

Market Bailouts and the “Fed Put”

Cato Institute
Washington, D.C.
November 30, 2007

Federal Reserve policy actions starting this past August to temper strains in financial markets have generated considerable commentary, some of which reflect concerns that policy action in such circumstances creates moral hazard. The issue is extremely important, and, given that it is so current, this is a good time to reflect in general on the Fed’s reactions to financial market developments. The concern over moral hazard is that monetary policy action to alleviate financial distress may complicate policy in the future, by encouraging risky investing in the securities markets. There are so few instances of market turmoil similar to the current situation that I’ll broaden the analysis to include significant stock market declines. Doing so gives us a substantial sample to discuss. Thus, my topic is whether Federal Reserve policy responses to financial market developments should be regarded as “bailing out” market participants and creating moral hazard by doing so.

To begin to explore the moral hazard issue, consider an extreme case, which I offer as a provocation to promote careful analysis and not as an example directly relevant to today’s circumstances. Fact: The U.S. stock market between its peak in 1929 and its trough in 1932 declined by 85 percent. Question 1: If the Fed had followed a more expansionary policy in 1930-32, sufficient to avoid the Great Depression, would the stock market have declined so much? Question 2: Assuming that a more expansionary monetary

policy would have supported the stock market to some degree in 1930-32, would it be accurate to say that the Fed had “bailed out” equity investors and created moral hazard by doing so? I note that a more expansionary monetary policy in 1930-32 would, presumably, have supported not only the stock market but also the bond and mortgage markets and the banking system—by reducing the number of defaults created by business and household bankruptcies in subsequent years.

Now apply these questions to the current situation. Did the Fed “bail out” the markets with its policy adjustments starting in August of this year? Have we observed an example of what some observers have come to call the “Fed put,” typically named after the chairman in office, such as the “Greenspan put” or the “Bernanke put”?¹ Why has no one, at least not recently to my knowledge, argued that a more expansionary Fed policy in 1930-32 would have “bailed out” the stock market at that time and, by implication, have been unwise?

I can state my conclusion compactly: There is a sense in which a Fed put does exist. However, those who believe that the Fed put reflects unwise monetary policy misunderstand the responsibilities of a central bank. The basic argument is very simple: A monetary policy that stabilizes the price level and the real economy cannot create moral hazard because there is no hazard, moral or otherwise. Nor does monetary policy action designed to prevent a financial upset from cascading into financial crisis create moral hazard. Finally, the

¹ A put option contract provides that the buyer of the contract can sell an item, such as 100 shares of common stock of a particular company, for a certain price—the strike price—for a certain period. The contract protects the buyer from declines in the stock price beyond the strike price. The “Fed put” terminology implies that Fed policy adjustments, by analogy with a put option, will prevent stock price declines beyond some point.

notion that the Fed responds to stock market declines per se, independent of the relationship of such declines to achievement of the Fed's dual mandate in the Federal Reserve Act, is not supported by evidence from decades of monetary history.

Before proceeding, I want to emphasize that the views I express here are mine and do not necessarily reflect official positions of the Federal Reserve System. I appreciate comments and research assistance provided by my colleagues at the Federal Reserve Bank of St. Louis. However, I retain full responsibility for errors.

My approach will be to start by discussing bailouts and moral hazard in general. I will then examine the record of stock market declines and Fed policy adjustments and analyze how monetary policy changes the nature of risks in financial and goods markets. Finally, I will argue that the ways in which monetary policy alters risks in the markets yield benefits for the economy and do not create moral hazard.

UNDERSTANDING BAILOUTS

A traditional bailout involves governmental assistance to a particular firm, group of firms, or group of individuals. For ease of exposition, I'll concentrate on bailouts of firms but the same issues apply to bailouts of households. There may be occasions when a government infusion of capital to save a firm is justified, such as a bailout of a major defense contractor during wartime. However, most economists believe that bailouts are rarely justified and only in compelling circumstances should the government bail out individuals or firms.²

An important reason for opposition to bailouts is that it is essentially impossible for a bailout not to set a precedent for the future. A bailout creates what is known in the economics and insurance literature as (aforementioned) "moral hazard" by

creating a presumption that in the future the government may again rescue a failing firm. That presumption encourages a firm and its investors to be less careful than they otherwise would be about taking risks. If a firm expects a bailout, it believes that government help will cover losses while the firm's owners can enjoy the gains, if any, from risky strategies. When the government is expected to absorb losses, bailouts unavoidably increase inappropriate risk taking, which increases the likelihood of losses in the future.

