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WOULD MORE REGULATION PREVENT ANOTHER BLACK MONDAY?

Remarks to
the CATO Institute Policy Forum
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Joseph A. Grundfest
Commissioner

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It's a pleasure to be here this afternoon to deliver an address on such a noncontroversial topic. Government regulators in Washington, D.C. have a well deserved reputation for dancing around difficult issues and not giving straight answers to simple questions. Well, I'd like to prove that I'm not your typical Washington, D.C. regulator and give you a straight answer to the question, "Would more regulation prevent another Black Monday?" The answer is an unequivocable yes, no, and maybe. The answer also depends on what you mean by more regulation and why you believe the market declined on Black Monday. With that issue cleared up, I'd like to thank all of you for attending and invite you to join the reception being held immediately after this speech. Thank you very much. It's been a pleasure.

Actually, the question of whether more regulation could prevent another Black Monday is not as difficult as it seems, if you keep three factors in mind. First, it is important to distinguish between fundamental factors that initiated or contributed to the decline, and regulatory or structural factors that may have unnecessarily exacerbated the decline. Regulators at the Securities and Exchange Commission can do nothing to control or change fundamental factors. To the

extent we attempt to prevent the market from adjusting to changed fundamentals we are certain to generate far more mischief than good. In this regard, the opening line of the Hypocratic Oath, primum non nocere, first do no harm, should, I believe, be tattooed inside the eyelids of all government regulators to keep us from falling prey to the false but comfortable idea that regulatory intervention can countermand fundamental market forces. Regulatory hubris can be a dangerous disease.

Second, once we have put aside the false notion that regulation can prevent a market adjustment caused by changes in fundamentals, it becomes important to isolate and define aspects of the market's behavior on Black Monday that were legitimately attributable to imperfections in the regulatory and institutional environment. On this score, it is important to recognize that none of our markets--equities, options, or futures--covered themselves with glory on October 19. The evidence suggests that many market systems buckled under the weight of massive information failures that were caused, in part, by a substantial peak load problem. These information failures exacerbated liquidity problems that would have existed naturally in a rapidly moving and high volume market and contributed some volatility that could have been avoided.

While it is impossible to define with precision exactly how much of Black Monday's 508-point decline was attributable to fundamental factors and how much was attributable to

institutional and regulatory factors subject to government intervention, it is my personal, highly subjective, and easily refuted estimate that about 200 to 250 Dow points of the decline could have been avoided by a regulatory policy that improved information flows, enhanced liquidity, and expanded market capacity.

Third, it is absolutely critical to reject Luddite conceptions of our markets as computer crazed automata. Program trading, index arbitrage, futures markets, options markets, and several other useful innovations in our capital markets have been dangerously and incorrectly blamed for Black Monday's events. We have often been warned not to confuse the message with the messenger. Nonetheless, some participants in the policy debate have a perfectly rational incentive to continue to confuse the message with the messenger in order to forestall technological progress that threatens traditional trading mechanisms that generate substantial rents for certain market participants. Put more bluntly, some people are making money off the system as it operates today, and measures designed to make our markets more efficient by improving information, expanding capacity, and enhancing liquidity, are not necessarily in everyone's personal financial best interests.

Each of these three factors provides enough material for an extended address, so in the minutes allotted me I will not have an opportunity to develop each of them in full.

Accordingly, I hope you will forgive me if I condense the explanation a bit and occasionally skip abruptly from topic to topic.

Fundamentals Can't Be Regulated. Perhaps the most interesting consensus that has developed in the wake of Black Monday is that the market's decline was, at a minimum, triggered by fundamental developments in the world economy. This consensus was recently described in an excellent address by Ms. Consuela Washington, Counsel of the House Committee on Energy and Commerce.1/ Ms. Washington pointed out how the Brady Commission, the SEC staff report, the Chairman of the Fed, the CFTC, and several market observers with widely different perspectives on the events of October 19, including Felix Rohatyn of Lazard Freres and Franklin Edwards of Columbia University, all agree that the decline was triggered by changes in the macroeconomic environment that induced a sharp revaluation of equity values because of changed investor expectations. Among the more frequently mentioned causes of the decline were adverse interest and exchange rate developments, an antitakeover tax proposal adopted by the House Ways and Means Committee, and poor merchandise trade figures.

