 2
	Kysor Industrial Corp. ("KZ")	Sept. 2
Stern & Kennedy	Loctite Corp. ("LOC")	Sept. 2

Since the market break, the Commission staff has reviewed these reallocations as well as other market break-related NYSE investigations and inquiries into complaints by investors, issuers, and member firms. The Division believes that, overall, the NYSE has responded adequately to the issues raised by specific instances of poor specialist performance.

4. Specialist Unit Acquisitions

Although not specifically included in the recommendations in the Division's study of the October market break, the Commission approved a NYSE proposal to extend the temporary deletion of the restriction against an approved person of a NYSE specialist unit from acting as a managing underwriter for a distribution of any security in which an associated specialist is registered. 17/ In view of the highly volatile nature of the markets in October 1987, the NYSE questioned whether it was appropriate to maintain this restriction. The NYSE believed that the restriction may have acted as a significant barrier to the entry of diversified broker-dealers to the specialist business on the NYSE.

On October 22, 1987, the NYSE adopted a proposed rule change to delete the restriction for a six month period. The Commission gave accelerated approval to this rule change. 18/ Following this action, two major diversified firms, Merrill Lynch and Drexel, Burnham, Lambert, became associated with NYSE specialist firms. Two other diversified firms that already had been in the specialist business on the NYSE, Bear, Stearns & Co. and Smith New Court, restructured their operations and sought and obtained an exemption from this restriction.

On the basis of this and other actions, the NYSE requested permanent approval of the deletion of this restriction. The Commission approved this proposal earlier this fall. 19/

17/ File No. SR-NYSE-88-11. Securities Exchange Act Release No. 25667, May 5, 1988, 53 FR 16824. Amex did not have a similar restriction.

18/ File No. SR-NYSE-87-37. Securities Exchange Act Release No. 25055, October 28, 1987, 52 FR 41520.

19/ Securities Exchange Act Release No. 26125 (September 28, 1988).

5. <u>The NYSE should examine the merits of establishing a market basket post on the floor of the exchange to add additional liquidity and cushion individual stock prices from the impact of index related trading strategies.</u>

In recent years, institutional investors have relied largely on stock market portfolio (or "program") trading techniques and on the stock index futures and options markets. As a result, and particularly in response to the October 1987 market break, several recent studies have recommended that the trading of groups (or "baskets") of stocks as a single product on an exchange floor be examined carefully as an alternative means for institutional investors to trade large and often diverse portfolios simultaneously and cost efficiently. 20/ The present execution of program trades on the floor of an exchange as a series of individual stock transactions has strained existing stock exchange procedures and does not achieve optimal pricing or order execution efficiencies. More specifically, program trades can place extreme pressure on individual stock prices and can lead to pronounced liquidity stress in these stocks. In response to these concerns and the recommendations of several recent studies, several exchanges have been investigating possible methods for trading baskets or portfolios in the stock market.

a. <u>Market Baskets on the Floor</u>

The NYSE has discussed with the Commission the possibility of creating one or more specialists' posts where actual standardized baskets of stocks could be traded as a single product. The product would be physically settled with automated book-entry delivery of each of the component securities. To date, however, the NYSE has not submitted a formal proposal to the Commission.

b. <u>Index Participations</u>

The Phlx, Amex, and CBOE have submitted to the Commission proposed rule changes to list for trading hybrid market basket products called index participations ("IPs"). 21/ These

---

20/ The Commission's February testimony, the Division of Market Regulation's Staff Report and the NYSE's Katzenbach Report recommended that the trading of baskets of stock be given serious consideration.

21/ The Phlx product is termed Cash Index Participation ("CIP") and is based on two broad-based stock indexes ("Blue Chip" and "S&P 500" CIPs.) The Blue Chip CIP products are based on the current value of an index of stocks, are of indefinite duration, and entitle holders to receive on a quarterly basis cash payments equivalent to a proportionate share of any regular cash dividends declared on the component stocks of the underlying index. Investors buying and selling IPs may realize profits or limit losses on their investment by entering into an offsetting sale or purchase of an IP in a closing transaction and receive payment of the difference between the costs of the opening and closing transactions. In addition, investors purchasing an IP may elect instead to realize profits or limit losses on their investment through exercising a cash-out privilege which is available at designated times specified and made public by the exchange on which the IP is traded.

