U. S. Securities and Exchange Commission
Washington, D.C. 20549 (202) 272-2650

News Release

THE UNCERTAIN FUTURE OF MARKET CONFIDENCE

Remarks to

The Seventh Annual Northwest Securities Institute

Hyatt Regency
Vancouver, British Columbia

February 21, 1987

Charles C. Cox
Commissioner
Securities and Exchange Commission
Washington, D. C. 20549

Good afternoon. It is a privilege to again give the concluding remarks here at the Northwest Securities Institute. You've spent the last day-and-a-half looking at various issues in securities trading and regulation. However, this afternoon I'd like to step back and look more broadly at the securities markets themselves, for recently they have demanded much attention. The public eye most recently has been focused on Wall Street traders being led away in handcuffs, but also over the past year on the antics nearby on the floor of the New York Stock Exchange itself, and even hundreds of miles away on the floors of the Chicago futures markets. You as practitioners and traders may find that questions of due diligence, limited offerings or even insider trading pale in comparison to the hundred-point and billion-dollar market swings. People have begun to ask a fundamental question not heard in many years: Can we be confident in our securities markets?

We've heard a lot in Washington about the markets being too volatile for their own good. We've been told that index arbitrage and the so-called "program traders" create dangerous swings in the market, which are no longer restricted to "expiration" or "triple-witching" Fridays, but can strike anytime. We've been warned that speculators in the derivative product markets -- index futures and options -- are leading billion-dollar portfolios through trading activity that produces only roller-coaster markets and very little economic benefit. And we've also been told that these developments are driving the individual investor away from the stock market, because he's convinced it's too complicated and dangerous.

These criticisms raise serious issues for securities market regulators. But before we rush in with regulatory solutions, we need to see if there is an otherwise insoluble problem. I believe the answer is no -- there is no immediate crisis demanding emergency action by the Commission. However, many are not easily convinced. The popular notion that there is something wrong with our markets threatens to overwhelm the reality that there is not. Thus, I have titled my remarks today "The Uncertain Future of Market Confidence." I believe we can and should have confidence in our markets, and I will discuss why in greater detail.

I should note that confidence in the efficient market is not a popular notion these days. Some have characterized this conclusion -- that everything is O.K. in the market -- as frightened inactivity. Indeed, Chairman John Dingell of the House Committee which oversees Commission operations wrote to Chairman Shad in the aftermath of the market gyrations on January 23rd. He stated that "[i]t is time for the Commission to stop wringing its hands and hiding behind ongoing analyses and studies." Mr. Dingell charges that "[p]rogram trading is rapidly destabilizing our capital markets and eroding investor confidence." 1/ While I fully understand the concerns behind Mr. Dingell's remarks, I believe he may be proceeding too quickly down the road to regulatory solutions. Let's look in more detail at the three main areas which have shaken popular confidence in our securities markets:

- market volatility
- the use of derivative products, and
- the lack of access by the small investor.

When the facts are examined, I think you'll find that the doomsayers are the ones doing the hand-wringing.

1. Market Volatility

First, let's look at the question -- or rather the myth -- of market volatility. The main problem with market volatility is that we haven't agreed on what it is or how to measure it. But I believe by any measure, it isn't a problem which has grown to epidemic proportions in 1987. Let's look at some measures of market volatility.

Is the market making bigger swings? The answer is clearly "no." The twenty largest one-day percentage changes in the Dow Jones Industrial Average all occurred over fifty years ago. 2/ And even if you restrict the look back to 1940, only two of the twenty largest percentage declines in the average occurred in the last ten years. 3/

Of course, changes in the Dow -- especially downward -- are a popular but not very accurate measure of volatility. Birinyi and Hanson did an exhaustive study of market

---

1/ Letter from John D. Dingell, Chairman, House Energy and Commerce Committee, to John S.R. Shad, Chairman, Securities and Exchange Commission, Jan. 27, 1987.

2/ Based on figures provided by Dow Jones & Co., the twenty largest percentage one-day changes span a period from Feb. 1, 1917 to July 21, 1933.

3/ Those two declines were on Sept. 11, 1986 and Oct. 25, 1982. See Weber, Market Records: 1985 Update (Salomon Bros. Inc., Feb. 1986).

volatility for Salomon Brothers, looking at data through September 30, 1985. 4/ They found no increase in day-to-day changes in the Dow or the broader-based S&P 500. The highest S&P 500 volatility coincided with market "bottoms" in 1970, 1974 and 1982.

