Still biting your nails? This may help

By G. WILLIAM SCHWERT

When stock prices move down quickly, journalists and readers often express concern over the future of the economy. On the first anniversary of the stock market crash of October 1987, it is appropriate to look back to see what, if anything, we have learned about the stock market's influence on the economy.

One concern is unwarranted. Last Oct. 19, the Dow Jones industrial average fell more than 500 points, by far the largest one-day drop in history.

But until 1956, the Dow had never been as high as 500, so a 500-point drop would have been impossible.

The best way to express stock price movements is in terms of percentage changes in prices or returns.

The Dow average fell more than 20 percent on Oct. 19, which is also the largest one-day percentage drop in the key index since Dow Jones began compiling it in 1886. The next two largest percentage daily decreases in the market occurred on Oct. 28 and 29, 1929, when stock prices fell 12 percent and 10 percent, respectively.

At that time, the Dow Jones index was around 350, so a 10 percent drop corresponds to a 35-point drop in the index. At its current level of over 2,000, a 35-point drop is less than 2 percent of the index. Thus, when writing or thinking about current stock market movements, I recommend people focus on percentage changes.

The accompanying chart shows an estimate of the standard deviation of monthly stock returns from 1886 to 1988 for New York Stock Exchange issues. The standard deviation is a measure of volatility.

To shed light on the extent to which public concern about stock price behavior is warranted, I have examined stock market volatility and its relation to other economic variables. Volatility measures the size of random stock return fluctuations. Both large percentage increases and decreases in prices are required to create high volatility.

In reading this plot, I like to use the analogy with an electrocardiogram (EKG). Stock volatility tends to increase after prices fall and to remain high for many days or months. Moreover, volatility tends to increase during economic recessions and following major financial crises. Thus, large increases in stock volatility are often signs of significant economic turmoil, much as sharp jumps in an EKG signal an unhealthy patient.

Two things are apparent from this plot. First, stock returns were much more volatile in the Great Depression, 1929-33, than at any other time in U.S. history. Second, recent concerns about stock market volatility seem unwarranted, since monthly stock volatility is not noticeably higher in the 1980s than it has been during many previous episodes.

While volatility was high for a few weeks following October 19, it returned to lower, more normal levels quickly. This reduced volatility was reflected in the prices of call options on indexes of common stocks as early as mid-November 1987.

Concern about stock volatility has led many regulators and legislators to recommend major changes in the rules governing securities markets. In particular, there have been calls to increase margin requirements for traders in futures markets, to raise the cost of trading these relatively new financial instruments. Yet past attempts by the Federal Reserve Board to control stock volatility by changing margin requirements have been fruitless.

The Fed usually reacts to increase margins (increasing the cost of trading stock) after volatility has decreased. There is no evidence that such actions affect volatility.

If there is one lesson history has taught, it is that major episodes of stock market volatility lead to political pressure to enact new regulatory regimes. The stock market collapse of 1907 led to the creation of the Federal Reserve Board in 1913; the National Banking Holiday in March 1933, when more than 4,000 banks were closed permanently, led to the creation of the Federal Deposit Insurance Corporation; and the crash of 1929 led to the creation of the Securities and Exchange Commission.

There were many bank runs prior to the creation of the Federal Reserve, when banks refused to cash checks. In contrast, the stock options and futures markets survived the brief episode of stock market volatility last October with few problems.

While it may never be possible to completely understand why stock prices fell so fast on that one day, it seems that efforts to impose new and broader regulatory mechanisms are misguided. In fact, many stories have appeared in the financial press recently bemoaning the lack of interesting activity in the stock market for the past several months (speculators are not finding enough volatility).

Using the EKG analogy, it seems as though the patient had a severe attack of angina, but there were certainly no fatal after-effects.

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