6. Option market makers capital should be reexamined

Options market makers and broker-dealers who clear for such market makers experienced liquidity problems during the October 1987 market break. The staff of the Office of Financial Responsibility, after further studying the operations of options market makers and firms that clear for options market makers, is preparing proposed amendments to the net capital rule designed to reflect more accurately the risks incurred by such firms.

---

consist of 25 stocks, designed to replicate the performance of the DJIA. The S&P 500 CIP consists of the 500 stocks comprising the S&P 500 stock index. See Securities Exchange Act Release No. 26058 (September 2, 1988).

The Amex product is termed Equity Index Participation ("EIP") and is based on the Amex Major Market Index ("MMI") and the S&P 500 stock index.

The CBOE product is termed Value of Index Participation ("VIP") and is based on the CBOE 50 and CBOE 250, developed and maintained by the Exchange, and the S&P 100 and S&P 500, calculated and maintained by Standard and Poor's Corporation. See Securities Exchange Act Release No. 25799 (June 13, 1988). The CBOE's VIP differs fundamentally from the Phlx and Amex IP in that the IP writer, as well as the IP holder, may exercise the cash-out feature once per quarter.

D. <u>Options Exchanges</u>

1. <u>The exchanges should reconsider the effects of permitting options on indexes of securities to open prior to the opening of some percentage of component securities in the underlying market as well as the effects of continuing trading for a certain time even though underlying component securities are not trading.</u>

The Commission has approved a CBOE proposal that would permit the Exchange to halt trading and delay commencement of an opening rotation in index options for one or more 15 minute intervals when unusual conditions in the CBOE's market or in other securities or futures markets exist. 22/ Specifically identified as examples of unusual conditions are activation of daily price limits in stock index futures on one or more futures exchanges or, during the one and one-half hour after the opening rotation, delays in opening or trading halts in underlying stocks that represent more than 50% of the index's value.

2. <u>The options exchanges, particularly the CBOE, should examine methods to accelerate opening rotations.</u>

In April, the Commission approved a proposed rule change by the CBOE to modify the opening rotation procedures in Standard and Poor's 100 ("S&P 100") Index ("OEX") options. 23/ The proposal, which is designed to provide for a more rapid OEX opening, splits the OEX trading pit into several zones and designates Lead Market-Makers ("LMMs") and Supplemental Market-Makers ("SMMs") for each zone. LLMs, among other things, must provide firm two-sided market quotes of sufficient size in all series assigned to their zones and facilitate customer order imbalances. The designated zones will be opened simultaneously with the commencement of the OEX rotation in the principal OEX series, which is conducted by the Order Book Official ("OBO") and includes the option series with the nearest expiration. The CBOE has informed the Commission that this modified procedure has reduced significantly the length of OEX's opening rotation, which is now completed regularly within ten minutes. The expeditious commencement of free trading in all OEX option series will facilitate more fair options

---

22/ <u>See</u> Securities and Exchange Act Release No. 25600 (April 19, 1988).

23/ <u>See</u> Securities Exchange Act Release No. 25627 (April 29, 1988). Index option opening rotations were extremely long during much of the week of October 19.

pricings, permit market makers to hedge positions effectively, and contribute to price continuity.

3. <u>The options exchanges and market information vendors should develop a plan to reduce proliferation of options series or to delist options series from vendor quotation services in the event that vendor data base capacity threatens to be outstripped.</u>

Quotations and last sale reporting prices are disseminated to securities information vendors by the options markets through the Options Price Reporting Authority ("OPRA"). During the October market break the proliferation of new options strike prices (caused by dramatic and rapid decreases in the value of the underlying securities) created short term capacity problems for securities information vendors that were unable to display the quotations for all the new options series. In addition, the message formats being used during the market break could only accommodate two digit prices. As a result, when many premiums rose to over $100, the format displayed two digits and people unaware of the constraints of the system were confused. Since the Break, OPRA has taken several steps to improve its overall performance and capacity:

(1) in order to ensure more accurate reporting of premium prices a new format was implemented to carry three digit numbers;

(2) in order to ensure more rapid display of new series, OPRA developed a format for messages 24/ so that new series and strike prices may be added to market maker and vendor data bases at a moment's notice;

(3) overall quotation and last sale capacity has been increased by adding computer lines, and a four year plan has been developed to increase line capacity another 100%;

(4) independent consultants have reviewed OPRA message traffic patterns to analyze where duplicative or non-productive quotations are being generated so that a formula could be devised to either strip these quotations out of the system or allocate system space to exchanges (based on past usage) when high volume situations occur in the future; and

---

24/ The options exchanges currently are implementing the new message formats.

