

Commentary on 'Policies to Curb Stock Market Volatility'

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Scholarly analysis of the October 1987 market crash sheds some interesting light on the sociology of economics. It was an event that no one predicted, a shocking and unprecedented surprise. Yet if one listens to what economists said before and after the crash, the collective analysis might best be entitled, "Now, More Than Ever." Economists of every persuasion pointed to the crash and said, "Aha! I told you so."

It didn't matter whether their policy prescription was deficit reduction or more stimulus, a more stable dollar or an end to arbitrary exchange rate management, or more or less regulation of financial markets.

Franklin's views can be characterized fairly, I think, by saying that now, more than ever, it is dangerous to interfere with the futures markets. My own views are that we need to reduce the budget deficit and interest rates; that there is no compelling case for working to increase liquidity, and that there is some case for more regulation of financial markets. In the interest of full disclosure, I must confess that my views have also been strengthened by the crash. It seems to me that economists should be properly disturbed by the magnitude of the event, and by the small extent to which they have changed their policy prescriptions.

When one considers policy interventions to solve a problem, one must determine whether there really is a problem and whether there is a cure which is not worse than the disease. Should we be worried about the volatility of today's financial markets? The efficient markets

hypothesis has a clear answer to this question. Prices always adjust so there are no free lunches; therefore, prices always correspond to fundamental values. If fundamental values move a lot, then prices move a lot. It is certainly better for fundamental values to be reflected in prices than not, so that if the efficient markets hypothesis holds, volatility *per se* is not a problem.

Robert Shiller, who is usually milder in his words than I, has called the efficient markets hypothesis "the greatest intellectual error in the history of economic thought." I can't do any better than that. I'm convinced that substantial parts of the volatility in the asset markets do not reflect changes in fundamental values. One type of evidence might be called the "Where's the news?" problem. We observed the volatility; we observed the news; yet who could find enough news to justify the kind of volatility that we observed? In other words, what news came to the financial markets between 9 o'clock Monday morning, October 19, and 4 o'clock that afternoon that would have led a sensible person to revise downward by 22 percent his assessment of the long-term value of all corporate America? It is difficult to imagine that kind of evidence.

Other, more micro-level evidence is even stronger. When people talk about how it is crucial to keep markets open all the time, I'm reminded of a very clever study by Ken French and Richard Roll. French and Roll looked at the volatility of the market between Tuesday afternoons and Thursday afternoons during two different periods: when the market was open on Wednesdays and when it was closed on Wednesdays but all other businesses were open. During the period when the market was open five days a week, as it usually is, French and Roll found what you would expect: the market typically moved about twice as much between Tuesday and Thursday as between Monday and Tuesday. That makes sense. The market got twice as much information and was open twice as long. Then they looked at the period in 1968 when the market was closed on Wednesdays. One would expect that since the world continued to spin on Wednesdays, the same amount of information would come in between Tuesday and Thursday evening, regardless of whether the market was open or closed on Wednesday. In other words, one would expect the movement in the market between Tuesday and Thursday to be twice as great as the movement between Monday and Tuesday. In fact, however, the movement between Tuesday and Thursday was almost

identical to the movement between Monday and Tuesday, suggesting that closing the market made a crucial difference to the total volatility over the period. The same phenomenon is observed if one looks at slightly longer periods—five days rather than four days. I conclude that it may be *noise* rather than *news* that is driving the market.

Another example comes from closed end mutual funds, one of the few assets whose value can be observed with substantial accuracy. Even though this asset is only a package of traded securities, closed end prices **aren't** equal to their fundamental values, and their relationship to fundamental values fluctuates substantially. This **kind** of evidence suggests that a large part of the volatility one observes in financial markets is due to the dynamics of the trading process, rather than to news about fundamental values.

It is helpful in **thinking** about volatility to think of two types of trading strategies that investors pursue in financial markets: **negative-feedback** and **positive-feedback** strategies. The former are based on some version of the gravity theory, which says that what goes up must come down. When an investor sees a price going up, he or she decides that the price is now further above the fundamental value, and sells. Negative-feedback strategies are obviously stabilizing.

There are also positive-feedback strategies which bet that “**the** trend is your friend.” Investors create positive-feedback when they put stop-loss orders on their portfolios, when they are forced to cover on margin, or when they follow a momentum strategy which bets on positive serial correlation.