A study by Goldman Sachs confirms these observations. Goldman found the standard deviation of the S&P 500 -- a statistical measure of the variance of observed data -- to have been the highest in 1976-77. They also found that intra-day changes measured by the NYSE Index increased from 1979 to 1982, but have decreased since then. 5/

Are expiration Fridays creating a problem? Birinyi and Hanson concluded that "expiration Fridays" have not been acute in their volatility. 6/ We should keep in mind that the volume of shares traded at the close on expiration Fridays can be larger than in any other entire trading day. This helps put those market changes in perspective. Professors Stoll and Whaley concluded that the so-called "witching hour" has no more effect on any individual stock than an unrelated block trade which could occur at any time. 7/

I believe these data show that empirical analysis should prevail over anecdotes. There is no dramatic or even mundane recent increase in the volatility of our securities markets.

2. Do Derivative Products Present a Problem?

Second, let's look at derivative products -- options, futures and other combinations of side-bets on indices of the value of certain securities. You're familiar with the major products: The S&P 500, the Major Market Index, and others.

4/ L. Birinyi Jr. & H. Hanson, Market Volatility: Perception and Reality (Salomon Bros. Inc., Dec. 1985).

5/ M. Zurack, Has the Stock Market Become More Volatile Since the Introduction of Stock Index Futures Contracts? (Goldman Sachs Research, Nov. 1985).

6/ See L. Birinyi, Jr. & H. Hanson, supra note 4, at 8.

7/ Those Big Swings on Wall Street, Bus. Week, Apr. 7, 1986, at 32, 36. See H. Stoll & R. Whaley, Expiration Day Effects of Index Options and Futures 46-47 (Mar. 15, 1986).

Far from being a non-productive exercise in wagering, these products have legitimate economic value. They make our securities markets more efficient by making it much easier to shift and modify portfolio risk without large disruptive stock transactions. 8/

You may find this a surprising statement -- that derivative products could avoid large disruptions. But consider, for example, what happens when a large institutional investor or fund manager determines that his portfolio is over-exposed. Instead of unloading millions of shares of stock he believes are too risky and buying millions more he believes are appropriate, he can sell or buy an appropriate mix of futures to yield the same result. Such risk modification can be done at a fraction of the cost of the same strategies pursued with stock transactions. 9/

It is important to the proper use of these derivative products that they be properly priced. This is where the much-maligned "index arbitrageurs" come in. I believe that they are beneficial in this market, as arbitrageurs are in any market, because they seize upon and thus remove price differentials which do not represent differences in value. The so-called program trading they engage in ensures that the derivative products trade at prices related to the securities from which they are derived. This preserves the value of these products as inexpensive risk modifiers. 10/ Many observers, however, believe that large money managers who increasingly rely on index arbitrage are partly responsible for the large recent market declines.

In response to these concerns, the Commission staff has been studying the events underlying the large stock market moves on September 11th and 12th, 1986, and January

---

8/ Yale School of Organization and Management Dean Burton Malkiel's commentary, Why Markets are Working Better, Wall St. J., Aug. 22, 1986, at 16, is an excellent summary of these arguments.

9/ Id. Costs include the market impact of such large trades, which has been estimated for a $20 million trade to be 0.27% in the stock market, but only 0.04% in the futures market. R.S. Wunsch, Stock Index Futures (Kidder, Peabody & Co., Apr. 23, 1985).

10/ See Malkiel, supra note 8.

23rd, 1987. 11/ The Commission is not hiding behind these studies in any way, and I believe they are a far cry from "hand wringing." The staff spent long hours reconstructing audit trails in stock, options and futures trading, interviewing major traders, market strategists and dealers and analyzing and summarizing the trading results.

Based on the assembled evidence, I believe that the events of September 11th and 12th in part represented a fundamental economic revaluation, and were not created by the index arbitrageurs. Let's look at the events on those two days. The trading downturn began in the futures market, as bond futures prices opened sharply lower on September 11th. That downward trend spread to stock futures. For example, the S&P 500 index had traded at a premium to the underlying basket of stocks for the preceding seven weeks, sometimes a very large premium. But by the opening on September 11th, it was at a discount of over 100 basis points. This meant that the arbitrage positions locked in in previous weeks by selling futures contracts and buying stocks -- which is the profitable activity when the index is at a premium over the underlying stocks -- could now be unwound. And those positions were unwound by buying futures contracts and selling stocks. The selling pressure continued for the most part unabated on September 11th and 12th. This is what makes the activity on these dates a curious departure from previous events such as expiration Friday. The decline was broad-based, across all stocks and all indices. The decline was enduring, as the market remained at the same level for about the next three weeks. I believe this indicates a fundamental adjustment to financial news. The presence of locked-in profitable positions which could be unwound brought this news to the market quickly.