(5) OPRA has begun communicating with vendors on a regular and continuous basis so that solutions to capacity and other system problems may be more readily found.

The Division also notes that the CBOE has reviewed the issue of how to add additional strike prices during volatile market conditions and determined that the interval between strike prices for index and equity options added during and after significant market declines or escalations should be widened so that fewer strike prices need to be added in response to significant price movements. 25/ The CBOE plans to submit a rule change to implement this proposal. The Division believes that uniformity among all options exchanges in the area of adding additional strike prices at wider increments during periods of volatility, in conjunction with increased network capacity, will enhance the ability of OPRA and other information vendors to provide adequate market information for all option series.

4. Options markets using small order execution systems should revisit their rules governing market maker participation in these systems.

The Commission has approved several CBOE rule changes concerning its Retail Automatic Execution System ("RAES"). 26/ One of these rule changes clarifies that a market maker's performance evaluation will include an appraisal of his participation in and support for CBOE sponsored automated programs. 27/ Additionally, the Commission approved a CBOE rule change establishing RAES eligibility requirements that would be applicable to market makers for equity options electing to participate in RAES. 28/ The equity market maker eligibility rule provides that, in the event there is inadequate RAES participation in an option class at any time, the CBOE's Market Performance Committee may require market makers who are members of the trading crowd to sign onto RAES

25/ See letter from Alger B. Chapman, Chairman, CBOE, to Richard Ketchum, Director, Division of Market Regulation, SEC, dated September 8, 1988.

26/ RAES is CBOE's automated execution system. It executes public customer market and marketable limit orders at the best bid or offer at the time the order is entered.

27/ See Securities Exchange Act Release No. 25570 (April 11, 1988).

28/ See Securities Exchange Act Release No. 25992 (August 15, 1988).

"absent reasonable justification or excuse for non-participation." The Commission also approved the use of RAES on a permanent basis for equity options. Thus, RAES can operate floor-wide on the CBOE, expanding the benefits of automatic execution to the public.

Similar proposals for market makers trading the OEX and Standard & Poor's 500 ("S&P 500") index option ("SPX") currently are being reviewed by the Commission. 29/ The Division believes that requiring participation by trading crowd market makers in an exchange's small order execution system should be of substantial assistance in preventing a recurrence of the events of October 1987 when market maker defections from automatic execution systems resulted in their virtual shutdown.

The Commission has approved an Amex proposal to expand its AutoEx system to all equity options on a permanent basis. 30/ For such expansion, the Amex requires the specialist to participate in AutoEx at all times the automated system is in use. 31/ In light of difficulties encountered during the October market break with regard to the availability of AutoEx, the Amex has adopted restrictions on the ability to shut down the AutoEx system. More specifically, the Amex now may shut down AutoEx floorwide during a trading day and may decide not to turn the system on before trading begins in an option class or floorwide only with the concurrence of two floor officials and a senior exchange officer who find that such action is appropriate to ensure fair and orderly markets and investor protection. The Division believes that increased availability of AutoEx will benefit public customers by affording them a more efficient method of executing small market and marketable limit orders in all equity options.

29/ See Securities Exchange Release No. 25621 (April 27, 1988) and Securities Exchange Release No. 24561 (June 5, 1987).

30/ See Securities Exchange Act Release No. 25996 (August 15, 1988). AutoEx is an automated execution system that enables member firms to route public customer market and marketable limit orders in options for automatic execution at the best bid or offer at the time the order is entered.

