

For release on delivery  
9 30 A M , E D T  
May 19, 1988

Statement by

Alan Greenspan

Chairman, Board of Governors of the Federal Reserve System

before the

Subcommittee on Telecommunications and Finance

of the

Committee on Energy and Commerce

U S House of Representatives

May 19, 1988

Mr Chairman, I am pleased to have this opportunity to appear before the Subcommittee on Telecommunications and Finance with my Working Group colleagues to discuss our report to the President on financial markets. In the period since last October's market break, we have learned a great deal more about the structure of our financial markets and their points of vulnerability. To this end, we have been aided by the many reports on the October plunge, including the one prepared by the Presidential task force headed by Senator Brady, and from numerous meetings with representatives from the private sector.

Moreover, considerable progress has been made at the government and private sector levels in addressing areas of weakness. This progress has been presented in considerable detail in the Working Group's report to the President, and I shall not use this occasion to recite the details. Our report is to be regarded as an interim submission, for we recognize that there is more work to be done. Some might be impatient with the pace at which our deliberations have proceeded, but it needs to be understood that we are dealing with a very complex system and inappropriate efforts to correct this system could leave us with weaker rather than stronger financial markets. We do not yet have answers to all of the questions that have been raised about ways to strengthen our markets, and we must recognize that it will take more time before our task is complete.

The proposals contained in the Working Group report represent, in my judgement, the proper approach to dealing with these issues. They reflect the "one market" valuation process as it applies to the cash and

derivative instruments for stocks, and thus the need for coherence and coordination. The proposals recognize the necessity for private sector solutions to many of the system's problems. They seek to take advantage of the private sector's expertise in the many complex components of the equity products market system and of the incentives that the exchanges, clearing houses and securities firms have for developing a safe and sound marketplace. Yet the proposals reflect, at the same time, the need for federal oversight and cooperation to ensure that rules and regulations in individual markets recognize and deal with interactions among markets and that contingency plans are in place should another emergency occur. Such an approach, I firmly believe, is the appropriate way of ensuring that our financial markets have the flexibility to adapt to inevitable change while limiting their vulnerability to breakdowns that could threaten our economy.

There is no avoiding the fact that, as our economy and financial system change, our financial markets are going to behave differently than they have in the past. We cannot realistically hope to turn back the clock and replicate behavior of the past. Rather, we need to understand better how the system is evolving and the consequences of such change. Our efforts need to focus on making sure that the financial system is more resilient to shocks rather than embarking on futile endeavors to artificially curb volatility.

The events of last October illustrated dramatically the many changes that have occurred in our market for equity products and the resulting vulnerabilities of the system. Some of those, such as the use

of so-called portfolio insurance strategies based on the faulty premise of a high degree of market liquidity, have at least to a degree been corrected by the October experience. Other changes, such as the heavier dependence of market participants on high-speed computers and telecommunications devices and the growing role of institutions--as the public, in effect, delegates more of its asset management to professionals--are here to stay.

Greater reliance on advanced computers and telecommunications technology means that news bearing on asset values reaches portfolio managers simultaneously. And managers are able, and have the incentive, to react virtually instantaneously with their market orders. Institutional managers and other market professionals also can easily monitor prices across markets on a real time basis and can react quickly to any price disparities across the markets and corresponding arbitrage opportunities that may emerge.

The speed of information flow together with the institutionalization of equity holdings imply that new information can very promptly induce a heavy imbalance of orders on one side or the other of the market. Any resulting arbitrage opportunities will generate additional orders while ensuring that the price movements are spread across the various instruments, and increasingly, across borders. It is also worth noting that we routinely see the futures markets reacting to new information more rapidly than the cash markets. Some have concluded from this regularity that movements in futures prices thus must be causing movements in cash prices. However, the costs of adjusting

portfolio positions are appreciably lower in the futures market and new positions can be taken more quickly. Hence, portfolio managers may be inclined naturally to transact in the futures market when new information is received, causing price movements to occur there first. Arbitrage activity acts to ensure that values in the cash market do not lag behind.

