

Speech to the University of California San Diego Economics Roundtable
San Diego, California
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For delivery Monday, July 7, 2008, 8:00 AM Pacific, 11:00 AM Eastern

Risks and Prospects for the U.S. Economy¹

Good morning, everyone, and thank you for inviting me to meet with you. The topic of my talk today is the nation's economic outlook. I recently returned from a meeting of the Federal Open Market Committee, where we voted to leave our policy target, the federal funds rate, unchanged for the time being. The discussion around the table focused on three developments that for some time have been presenting serious challenges to the Federal Reserve in meeting its dual mandate of low and stable inflation and maximum sustainable employment and economic growth. These three developments, of course, are the housing slump, the financial market turmoil and ensuing credit crunch, and the surge in commodity prices, especially oil prices.

Today I'd like to give you my own perspective on these developments, focusing on where things stand now, their likely impact on the near-term outlook for economic activity and inflation, and their implications for monetary policy.

Before discussing the current economic situation—that is, where things stand now—let me set the stage by describing briefly how we got here. To get a little fanciful with the stage-setting metaphor for a moment, it is a bit like the opening of *Macbeth*, with the three ghastly witches brewing up trouble amid thunder and lightning—only here, the

¹ These remarks represent my own views and not necessarily those of my colleagues in the Federal Reserve System. I would like to thank the Economic Research staff for support in preparing these remarks, and in particular, John Fernald, Fred Furlong, Reuven Glick, Rob Valletta, and Judith Goff.

three troublemakers are the housing market, the financial markets, and commodity prices. The housing market has been declining for a few years now. For example, residential investment has fallen by more than a third, in inflation-adjusted terms, since the end of 2005. And house prices have tumbled—according to the various Case-Shiller home price indices, they are down some 15 to 20 percent over the past two years. For the first couple of years, the housing downturn appears to have had remarkably few spillovers to the rest of the economy in terms of curtailed spending. However, knock-on effects to the financial sector were brewing, for as house prices continued to fall, home mortgage delinquencies started to rise. Indeed, the subprime mortgage market, which took off after 2001 and ran strong through late 2005 largely on the expectation of continued home price appreciation, is now in shambles. After posting delinquency rates in the single digits in 2005, around 20 percent of subprime mortgages are currently delinquent or in foreclosure nationwide.

Last summer, it became clear that losses on subprime and other mortgages would be far higher than markets had anticipated. This realization contributed to a broad reappraisal of credit market risks, which sparked the severe, ongoing financial market crisis and credit crunch.

Meanwhile, prices for oil and other commodities have continued a breathtaking rise. The average retail gasoline price was about \$1.10/gallon at the beginning of 2002 and is now above \$4 a gallon. Food prices also spiked in early 2007.

Weighed down by these growing troubles, the economy slowed sharply starting in the fourth quarter of last year. Indeed, in the first quarter of this year, the growth rate of consumer spending slowed to its lowest pace since the 2001 recession, and business fixed

investment stalled. On the consumer side, falling home and equity values have eroded household wealth. Employment has fallen steadily since late last year, reducing disposable income. In addition, surging food and gas prices mean that the income people *have* gotten doesn't go as far. So it's not surprising that consumer sentiment has soured on the economy. On the business side, the slowdown in demand, the elevated levels of uncertainty,² and tight financing conditions have continued to weigh on investment.

In the face of these adverse developments, the recent strength of spending data has been somewhat reassuring. The pace of consumer spending, in particular, has been surprisingly robust of late, fueled in part by tax rebates. The spending appeared to be broad-based, with the not-so-surprising exception of motor vehicles, where sales have been very weak in recent months. On the business side, orders and shipments of nondefense capital goods excluding aircraft also look to have rebounded somewhat in recent months. In addition, export growth has been a continuing bright spot. It has been buoyed by continued strong growth abroad and by the weakening of the dollar. The strong incoming data on spending ease my concerns somewhat about the intensity of the slowdown. However, a few months of data don't make a trend, particularly because we can't be sure how large the effects of the roughly \$100 billion temporary tax rebate program have been. About \$50 billion of the rebates were sent out in May.

