

Speech to the Silicon Valley Chapter of Financial Executives International  
Palo Alto, CA

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## **The Financial System and the Economy<sup>1</sup>**

Good evening. It's a pleasure to have the chance to speak with you tonight, and I'm very grateful to your colleague and mine, Ken Wilcox, for inviting me to do so. I have come to know him well during his tenure as a member of the Board of Directors of the Federal Reserve Bank of San Francisco, and I thank him for his service. He and our other Directors not only provide oversight for the management of the Bank, but they also give us valuable, real-time information on what is happening in their industries and their local economies.

This information is of crucial importance now, because it helps us assess the impact of the financial market crisis on the borrowing, spending, and hiring decisions of households, firms, and state and local governments. It is because of such impacts that the turmoil in financial markets affects the prospects for growth and job creation in the months and years ahead. Financial crises are hardly unprecedented. In fact, over half of all International Monetary Fund member countries have experienced a systemic banking crisis since 1980. But the financial crisis that began here in August 2007 has intensified in recent weeks, becoming exceptionally severe and global in its dimensions. Its potential ramifications for the economic well-being of citizens here and around the globe are a matter of grave concern. My goal tonight is to give you my perspective on both

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financial and economic developments, and to discuss the array of policy responses to them. As always, my comments represent my own views and do not necessarily reflect those of any of my colleagues in the Federal Reserve System.

To preview my discussion, financial sector distress has led to a credit crunch in the United States that is making it extremely difficult for financial institutions and many corporations and households to borrow and spend. These developments have also shaken confidence, causing households and firms to pull back, acting defensively and cautiously. Such behavior weakens economic growth and employment. At the same time, the weakening economy is exacerbating the stress in financial markets. Such linkages between the “real” and financial sectors of the economy have created a feedback loop that is intensifying the economic downturn. Over the last year, Fed policymakers have acted to address both the escalating financial crisis and rising unemployment. But inflation has also been an important concern, since it has been running at unacceptably high levels. In recent months, however, the outlook for inflation has noticeably changed. Commodity prices, including the price of oil, have plunged. And I expect this development, along with a further increase in slack in labor and product markets, to push inflation down to, and possibly even below, rates that I consider consistent with price stability.

In the view of many observers, the current financial crisis ranks as the worst since the Great Depression. But I do not believe that the U.S. economy, in the years ahead, faces a period of economic misery that will begin to rival the suffering associated with that historic economic calamity. The American economy is more resilient now than then, due in part to “automatic stabilizers” that were put in place to shield the incomes of households from fluctuations in the economy. More important, this is by no means a case

of having forgotten the past and being doomed to repeat it. Far from forgetting, much research has focused on that calamitous economic event, as well as on more recent banking crises around the world. As a result, we have learned the importance of prompt action in a financial crisis. We also have learned what fundamental issues to address, even when the crisis has unique features, as this one does. Those fundamental issues are how to implement appropriate macroeconomic policy and how to shore up the financial sector and thaw credit flows, thereby shielding the real economy from the worst potential spillovers from the turmoil. Last Friday, the G-7 finance ministers issued a statement outlining a comprehensive set of general principles to address the financial crisis. The statement importantly recognized the need for international coordination to prevent beggar-thy-neighbor financial and economic spillovers among countries of the type that worsened the Great Depression. It is heartening that such global coordination is indeed taking place: the governments of the euro-area countries and the United Kingdom have announced measures that translate these general principles into concrete policies. And this morning, the Treasury, Federal Reserve, and FDIC announced a similar set of detailed emergency actions. I will discuss these policies at the conclusion of my talk.

### **Economic developments and prospects**

I would first like to discuss the performance of the U.S. economy in some depth. The recent flow of economic data suggests that the economy was weaker than expected in the third quarter, probably showing essentially no growth at all. Growth in the fourth quarter appears to be weaker yet, with an outright contraction quite likely. Indeed, the U.S. economy appears to be in a recession. This is not a controversial view, since the

latest Blue Chip consensus projects that there will be three consecutive quarters of contraction in real GDP starting last quarter.

By now, virtually every major sector of the economy has been hit by the financial shock. I'll start with consumer spending, where the news has not been good.