Are these strategies rational? Let me record the suspicion that some part of positive-feedback trading is difficult to understand as rational. In any event, positive-feedback trading is likely to increase volatility substantially. If one wants to design regulatory interventions that will decrease volatility, one must think about measures that will discourage positive-feedback trading rather than negative-feedback trading. Positive-feedback trading is substantially discouraged when traders using that strategy suffer massive losses, which is what one observed after the crash. Everyone who had been pursuing positive-feedback strategies bought more and more as the market went higher and higher, thinking that their portfolio insurance would enable them to get out. They were wrong. It's clear that the crash reduced volatility by reducing the attractiveness of positive-feedback trading.

There may be other ways to tilt the balance toward stabilizing

trading. In this regard, I agree with Franklin that the regulatory measures frequently discussed are not well focused on any conception of the problem. But I think Franklin dismisses the case for tightening margin requirements too easily.

My first leading indicator that something like the crash was in the **offing** was a conversation I had at a party. A man said to me, "Larry, don't you always buy your stocks on margin? There's no reason not to do it because you get twice as much appreciation. It always works. I don't understand why everybody doesn't do it." This **gentleman** had to go home early on October 19, because his wife had explained to his children that they would be leaving their house and moving into an apartment, but that everything would be okay because they would each have their own rooms. This story illustrates the consumer protection argument for margin requirements.

More generally, the case for margin requirements raises a question. Instead of **asking** why the market fell 500 points in one day, it might be more important to know why the market reached 2700 in the first place. Low margin requirements, by encouraging **positive-feedback** trading, may well have encouraged the market increase, setting the stage for the crash. Given that the American economy has an entire range of deposit insurance systems and other backstops to liquidity, the idea that margin requirements should be the preserve solely of the futures exchanges and not subject to government regulations is an implausible one.

I do not think the case for circuit breakers is very strong. The market fell substantially on October 16, and then we had a terrific circuit breaker—two full days of no trading. A weekend is not the **kind** of circuit breaker that panics investors, but it certainly failed to prevent the crash on Monday.

There may be a case for a circuit breaker based on volume, not on price changes. This is for two reasons. First, it would prevent the kind of chaos that took place on Monday. Second, a circuit breaker based on volume is likely to **kick** in on the days when the largest price changes take place, and will **kick** in in a minimally threatening way. One of the big arguments against closing the market is that investors will panic at the thought of a closed market. A pre-set circuit breaker based on volume will at least reduce the risk of panic.

What about the broad issues of futures markets: increased liquidity

versus the need for more sand in the gears? I think greater liquidity probably facilitates positive-feedback strategies more than **negative-feedback** strategies and thus substantially increases volatility. There is also the issue of resource utilization. **Hirshleifer** pointed out years ago that economists assume that creating information is good because it creates positive externalities. This is not always the case. If I do research that lets me predict who will win the fifth race at Aqueduct, the private return to that research very substantially exceeds the social return to that research. It seems to me that a substantial part of the efforts that go on in financial markets, particularly those of **short-horizon** traders, have that character.

The stability and resource utilization arguments both make the case for putting a little sand in the gears, or at least, leaving the sand that is already there. Those who take the opposite position—who would like unfettered markets' that are open 24 hours a day—stress the *a priori* virtues of those markets. They have not been very effective in demonstrating tangible benefits of more liquid markets with lower transactions costs (such as a lower cost of capital or more insulation from risk) to participants in the real economy, at least not to my satisfaction.

Let me conclude with one minor comment. Franklin uses the example of the silver market twice in his paper to make the case against regulatory intervention. That surprised me. I'm not an expert on the Hunts' effort to corner the market and the instability that followed, but if one is arguing that markets should be left to their practitioners, this doesn't seem to be the best example to point to. At the end of the day, war is too important to be left to the generals. I suspect that regulation of financial markets is too important to be left purely to professionals in those markets. Broad issues of macroeconomic stability are at stake, and I think that these issues need to be considered in assessing our policies toward financial markets. In my opinion, these issues create a presumption, albeit a weak one, in favor of some form of intervention that interferes with perfect liquidity in financial markets.