Although the staff is now beginning a similar study of the unprecedented market swings which took place on January 23rd, some have already concluded that the same principles applied. 12/ At the close of trading the day before, the S&P 500 March futures contract was trading at a premium of about 250 basis points over the underlying stocks. If you're in an index-arbitrage program, this indicates that it's profitable to buy the underlying stocks and sell futures contracts. This is exactly what happened early in the day on January 23rd: large buying programs were

---

11/ A summary of the results of the study of Sept. 11-12, 1986 will shortly be released to the public.

12/ See, e.g., Barker, The Day the Stock Market Went Bananas, Barron's, Feb. 2, 1987, at 16.

undertaken and the stock market quickly rose. As would be expected, this narrowed the spread between the future and stock prices, and the program buying stopped. Once this large buying pressure ended, there were left only sellers nervous about the unprecedented three-week bull market, who created the one-hour hundred-point drop which grabbed the headlines. 13/

Interviews with traders indicated that the great sell-off was different from program trading. 14/ The market was organized in its decline in that there were no casualties. However, it was not orderly. The decline was too quick to yield accurate prices in the futures pits; this is not a characteristic of program trading. Once the arbitrageurs brought the futures and stocks to parity, their trading ceased. The afternoon belonged to a herd of bears, not the program traders.

Experience to date with derivative products suggests that they do not drop the bottom out of the market nor make it swing arbitrarily from highs to lows. Some analysts fear, in the wake of the September and January declines, that program traders could create a market dropping without recovery. I believe this is unlikely, and will become even more unlikely as more experience is gained with these programs and traders realize that there is money on the other side of a market swing. Business Week gives some examples of investment savvy which now exists as a result of the September experience.

> For the most part, investors have come to expect downdrafts, and some have even prepared for them by raising cash or hedging their portfolios. .... Owens-Illinois, Inc. rushed into action on Sept. 15 with an already authorized stock repurchase program. The market fall knocked about 6% off

---

13/ The phenomenal decline was actually 114 points in one hour and 11 minutes in the early afternoon. Id. Because the Dow Jones Industrial Average is a multiple of the changes in the component stocks, the average Dow share lost slightly less than 1/30 of this amount, dropping an average of $3.40 from its high to the close, and posting an average loss of $1.23 on the day.

14/ Id., quoting a trader on the Chicago Board of Trade, Jeffrey Miller of Miller, Tabak Hirsch & Co., and Jerry Pearson, director of equity-index products at the Chicago Mercantile Exchange, among others.

Owens' price, and the company viewed it as a buying opportunity. 15/

To the extent the effects of the programs can be anticipated, they can be eliminated. This is the theory behind the Commission's "expiration Friday" early-exposure experiment, 16/ and it applies to all other trading days as well. The very nature of arbitrage is that it is an opportunity which disappears as soon as it is taken advantage of.

In addition, there is no correlation between derivative products and market volatility. The major stock and over-the-counter indices exhibit similar variability from day to day, although derivative products in over-the-counter stocks are not nearly as widely traded as their exchange counterparts. A study of the British stock market, which has no developed derivative products, showed variability comparable to the U.S. markets. 17/

3. Is the Small Investor Locked Out of the Market?

Overall, it appears that the markets are not so much more volatile as they are astonishingly efficient. The market moves quickly, but not without reason. However, this does leave the impression that the conventional investor can get trampled as the giant traders rush to buy and sell. This is the third point I'd like to address: is the individual investor no longer welcome in today's markets?

The stock market is changing fundamentally -- it is becoming more institutional. This is a trend of which program trading is only the most recent evidence. It was documented by a New York Stock Exchange survey of individual investment in the stock market from 1983 to 1985. That survey showed that new investors are buying mutual funds and other pooled investments. If these

---

15/ How Chicago Zaps Wall Street, Bus. Week, Sept. 29, 1986, at 93-94.

16/ See Malkiel, supra note 8; Henriques, The Witching Hour, Barron's, Sept. 22, 1986, at 36.

17/ L. Birinyi, Jr. & H. Hanson, Market Volatility: An Updated Study (Salomon Bros. Inc., July 1986).

investors are subtracted, the number of individual investors would have declined over that period. 18/ The Commission first documented and studied this trend in detail fifteen years ago. 19/ The departure of the small investor coincides with the arrival of block trading and the use of sophisticated portfolio insurance and arbitrage programs. Has the individual left Wall Street because of these changes, or has his departure to collective investments in part created the large institutional portfolios? We cannot really say.