Inflation has become an increasing concern. Over the past twelve months, the personal consumption expenditures—or PCE—price index rose 3.1 percent, up from 2.4 percent over the prior year. An important reason for these disappointing numbers, of

² See Nick Bloom, "Will the credit crunch cause a recession?" CenterPiece, Spring 2008, pp. 20-23. <http://www.stanford.edu/~nbloom/CreditCrunch.pdf>.

course, is the rise in commodity prices. Some of those increases may have also passed through to core PCE price inflation, which excludes food and energy. This measure has averaged 2.1 percent over the past twelve months, which is slightly above the range that I consider consistent with price stability, but very close to its pace of increase over the last several years.

Let me say a few words on how conditions in San Diego compare with the national economy. The troubles in the housing and finance sectors have perhaps been even more severe than elsewhere, with the unemployment rate in the area rising about 2 percentage points since 2006—from a rate that was well below to a rate that is somewhat above the national average. Not everyone is affected equally, of course, either here or elsewhere. For example, San Diego arguably is the nation's leading center for biotechnology research and development, and activity in this sector has continued expanding strongly. Tourism is another important element of the local economy, and this sector also has been performing well—possibly reflecting, in part, an increase in foreign tourism spurred by the lower value of the dollar. The resulting job gains at restaurants and hotels, along with the associated income gains, have helped offset losses in other sectors. This view from San Diego highlights the point that, although the macroeconomic effects of the shocks hitting the economy are felt broadly, they are not felt evenly—either in San Diego or anywhere else.

Returning to the national outlook, the key questions looking forward are: when will economic activity get back to normal? And when will inflationary pressures moderate? The answers to these questions depend, to a great extent, on how conditions

in the housing, financial, and commodity markets evolve. Let me discuss each of them in turn, beginning with housing.

Housing

Changes in housing prices are inextricably linked to household wealth, which in turn affects consumer spending, as well as prospects for housing construction.

Unfortunately, it appears to me that there are at least three reasons for thinking that housing prices have further to fall. First, the ratio of house prices to rents—a kind of price-dividend ratio for housing—still remains quite high by historical standards, despite having fallen from its historical peak reached in early 2006. That suggests that further price declines may be needed to bring housing markets into balance. Second, inventories of unsold homes remain at elevated levels. This “excess supply” of available homes will put downward pressure on housing prices. Indeed, these inventories are likely to directly depress construction activity, since there is little point in building new homes when there is already a large backlog of unsold homes. Third, the futures market for house prices predicts further declines in a number of metropolitan areas this year. In particular, the Case-Shiller composite index for home prices shows a 15 to 20 percent year-over-year decline in the second half of this year. The bottom line is that construction spending and house prices seem likely to continue to fall well into 2009.

I would note that the housing market slowdown hit earlier and harder in San Diego than in most other parts of the state and the nation. Using the Case-Shiller index for San Diego, the cumulative decline from the 2006 peak is approaching 30 percent.

San Diego illustrates that the housing problems are not simply a consequence of too much subprime lending, since the growth in subprime mortgages during the housing boom was much more limited in the San Diego area than it was in the most highly exposed parts of California, Arizona, and Nevada. Nonetheless, mortgage delinquencies and home foreclosures in San Diego have grown noticeably over the past two years as prices have dropped. As with the rest of the country, it seems likely that further unpleasant adjustments in ownership and equity will be necessary before the housing market stabilizes.

Financial Markets

The ongoing fall in house prices has important implications for the financial markets, and it is one reason that we may continue to get troubling news from that part of the economy. As I mentioned, falling house prices and, in particular, their effects on the subprime market, helped trigger the financial market crisis last August. At that time, the Fed and other central banks took the first steps to pump substantial volumes of reserves into the system to respond to the surge in demand for liquidity. These and other further actions helped alleviate some of the stress in financial markets. But earlier this year, renewed stress culminated in the near failure of Bear Stearns in March. Again, the Fed took actions to avert the peril that such a failure could have posed for financial markets and the real economy. Since then, market stress has subsided to some degree, and better quality borrowers are still able to get credit. For example, investment-grade corporate bond issuance has been very strong in recent months, and Fannie Mae and Freddie Mac have been able to issue substantial quantities of mortgage-backed securities.

But markets remain very fragile. For example, credit-default-swap spreads for many financial institutions are again on the rise, the debt ratings for several important bond insurers have been cut, and stock prices for financial institutions have plummeted.

There is further evidence that financial markets are still not operating efficiently or effectively. In particular, the market for private-label securitized mortgages of even the highest quality remains moribund. These securities were the primary source of financing for nonconforming residential mortgages, including subprime lending. Outside of the expanded FHA lending, there is little or no lending to higher-risk residential mortgage borrowers. Jumbo mortgages for prime borrowers are available, but at historically high spreads over rates on conventional mortgages, as banks have been reluctant to make these loans.