31/ The Amex also places certain restrictions on Registered Options Traders ("ROTs"). Among other things, ROTs must agree to accept exchange-mandated price adjustments, must remain in the trading crowd for that option once they are signed on, and may sign on the system at any time during a trading day but may sign off and back on the system only one additional time during the day. See Securities Exchange Act Release No. 25996 (August 15, 1988).

The Commission also has approved a rule change by the Phlx that establishes as a pilot program a small order options routing system for the Exchange called the Automated Options Market ("AUTOM") System. 32/ AUTOM is an on-line system that allows electronic delivery of options orders from member firms directly to the appropriate specialist on the Phlx options trading floor, with electronic confirmation of order executions. 33/ The Division believes that the development and implementation of AUTOM will provide for more efficient handling and reporting of orders in Phlx equity options through the use of new data processing and communications techniques. As an order routing system only, AUTOM does not depend upon market maker participation.

5. The options exchanges should review market maker performance during the market break in order to develop means to ensure adequate market maker performance in highly volatile conditions.

Since the October market break, the options exchanges generally, and the CBOE in particular, have attempted to raise the accountability of market makers through rule changes, educational programs and other means to ensure that continuous markets are made at all times. For example, the CBOE has called on its market makers to disseminate voluntarily firm market quotes to public customers for up to 10 contracts for their most active option series. 34/ In addition, the

---

32/ See Securities Exchange Act Release No. 25868 (June 30, 1988).

33/ Before implementing the AUTOM pilot program, the Phlx performed an analysis of AUTOM's impact on its automated systems capacity. Similarly, before expanding AUTOM floorwide to all Phlx options, the Phlx will have to demonstrate, through analysis and testing, that its systems are capable of handling the increased order flow without affecting adversely other Phlx automated systems. See Securities Exchange Act Release No. 25868 (June 30, 1988).

34/ The other options exchanges have policies in place guaranteeing 10 contract markets in certain option series. See, e.g., Securities Exchange Act Release No. 24197 (March 9, 1987) (PSE policy that trading crowds should guarantee a depth of ten contracts at the best bid or offer in all series that are at-the-money and just-in and just-out-of-the-money); Securities Exchange Act Release No. 24580 (June 11, 1987) (Phlx proposal to require specialists and ROTS to make ten up markets for near term

Commission has approved a CBOE rule change reducing the maximum allowable bid/ask differential from 1/2 to 3/8 for smaller priced options, which are the ones frequently used by retail investors. 35/

The Commission staff study criticized the levels of premiums charged for OEX options on October 20, 1987. The staff report characterized OEX options pricing during much of the 20th as extreme and questionable even in light of the chaos and extreme volatility then prevailing in all markets. Since the market break, the CBOE has announced that, as a "goodwill gesture," it will make refunds to member firms based on the difference between the premiums actually paid by public customers for certain November OEX options during the market break and the prices they would have paid if premiums had been based on an implied volatility of 300. The total amount to be paid (approximately $1.2 million) by the CBOE will be recovered through a voluntary contribution of $.01 per contract on market makers' OEX transactions.

In addition, as a result of a number of customer and member firm complaints, the CBOE regulatory staff reviewed market maker performance during the market break, with special emphasis on October 20, and presented their findings and conclusions to a Special Business Conduct Committee. This Committee was formed by the CBOE to determine whether market makers maintained fair and orderly markets in certain OEX options on October 20, 1987, and to impose sanctions against those who failed to meet this obligation. The Committee has concluded its proceedings, and CBOE staff have been instructed to prepare a report of the Committee's decision. The Division expects that the Committee's report will be completed in the near future.

The Amex has noted that upon review of Major Market Index option ("XMI") trading on October 20, 1987, it was unable to conclude that overall specialist and ROT performance constituted a course of dealings that the Amex believed was fair and orderly. More specifically, the Amex found that various XMI put transactions involving the specialist unit were not priced fairly. The Amex has formally admonished the specialist for substandard performance and instructed the

---

at-the-money or just-in or just-out-of-the-money options series.)