A standard problem in writing and administering insurance contracts is that the buyer of insurance has less incentive, by virtue of being insured, to control risk. Almost everyone has had the experience, far from uplifting, of talking with someone who says, "don't worry—it's insured." The very existence of insurance may change the behavior of the insured person. Insurance companies try to deal with moral hazard in a variety of ways, such as by writing contracts with substantial deductibles or loss sharing. Such contract provisions provide an incentive for the insured to control risk.

Government guarantee programs also generally require some loss sharing, but there are many government programs and practices that do not adequately control moral hazard. Perhaps the most dangerous practice is the ex post bailout, where a firm is rescued outside of any regular or standing program. Such a bailout can change the rules of the competitive game in unpredictable ways. No one can know whether a bailout will be repeated or not. Those who control risks and actually bear losses will justifiably believe that a taxpayer-funded bailout of another firm is unfair.

The Federal Reserve has no funds and no authority to provide capital or guarantees to firms to provide a bailout in the traditional sense. The Fed cannot even bail out banks. The Fed can make loans to banks, but only loans that are fully secured by good collateral and only to banks that

² Of course, the Federal Deposit Insurance Corporation (FDIC) is obligated to protect depositors from loss on covered deposits and it is sometimes true that the cheapest way to handle a failed bank is to merge it with another bank, with the FDIC providing a capital infusion. To the extent that there is a safety net for uninsured depositors, a bank bailout does raise moral hazard issues. I do not mean to imply that "too big to fail" is not an important issue for federal policy.

are well capitalized. The Fed can lend to weak banks requiring emergency assistance to prevent immediate collapse, but again only to those with adequate collateral. The Fed works cooperatively with the FDIC and other bank regulators to close a bank in distress or to find a willing buyer.

Creditors sometimes bail out debtors to a degree, by restructuring obligations to extend the repayment period or to reduce the interest rate. Restructuring a mortgage is often in the interest of the borrower, who may be able to avoid foreclosure. Restructuring may make sense for the lender to avoid the costs of bankruptcy and to obtain the maximum possible return from a failing loan. Nevertheless, lenders obviously must be careful not to make terms too easy for a borrower lest other borrowers ask for similar terms or future borrowers fail to service their obligations. A bailout of this sort is fundamentally different from a government bailout because the lender suffers the loss and not the taxpayer. Losses motivate lenders to be more disciplined in their future decisions.

Why do we use the term “moral hazard”? Using the insurance example, the hazard to the insurance company arises from behavior induced by insurance that may be adverse to the interests of the insurer. The “moral” in “moral hazard” refers to behavior the insured knows is adverse to the insurer’s interest—behavior the insured would *not* engage in were he to suffer the full consequences of the behavior. Insurance companies try to maintain practices designed to encourage appropriate behavior. If an insurance company provides a premium discount for a driver who submits no insurance claims over a certain num-

ber of years and the discount in fact encourages safer driving, then that effect is not “moral hazard.” From the perspective of the insurer, the policy changes behavior in a desirable rather than a harmful way. This point is a critical one in the context of monetary policy, to which I now turn.

THE FED PUT

The “Fed put” argument is usually stated in terms of monetary policy reactions to stock market declines. Consider Figure 1, which plots the natural log of the S&P 500 index and identifies all stock market declines of 10 percent or more since 1950.³ The figure also shows a measure of the Federal Reserve’s policy rate.⁴ The policy rate in the figure is the discount rate before October 1, 1982, and the federal funds target rate thereafter. Shaded areas show recessions as defined by the National Bureau of Economic Research.