As I have noted in earlier testimony, we are dealing with a single valuation process for stocks, index futures and options based on the underlying value of primary claims to corporate ownership. Index futures and options have value only to the extent that the corresponding stocks have value, and in a normally functioning marketplace, the prices of all of these instruments will reflect the values of the underlying equities. In these circumstances, it is a mistake to single out one segment of the broad marketplace as the culprit for large and rapid price movements, when these price movements reflect economic fundamentals in the context of modern technology and the prominence of institutional investors. Moreover, given the integration of markets, efforts to curb one of the component markets may well have adverse consequences for the functioning of the other related markets as well as the overall efficiency of the financial system.

What many critics of equity derivatives fail to recognize is that the markets for these instruments have become so large not because of slick sales campaigns but because they are providing economic value to their users. By enabling pension funds and other institutional users to hedge and adjust positions quickly and inexpensively, these

instruments have come to play an important role in portfolio management. The history of futures and options provides numerous examples of contracts that did not provide much economic value and consequently failed.

The delegation of asset management to professional managers has spurred growth of futures and options. These institutions that manage the assets of our retirement programs, nonprofit institutions, equity mutual funds, and various kinds of trusts seek to use all of the equity products to improve yields while limiting exposure to risk.

Reducing exposure to risk, of course, implies portfolio diversification. Thus, we should not be surprised to see that these investors manage highly diversified portfolios of equities approximating the market in composition. Moreover, in recognition of the weight of evidence pointing to only very minimal scope for improving portfolio returns by applying managerial resources to individual stock selection, many professional managers deal in baskets of stocks representing indexes, most notably the S&P 500. Thus, trading in baskets of stock representing indexes has been found to be a cost-effective means of achieving available returns on stock portfolios.

In this context, it is not surprising that institutional investors have come to rely heavily on index products in futures and options markets as a relatively low-cost means of adjusting their positions and as hedging devices. Today, futures market trading is dominated by such investors. A consequence, of course, is that new

information bearing on equity values broadly will be promptly reflected in stock index futures and in those stocks making up the indexes

Institutional investors also became major users of so-called portfolio insurance strategies before the October break, a factor that likely contributed to the high level of share prices. Equity holdings were expanded by such institutions on the mistaken belief that markets for cash and derivative instruments were sufficiently liquid to permit investors to trim their exposures promptly and limit losses. Many of these aggressive strategies were based on mathematical models and executed by computers. The inability to liquidate positions promptly last October, under the very circumstances these programs were designed to protect against, has led to a major scaling back of portfolio insurance strategies. Users found that such strategies can work to limit risk for individual portfolios under normal circumstances. However, if all try to do it simultaneously, the strategies will break down, since risk can be shifted from one investor to another but cannot be lowered for the total market.

The other type of program trading, index arbitrage, also has been curtailed. Cutbacks have partly reflected management decisions by some securities houses to withdraw from index arbitrage, at least in part to reassure customers many of whom perceive such activity to be a source of volatility. The recent action by the New York Stock Exchange to restrict automated orders when the Dow Index moves by 50 points or more also will further reduce the use of index arbitrage, especially in a declining market. We must recognize, however, that although efforts

to artificially reduce program trading activity have found popular support, they come at a cost. Reduced arbitrage implies less connection between cash and futures markets and more price disparities across these markets. We learned last October that when large price disparities emerge this adds to confusion and doubt in the markets and uncertainty premiums in stock returns rise, adding to selling pressures. In other words, insufficient arbitrage between cash and futures can be a destabilizing force in a declining market.

The curtailment of portfolio insurance does imply reduced orders and less strain on system capacity in a declining market. Strains on system capacity and the associated uncertainties about execution, as we saw last October, can reinforce tendencies to withdraw from the markets, in the cash market for equities, for which there is a net long position overall, such withdrawal implies more sell orders and downward pressure on prices. The likelihood of a recurrence of such severe strains on system capacity also is being reduced through efforts of the exchanges and the over-the-counter market to augment capacity. The report of the Working Group lists a number of measures that have been taken or are in process. For example, the New York Stock Exchange is implementing a system that it expects will be able to handle comfortably a volume of 600 million shares per day by this summer and a billion shares by late 1989.