1/C.M. Washington, The Crash of October 1987--A Washington Assessment of Its Significance, Address Before the Financial Times International Conference: Black Monday--Nine Months After (July 6, 1988).

Recently, I had the opportunity to engage in private discussions with members of the international banking and business communities and was quite intrigued to hear some views that are not often expressed in the U.S. policy debate. Many of these foreign leaders perceived October 1987 as a dangerous period in which major goverments were attempting to control interest and exchange rates at levels that were internally inconsistent and at odds with changing macro-economic conditions and expectations. In this environment, with semi-pegged exchange and interest rates, the equity markets turned out to be the major equilibrating force through which the world's capital markets could express themselves. From this perspective, the depth of the market decline may have been exacerbated by efforts to prevent necessary price movements in other major capital markets.

Research by Professor Richard Roll of UCLA is broadly consistent with this non-U.S., internationalist perspective.2/ Professor Roll points out, among other things, that all the world's capital markets declined sharply on or about October 19. Of the 23 major world markets, the U.S. had the fifth smallest decline--put another way, the U.S. had the fifth best performance. The U.S. market was not the first to decline sharply--the decline appears to have started with non-Japanese Asian markets on October 19, their time, and then followed the

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2/R. Roll, "The International Crash of October 1987," in Black Monday and the Future of Financial Markets (Dow Jones-Irwin) (forthcoming).

sun to Europe, the Americas, and Japan. The data also show no link between computer directed trading and the extent of the market decline. Professor Roll concludes that "the global nature of the October crash seems to suggest the presence of some underlying cause, but it debunks the notion that some basic institituional defect in the U.S. was the cause, and it also seems inconsistent with a U.S.-specific macroeconomic event."

Foreign business leaders also seem a bit amused by the orgy of analysis that has followed in the wake of the crash. With the exception of the Hong Kong market, which shut itself down for the week of October 19 and suffered serious consequences both because of that shutdown and because of many flaws in its internal processes, no other market in the world has put itself to the degree of second-guessing, finger-pointing, and financial psychoanalysis as has the United States. While I firmly believe that the broad and searching analyses in the wake of the crash has been helpful, I was quite intrigued by a foreign perspective that we are overdoing it with analyses, studies, commissions, task forces, reports, and recommendations. Foreigners appear much more willing to accept the view that October 19 was a bad reaction that resulted from adverse international macroeconomic events, and that little is to be gained by micro-economic tinkering with the market. To me, this is a fascinating difference in perspective, particularly to the extent it emanates from

foreign countries that experienced larger equity declines than the United States.

Information, Capacity, and Liquidity. To the extent that regulatory and institutional factors exacerbated the markets' decline on October 19, the culprits can, I believe, be identified as information failures, capacity constraints, and liquidity traps. These three problems are all interrelated and compounded each other on October 19 to make a bad day worse.

In a nutshell, and highly simplified form, there were substantial periods of time on October 19 when traders did not have accurate information on current prices and the status of orders that they had already entered. If you wanted to trade, you didn't know what price to expect, and if you had entered an order you didn't know for quite a while the price at which your order was executed. Part of this problem was attributable to the speed with which the market was moving, but part was also caused by capacity constraints that prevented accurate information flows between customers and market floors. In this environment, traders were being asked to "trade blind," and it is no surprise to find that, under these circumstances, traders backed away from the market or, if they were willing to trade, they demanded premia for the risk of trading in such an informationless environment. The information problems that led investors to back away from the market removed liquidity from the market at the precise time

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it was most in need, and thereby exacerbated an already difficult situation.

The information problems grew worse on the 20th when fears began to spread over the solvency of some major market participants. The concern was that the futures clearinghouses were late in making substantial payments to large investment banks. Because of the perceived credit risk associated with trading with these institutions, and in doing business with the clearinghouses, more participants backed away from the market, again at the very time that liquidity was needed most. The institutions involved were all solvent, but that information could not be promptly and credibly signalled to the market. Thus, an information failure related to credit status further exacerbated the liquidity problems present in the marketplace.