The figure shows 21 stock market declines of 10 percent or more. Within three months of these stock market peaks, the Fed held the policy rate constant, or increased it, on 12 occasions. There was a Fed rate cut within three months on nine occasions,⁵ but for five of these nine rate cuts the Fed acted *before* the stock market peak; its policy actions could not have been motivated by stock market declines. Fed rate cuts did follow the stock market peak in late September 1976; the first rate cut came nine weeks later.⁶ Another case occurred after the market peak in July 1998; a Fed rate cut in late September was a response to the situation in the money markets following the near collapse of Long-Term Capital Management

³ The S&P 500 series is the weekly close (Friday close unless Friday is a holiday). Each market peak was defined this way: Under criterion 1, the peak exceeded the previous peak and the market declined by 10 percent or more following the peak. Under criterion 2, the peak, followed by a decline of at least 10 percent, did not exceed the previous peak but a recovery of at least 10 percent had occurred between the two peaks.

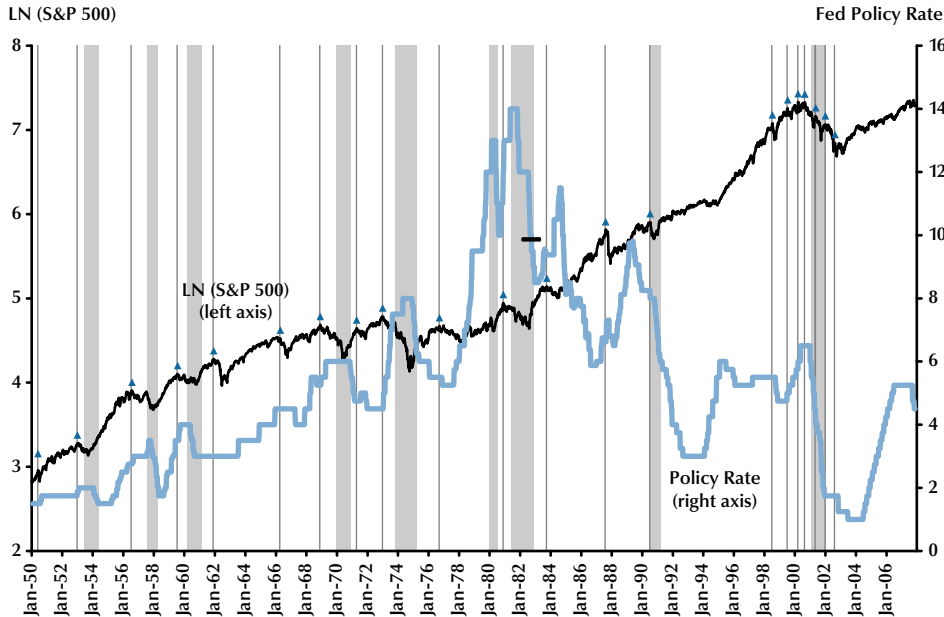
⁴ The policy rate in the figure is the Fed’s discount rate before October 1982 and the FOMC’s federal funds target rate thereafter. Other measures are available for certain parts of the period before 1982, but using them would create several discontinuities in the policy rate series. See Rudebusch (1995, Table 3a) for a federal funds target rate series for 1974-79.

⁵ One of the nine was the market peak in November 1968. As the figure makes clear, the rate cut preceding this market peak was small and temporary. Subsequently, the Fed raised rates and the cuts did not begin until the end of the 1969-70 recession, at which point stock prices started to rise.

⁶ Rudebusch (1995, Table 3a) identifies two cuts totaling 25 basis points in the FOMC’s target federal funds rate in July 1976 and two more totaling another 25 basis points in October. By this measure, therefore, Fed rate cuts began before the September 1976 stock market peak.

Figure 1

Declines Greater Than 10 Percent in the S&P 500 and Fed Policy Rate



(LTCM) and not a response to the stock market per se.⁷

The market peak in March 2000 ushered in the great bear market that ended in October 2002. The initial decline was sharp, but the market recovered to reach another peak in early September 2000 that was only slightly lower than the March 2000 peak. During the course of the bear market, there were several peaks, each lower than the one preceding, following significant recoveries. During this period, the Federal Open Market Committee (FOMC) cut the policy rate in 10 steps from 6.5 percent to 1.75 percent in December 2001 and in two more steps to 1 percent in June 2003. The policy rate cuts were not closely related to the stock market declines after the local peaks and declines that continued until the market hit bottom in October 2002.

