

# Chicago Fed Letter

## Bubble, bubble, toil and trouble<sup>1</sup>

The October 19th stock market crash spilled more printer's ink than any other economic event of the 1980s, yet by all accounts the economy hardly noticed. The real economy just kept growing. Real GNP growth actually exceeded 6% on an annual basis in the quarter the Crash occurred and has remained above 3% since. Unemployment as of September stands at 5.4%, more than half a point lower than it did on October 19, 1987. In fact, ignoring the carnage on Wall Street, the Crash's major impact may have been to dampen slightly a somewhat overexuberant economy.

How can that be? Memories of the Crash of 1929 and the decade that followed are some of the most traumatic in U.S. history. Yet today, last November's rush of recession forecasts seems at best overblown. In retrospect, the reasons for this difference are actually quite simple:

- Policymakers have learned a great deal about the management of financial panics—they steadfastly refused to add to the panic by overresponding.

- Markets are far better able to shift funds around to accommodate investors running for cover than they were in 1929—money exiting the stock market was quickly recirculated into the debt markets, preventing a credit crunch.

- And lastly, a large part of the loss in equity value between the August peak and October 20th (see Figure 1) may simply have burst what economists call a speculative bubble—the market fell because it was too high.

The real questions that confront us a year later are, What damage to the U.S. financial markets is concealed un-

derneath the current calm? And, How should we proceed from here?

### The purpose of financial markets

The primary role of the financial markets in terms of the day-to-day business of producing goods and services is to provide new funds so that firms can build plants and buy equipment. The day-to-day shifting of existing stock and bond certificates has little direct economic effect on U.S. production. This observation has led many critics of Wall Street and the Chicago futures markets to suggest that these markets are little more than very complicated gambling casinos. Not so. The ongoing trading of existing assets is necessary to provide an efficient backdrop to the real business of raising new capital.

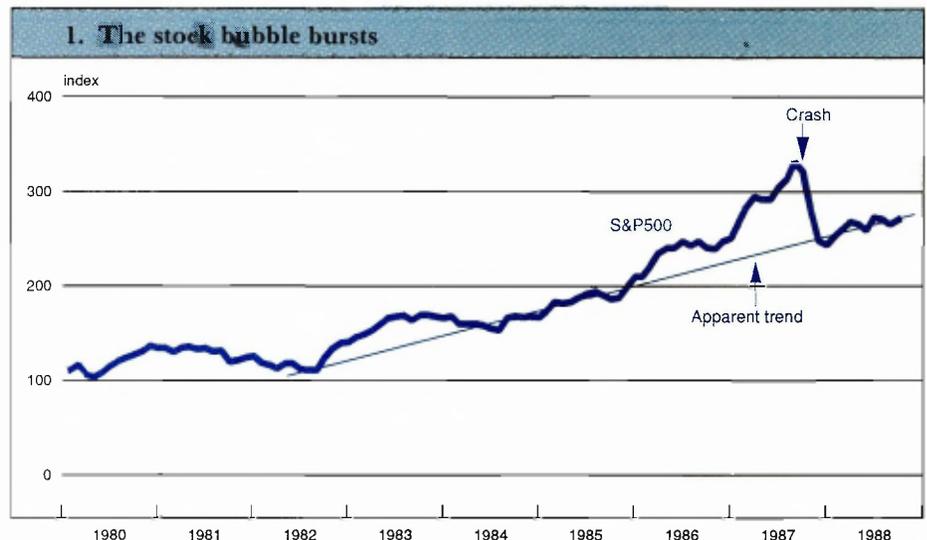
The careful assessments of risk and return done by market participants provide a valuable and necessary starting point for evaluating new investment. It is precisely the lack of these assessments that makes venture capital for new businesses in new industries so

much more expensive than other forms of new capital funding.

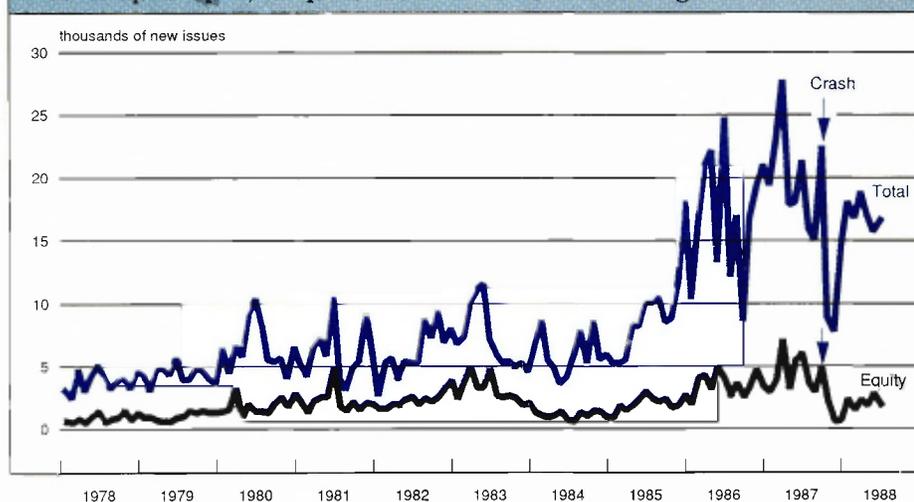
Further, the liquidity that active secondary markets provide is essential. If firms must pay a higher return because investors may have trouble finding a market for their stocks or bonds, less investment will take place.

