Financial Stability

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William Poole

I am pleased to be here to address this session of the annual meeting of the Southern Legislative Conference. Since becoming president of the St. Louis Fed, I've gotten to know pretty well a good part of the 16-state region that comprises the Southern Conference. The Eighth Federal Reserve District, headquartered in St. Louis and with branches in Little Rock, Memphis, and Louisville, includes all of Arkansas and parts of Kentucky, Mississippi, Tennessee, and Missouri. (The Eighth Federal Reserve District also includes the southern portions of Illinois and Indiana.) I've traveled extensively in this region, meeting bankers, business leaders, community and university leaders, and elected officials at all levels of government. This is a region full of vitality and, I might add as an easterner for most of my life, delightful southern hospitality.

My charge today is to discuss the condition of the national and SLC state economies. There are always many elements to analyzing the economy; I've decided to concentrate on the aspect of the current environment that seems most troubling—the condition of the equity markets.

Two hundred and fifty years ago it was established wisdom that the measure of a nation's material wealth was the size of its stock of gold. Adam Smith, in his great book, *The Wealth of Nations*, published in 1776, argued that this view was dead wrong—that the true measure was the nation's output. Today, all too often, people make a similar mistake as they judge a nation's wealth by the level of its stock market. Gold was important in Smith's day, as is the stock market in our day, but not for the reasons incorporated in the established wisdom.

My purpose today is twofold—to provide some perspective on how the stock market matters and to discuss possible approaches to creating greater financial stability.

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 thank my colleagues at the Federal Reserve Bank of St. Louis, especially Robert Rasche and William Emmons, for their comments, but I retain full responsibility for errors.

GOODS AND CLAIMS ON GOODS

One of Smith's essential insights, as true today as in 1776, was that gold had to be viewed as a claim on goods. The reason that people valued gold was that it could be used to buy goods they wanted—food, clothing, shelter, land, and anything else available in the marketplace. From the perspective of any one individual, gold provided command over goods and therefore was a component of the individual's wealth. But from the perspective of all individuals taken together—the entire nation—command over goods depended on the supply of goods. A nation cannot, except temporarily, consume goods beyond what it produces. For a nation as a whole to enjoy a high material standard of living—to have a large command over goods—it had to produce a lot of goods. Thus Smith argued that the wealth of a nation depends on the productivity of its people, which permits it to produce a high level of output from the hours of labor devoted to production.

Nothing has changed in this regard from Smith's day. The stock market wealth of three years ago provided each person holding a share of that wealth with a command over goods that seemed, and in the aggregate was, large. It was not possible, however, for all individuals together to cash in that wealth; for all individuals together, the goods that people could buy were limited to the goods the economy could produce. Given that we live in a global economy, we can apply that statement to all the world's citizens taken together.

BUYERS AND SELLERS

Before I discuss the role of the stock market in the economy I have to get an issue out of the way—the simple fact that every share of stock sold is also one purchased. Stock market analysts who explain

William Poole is the president and chief executive officer of the Federal Reserve Bank of St. Louis. The author thanks colleagues at the Federal Reserve Bank of St. Louis for helpful comments, especially Robert H. Rasche, director of research, and William R. Emmons, economist in the supervision, credit and payment risk management division. This article is a slightly revised version of the original speech. The views expressed do not necessarily reflect official positions of the Federal Reserve System.

the ups and downs of stock prices in terms of investors getting into or out of the market are not making good sense. Investors as a whole cannot get into or out of the market. An effort of investors to get out of the market depresses stock prices sufficiently that other investors are persuaded to buy. Of course, the number of shares of stock outstanding does change over time through bankruptcies, company share repurchases that retire stock, and new issues that add to the total outstanding. These factors are of trivial importance for the number of shares outstanding day by day.

Because shares sold equals shares purchased, all investors taken together cannot convert claims on wealth into goods. If one investor sells stock for the purpose of using the proceeds to buy, say, a new car, then some other investor must forego spending on goods in order to buy the shares that the first investor is selling. The effect of share prices on the economy is necessarily indirect.