Employment has now declined for nine months in a row, and personal income, in inflation-adjusted terms, is virtually unchanged since April. Household wealth is substantially lower as house prices have continued to slide and the stock market has declined sharply. On top of this, consumer credit is costlier and harder to get: loan rates are up, loan terms are tougher, and increasing numbers of borrowers are being turned away entirely. Even before the extraordinary deterioration in financial market conditions over the past few weeks, the evidence was accumulating that consumer spending had weakened. In real terms, consumer spending was flat or contracted in recent months. Vehicle sales in September plummeted, even with lower gas prices and continued incentives in place, a development that partially reflects the difficulties that people are having in obtaining auto loans.

Business spending, too, is feeling the crunch, as firms face weak final demand for their products, a higher cost of capital, and restricted credit. In particular, many companies find that the financial markets have become unreceptive to their commercial paper, an important source of short-term funding. Some of our business contacts report that bank lines of credit are more difficult to negotiate, and many indicate that they have become cautious in managing liquidity, in committing to capital spending projects that can be deferred, and even in extending credit to customers and other counterparties.

Some companies are drawing down existing credit lines to have cash on hand in the event that these lines are capped.

We've even begun to see some signs of a slowdown for the previously very strong IT industry across the country and in the Bay Area in particular. Several leading tech companies have announced plans for layoffs, and funding for start-ups has grown increasingly tight. Among my own contacts, many expect spending to be largely flat or down for the remainder of the year. A tech slowdown could intensify with the fall-off in consumer spending, and the weakening in business spending could come into play since the financial industry is a heavy user of both IT equipment and software. Despite these troubling developments, the downturn in the local economy is likely to be far less severe than the bust of the early 2000s, when the Bay Area was ground zero for the tech implosion. This time, the downturn is centered elsewhere—in the real estate and finance sectors—so that the Bay Area economy is a victim of collateral damage rather than the primary target.

Nonresidential construction is another sector that has been affected by the financial crisis, in part because the market for commercial mortgage-backed securities, a mainstay for financing large projects, has all but dried up. Banks and other traditional lenders have also become less willing to extend funding. With financing unavailable, I'm hearing talk about substantial cutbacks on new projects and planned capital improvements on existing buildings.

Although residential investment accounts for under 5 percent of overall economic activity, the decline in housing construction over the past three years has created a major drag on overall real GDP growth. Housing starts have plummeted. Yet inventories of

unsold new and existing homes remain at very high levels, making it difficult to predict with any confidence when housing starts will bottom out. Indeed, the possibility of ongoing contraction in this sector is intensified by the economic downturn, by the drop in jobs, and by the high cost and tighter terms on mortgage credit. Understandably, financial institutions have made it more difficult to qualify for a mortgage by requiring much higher down payments, higher income-to-payment ratios, and higher FICO scores. Moreover, private-label securitized markets for residential mortgages are essentially closed for business. The sole, but important, sources of mortgage securitization are the government agencies, especially Fannie Mae and Freddie Mac, which provide backing mainly for conventional conforming mortgages. One piece of good news is that interest rates on conforming mortgages have come down a bit in recent weeks as a result of the takeover of these entities by the federal government and the now explicit government backing of both their debt and mortgage insurance guarantees.

House prices have fallen along with construction. As I mentioned, the associated loss of wealth is a drag on consumer spending. Moreover, falling house prices are a major factor behind the delinquencies and foreclosures on subprime and other mortgages that precipitated the current financial crisis. Unfortunately, the bottom for house prices is not obviously in sight. For example, futures contracts for house prices predict further declines this year and next.

Many state and local governments are being dragged deeper into the financial mess as well. The downturn in the economy has bitten into tax collections and made it harder to issue bonds. As you know, this has recently become a problem in California,

adding uncertainty to the state's already difficult budget situation, which has been eroded by a revenue shortfall due to the economic slowdown.

So far, my comments should have made it clear that domestic spending has weakened substantially. Until recently, we have received a major boost from exporting goods and services to our trading partners. Unfortunately, the news on foreign demand has also turned weaker. Economic growth in the rest of the world, particularly in Europe and Japan, has slowed for a number of reasons, including spillovers from the U.S. slowdown, and most importantly, the financial meltdown that now has intensified substantially in Europe and elsewhere. In addition, the dollar has recently appreciated against the euro and British pound, offsetting a portion of the depreciation that was boosting U.S. exports. As a result, exports will not provide as much of an impetus to growth as they did earlier in the year.