Accordingly, to the extent that regulatory interventions can improve information, expand capacity, and enhance liquidity, those steps seem to me to be the most logical and productive measures for the government and marketplaces to consider.

Position Limits: An Example of A Regulation that May Have Removed Information and Thereby Harmed the Market. To illustrate how regulatory constraints may have exacerbated the market's decline, I'd like to focus on a relatively unknown regulatory constraint that may have had an impact on the market's performance on Black Monday: position limits on index options.

Purchasers of portfolio insurance seek to shift the risk associated with the possibility that the stock market might fall in excess of some pre-determined amount. They attempt to prevent such losses by engaging in dynamic hedging strategies that involve selling into declining markets and buying into rising markets.

These techniques, at their root, are no different from stop-loss trading rules that have been with us for decades. For example, suppose you have a $3 million portfolio in the equity market when the Dow is at 2500 and you want "insurance" that you will be out of the market when the Dow hits 2200. A simple dynamic hedge that provides just such an insurance program would have you sell $1 million in stock when the Dow hits 2400, $1 million when the Dow hits 2300, and your last $1 million when the Dow hits 2200. By following this very simple set of stop loss rules, you can "insure" yourself against losses that result from markets dropping below 2200--provided, of course, that the markets do not gap downward or become so illiquid that you can't execute your trades close to the required prices, which is what occurred on October 19.

The relationship between "portfolio insurance," which is often reviled as the demon that spooked the market into a crash, and stop loss selling, which is often described as a conservative strategy suitable for small investors seeking to minimize their market risk, is an important one because it helps demystify portfolio insurance. It also helps point out,

consistently with some research findings by Professor Robert Shiller of Yale University,3/ that the market may have been susceptible to "profit-taking" in a "stop-loss" form regardless of the existence of formal portfolio insurance programs. I could expand on this theme, but it would take me far afield from the topic I want to address--the relationship between portfolio insurance, index option position limits, and Black Monday.

To connect these pieces of the puzzle, it is important to understand that there is a market substitute for portfolio insurance when it is practiced as a dynamic hedge. That substitute involves the purchase of a put option on a portfolio. Whether a dynamic hedge is cheaper or better than purchasing a put option is an interesting question, and I would argue that, in an equilibrium with sufficiently informed market participants, the price of a dynamic hedge will, at the margin, equal the price of an equivalent put. There is, however, an important informational difference between portfolio insurance practiced through dynamic hedging techniques and portfolio insurance practiced through put option transactions. As pointed out in a prescient August 1987 article by Professor Sanford Grossman of Princeton

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3/R. Shiller, Portfolio Insurance and Other Investor Fashions as Factors in the 1987 Stock Market Crash (Feb. 25, 1988) (unpublished paper).

University,4/ dynamic hedge strategies provide substantially less information to the market than do put strategies. When an investor buys a put option, he signals to the world that he would like to shift downside risk, and the premium he pays for that put measures the price that the market demands for shifting that risk. In contrast, dynamic hedging is not publicly announced, and it is not priced, per se, in any ex ante market transaction. Thus, an argument can be made that the market would have been less susceptible to destabilizing price shocks that result from the unexpected use of stop loss orders or portfolio insurance if more investors had relied on put option strategies rather than dynamic hedge strategies.

The problem, however, is that large institutions were effectively prohibited from relying on the options market as an effective hedge because SEC-approved exchange regulations imposed position limits that limited the amount of "insurance" an institution could obtain through the option market.5/ As one commentator put it, "unless and until position limits are eliminated, the S&P 500 Index option cannot rival the S&P 500 futures contract for portfolio insurance business."6/ Thus,

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4/S. Grossman, An Analysis of the Implications for Stock and Futures Price Volatility of Program Trading and Dynamic Hedging Strategies, National Bureau of Economic Research (Working Paper 2337 Aug. 1987).

5/See, e.g., Chicago Board Options Exchange, Options Clearing Corporation, Rule 24.4 (Position Limits) (Jan. 29, 1988).