Similar reductions in investment will result from any increase in perceived market risks arising from the trading process. For instance, after the Crash many analysts suggested that program trading might generate crashes with some regularity. If such a belief were widely held, investors would be less willing to hold stocks, thus impeding firms' ability to raise new capital.

In assessing the fundamental, long-run impact of the Crash, it is therefore natural to ask three questions. Has the Crash directly reduced firms' ability to raise funds? Has the Crash reduced the liquidity fundamental to a healthy market? Has some other less tangible factor, such as a belief that a Crash could happen again, created a new risk



## 2. Despite equity dropoff, total new issues remain high



premium that is raising the cost of new capital?

Overall, our analysis indicates that the Crash has not had much impact on firms' ability to raise new capital, but it has substantially changed the way those funds are raised. Firms now find it more economical to raise funds through the debt markets rather than the equity markets. Put another way, the Crash does seem to have damaged the equity markets a little, but not the financial markets as a whole.

### Raising capital after the Crash

Securities markets play a crucial role in permitting firms to raise additional capital. While new issue activity has declined since October 1987, it remains well above levels that prevailed prior to 1986. The flow of new funds to businesses has not dried up.

Figure 2 shows the value of newly issued corporate debt and equity from 1978 to present. From 1978 to 1986, total new issue volume grew fairly steadily. During 1986, new issue activity boomed, and reached record levels in mid 1987. Immediately after the Crash, new issue activity dropped dramatically, from \$22 billion a month to about \$8 billion a month. While new issue activity has not returned to its past peak, it has rebounded, and today it remains well above historical levels.

The Crash's impact on equity issuance alone has been more dramatic. In the first six months of 1987, equity issues accounted for 22% of total funds raised through new issues. In the first six months of 1988, equity issues accounted for only 12% of new issues. This decline in the importance of equity is linked in large part to the cancellation of initial public offerings. According to a recent study, 229 businesses had been scheduled to make initial public offerings in October of 1987. Of those 229 firms, 55 actually went through with the planned offering while 104 withdrew their public offerings. The remaining 70 issuers have not withdrawn

their registrations but have yet to issue the security.

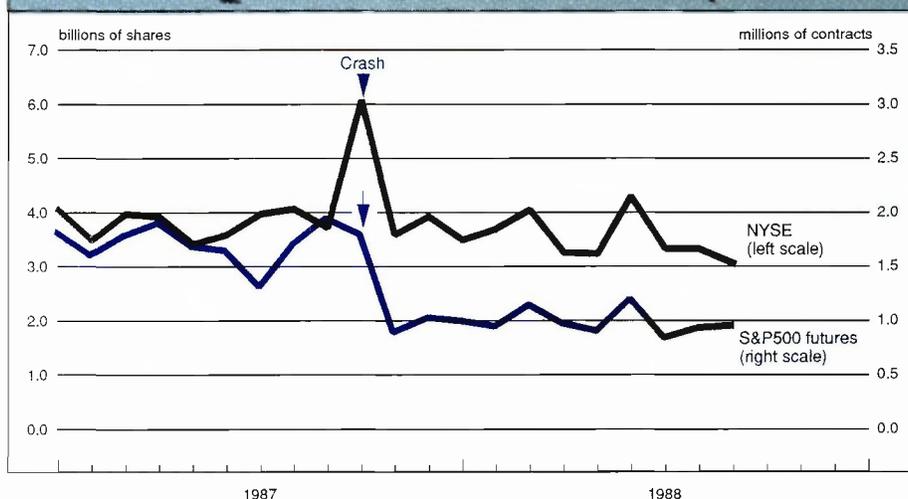
While it is clear that new equity issues have declined in importance since the Crash, it is less clear that this decline will have an appreciable effect on the economy. Total new issue activity remains well above historical levels. Moreover, the declining relative importance of equity issues after the Crash merely marks the continuation of a trend underway since 1983, a trend which so far has had no discernible impact on economic growth.