As I noted at the outset, inflation has been a source of significant concern over the past year or so. However, economic developments in this country and abroad can be expected to ease inflationary pressures. In the first place, prospects for weaker economic activity around the world have led to a drop in food, energy, and other commodity prices, and this has relieved a good deal of the pressure on inflation from the earlier run-up in their prices. Secondly, slow growth here seems likely to boost both unemployment and unused industrial capacity. This additional slack in labor and product markets will put downward pressure on inflation, moving it toward rates that I consider consistent with price stability. In fact, some prominent forecasters at this stage are concerned that inflation in future years could decline to levels below what is consistent with price stability.

## **Financial System**

I have highlighted a number of ways in which stresses in the financial sector are impinging on economic activity through their effects on the spending decisions of consumers, businesses, and governments. A precondition, in my view, for the economy to recover is that the financial system must get back on its feet. Last week, plunging stock markets in the U.S. and around the world received front page attention. But stocks were not the only market that had a bad week. Indeed, the declines in stock prices were symptomatic of deeper, fundamental problems. Term funding in the money markets became virtually unavailable to financial institutions: spreads on interbank term loans spiked. Financial firms found it necessary to fund themselves disproportionately overnight. In addition, both financial and nonfinancial corporations had difficulty issuing commercial paper as purchases by money market mutual funds declined. Borrowing rates have also risen dramatically for lower-grade bond issuers. This freezing up of credit flows reflects a breakdown of the trust and confidence needed for potential lenders to extend credit beyond overnight to counterparties and widespread flight to the very safest assets, to the point where Treasury bill yields have fallen to close to zero at various times in recent weeks. With near or outright failure afflicting firms like Lehman, Washington Mutual, AIG, and Wachovia, investors have become exceptionally wary of a host of financial institutions, and aversion to counterparty risk is extremely high.

I'd like to take a few moments to consider three key features of the financial system that interact with one another and lie behind this wariness about counterparty risk. Each of these features corresponds to one of the three main elements of a balance sheet: assets, capital, and liabilities. First, on the asset side, the wariness began with mounting



credit losses on subprime mortgages, but the concern about credit losses has since spread to other kinds of loans. The banking system has dealt with large credit losses at times in the past, but this episode has a novel element. Many of the new financial instruments used in mortgage finance, and in fact throughout the financial system, were considered “state of the art”—complex, capable of spreading risk, and constructed using sophisticated mathematical models to price the risk. As we have since discovered, the pricing of the risk in these instruments has now become not a marvel of financial engineering, but a fog of confusion. Such complex instruments make it incredibly difficult now to know where the risk actually resides or how to price it. In other words, people need more information about these assets to be willing to participate in the markets for them, and they don’t have it. The problem is compounded by the uncertainty about the value of the assets ultimately being financed, in particular, real estate.

Second is a shortage of capital—or, to put it another way, too much leverage among financial institutions as a whole. While conventional commercial banks were well capitalized when the crisis started a year ago last summer, and they have raised a good deal of capital over the last year, capital has still been negatively affected due to the write-down of many of the complex instruments I referred to and credit losses primarily associated with delinquencies and foreclosures on real estate loans. However, the crisis extends beyond the banking sector to institutions in the so-called “shadow banking sector”; these include investment banks, as well as hedge funds, Structured Investment Vehicles, or SIVs, and other conduits. During the years of the credit bubble, their strategy involved becoming very highly leveraged; in many investment banks, for

example, the ratio of assets to capital exceeded 30 to 1. Of course, high leverage means that credit losses can very quickly turn into insolvency.

Third, on the liability side, many financial institutions have relied heavily on short-term debt to fund their operations, making them vulnerable to “runs.” Investment banks, for example, commonly used very short-term—often overnight—repurchase agreements, and SIVs and conduits issued asset-backed commercial paper which was commonly sold to money market mutual funds. No institution that borrows very short to hold a portfolio of longer-term, illiquid assets can satisfy the demands of its lenders for repayment when they desire to flee en masse. It is for this reason that banks have been protected with deposit insurance and access to the Federal Reserve’s discount window. In the current crisis, however, this bank-like profile of borrowing short and lending long extends well beyond the commercial banking sector. Financial institutions are vulnerable now to runs, because everyone knows that the system is exposed to impaired assets, because it is hard to determine exactly where those risks reside, and because some firms are known to have only slim equity cushions. We have seen in the last few weeks that even the fear that a firm may encounter future difficulties in rolling over debt can cause funding to evaporate quickly.