Because the “put” language became current during the Greenspan era, let’s examine stock market declines of 5 percent or more that did not reach the 10 percent threshold. Using the 5 percent criterion, there was a market peak in September 1989, and the Fed did cut its policy rate following that peak. However, the Fed had started to cut rates in June 1989. Another market peak meeting the 5 percent criterion occurred in late January 1994, when the policy rate was 3 percent. There was another such peak in August 1994. The Fed proceeded to raise the policy rate several times in 1994, starting in February, and it reached 6 percent in January 1995.

Another market peak meeting the 5 percent criterion occurred in June 1996. The FOMC had cut the policy rate to 5.25 percent in January 1996, and the policy rate remained there until the FOMC

⁷ The transcripts of FOMC meetings in 1998 provide excellent insight into the Committee’s motivation in dealing with the LTCM situation. Of course, motivation is not the end of the matter; well-intentioned actions can have unintended adverse effects. The 1998 and 1999 transcripts show that the Committee was well aware of the potential for inflationary consequences of policy easing in response to the LTCM situation. Transcripts are available at <http://www.federalreserve.gov/fomc/transcripts/>.

raised it in March 1997. This increase occurred shortly after another stock market peak meeting the 5 percent criterion earlier the same month. Two more peaks meeting the 5 percent criterion—one in August 1997 and one in December 1997—occurred while the FOMC was holding the policy rate constant at 5.5 percent.

This history makes clear that it just is not true that the FOMC has eased policy in systematic fashion at the time of stock market declines, with the exception of the period following the 1987 stock market crash. Even this experience, however, reinforces the argument that the FOMC’s primary concern is with its macroeconomic objectives and not with the stock market itself. Policy easing occurs at times of recession, although sometimes is delayed because of concern over inflation. The Fed eased policy ahead of the 1990-91 recession and ahead of the 2001 recession. The Fed has also eased policy in response to turmoil in the credit markets, as in the fall of 1998 and starting in August of 2007. Clearly, though, on numerous occasions the Fed has held its policy rate constant, or raised it, as stock prices declined.

EFFECTS OF FED STABILIZATION POLICY ON FINANCIAL MARKETS

Although there is no evidence that the Fed responds to the stock market per se, there is an element of truth to the argument that Fed policy can limit downside risk in the stock market. The same Fed policy that succeeds in stabilizing the price level and the real economy should tend to stabilize financial markets as well. Thus, the element of truth in the “Fed put” view reflects expected and desirable outcomes from successful monetary policy. General economic stability, by which I mean both stability of the price level and of the real economy, does change the nature of risks in the financial markets and, therefore, changes investor strategies.

Consider the second of Graham and Dodd’s “Four Principles for the Selection of Issues of the Fixed-Income Type”:

The rule that a sound investment must be able to withstand adversity seems self-evident enough to be termed a truism. Any bond or preferred stock can do well when conditions are favorable; it is only under the acid test of depression that the advantages of strong over weak issues become manifest and vitally important. For this reason prudent investors have always favored the obligations of old-established enterprises which have demonstrated their ability to come through bad times as well as good.” (Graham and Dodd, 1951, p. 289)

With regard to inflation risk, Graham and Dodd say that “[t]hese wide movements of the general price level...seem to carry the lesson that the long-term trend is toward inflation, punctuated by equally troublesome periods of deflation. Investment policy must accommodate itself, as far as it can, to both possibilities” (Graham and Dodd, 1951, p. 8).

How many investors today measure the value of a bond by the likelihood that it will continue to pay interest “under the acid test of depression”? How many investors today maintain portfolios robust against the possibility of inflation of the magnitude experienced in the 1970s or deflation of the magnitude experienced in the early 1930s? The answer, I believe, is “not many.”

The fact that few investors worry about extreme economic instability is a benefit of sound monetary policy and not a cost; changes in investor practice are conducive to higher productivity growth. The same is true for changes in household and firm behavior reflecting the greatly reduced risk of economic depression or even severe recession of the magnitude of 1981-82. If we did not believe that economic stability is good for the economy and for society, why would a stable price level and high employment be monetary policy goals? Just as a deductible changes behavior of insurance policyholders, so also does economic stability change investor behavior.