### Financial market liquidity

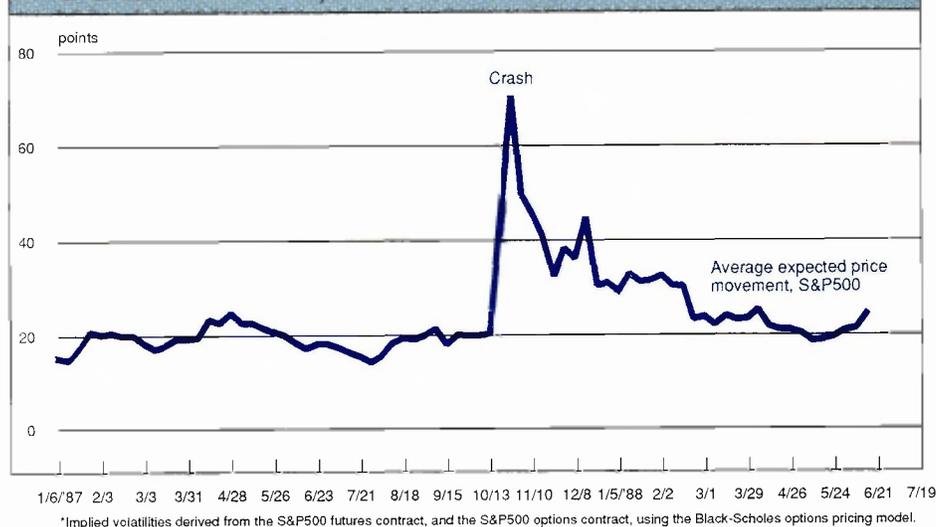
A second issue is whether the Crash has affected financial market liquidity—the ability to sell shares into the market without affecting the market price. Trading volume can provide a rough indicator of market liquidity. The Crash's medium-term impact on trading volume in the stock market has been minimal (see Figure 3). During the first six months of 1987, over 22 billion shares were traded on the New York Stock Exchange. The volume of trading for the first six months of 1988 was virtually the same.

While the volume of trading in the equity market has been unaffected by the Crash, the same cannot be said for the trading of stock index futures and options. Trading in the Chicago Mercantile Exchange's S&P 500 fu-

## 3. Futures volume takes a hit, but stock volume is near pre-crash level



#### 4. Investor uncertainty ballooned around crash\*



tures contract declined 40% between the first six months of 1987 and the first six months of 1988.

There are at least two possible causes for the loss of trading volume in the futures markets: reduced reliance on portfolio insurance and increased margins on stock index futures.

Before the Crash, stock index futures played an important role in the portfolio insurance strategies of a number of large institutional investors. However, futures-based portfolio insurance requires that price differences between the stock index futures contract and the underlying basket of stocks remain small. Unfortunately for portfolio insurers, this spread widened dramatically on October 19th and 20th.

The large spread between cash and futures prices that developed during the week of October 19th led many to reconsider portfolio insurance. This in turn reduced futures trading volume.

Changing margin requirements on stock index futures also reduced trading volume. Initial speculative margin requirements on the S&P 500 futures contract were \$10,000 on October 16, 1987. One year later, the initial margin requirements on a speculative position were \$20,000.

#### Hidden risk premiums

The Crash's impact on the long-term stability of the financial markets is dif-

ficult to assess. There have been many changes since October 19th. The major securities exchanges, as well as the major futures and options exchanges dealing in equity-based contracts, have adopted a system of coordinated trading halts. Margins on stock index futures have been raised. Several exchanges are working to pool data on the risk position, and are exploring the possibility of unified clearing.

The impact of these changes will have on financial market stability is difficult to judge. However, it is possible to infer investors' fears of further large movements in stock prices by looking at options and stock price data. This is possible because the value of a stock option increases as investors' expectations of a large change in price increase. Figure 5 shows estimates of the average expected one-day change in the price of the S&P 500 futures contract. The average expected price change increased rapidly in the week before the Crash and remained well above pre-Crash levels through the first quarter of 1988. Since that time, the average expected price movement has returned to its pre-Crash level. These trends suggest that most of the uncertainty generated by the Crash has dissipated, making it unlikely that the Crash has created any permanent increase in the cost of capital.

#### Conclusions

The Crash has served to reinforce much of what we already knew about the fi-

ancial markets and their relationship to the real economy. We have seen, for example, that any single part of the system can take a serious hit and the system can survive and even prosper.

No one can deny that a healthy financial system is a fundamental requirement for economic prosperity. But the collapse of one firm or the disruption of one market in today's diverse financial system can only damage the system if it sets off a general crisis in confidence.

The policies implemented by the Federal Reserve, the Securities and Exchange Commission, the Commodity Futures Trading Commission, and the rest of the financial regulators proved equal to the task of maintaining calm and preserving the system. There may be many good and even necessary reforms that should be applied to the internal functioning of the markets. But it is hard in retrospect to argue that the overall system was not up to the challenges of October 1987.