Despite statistics of safety, the perception of unfairness remains, and this may drive away individuals. This image problem feeds on itself. A recent commentary in Business Week noted that "[u]nless Wall Street is able to draw individuals back to the new market system, it will not be able to convince them that the game is clean." 20/

However, I would note that the institutionalization that has been decried as the bane of the small investor can also be his salvation. The Business Week article I quoted above suggested that mutual funds which pursue these programs could be attractive to individual investors. 21/ In a recent speech on a similar topic, Commissioner Grundfest made a similar argument -- the small investor can indirectly buy institutional expertise. He noted that

> [t]he little guy can't build disk drives in his garage, do neurosurgery in his kitchen, or call plays every Sunday for his favorite NFL team. He hasn't got efficient scale, expertise, or access to do any of those things. From that perspective, what's the big problem with the

---

18/ New York Stock Exchange, Inc., Press Release Dec. 4, 1985.

19/ See Institutional Investor Study: Report of the Securities and Exchange Commission, 92d Cong., 1st Sess. (1971).

20/ Jonas and Farrell, Program Trading: Let the Little Guy In, Bus. Week, Sept. 29, 1986, at 100.

21/ Jonas and Farrell, supra note 17.

> little guy being locked out of [direct participation in] the program game? 22/

Suppose, however, we have the classical investor, who holds the now somewhat old-fashioned notion that you can make money buying stock in a prosperous business, or on the stock's "fundamentals," as they're known. Is this investor locked out of today's institutional market? I believe not. A more efficient market is more efficient for the large and small traders. Markets which move down quickly also move up quickly, a point not lost on one observer of the January 23rd events. The Dow closed that day off over 44 points, but by early the following week it was back to new records. Jerry Pearson, director of equity-index products at the Chicago Mercantile Exchange, noted that this rebound is evidence that "If you bought GE for fundamental reasons, those fundamental reasons will overwhelm occasional arbitrage." 23/ Indeed, other advisers have indicated that investors buying for "intrinsic value" will not be affected by programs, and recommend just such a "fundamental" buying strategy to avoid the programs' impact. 24/ The Commission was told time and again in its investigation of the takeover and tender offer markets that it is the small investor who holds for the long term. If that is the case, what does he have to fear from an efficient market?

Market efficiency may be small consolation to an investor whose portfolio declines in value by 50 percent in one day, as some have recently, loudly and rightly complained. But there is a strange anomaly in these complaints. If investors lose large amounts quickly, they are likely to complain. If they gain large amounts quickly, they are likely not to complain. You can be sure that if the bull market of January 1987 had been as sharp a decline, there would have been reverberations throughout Washington, and the Commission would have been pressed into quick defense of its market oversight. Just this week, the Dow recorded its largest one-day point _gain_ in history.

22/ Grundfest, "Preliminary and Partial Observations on Program Trading and Investor Confidence," Notes from an Address to the 53rd Annual Convention of the National Security Traders Ass'n, Oct. 19, 1986, at 9.

23/ Barker, _supra_ note 13.

24/ _See_ _Playing a Roller-Coaster Market_, Bus. Week, Sept. 29, 1986, at 94.

Were there any cries about the unstable market? 25/ Perhaps the best evidence of this attitude is Chairman Dingell's letter to Chairman Shad which I quoted at the outset. He noted that "it is widely acknowledged that [the January 23rd] roller coaster ride was caused by rapid buying and selling by highly-capitalized intermarket arbitrage players locking in profit opportunities on the price relationship between stock index futures and the underlying stocks." However, of the unparalleled price rise in January 1987, Chairman Dingell says it is "motivated mostly by underlying economic conditions and related rational investment decisions." 26/ I submit that it's not that easy to separate one from the other -- in fact, it's impossible. Nonetheless, the perception remains, and it is the perception with which we must deal.

I have confidence in our securities markets. However, my faith is not blind, and I endorse further studies and monitoring of these fundamental changes in our markets. Changes, even along a trend, merit close attention. One contributor to market volatility has historically been leverage -- anyone familiar with the events of the 1920s and 1930s knows the role leverage played. The leverage available in the futures markets is many times greater than in the stock markets -- a factor which some say contributes to market swings. Margin and capital requirements are being reconsidered by the Commission and by futures market regulators. 27/ More detailed data should be collected so that any further action is rooted in proper theory and valid observations of a problem. Some would characterize this as hand-wringing. However, I believe the challenge is to reach the unconverted, whose confidence has been shaken. Whether the evidence can overcome their fears remains uncertain.

Thank you very much for your attention.

25/ The record gain of 54 points occurred on February 18th. The previous record of 52 points was less than two weeks old. One analyst attributed the buying to predictions of a peak in the Dow at 2300, which moved futures prices up. Program traders then transferred this gain to stock prices. The continued rally was also attributed to buying by small investors. See Wiggins, Stock Records Set in Face of Scandal, N.Y. Times, Feb. 18, 1987, at A1, col. 3, D10, col. 3.

26/ See supra note 1.

27/ See Barker, supra note 12.