35/ See Securities and Exchange Act Release No. 26117 (September 26, 1988). The Amex has filed a proposed rule change that also reduces the minimum bid/ask differential for ROTS. See Securities Exchange Act Release No. 26066 (September 7, 1988).

specialist to develop a plan that would ensure adequate performance in the future and prevent a recurrence of the questionable XMI pricing. Similar to the CBOE, the XMI specialist and member firms representing customer executions have agreed to make voluntary refund payments for XMI options priced excessively during the market break. The Amex determined that XMI options with a volatility factor exceeding 325 were priced excessively. The Amex still is reviewing certain XMI trades made by ROTs on October 20.

The Division continues to monitor the progress of both the CBOE and Amex in concluding their review of market maker performance during the October market break. In this connection, the Division plans to assess the response of both exchanges to market maker performance during the market break with follow-up on-site inspections.

6. The options exchanges should review whether options margin levels are adequate in light of the market break.

The Commission approved rule changes by the options exchanges to amend their rules to increase customer margin requirements for equity and index options on two occasions since the October market break. 36/ In November 1987 the Commission approved an increase in the margin requirement for index options from 100% of the current market value of the contract ("premium") plus 5% of the underlying index value to premium plus 10%. Subsequently, based upon a review of six-month data, the Exchanges increased by 5% the basic and minimum formula percentages for both index and equity options. As a result, the current margin requirement for broad-based index options is premium plus 15% of the current index value, less any out-of-the-money amount, with a minimum of premium plus 10%. The new margin requirements for equity options and narrow-based index options are premium plus 20% of the underlying product value, less any out-of-the-money amount, with a minimum of premium plus 10% of the underlying product value.

The options exchanges are continuing to work together to develop routine procedures to monitor more effectively the adequacy of option margin levels and establish a system for conducting quarterly reviews so that margin levels are based upon current market volatility.

36/ See Securities Exchange Act Release Nos. 25081 (November 2, 1987) and 25701 (May 17, 1988).

E. OTC

The NASD has taken a variety of important steps to strengthen the OTC market in recognition of the problems identified during the market break. The NASD has filed proposed rule changes to address the weaknesses in its Small Order Execution System ("SOES") and several problems regarding market making performance and access.

1. The NASD should inquire into the performance of its market makers during October to assess those firms' compliance with NASD rules (for example, a number of market makers withdrew from SOES and continued routing orders through SOES, potentially in violation of SOES Rules).

To respond to problems encountered during the market break, the NASD proposed, and the Commission approved (Securities Exchange Act Release No. 25791, June 9, 1988, 53 FR 22594), a series of initiatives related to the operation of the NASD's SOES and the problems identified in market making performance and access. These initiatives included mandatory participation in SOES for all market makers in NASDAQ/NMS securities; a 20 business-day prohibition from re-entering quotes in NASDAQ for market makers who voluntarily withdraw as market makers in NASDAQ securities; creation of tiered maximum SOES order size limits in NASDAQ/NMS securities, dependent on the characteristics of the securities (with tier sizes of 200, 500 and 1,000 shares); and continued SOES operation when the inside quote is locked or crossed.

2. The NASD should review whether the OCT service should provide for automatic executions against market makers who fail to respond to messages from other market makers within a set amount of time.

In the Study, the Division recommended that the NASD implement the Order Confirmation Transaction ("OCT") service to permit electronic trading and automatic execution against a non-responding market maker. The NASD partially addressed this recommendation by developing the OCT service to permit eligible firms to negotiate and confirm executions of orders of all sizes through the computer. (Securities Exchange Act Release No. 25690, May 11, 1988, 53 FR 17523.) Although the NASD did not include a mechanism to permit automatic execution against a non-responding market maker as recommended in the Study, the NASD has stated that it will consider continued enhancements of OCT to "improve the execution process" once it has had an opportunity to evaluate the changes to SOES and the OCT service.

3. The NASD should inquire into the large number of transactions reported out-of-sequence to determine whether particular firms are unable to comply with the transaction reporting rules.

In September, 1988, the NASD informed the Division that thirteen firms had been reviewed for violations of the rules and that it expected to take action against two firms that reported a significant number of late or out-of-sequence transactions.

4. The NASD should take steps to have in place measures which will enable it to handle crisis market conditions.

On September 12, 1988, the Commission approved NASD-88-17, which establishes special NASD authority in an emergency or under extraordinary market conditions and permits the NASD to take action involving the trading in or operation of the OTC market, its automated systems and member participation in the market and its systems (Securities Exchange Act Release No. 26072, September 16, 1988, 53 FR 36143).