Financial firms have been struggling mightily to fix their individual business problems. They have tightened lending standards, trying to improve credit quality, and reduced the volume of loans. They have also been trying to sell assets. But attempts to deleverage—to enhance balance sheet strength by selling assets—tend to further depress asset prices, producing additional losses and thereby creating selling pressures for other firms holding similar positions. Write-downs on such securities are reducing the already

diminished equity cushions in some firms and raising their leverage at a time when the growing risks in the financial markets make them and their counterparties desire less leverage, not more. This vicious cycle has led to outright illiquidity in markets for certain asset-backed securities, making it almost impossible to determine appropriate prices and largely eliminating them as a source of new funding to borrowers. A final factor compounding the credit crunch is that financial institutions, and even nonfinancial firms, are hoarding liquidity, becoming very reluctant to lend to each other, except at the shortest maturities, since they are uncertain what demands they could face and whether they will be able to borrow to meet them.

While these responses make sense for individual institutions, they have led to a greatly reduced flow of credit in the economy, which is the major factor responsible for the economic downturn that now is under way. In other words, we are in the grip of an “adverse feedback loop” in which a credit crunch exacerbates economic weakness, which in turn weakens financial institutions, intensifying the credit crunch. Moreover, as I have explained, the efforts of the private sector to fix itself through deleveraging and other means are only making matters worse. This is why government action was urgently needed. I will now turn my attention to economic policies, beginning with those implemented by the Federal Reserve.

### **Economic Policies**

The Fed has potent tools to address the financial crisis and has used them aggressively to shield the economy from its fallout. It also has demonstrated a commitment to work with other central banks to coordinate policy. The policies

available to the Fed fall into two categories—monetary policy and actions to improve liquidity in financial markets.

Let me start with monetary policy. Since the onset of the financial crisis, the FOMC has cut its federal funds rate target by 375 basis points to its current level of 150 basis points. The most recent cut of 50 basis points took place last week, in an action coordinated with the European Central Bank, the Bank of England, the Bank of Canada, the Swiss National Bank, and the Swedish National Bank. I strongly supported this action. Recent financial developments and economic data make it clear that the outlook for the U.S. economy has weakened noticeably, and inflationary pressures have substantially abated. Coordinated action symbolizes the determination of central banks to act together to address what is now a global crisis. And it diminishes the potential exchange rate repercussions of any single country's solo action.

Rate cuts are by no means a panacea, but they do at least partially offset the tightening of financial conditions due to higher spreads, reflecting heightened credit and liquidity risk and a marked increase in general risk aversion. Most private-sector borrowing rates are higher now than at the beginning of this crisis in August 2007 in spite of these substantial cuts. In pointing this out, I don't mean to imply that the rate cuts did no good: borrowing rates in my view would be substantially higher absent the reduction in our base lending rate.

Next let me turn to the Fed's direct actions to improve liquidity in financial markets. Since the onset of the crisis, the Fed has ramped up its use of an arsenal of liquidity tools, devising new facilities to lend directly to banks and other borrowers that have been frozen out of the credit markets. These facilities reduce the chance of runs on

financial institutions by providing the assurance of short-term funding from the Fed based on an expanded range of collateral. For example, the Term Auction Facility (TAF) provides loans to meet the liquidity needs of depository institutions. Other facilities—particularly the Primary Dealer Credit Facility (PDCF) and Term Securities Lending Facility (TSLF)—address the funding difficulties facing primary dealers. The Fed recently implemented a facility to provide liquidity support to money market mutual funds. This complements the Treasury’s initiative to provide insurance against loss to investors in money market mutual funds. Last week, the Fed announced a plan to purchase high-grade commercial paper from both financial and nonfinancial corporations in response to the freezing up of commercial paper markets. In addition, the Fed has cooperated with foreign central banks by providing dollar funding to foreign financial institutions through swap arrangements and has announced its willingness to adjust the size of its swap lines with several central banks to accommodate whatever quantity of U.S. dollar funding is demanded. Beyond these facilities, the Fed has provided direct financing to prevent the outright bankruptcy of two institutions—Bear Stearns and AIG—whose failure, in the judgment of the Fed and the Treasury, would have significantly undermined financial stability.