Economists have long argued that price stability improves economic efficiency, in part because businesses and individuals can make decisions under the assumption that they do not need to

MONETARY POLICY AND INFLATION

pursue strategies designed to cope with a changing price level. Inflation and deflation distort relative prices; such distortion leads to misallocations of resources. With greatly reduced risk of price level instability, investors concentrate on risks relating to changes in demands, technology, and relative prices. Better evaluation of these risks promotes more efficient allocation of capital and fosters higher economic growth.

Monetary policy success in stabilizing the general level of prices does not eliminate risks for the economy. The real effects of inflation or deflation, should either occur in the future, will be magnified precisely because the economy today has adjusted relatively completely to an environment of price stability. One of the reasons the Great Inflation was so costly was that economic agents in 1965 did not anticipate the inflation. Decisions and institutions that had been sensible and efficient in an environment of price stability became unprofitable as inflation rose after 1965.

When events threaten to create inflation or deflation, the Fed ought to act to maintain price stability. It is true that Fed actions in such circumstances “bail out” investors who would lose large sums should inflation or deflation take hold. But “bail out” is a completely inappropriate term to use in this context, for it implies costs of the sort discussed earlier when the government provides capital to support firms that would otherwise go bankrupt. The central bank is *supposed* to stabilize the price level; the economy *is* better off when people act on a justified belief that the central bank will be successful.

Exactly the same argument applies to central bank actions in response to events or shocks that might drive the economy into recession, or into an unsustainable boom. Provided that the central bank does not sacrifice long-run price stability, it can and should respond to new information indicating an increased risk of recession. There is no conflict between the goals of price stability and high employment. Price stability and expectations of price stability permit the central bank to respond constructively to shocks that threaten

to destabilize the real economy. Those who still believe that there is a trade-off between inflation and unemployment should reflect on the facts that the Great Depression was a consequence of deflation and the recessions of 1969, 1973-75, 1980, and 1981-82 were consequences of the Great Inflation.

With respect to financial instability, the central bank has the responsibility to do what it can to alleviate market turmoil. When there is a widespread increase in risk aversion and a flight to safe assets, the central bank ought to provide extra liquidity to prevent bank runs from bringing down the banking system. Provision of extra central bank liquidity does “bail out” firms that had not maintained sufficient liquidity themselves. Here again, though, the term “bail out,” with its pejorative connotations, is completely inappropriate. In a fractional reserve banking system, it is simply impossible for owners of bank liabilities to convert all their liquid claims to cash, but the effort to do so will drive down aggregate demand. The same argument applies to liquid claims issued by non-bank financial firms. Widespread bank failures will destroy the claims of prudent investors, as well as of the imprudent.

For a fractional reserve banking system to work, a central bank must stand ready to be the ultimate source of liquidity for solvent banks, and banks in turn take the credit risk of providing liquidity to solvent non-bank firms. By “solvent,” what I mean in this context is that a firm’s assets valued at a normal level of economic activity cover the firm’s liabilities, leaving a reasonable level of net worth. The firm’s capital can absorb losses occasioned by normal business risks. We can argue about what “normal business risks” should be covered; but, in my view, economic depression, hyperinflation, and financial implosion are not included.

The stock market responds to changing expectations concerning corporate profits, which depend in part on the state of the real economy. Slow economic growth or outright recession tends to reduce profits and the level of stock prices. It

is desirable that investors’ expectations of profits reflect knowledge that the central bank will respond constructively to new information about the likely course of the real economy. And I use the word “knowledge” deliberately and not just the word “expectation” to emphasize the importance of a high degree of market confidence in the central bank. When there is a high degree of confidence in the central bank, everyone should believe that the central bank will respond to events that might otherwise drive the economy into recession. In this sense, a “Fed put” should exist. A central bank is supposed to do what it can to maintain employment at a high level.

Of course, at the current state of knowledge, the central bank cannot prevent all recessions. A central bank may be unable to prevent some recessions because it has incomplete knowledge of how businesses, households, and markets behave. In other cases, a central bank has no way of forecasting certain events that may drive the economy into recession.