— Herbert L. Baer  
and Steven Strongin

<sup>1</sup> This is not what Shakespeare's witches say (*Macbeth*, Act 4, Scene 1). The authors have adapted the words to the occasion. They also thank Don Wilson, for providing data on implicit stock volatility.

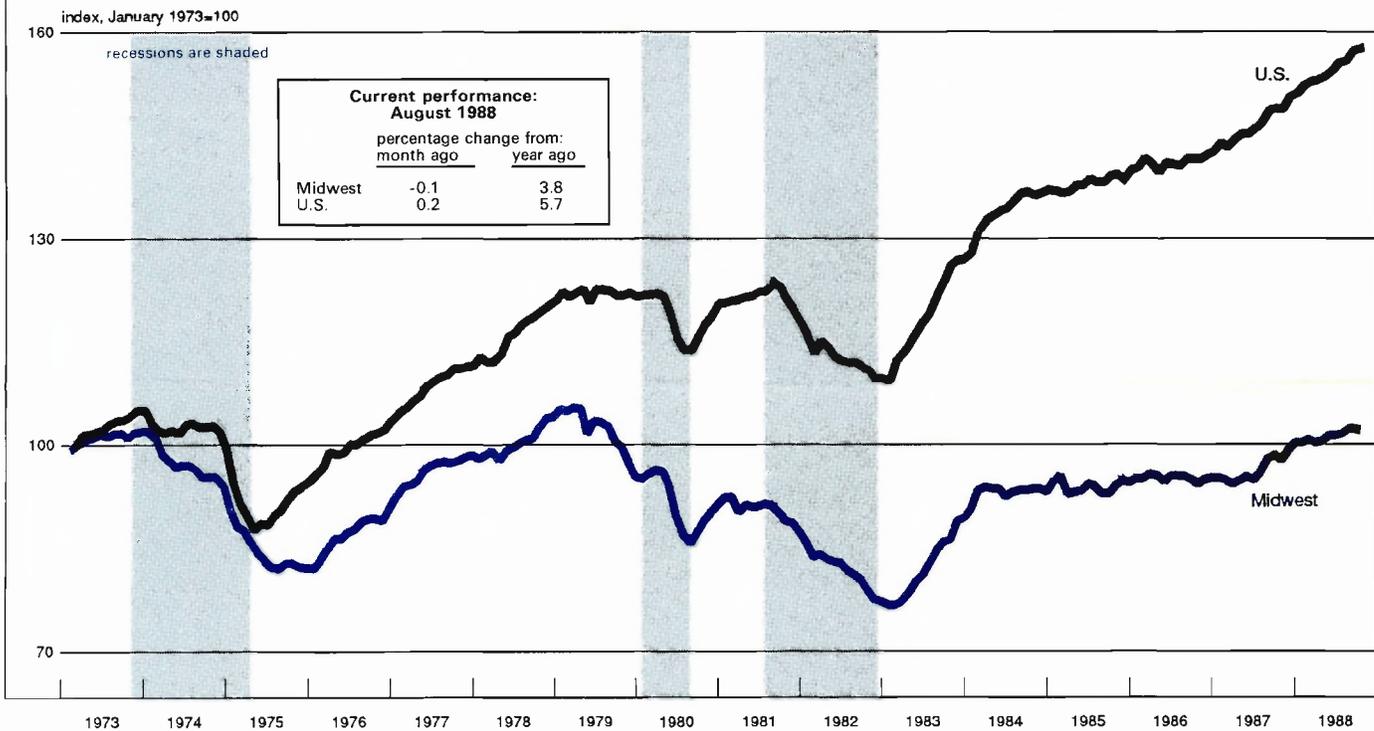
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## MMI—Midwest Manufacturing Index



Manufacturing activity in the nation rose slightly in August, following its strongest growth of the year just one month earlier. The slowdown was widespread among both durable and nondurable goods industries and was supported by other data showing a slowing in the pace of growth in the national economy in August.

The Midwest Manufacturing Index was virtually unchanged in August, with about half of the seventeen industries gaining and half declining from their July level. The biggest gains occurred in the electrical equipment and instruments industries, which is consistent with the continuing strength in business equipment nationwide. Other durable goods industries, however, recorded modest declines. Most nondurable goods industries continued to advance in August.

NOTE: The MMI is a composite index of 17 manufacturing industries and is constructed from a weighted combination of monthly hours worked and kilowatt hours data. See "Midwest Manufacturing Index: The Chicago Fed's new regional economic indicator," *Economic Perspectives*, Federal Reserve Bank of Chicago, Vol. XI, No. 5, September/October, 1987. The United States represents the Federal Reserve Board's Index of Industrial Production, Manufacturing.

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