6/G.L. Gastineau, The Options Manual 308 (3d ed. 1988). Accord, J.G. Cox and M. Rubinstein, Options Markets 98 (1985).

regulatory position limits had the unfortunate side effect of forcing risk shifting activity away from options markets, which would have provided greater information to all market participants about the demand for downside equity risk hedges, and toward dynamic hedging strategies that do not provide equivalent information to the marketplace.

Beware of Luddites. Not all market observers agree, however, that the proper response to October 19 lies in improving information, expanding capacity, and increasing liquidity. There are policymakers and market participants who distrust recent innovations such as futures and options markets and program trading. Their response to the markets' problems would involve turning back the hands of time and freezing our markets in a 1950-ish environment in which the prevailing ethos is that stocks are bought and sold one at a time based on fundamental assessments of the issuer's underlying prospects.

As an initial matter, I doubt that our equity markets ever truly worked that way and, even if they did, there is no reason to try to revert to that world, even if we could undo decades of change. The theory and practice of finance has, in the past 20 years, experienced a revolution as profound as those in biotechnology, superconductivity, and other areas of high technology. We know now that portfolios have properties that are very different from simple aggregates of individual stocks. We know now that it often makes perfect logical sense

to trade portfolios as portfolios (or baskets) and not as individual securities.

Moreover, today's institutional investors are so large that it is often impractical for them to make investment decisions on a stock-by-stock basis. These large funds enhance their returns not by picking General Motors over General Dynamics or General Electric, but by smart sectoral allocations among equities, long bonds, short bonds, real estate, venture capital, and other broad investment classes. In this environment, institutions have no rational choice but to trade portfolios as portfolios.

These two forces--the growth of new information suggesting that it is smart to trade portfolios as portfolios, and the growth of large institutions that, as a practical matter, have to trade portfolios as portfolios--have combined to change the demand for transactions services in the equity market. Unfortunately, the supply of transactions services on the equity side of the market did not keep pace with the evolution in demand because the New York Stock Exchange on October 19, and till today, trades equity on a stock-by-stock basis and not as a portfolio. This imbalance between the form of supply of transactions services and the form of demand carries several adverse consequences for the operation of our capital markets, which I don't have time to detail today.

To put the problem in a layman's perspective, however, I'd like to propose the following analogy. Suppose you wanted

to buy or sell a basket of stocks in today's equity market. As a practical matter, the basket would be broken down into a series of, say 400, individual securities transactions on the floor of the exchange and, if someone wanted to buy exactly the same basket that you had just sold, he would also have to engage in 400 transactions on the floor of the exchange. If we operated our used Volkswagon markets according to the same plan, VW sellers would drive their autos onto dealers lots where the cars would be stripped down to fenders, doors, and engine blocks, and when a buyer walked onto the lot the dealer would reassemble the VW from the fenders, doors, and engine blocks. If that doesn't seem like a particularly wise way to buy and sell VWs, I suggest that it may also not be the wisest way of buying or selling market baskets of equities.

Fortunately, recent developments suggest that the New York Stock Exchange is actively exploring basket trading mechanisms, and I hope we will see substantial progress in this direction in the near future.

Conclusion. In sum, regulators can help prevent another Black Monday, but only if they act to remove existing impediments in the market process by improving information flows, increasing capacity, and enhancing liquidity. We must understand that the structure of demand for transactions services is changing rapidly and that unless we innovate vigorously there is a substantial risk that we will damage our domestic financial service industry. Unfortunately, there are

many who believe that the answer to the market's problems lies in nostalgia for the past. They would have us turn back the hands of time and urge measures designed to return the market to the "good old days" of the 1950's, 1960's, and 1970's. Well, upon careful reflection, I think you'll find that those old days may not have been so good for everyone involved, so even if we could return to the past we might not want to go.

More to the point, however, nostalgia is not a viable solution to the market's problems. The future lies in innovation: in innovations that adapt markets and regulations to changing patterns of demand and technology. To the extent that we can achieve pro-competitive innovation through regulation, regulation can help prevent another Black Monday. To the extent we try to hold back inevitable processes of change, or use the regulatory mechanism in an effort to prevent markets from adjusting to changed fundamentals, regulation is more likely to cause or exacerbate the next Black Monday.

The choice is ours. We still have an opportunity to get it right.