Another factor contributing to the stresses of last October were credit uncertainties--affecting clearinghouses, market makers and brokers--and the need to finance outsized cash flows, resulting in part

from the lack of coordination of margin payment and collection in the futures markets. The Working Group report notes that a great deal of progress has been made in the area of credit and clearing recently, and it recommends specific further actions to be taken, some of which may require legislation.

The sheer rapidity of the price decline in October, as I noted in earlier testimony, was a major factor contributing to the near-panic atmosphere on October 19, raising uncertainty premiums in share returns and adding to downward price momentum and pressures on execution capacity. Such a rapid price move leads to doubts about underlying values and efforts to withdraw from equities. Some investor survey results suggest that on October 19 many sellers were reacting to the large price declines themselves and to other panicky investors. The potential for greater rapidity of price moves is an implication of the combination of modern technology and the large institutional presence in the equity-related markets that I previously mentioned.

In recognition of this situation, the Working Group has proposed a coordinated intermarket circuit breaker that would be triggered by a decline in the Dow index of 250 points. The resulting trading halt is intended to give the markets a breather to digest available information and to provide time for offsetting buy orders to arrive on the floor and for credit arrangements to be worked out. We fully recognize that price limits can be destabilizing, but a coordinated circuit breaker that is known in advance is preferable to the disorderly process of halts in individual stocks and derivative

markets that threatened to get completely out of control last October. The limits that we are proposing are sufficiently wide that they are expected to come into play very rarely--only when there is a major threat to the system.

Another important issue relating to the strength of our market systems that was addressed by the Working Group is the issue of margin. The Brady Task Force and others have proposed that margins be harmonized across the cash and derivative equity markets. Margins serve to protect against a breakdown in the markets resulting from a large price move that could threaten clearinghouses and brokerage firms. Achieving consistency in margins for individual stocks and options and index-based products must take into account differences in price behavior of these instruments and differences in their settlement periods. Because all stock prices do not move in unison, values of broad portfolios of stocks are less volatile than prices of individual stocks and thus prudential margins on index futures do not need to be as high as those on individual shares. In addition, the longer is the settlement period, the larger is the potential cumulative price change and the greater is the risk exposure of the broker and clearinghouse. Futures contracts are cleared daily, and margin calls can be made several times a day, while the standard settlement period for shares is three days to a week. This consideration, too, would suggest a higher margin for individual stocks than for index futures.

The staff of the Working Group did a substantial amount of statistical analysis of this matter, which proved to be helpful in

determining the extent to which maintenance margins at present are or are not harmonized for prudential purposes. The findings, which are presented in an appendix to the report, indicate that differences in price movements between individual stocks and broad indexes imply that a given degree of protection across all instruments requires that margins on individual stocks need to be about twice as high as those on broad indexes. This presupposes that settlement occurs on the same time schedule and that the level of price volatility which has prevailed since October continues into the future. In addition, an instrument settling in three days would need to have nearly twice as much margin as an instrument that settles in a single day. This evidence indicates that current maintenance margin levels for individual stocks and index futures--set by the SROs--are high enough to cover recent price movements more than 99 percent of the time. The degree of protection afforded by these very different levels of margin is surprisingly comparable across the markets.

Moreover, effective market protection against the consequences of a very large price movement also is enhanced by acceleration of margin calls by brokers when there are large price declines and by customers honoring obligations when the margin that they have deposited proves to be inadequate to cover very large price movements. Clearinghouses, in addition, are protected by member security deposits and other devices. Furthermore, the Working Group's recommendation on circuit breakers and on credit and clearing would add to protections in

place by reducing financial system risks from the extreme price movements which are not in the 99 percent average

Beyond achieving margin levels adequate for market integrity, it has been argued frequently that they should be set at levels that will reduce price volatility. In particular, it is thought that the lower levels of margin on options and futures foster greater leveraged speculation that in turn causes larger price fluctuations. This line of reasoning leads to the proposal that margins on derivative equity products be raised to levels more in line with those in the cash market.