F. Clearance and Settlement Initiatives

A variety of reports concerning events in October 1987 identified significant stress points in clearance and settlement systems. Those reports 37/ also recommended changes or enhancements to clearing systems that could ameliorate clearance and settlement problems caused by dramatic increases in market volume and volatility. As described below, a number of significant changes to clearing systems have been made or scheduled for completion involving intermarket margin, information sharing, comparison of stock trades, and securities options clearing systems.

1. Intermarket Cross-Margin

On October 3, 1988, the SEC approved the cross-margin system developed by the Options Clearing Corporation ("OCC") and the Intermarket Clearing Corporation ("ICC"). 38/ Under

---

37/ See, e.g., Division of Market Regulation, The October 1987 Market Break (February 1988) ("Market Break Report"); and The Interim Report of the Working Group on Financial Markets (May 1988) ("Working Group Report").

38/ See Securities Exchange Act Release No. 26153 (October 3, 1988), 53 FR 39567. The SEC also granted ICC temporary registration as a clearing agency under the Securities Exchange Act of 1934. Securities Exchange Act Release No.

that system, ICC will calculate and collect a single clearing system margin requirement for proprietary intermarket portfolios consisting of securities options and futures positions. 39/ The system promises to address clearing system recommendations by consolidating margin requirements and variation margin payments for intermarket positions of joint ICC and OCC members.

On September 23, 1988, the CME and OCC announced an agreement to pursue jointly arrangements to provide cross-margining of options and futures on stock index products that are issued and cleared by both organizations. 40/ Under that arrangement, OCC and CME plan to exchange position data concerning joint clearing members electing to use this service (the proposal would be limited initially to joint clearing member proprietary accounts), to calculate independently member margin obligations on futures and options portfolios, and to coordinate collection of margin deposits on those positions. Also, OCC and CME would require clearing members that use this cross-margin system to grant OCC and CME liens on futures positions maintained at the CME and options positions maintained at OCC, respectively.

2. Information Sharing

Securities clearing organizations met in April, May, June, and July of 1988 and have established a formal information-sharing group termed the Securities Clearing Group ("SCG"). 41/ The SCG has formalized by contract existing information sharing arrangements among securities clearing organizations including

---

26154 (October 3, 1988), 53 FR 39556. The CFTC approved the OCC and ICC cross-margin system for a one-year pilot period.

39/ The system currently is limited to proprietary accounts and includes OCC-cleared options and ICC-cleared futures (i.e., stock index and foreign currency futures contracts traded on the New York Futures Exchange, Amex Commodities Corporation, and Philadelphia Board of Trade).

40/ When implemented, that arrangement would extend cross-margin to heavily-traded stock index futures such as the S&P 500.

41/ The SCG includes OCC, National Securities Clearing Corporation ("NSCC"), Depository Trust Company ("DTC"), Midwest Clearing Corporation ("MCC"), Midwest Securities Trust Company ("MSTC"), Stock Clearing Corporation of Philadelphia ("SCCP"), and Philadelphia Depository Trust Company ("Philadep").

sharing of settlement, margin, and position information. The SCG also contracted to cooperate in and investigate a variety of initiatives including the following: (1) a central data base containing financial data (e.g., Focus reports) on clearing firms; (2) identification of additions to Focus report requirements that would aid clearing agency surveillance; (3) the application of a defaulting clearing member's margin, settlement credits, or guarantee deposits across securities clearing organizations; (4) the netting of a clearing member's separate settlement debits and credits across securities clearing organizations; and (5) the routine sharing of settlement information among SCG signatories and futures clearing organizations.

3. Stock Transaction Comparison

The New York Stock Exchange Board has approved and the NYSE plans to file, during October 1988, a proposed rule change establishing for itself and member firms the goal of next-day comparison on all trades. 42/ The NYSE indicates that it expects to implement that goal through a Floor Derived Comparison System ("FDC") approximately eighteen months after the proposed rule change becomes effective.