Economists emphasize two mechanisms through which share prices affect the economy. One is that in a rising market companies can more easily raise funds to devote to building new factories or buying new capital equipment. Thus the level of stock prices affects the cost of capital, which in turn affects the rate of business investment in physical capital. A second mechanism is the effect of wealth on household consumption. When wealth is high, households tend to spend more of their current income, because they see less need to save for the future. When wealth declines, households tend to consume less and to save more. Thus the level of the stock market can affect households' demand for cars, TVs, vacation travel, and all the other things people spend their income on. It is important, however, to think about the wealth effect in terms of total household wealth, which includes the value of bonds and real estate as well as common stock. Finally, the evidence suggests that the wealth effect is spread out over time and is small relative to the effect of household income.

In the short run, stock market fluctuations are far, far larger than fluctuations in the nation's production, which we measure by the inflation-adjusted gross domestic product (GDP). For example, over the four quarters ending with the second quarter of this year, real GDP rose by 2.1 percent. Over the same period, the S&P 500 stock index was down 16 percent. Relative to the stock market, real GDP is so steady that we can for many purposes think of GDP as being fixed in the short run.

Given that GDP is very steady compared with the stock market, the behavior of stock prices primarily affects who gets how much of GDP rather than the total of GDP itself in the short run. If you are lucky enough to sell stock at the peak, you get more; if you are unfortunate enough to sell at the bottom, you get less. In either case, the buyer of the shares you sell is getting either less or more, the necessary mirror image of what you are getting through the accident of your timing of stock sales.

This redistribution of who gets what sometimes makes people angry, and they have good reason to be angry if the redistribution reflects market manipulation of some sort. This is one of the reasons that reforms to reduce the likelihood of market manipulation effected through accounting fraud and other means is so important. But I do want to point out that much of the redistribution between stock market winners and losers reflects outcomes that are somewhat similar to those of a lottery. No one is forced to buy a lottery ticket, and those who do should not believe that the redistribution of wealth from lottery losers to lottery winners is unfair in any respect, provided that the selection of the winners is not manipulated in any way.

Every serious student of the stock market knows that the track record of presumed expert stock pickers is not consistently better than pure random stock selection. I'm not looking to drum up hundreds of angry e-mail messages from investment professionals, and so let me add that I believe that investment professionals have a lot to offer. It is just that their clients should not believe that their investment services include reliable strategies to consistently pick stocks that will outperform the overall market and consistently identify the right times to buy and sell.

WHY THE STOCK MARKET MATTERS

When Adam Smith argued that gold was not the right measure of a nation's wealth, he was not saying that gold was irrelevant to a nation's prosperity. In his day, the monetary system was based on gold, and monetary instability clearly had negative effects on the economy. Today, the monetary system is not based on gold, and for this reason gold has little macroeconomic significance. The stock market, though not itself an adequate measure of a nation's wealth, has great importance. The market's effect on business investment and household spending on consumption goods is only part of the story.

Let me zero in on a matter of great concern to many families today. In recent years millions of people have placed their retirement savings in the stock market. Those who placed a high fraction of their assets in certain stocks have seen their retirement dreams and their financial security disappear in the bear market underway since early 2000.

Those stock market losses could not have occurred if the market did not exhibit such large fluctuations. Suppose, hypothetically, that stock prices grew consistently along a smooth path. Take a stock market chart from 1950 to today and draw a smooth line between the starting and ending points. If stock prices grew smoothly along such a path, all the promise of rapid gains would be absent, as would all the anguish of having asset values disappear. Each stock market investor would have a high degree of certainty about his or her financial condition during retirement years.

Would investors in fact confine themselves to such stable and predictable investments? I suspect not. Indeed, I am quite certain that many would pursue strategies they believed would yield higher returns. After all, investors who went heavily into the stock market several years ago did have alternatives that were highly stable and predictable, such as government bonds, and they chose not to confine themselves to those safe havens. So I'm not sure that creating a stable stock market, if we knew how to do it, would be successful in stabilizing the retirement prospects of many people.