The empirical evidence, which is vast and expanding rapidly, does not, on balance, lend much support to this argument. The available analyses, including work done by the Board's staff in recent years, provide no convincing evidence that margins affect price movements in any significant way in the cash or futures markets. For example, the volatility of stock prices has not been significantly lower since the imposition of margin requirements, and changes in initial margin requirements on stocks have not been followed by predictable or significant changes in stock prices.

Moreover, with the expanding opportunities for credit that have characterized developments in our financial markets for some time, those who wish to speculate are little constrained by margin levels. An individual who wishes to speculate in the market--a fairly rare event in the index-futures markets which are dominated by institutions and other professionals--can obtain funds through numerous other sources, including consumer loans, loans secured by collateral other than stocks,

or by borrowing against home equity perhaps through a home-equity line. Large institutional investors may borrow against their portfolios of securities or obtain letters of credit to meet margin requirements. Thus, while higher margin requirements may impose somewhat higher costs on transactions in particular markets, margin requirements are unlikely to reduce in any meaningful degree the total amount of leverage in the economy. Indeed, outstanding margin credit on stocks plus the value of open interest of stock-index futures represents about 2 percent of the market value of equity.

For these reasons, I believe that we should not be guided in the margin area by equalization for leveraging reasons. Implementing such an approach would only tend to give rise to a false sense of security about price movements at a time when, given the underlying economic setting and fundamental change in the structure of the equity markets, price movements may well remain larger than we had come to expect in earlier years. Raising margins will add indirectly to transactions costs, which will act to reduce trading volume and market liquidity. If this is what the Congress seeks, and I find it hard to believe that less liquid markets for equity-related instruments are consistent with congressional intent, then I would suggest a more direct approach--say, through a tax on transactions.

The prudential objectives regarding margin, on which most if not all can agree, are closely related to clearing and settlement. Adequate margins act to protect clearinghouses and brokers against customer default. But other measures also are needed to strengthen the

clearing and settlement system, which, in the event, last October looked to be a potential point of vulnerability in the system. It has been proposed by the Brady Task Force and others that a comprehensive unified clearing system be established as the preferred solution to the problems revealed by last October's experience. This concept has considerable appeal, and it may be an objective worth pursuing over the longer run, to reduce strains and risks associated with intermarket positions of clearing members and their customers. A netting of intermarket positions might reduce liquidity strains on those having cross-market positions, and more comprehensive information on intermarket positions facilitates an assessment of the overall risk positions of the entity. But as the Working Group report notes, the achievement of a single unified clearing organization faces many obstacles at present, especially difficult legal questions regarding liability.

Meanwhile, as the Working Group report also notes, a number of steps already have been taken by the clearinghouses or are planned which will provide many of the benefits of unified clearing. For the major futures and options exchanges, daily pay and collection information by customers is now being shared and plans are underway to broaden this information sharing system. Also, progress is being made to assemble timely comprehensive information on the comprehensive positions of clearinghouse members. Other measures are being developed for timely confirmation of payments to settlement banks.

Let me conclude by saying that we have come a long way in the past seven months in identifying the vulnerabilities in our equity

markets that contributed to the difficulties of last October. An impressive list of accomplishments has been made to date and there is every reason to believe that procedures in place now will succeed in addressing many of the remaining issues. The Working Group intends to continue to play an active role in this process and I believe that this will prove to be the most effective means for ensuring that progress is made in strengthening our financial markets and enabling them to adapt to inevitable change. In the end, we must be prepared to accept a different pattern of behavior in our equity markets and our objective must be to enhance their ability to accommodate change and withstand bouts of volatility. As we continue to address these issues in the future, let us seek to preserve the vibrancy of our markets rather than run the risk of stifling them through overreaction to the events of last October.

We cannot provide an iron-clad guarantee that there will not be another October 19 in our future. Unforeseen economic forces could, on their own, conceivably trigger such an event. If, however, we succeed in fully addressing the structural inadequacies of our financial markets, we can at least reduce the interaction between economic and structural forces and thereby reduce the even now very small probability of a replay of last October.