A central bank can do its best to respond appropriately to events like the stock market crash of 1987 and the terrorist attacks of 9/11. When such a shock occurs, market participants may be unsure about the appropriate response, and the central bank may also be unsure. Nevertheless, market participants have good reason to believe that the central bank will respond as the appropriate response becomes clear. Confidence in the central bank in this sense helps to stabilize markets.

I have emphasized the importance of Fed stabilization policy for the financial markets. The same arguments hold with equal force for markets for goods and for productive inputs. Decisions on the allocations of capital and labor are more efficient in an environment of general economic stability. Long-lived capital projects require confidence in monetary stability. Of course, other aspects of government policy are equally important, such as the rule of law and the tax and regulatory environments.

DOES FED POLICY SUCCESS BREED FINANCIAL MARKET INSTABILITY?

Some have argued, Hyman Minsky most prominently,⁸ that monetary policy success breeds greater financial instability by encouraging investors to assume more risk, especially through greater leverage. Perhaps this contention is at the heart of the argument that recent Fed policy actions in response to the subprime mortgage mess will only increase financial risks in the future.

It is hard to figure out how to test the Minsky proposition, but my instinct is that it is not correct. As vexing as the current market situation is, it is important to remember that in the early 1980s the unwinding of the Great Inflation led to failure of many industrial firms, farmers, banks, and eventually a large part of the savings and loan industry. The financial turmoil of 1998 seems mild by comparison with the early 1980s; of course, we do not yet know the full extent of the current turmoil in housing and housing finance.

If an empirical test would be inconclusive, which I think it probably would be, our only recourse is to argue from a somewhat abstract perspective. We do have good reason to believe, both from theory and experience, that price level instability increases financial instability. Large changes in the inflation rate, up or down, are always unanticipated. Thus, inflation creates unanticipated changes in the real value of bonds and other contracts stated in nominal terms. The gains and losses tend to be capricious, and losses can be large enough to bankrupt those on the wrong side of the unanticipated change in inflation. The same problem arises when economic activity changes in an unanticipated fashion—bankruptcies rise during recessions.

When the price level is reasonably stable and economic activity is growing reasonably smoothly, macroeconomic risks are reduced.

⁸ A convenient bibliography of Minsky’s work and of work about his ideas can be found at <http://cepa.newschool.edu/het/profiles/minsky.htm>.

However, microeconomic risks do not disappear. The hedge fund is a good example of a firm designed to exploit microeconomic risks. The basic idea of the hedge fund is to take positions based on *relative* calculations of various sorts. In a particular industry, a hedge fund might take a long position in what it believes to be stronger firms and a short position in weaker firms. Concentration on microeconomic issues is exactly what is supposed to happen with reduction of macroeconomic risks. High leverage does increase risk, but does so in the context of both macroeconomic and microeconomic uncertainty.

Since the end of the Great Inflation, most bouts of financial instability have been associated with innovation and not with excesses created by economic stability. Innovations of all sorts encourage experimentation; some of the experiments turn out badly until engineering and management practices adapt to the innovations. As the use of steam engines spread in many different applications in the nineteenth century, boiler explosions were common. Railroad bridges fell down. The new technology of the Internet led to the dot-com bubble. We have seen the same process with financial innovation—portfolio insurance failed in the stock market crash of 1987 and highly mathematical trading strategies failed LTCM. Certain underwriting and securitization strategies for subprime mortgages are in the process of failing today, at enormous cost not only to investors but also to homeowners facing foreclosure. I do not believe that the failure of any of these financial innovations was related to the more stable price level and more stable economy of the past quarter century compared with the previous quarter century.

Some financial strategies will go the way of the steam automobile; others will be refined and become as common and routinely successful as the personal computer. Who today does not accept the basic idea of portfolio analysis, in which individual securities are not studied in isolation but in the context of their covariances with other securities?