If the stock market does not measure the nation's wealth, what does it measure and why does it fluctuate so much? The price of a company's stock reflects market expectations about the future earnings of the company—the stock price is the present discounted value of the expected future income stream. For all companies taken together, those expectations therefore concern the country's *future* output and not its current output. Expectations are changeable because the future is uncertain and because they may be influenced by waves of optimism or pessimism. Those expectations do affect current household and business behavior, but they are far from the only determinants.

Some decry what they see as the irrational fluctuations in the stock market reflecting, they believe, expectations that get carried away on the upside or downside. I myself do not believe that it is at all easy to identify expectations that are irrational. We live in a nation that is generally exuberant about future possibilities. To my taste, we are fortunate to live in a society that nurtures invention. Our risk-taking mentality has two sides to it. On the one hand is the entrepreneurial spirit that develops new technologies and brings them to market. Many of these new technologies create astonishing improvements in our material standard of living. On the other hand is a gambling mentality that is sometimes foolish. Ahead of time, it is rarely easy to tell which bets on new businesses will work and which will not.

The importance of the stock market for the long-run performance of the economy is considerable. The longer the span of years considered, the less accurate is the assumption that GDP is roughly constant, unaffected by the behavior of the stock market. The rate of growth of GDP depends critically on the rate of productivity growth—the growth of output per hour of labor input. Productivity growth flows from innovation and entrepreneurship. A productivity growth rate of 1.5 percent per year, about what was achieved from 1968 to 1995, increases per capita GDP by 16 percent after 10 years. Since 1995, productivity growth has been about 2.5 percent per year. That rate of productivity growth increases per capita GDP by 28 percent in 10 years. There is a big difference between 16 percent and 28 percent GDP growth over the course of a decade.

Productivity growth depends on many things: One of those things is the efficiency with which the economy allocates investment, which in turn depends in part on the stock market. It can be argued that the booming stock market in the late 1990s permitted telecom companies to finance investments in computer equipment and fiber optic cable that were wasteful in the sense that this capital, even today, several years after being put in place, is not generating output and income. We would have had higher current output if the investment had gone in some other direction. From the standpoint of this particular story, the economy's productivity was damaged and not enhanced by the stock market boom in telecom shares. But the telecom mistake was not obvious at the time it occurred. If it had been completely obvious, it would not have happened. Investment mistakes are an inevitable part of a dynamic economy. We want a stock market that is receptive to new enterprises and does the best job possible in sending capital toward the most promising endeavors.

PUBLIC POLICIES TO PROMOTE FINANCIAL STABILITY

There is no realistic prospect of devising public policies that will yield stock prices that are always "right." The future is always uncertain. New technologies are inherently experimental—some will work and others will not. From a broader perspective, the new enterprises that fail are not signs of societal failure. A business community that never fails is one that never tries.

Still, we certainly want to avoid public policies that permit, or encourage, avoidable mistakes. The current debate over accounting principles is very healthy. Penalties for fraudulent accounting and increased enforcement efforts will yield substantial societal benefits. I say "societal" and not just "economic" because a market economy that is fair, and widely perceived as fair, has benefits far beyond a higher material standard of living.

We will come out the other side of our current experience with accounting irregularities in a much stronger position than we entered it. Corporate boards, senior management, and audit firms will not take risks on accounting issues lightly. The combination of government action and market discipline has brought some prominent and long-established firms down quickly, and everyone involved in corporate governance will remember these events for a long time. The fate of Arthur Andersen, Enron, WorldCom, and other firms illustrates that the United States does have mechanisms—both governmental and market-based—to impose lasting economic reforms. Consider some other examples.

Bank failures in the 1930s led to deposit insurance. That reform contributed greatly to improved banking stability, but it turned out to have a flaw. The consequence of an inadequate regulatory system was the failure of the Federal Savings and Loan Insurance Corporation, as scores of insured savings and loan associations failed. To make good on the deposit insurance guarantee, the cost to the taxpayers in the early 1990s was in the neighborhood of $150 billion. But we learned a lesson. Regulatory requirements were strengthened; the most important of these, in my opinion, was much more rigorous enforcement of capital requirements for insured depository institutions.