The NASD also has acted to facilitate next-day comparison of all NASDAQ trades. The SEC approved an NASD rule change that would require NASD members to use the NASD's Trade Acceptance and Reconciliation Service ("TARS") to facilitate same-day or next-day automated resolution of uncompared trades. 43/ The SEC also approved a proposed rule change to establish the OCT service. That service enhances existing NASDAQ communication facilities to capture, in machine-readable form, all key trade terms. OCT allows NASDAQ market-makers to communicate electronically with each other for the purpose of comparing, on a same-day basis, all NASDAQ transactions without the use of telephones, and to report the terms of those trades to clearing agencies for settlement as compared, locked-in trades. 44/

42/ As noted in the Market Break Report at p. 10-7, more than 50% of NYSE transactions currently are compared on a same-day or next-day basis. The proposal would address remaining transactions.

43/ See Securities Exchange Act Release No. 25595 (April 18, 1988), 53 FR 13370.

44/ See Securities Exchange Act Release No. 25690 (May 11, 1988), 53 FR 17523.

4. Options Clearing Systems

a. Margin Calls

OCC has revised the manner in which it collects variation margin. OCC has shortened to 15 minutes from 45 minutes the amount of time needed to calculate variation margin calls and established procedures to draft member accounts immediately. OCC also has adopted a policy of making each variation margin call immediately and not combining variation margin calls in the event of multiple calls on the same day. OCC is investigating with banks the use of automated margin call drafts and has started a pilot operation with one bank, to further reduce the time needed to issue calls.

OCC, futures clearing organizations, and key clearing banks recently agreed to communicate, through appropriate conference calls, when necessary to coordinate variation margin and other settlement payments. OCC's Board also has committed to investigate the coordination of OCC variation margin calls with that of futures clearing organizations.

b. Money Settlement

OCC has reviewed its contractual arrangements with clearing banks and confirmed with those banks the terms of those arrangements. OCC settles member pay and collect obligations in same-day funds between 9:00 a.m. and 10:00 a.m. (CT) (unlike futures clearing organizations, OCC does not require banks to commit to honor member payment obligations before Fedwire facilities are open). OCC's arrangements set forth in unambiguous terms clearing bank obligations to pay member obligations through irrevocable credits to OCC's account or to inform OCC that the payment cannot be processed. 45/

OCC has committed to deliver morning settlement instructions to clearing banks by 7:00 a.m. (CT) instead of its current practice of delivering debit instructions at 9:00 a.m. (CT). OCC also has committed to investigate the feasibility of coordinating its morning settlement with settlement at futures

---

45/ As noted in the Division of Market Regulation's Report on the October 1987 Market Break at 10-45, settlement activity on October 19, 1987 generated a dispute between OCC and one of its settlement banks concerning payments owed OCC from one clearing member. OCC has filed suit against that settlement bank for breach of its clearing bank agreement.

clearing organizations. 46/ OCC, however, uses east coast and west coast clearing banks and believes that those banks are unable at this time to convert to earlier settlement.

c. Membership Standards

OCC has determined to increase its initial net capital requirement for new members to $1,000,000 from $150,000. OCC is considering how, over time, to apply new membership standards to current clearing members. OCC also has determined to increase capital requirements for clearing members that clear for other firms as facilities managers.

d. Clearing Fund Policies

OCC has determined to increase its minimum clearing fund requirements to $75,000 from $10,000 for equity option clearing members, and to $75,000 from $50,000 for non-equity option clearing members. As a related matter, and to supplement the clearing funds, OCC has determined not to refund excess fees until year-end and to retain a specified level of earnings that would be available in the event of clearing member default.

e. Financial Surveillance

OCC has determined to modify its surveillance system and related "watch levels" to enhance its ability to detect default risk posed by individual clearing members. Those modifications are designed to give OCC earlier notice of concentration risk and the effects of dramatic volatility on individual members, and to enable OCC to take earlier corrective action (e.g., more frequent financial reporting, higher margin requirements, etc).

In addition, OCC intends to develop systems to monitor the borrowing capacity of OCC members and applicants for OCC membership, and to require members to provide OCC with more current information on their business activities. OCC also intends to investigate the feasibility of obtaining guarantees of members' obligations from affiliated entities.

46/ Several futures clearing organizations effect money settlement through Chicago banks at 7:00 a.m. (CT).