CONCLUDING COMMENTS

In the Employment Act of 1946, Congress charged the Fed with promoting “maximum employment, production, and purchasing power.” Not that long before the Employment Act a different view prevailed. David Cannadine, in his *Mellon: An American Life*, wrote recently about Andrew Mellon’s attitudes during the early part of the Great Depression:

Mellon constantly lectured the president on the importance of letting things be. The secretary belonged (as Hoover would recall) to the “leave it alone, liquidationist school,” and his formula was “liquidate labor, liquidate stocks, liquidate the farmers, liquidate real estate.” (Cannadine, 2006, p. 445)

That view is long gone. Macroeconomists today do not believe that policies to stabilize the price level and aggregate economic activity create a hazard. Federal Reserve policy that yields greater stability has not and will not protect from loss those who invest in failed strategies, financial or otherwise. Investors and entrepreneurs have as much incentive as they ever had to manage risk appropriately. What they do not have to deal with is macroeconomic risk of the magnitude experienced all too often in the past.

In the present situation, many investors in subprime paper will take heavy losses and there is no monetary policy that could avoid those losses. Clearly, recent Fed policy actions have not protected investors in subprime paper. The policy objective is not to prevent losses but to restore normal market processes. The issue is not whether subprime paper will trade at 70 cents on the dollar, or 30 cents, but that the paper in fact can trade at some market price determined by usual market processes. Since August, such paper has traded hardly at all. An active financial market is central to the process of economic growth, and it is that growth, not prices in financial markets per se, that the Fed cares about.

One of the most reliable and predictable features of the Fed’s monetary policy is action to prevent systemic financial collapse. If this regularity of policy is what is meant by the “Fed put,”

then so be it, but the term seems to me to be extremely misleading. The Fed does not have the desire or tools to prevent widespread losses in a particular sector but should not sit by while a financial upset becomes a financial calamity affecting the entire economy. Whether further cuts in the federal funds rate target will alleviate financial turmoil, or risk adding to it, is always an appropriate topic for the FOMC to discuss. But one thing should be clear: The Fed does not have the power to keep the stock market at the “proper” level, both because what is proper is never clear and because the Fed does not have policy instruments it can adjust to have predictable effects on stock prices.

From time to time, to be sure, Fed action to stabilize the economy—to cushion recession or deal with a systemic financial crisis—will have the effect of pushing up stock prices. That effect is part of the transmission mechanism through which monetary policy affects the economy. However, it is a fundamental misreading of monetary policy to believe that the stock market per se is an objective of policy. It is also a mistake to believe that a policy action that is desirable to help stabilize the economy should *not* be taken because it will also tend to increase stock prices. It makes no sense to let the economy suffer from continuing declines in stock prices for the purpose of “teaching stock market speculators a lesson.” “Teaching a lesson” is eerily reminiscent of Mellon’s liquidationist view. Nor should the central bank attempt to protect investors from their unwise decisions. Doing so would only divert policy from its central responsibility to maintain price stability and high employment.

The Fed would create moral hazard if it were to attempt to pump up the stock market whenever it fell, regardless of whether or not such policy actions served the fundamental objectives of

monetary policy. I have observed no evidence to suggest that the Fed has pursued such a course. That financial markets are more stable because market participants expect the Fed to be successful in achieving its policy objectives is a desirable and expected outcome of good monetary policy. There is no moral hazard when largely predictable policy responses to new information have effects on financial markets.

That the monetary policy principles I have discussed here are unclear to many in the financial markets is unfortunate. Macroeconomic stabilization does not raise moral hazard issues because a stable economy provides no guarantee that individual firms and households will be protected from failure. Improved public understanding of this point will not only help the Fed to do its job more effectively but also will help private sector firms to understand better how to manage risk.

REFERENCES

- Cannadine, David. *Mellon: An American Life*. New York: Alfred A. Knopf, 2006.
- Graham, Benjamin and Dodd, David L. *Security Analysis*. Third Edition. New York: McGraw-Hill, 1951.
- Rudebusch, Glenn D. “Federal Reserve Interest Rate Targeting, Rational Expectations, and the Term Structure.” *Journal of Monetary Economics*, April 1995, 35(2), pp. 245-74.
- Thornton, Daniel L. “When Did the FOMC Begin Targeting the Federal Funds Rate? What the Verbatim Transcripts Tell Us.” *Journal of Money, Credit, and Banking*, December 2006, 38(8), pp. 2039-71.