Last week, the Fed took advantage of authority just granted to it under the Emergency Economic Stabilization Act passed by Congress to pay interest on the reserves held by banks in their accounts at the Fed. This new tool is important because it enables the Fed to expand its liquidity facilities by any magnitude that may ultimately be deemed necessary to provide direct credit to institutions and sectors that are frozen out of the credit markets. Without this new tool, increases in the overall scale of the Fed’s

balance sheet resulting from expanded liquidity operations would have pushed the funds rate below the FOMC's target level, compromising its monetary policy objective.

Even though the Fed has deployed an arsenal of weapons to attack the financial crisis, more was obviously needed. A comprehensive solution requires actions that are "fiscal" in the sense that they use taxpayer funds or place them at risk, and thus extend beyond the Fed's legislative mandate. The actions that have now been announced or implemented fall into three main categories, corresponding to the three underlying problems in the financial system that I identified earlier: short-term funding, impaired assets, and capital shortage.

With respect to short-term funding, in addition to the Fed initiatives I described, direct government guarantees against default have now been extended on an emergency basis to boost public confidence in lending to financial institutions. The Treasury has implemented an insurance program for deposits in money market mutual funds; Congress temporarily raised FDIC deposit insurance from \$100,000 to \$250,000 per depositor. And this morning, the FDIC announced an important program to temporarily guarantee the senior debt of all FDIC-insured institutions and their holding companies, and all deposits in non-interest bearing transaction accounts. Along the same lines, the G-7 pledged in their action plan to "use all available tools to support systemically important financial institutions and prevent their failure." Guarantees that address counterparty risk head-on are obviously confidence boosting. There is a danger, however, that funds could shift in ways that would harm stability if the guarantees apply in some countries or financial sectors but not others. In light of this concern, it is constructive that the U.S. actions mirrored policies announced by other countries. Last week, the United Kingdom

pledged to guarantee bank debt, an initiative intended to jumpstart the near-frozen interbank market, and a similar step is included in the plan adopted Sunday by the governments of the euro-area countries.

With respect to impaired assets, experience reveals that programs to remove nonperforming loans from the balance sheets of financial institutions have proven helpful in resolving a number of earlier financial crises in both industrial and developing countries. Under the Emergency Economic Stabilization Act, the Treasury is formulating plans to purchase mortgage-related assets. Such purchases could reduce uncertainty about the valuation of financial institutions, which is a barrier to raising private capital. They may also succeed in restoring some liquidity in the secondary markets where there is now little trading activity. To the extent that the prices that the government pays through auctions exceed the fire-sale prices now used to value them, some institutions will see an improvement in their capital.

The third problem afflicting the financial sector—capital shortage—is critical. It is therefore extremely heartening that the governments of all countries involved in the crisis have announced immediate plans to inject capital into their financial systems. Among economists, there is a remarkable consensus on the importance of recapitalizing the financial sector. Moreover, it emerges as the clearest lesson learned from the global financial crises of recent decades. Adequate capital is a sine qua non for a sound financial institution and thus a prerequisite for the restoration of confidence in the financial system. Financial sector capital must also be augmented for the sector to be capable of meeting the economy's credit needs. To accomplish this key objective, the Treasury this morning announced a voluntary plan to make \$250 billion in capital

available to a wide array of U.S. banks and thrifts in the form of preferred stock. The authority for this equity purchase program was granted by Congress in the Emergency Economic Stabilization Act. The program has been designed to encourage financial institutions to raise additional capital in the private sector. This is a critical step toward financial stability.

Let me conclude by saying that the turmoil in global financial markets poses a serious and direct threat to the well-being of all citizens of the global economy. Although the challenges are daunting, I am encouraged that policymakers around the globe are now responding rapidly and forcefully to resolve the financial crisis. The global economic outlook depends on how well these policies succeed.

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