We should not underestimate the contribution of this reform for improving financial stability. Failures of depository institutions in the late 1980s and early 1990s restricted the availability of credit to many borrowers, especially those that had traditionally relied on banks and S&Ls. The credit restriction was one of the reasons the economy recovered slowly from the 1990-91 recession. In contrast, last year's recession was relatively mild in part because the banking system was stable and able to lend to reasonable business risks. The stability of the banking system certainly helped the economy cope with recession.

One more example, though a smaller one: When the Penn-Central Railroad declared bankruptcy in 1970, the commercial paper market was disrupted as investors wondered what other firms were also suspect. The suspicion was in many ways a small-scale version of what we are seeing today. Until June 1, Penn-Central commercial paper was rated highly, and the company's bankruptcy on June 21 was a shock. Investors refused to roll over commercial paper of many highly rated companies because they were no longer sure what the ratings meant. Since that experience, companies have routinely arranged back-up lines of credit at banks, which they can rely on should the commercial paper market turn unreceptive. That change in business practice prevented any recurrence of the generalized disruption of the commercial paper market that we witnessed in 1970.

LOOKING AHEAD

It is easy today to look back and wish that somebody, somehow, had done more to improve accounting and audit practice. Similarly, it was easy to look back in 1990 and wish that somebody, somehow, had done more to strengthen regulation of S&Ls, to prevent the loss of $150 billion of taxpayer funds. What can we do right now to look ahead, to see what vulnerabilities we might face, and to do something in advance to ensure that some new source of financial instability does not bite us?

Periods of great market instability arise when three conditions are met. First, something happens that has widespread significance—is large enough to matter to lots of people. Second, the triggering event is a surprise; ordinarily, events long anticipated are not a problem because corrective action occurs before problems arise. Third, substantial uncertainty clouds resolution of the problem. It is especially difficult for investors to know what to do when the government's response to an unfolding situation is highly uncertain.

Let me propose two vulnerabilities we face that really need to be examined carefully. One is familiar to everyone—the state of the Social Security and Medicare systems. The issue certainly meets two of my three criteria. The potential problem is huge and there is great uncertainty about what the government will do. Even though the problem is not a surprise in one sense, it could quickly turn into one. The fact is that a change in economic conditions could quickly increase the estimated size of the problem and move forward the time when the problem would become acute.

If the nation finds itself in a period of financial instability because of an unexpected and rapid escalation of the financial problems faced by Social Security and Medicare, we will look back and wonder why, with the vulnerability known for so long, nothing was done to reduce it. The nation has time to act, but disagreement on what should be done has led to a stalemate. Maintaining financial stability requires a willingness to find some way to engineer a compromise to reduce the nation's vulnerability that a financial crisis will some day flow from Social Security and Medicare.

The second vulnerability I would like to see more widely discussed concerns government-sponsored enterprises, or GSEs. The GSEs include Fannie Mae, Freddie Mac, the Federal Home Loan Bank System, and a number of smaller entities. The GSEs meet all three of my criteria for the potential of creating financial instability.

First, the GSEs are certainly large. In the United States today, GSE securities and government-related mortgage pool securities outstanding, excluding deposits, exceed the total outstanding securities issued by *all*—I repeat, *all*—other private financial sector firms taken together. Fannie Mae and Freddie Mac alone, as of last December 31, had securities outstanding of $1.3 trillion and had guaranteed another $1.8 trillion of mortgage-backed securities (MBS). Looked at another way, the total of GSE direct and guaranteed debt is 40 percent *larger* than the federal government's debt. That debt, which we loosely call the "national debt," has, of course, been a matter of considerable discussion in recent years in the debates about federal deficits and surpluses.

Second, although financial experts understand the vulnerability, my judgment is that too few in the markets and in government understand the issues. Consequently, if there is ever a problem, it will take many by surprise.

Third, there is tremendous ambiguity about the status of the GSEs. The market prices GSE debt as if there is a federal guarantee, or a high probability of a guarantee, standing behind the debt. Yet, there is no explicit guarantee in the law.