Unfortunately, progress toward sturdier and more efficient financial markets is going to take some time, and that means the flow of credit is likely to remain impeded. Let me explain by using a plumbing metaphor. For one thing, it's going to take time to clear the pipes of the problem debt. The gyrations in the prices of a number of securities suggest that there are still hitches in the price discovery process. This may not be surprising given that there is still a good deal of uncertainty about the valuation of complex, nontransparent financial instruments. There also is considerable uncertainty about the extent of the ultimate losses and the exposure of different institutions. In the case of residential mortgages, where delinquency rates are still rising, the single most important determinant of performance has been the pace of house price changes.³ But no one is sure how much more house prices will fall, or how that will affect delinquency

³ FRBSF *2007 Annual Report* (2008)
<http://www.frbsf.org/publications/federalreserve/annual/2007/subprime.pdf>.

rates on mortgages. The considerable uncertainty has added to the difficulty of valuing the underlying mortgages and related asset-backed securities. Credit quality problems also are emerging outside residential mortgages. At commercial banks, for example, delinquencies are now rising almost across the board. Especially notable is the rise in delinquency rates on construction loans that is affecting even institutions that had steered clear of the subprime market.

Moreover, it is not just a matter of clearing the pipes of the problem debt. The plumbing itself needs to be redesigned and rebuilt. Indeed, to deal with some of the vulnerabilities laid bare by the turmoil over the past year requires some restructuring in parts of the financial market and the channels for allocating credit. Key areas of change include the originate-to-distribute model and securitization used to finance higher-risk mortgage debt, financial risk management, re-intermediation and deleveraging more generally, and regulation and oversight of financial markets.

Let me take these one at a time. First, securitization was a key driver of the credit expansion. Financial institutions originated loans that they then bundled into securities and sold to other investors. With hindsight, it is clear that this originate-to-distribute model suffered severe incentive problems—the originator had insufficient incentive to ensure the quality of the loans, since someone else ultimately held them. Conflicts of interest and moral hazard problems also are nested in the many other linkages in the securitization process.⁴ Before private-label mortgage securitization can recover, financial markets must design mechanisms to align the incentives of originators with the

⁴ See, Adam B. Ashcraft and Til Schuermann (2008), “Understanding the Securitization of Subprime Mortgage Credit.” *Federal Reserve Bank of New York Staff Reports*. no. 318, March 2008. http://www.newyorkfed.org/research/staff_reports/sr318.pdf

interests of the ultimate investors. Second, there was a widespread failure of risk management, both in terms of liquidity and credit risk. An important shortcoming in credit risk management was an excessive reliance on what turned out to be flawed assessments of risk by rating agencies of certain asset-backed securities. Investors, even large sophisticated financial institutions, did not take adequate steps to assess risk independently. The lack of transparency in the credit process and the complexity of many of the newer financial products did not help. Third, even with changes in contracting and financial modeling, the re-intermediation process and deleveraging more generally is likely to continue. Re-intermediation involves a larger share of financing held in the portfolios of institutions such as commercial banks and less by other investors holding securitized assets. The re-intermediation is part of deleveraging—that is less reliance on debt and more on equity financing—to the extent banks tend to hold more capital than other less regulated financial institutions. We also will likely see less leverage in financing more generally. That is certainly evidenced by the greater shares of equity required in leveraged buyouts, as the pendulum is swinging back from the leveraged financing run amok that we saw even as late as the first part of 2007. While these changes can improve the functioning of credit markets, they also likely will mean that the cost of credit will be higher going forward. Finally, policymakers are likely to revise the regulatory and supervisory environment in ways that will affect the structure, functioning, and oversight of financial markets, and that, too, will not be a speedy or simple process.

During the transition, financial institutions are struggling against forces that have expanded their balance sheets even as they have sought to deleverage. Borrowers have

tapped outstanding credit lines, institutions have booked leveraged loans that they couldn't sell, and banks have brought onto their books assets from off-balance-sheet funding conduits. The potential for further pressures on capital, along with institutions' lower tolerance for risk and concern about economic conditions, has resulted in banks tightening credit conditions for virtually all borrowers. In recent weeks, large banks have been cutting back on lending.