No one should underestimate the potential importance of the ambiguity over the financial status of the GSEs. It is not sufficient for any single GSE to argue that its own financial condition is sound. If one GSE comes under a cloud, others may also. That has been our experience again and again. It is the process economists call "contagion" whereby uninvolved or innocent firms are affected because the market has difficulty distinguishing solid firms from those at risk.

Perhaps the most famous example of contagion in U.S history is the series of bank runs in the early 1930s. Good and bad banks alike were affected. For another example, in 1970 the Penn-Central bankruptcy affected the entire commercial paper market, as investors did not know which commercial paper issuers were in fact prime credits and which, though rated prime, were not. This year, accounting problems identified in a few firms have raised questions in investors' minds about almost all firms. We may believe that only one firm in twenty, or in fifty, has suspect accounts, but how do we know which firms? We don't, and therefore investors treat all firms as suspect until the accounting treatments are verified. When there is an issue of this kind, it takes a while to get everything sorted out; in the meantime, securities prices are pushed down.

In the case of the GSEs, the massive scale of their liabilities could create a massive problem in the credit markets. If the market value of GSE debt were to fall sharply, because of ambiguity about the financial soundness of GSEs and about the willingness of the federal government to backstop the debt, what would happen? I do not know, and neither does anyone else.

Like Social Security, there are different views on what, if anything, should be done about the GSEs. In the meantime, the prevailing view seems to be that a GSE debt meltdown could not occur, or could not occur soon. I do not see any immediate risk of a GSE debt problem, but am not willing to assume that in different conditions in the future one could not occur. A judgment that there is *no* potential vulnerability seems to me to be unwarranted in light of the financial history of the United States and other countries. One thing I know for sure is that *if* the problem becomes immediate and real, then dealing with it will be very difficult because the urgency will be so great.

Let me throw out for debate two steps the federal government might take. First, various aspects of federal sponsorship that the market interprets as providing an implied guarantee of GSE debt should be withdrawn.[1] The Secretary of the Treasury has the authority to buy GSE obligations; in the case of Fannie and Freddie, the authority is up to a maximum of $2.25 billion for each firm. The GSEs could easily replace this potential source of emergency financial support with credit lines at commercial banks, following the widespread practice among issuers of commercial paper. The amount available at the discretion of the Secretary of the Treasury is far too small in any event to deal with a crisis in the GSE debt market. Eliminating the Treasury's authority to lend to the GSEs would provide a signal that the government is serious when it says that there is no government guarantee of GSE debt. Second, over a transitional period of several years, the GSEs should add to the amount of capital they hold.

Capital is critical because, when there is a crisis in the securities markets, financially strong firms can stand the pressure without lasting damage. Capital provides a cushion against mistakes and unforeseeable circumstances. With adequate capital, a firm can almost always raise emergency loans to cover its liquidity problems.

The importance of adequate capital became clear to policymakers as the S&L problems accumulated in the late 1980s. Tightening of capital standards for insured depository institutions and the administration of those requirements was a key part of the reforms put in place at that time.

Capital is important for the GSEs because their short-term obligations are large. Fannie Mae and Freddie Mac have debt obligations due within one year of about 45 percent of their debt liabilities. Any problem in the capital markets affecting these firms could become very large very quickly.

Capital on the books of Fannie and Freddie is well below the levels required of regulated depository institutions. Let me quote a paragraph from the *2001 Annual Report* of Fannie Mae, the largest single GSE.

> During 2001, Fannie Mae issued $5 billion of subordinated debt that received a rating of AA from Standard & Poor's and Aa2 from Moody's Investors Service. Fannie Mae's subordinated debt serves as a supplement to Fannie Mae's equity capital, although it is not a component of core capital. It provides a risk-absorbing layer to supplement core capital for the benefit of senior debt holders and serves as a consistent and early market signal of credit risk for investors. By the end of 2003, Fannie Mae intends to issue sufficient subordinated debt to bring the sum of total capital and outstanding subordinated debt to at least 4 percent of on-balance sheet assets, after providing adequate capital to support off-balance sheet MBS. Total capital and outstanding subordinated debt represented 3.4 percent of on-balance sheet assets at December 31, 2001. (pp. 44-45)

The capital situation at Freddie Mac is about the same as the one at Fannie Mae. The capital adequacy standards applying to these two GSEs were established by the Federal Housing Enterprises Financial Safety and Soundness Act of 1992. The core capital requirement is 2.5 percent of on-balance sheet assets and 0.45 percent of outstanding mortgage-backed securities and other off-balance sheet obligations. The off-balance sheet obligations have a capital requirement because they are guaranteed by Fannie and Freddie.

In the private sector, government securities dealers carry capital in the neighborhood of 5 percent, and other financial firms considerably more. For example, FDIC-insured commercial banks hold equity capital and subordinated debt of nearly 11 percent of total assets.

The issue with Fannie and Freddie is not one of disclosure. Their annual reports disclose quite well the high degree of complexity of their operations, and the small amount of capital they carry over that required by law. My questions are these: Given the complexity of their operations, is the capital standard in the law adequate? Why is the standard so far below that required of federally regulated banks? What will happen to the housing market if Fannie and Freddie become unstable?

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[1] Farmer Mac, another GSE, was much in the news in recent months. An article in the *New York Times* noted that one of the advantages conferred by government sponsorship is "the ability to borrow almost as cheaply as the government does because of a perception of government backing that emanates from a single section in its charter. That provision allows the Treasury, in certain circumstances, to provide up to $1.5 billion in loans to Farmer Mac to support the guarantees the company extends on farm loans" (9 June 2002, p. 8, col. 1).

An earlier article in the *New York Times* said the following: "The boldface disclaimers [on GSE debt offerings] state that the securities are not guaranteed by and do not constitute debts or obligations of the United States government. But the warnings are roundly dismissed by the analysts who follow the issuers' stocks, the agencies that rate their senior debt and the money managers who put their commercial paper in money market funds. In interview after interview, market professionals said that even if the paper did not carry an overt government guarantee, there was an implied guarantee, which was just as good, and the government would not allow weakness in the securities to wreak havoc. That market confidence is evident in the low interest rates that the organizations have to pay investors for financing, often only half a percentage point more than what the United States Treasury pays" (21 May 2002, p. 1, col. 5).

I've been emphasizing the importance of strengthening public policy to address potential problems. Let me add one further item to be considered—whether federal tax law should continue to encourage substitution of corporate debt for equity.

In calculating income subject to tax, corporations can deduct interest paid but not dividends paid. That provision encourages corporations to issue debt instead of equity to finance expansion and acquisitions. Firms sometimes issue debt and use the proceeds to retire equity. Many corporations today pay little or no dividends at all, preferring to provide a return to shareholders through expected capital gains on the shares, which are taxed at a lower rate than dividends in the personal income tax.

There is no doubt that a high level of debt increases the risk of financial instability. Firms fail when they cannot pay their bills. When a large fraction of revenue is devoted to paying interest instead of dividends, firms are more vulnerable to failure when revenues fall. A dividend can be cut or eliminated; interest payments cannot. Does it make good sense to maintain a feature of the tax law that makes the economy more vulnerable to financial instability? The tax law could be changed in a revenue-neutral way to eliminate this problem. I think we should do so.

CONCLUDING COMMENTS

The decline in the stock market since early 2000, and especially this summer, has been painful. We should not, however, think of the stock market as a direct measure of the nation's wealth. All you have to do is look at charts side by side of the stock market and GDP to realize that there is a long history of stock market fluctuations that are far larger than GDP fluctuations; moreover, the two are not all that highly correlated. I am not trying to tell you that the stock market does not matter, but I am trying to put the matter in proper perspective. From what we know, it is reasonable to expect that the economic recovery will continue and that the stock market will in time settle down.

This experience should make us think about what public policies could help to reduce the severity of market instability in the future. Reforms to accounting and corporate governance now being put in place are constructive. I've suggested some other things we should look at, particularly the Social Security and Medicare systems, the GSEs, and the corporate tax law. My list is not meant to be exhaustive, but surely has enough items for one speech. If any of these areas come back to bite us in the future, we'll know that the enemy is us.