Going forward, the ability and willingness of commercial banks and other intermediaries to extend credit depends in part on their capacity to expand equity capital internally and externally. The encouraging news is that large commercial banks, investment banks, and mortgage specialists have, to some extent, been able to issue new equity capital and to rebuild capital positions that have come under pressure from a combination of losses and growth in assets.

The balance-sheet pressures, and broader financial market dislocations, are likely to be with us for some time. My expectation is that market functioning will improve markedly by 2009. But things could get worse before they get better. For example, home prices could fall more than markets expect, leading to larger losses for financial institutions and further impairing their ability to make new loans. The credit crunch could then lead to further declines in house prices. The resulting decline in household wealth could then further reduce spending, leading to additional knock-on effects. So an adverse feedback loop could develop, with consequences for both financial markets and economic activity.

Commodities

As if housing and a credit crunch weren't enough, prices for food and energy have gone through the roof. The spot price of West Texas intermediate crude oil has surged over 40 percent since January and over 100 percent in the last year, rising above \$140 per barrel in late June. Prices for other commodities, such as many metals and foods, have risen sharply as well. Corn and wheat prices are up some 50 to 80 percent from a year ago.

The debates about why commodity prices have surged are heard everywhere from the nightly newscasts to the halls of Congress. While I don't have a definitive answer myself, I do think it makes sense to start by looking carefully at the supply and demand fundamentals, and, to my mind, they do appear to play a central role. On the demand side, booming economic activity in developing countries has boosted their appetite for commodities. For example, since 2000, world demand for oil has increased by roughly 11 million barrels per day, with China accounting for roughly 30 percent of this increase, and other developing countries accounting for another 60 percent. In addition, ethanol production accounts for a substantial amount of the increased demand for corn.

On the supply side, there have been constraints. Oil production has become more expensive, major discoveries are increasingly difficult to find, and spare capacity to supply more oil in the short run has been declining. As a result, energy supplies have not kept pace with growing worldwide demand. In some crop markets, bad weather has reduced supply. For example, drought conditions have hampered wheat production in Australia, while excessive rainfall is affecting corn production here in the Midwest.

Neither supply nor demand for commodities adjusts quickly, so large price changes can occur in response to new information and other shocks to the market.

Recent volatility in oil prices appears to reflect a combination of news related to intensifying geopolitical concerns, falling inventories, and further deterioration in estimates of long-term supply.

There has been much discussion about speculative trading in commodities markets and its possible influence on recent price movements. Hedge funds, institutional investors, and other traders have certainly increased their positions in commodity markets, typically by investing in commodity index funds, which consist of baskets of different commodities that trade on exchanges. But I am not yet persuaded that speculation, rather than the fundamentals of global supply and demand, has played an important role in driving up prices. For example, it should be harder to speculate and take positions on commodities that are not easy to trade on futures markets and are not included in index funds. But the prices of individual commodities that are not in index funds have risen just as fast as those that are.

In addition, if speculators were important in driving prices up, then, at the high prices now prevailing, demand by nonspeculative end users would fall short of current supply, causing inventories to rise. In fact, however, inventories appear to have been declining in most commodity markets.

There is no dearth of stories about how rising prices for oil, food, and other commodities are hitting U.S. consumers and businesses. In the case of oil, we all feel the pain when we go to the gas pump. Businesses also buy gasoline and other products made from oil, so their costs go up as well. If rising commodity prices reflect supply and demand fundamentals, then the situation is not likely to turn around any time soon, and the consequence is that everyone is going to see that their dollar just doesn't stretch as far

anymore. In economists' terms, "real wages"—that is, dollar wages expressed in terms of the goods and services they can buy—will rise more slowly or even fall. There is little that monetary policy can do to prevent this.⁵

This is not a pleasant scenario, I grant you. Indeed, it raises the specter of the oil price shocks of the 1970s, when over and above the inflation and real wage cuts due to soaring energy costs, a more general inflation took hold, with wages and prices escalating throughout the economy. The story of how it happened goes roughly like this.⁶

Workers—reasonably enough—asked for wage increases to pay the higher costs of food and energy. Their employers—mainly firms outside the energy sector--were in the same tough position as their employees: their costs were rising to the extent that they used oil as an input in production; and the prices they were receiving for their products were, at least initially, rising no faster than before. But in spite of the fact that firms outside the energy sector were not well positioned to assent to faster wage increases, they granted them anyhow, figuring—reasonably enough, it turned out—that they could pass those costs on into higher prices for their goods. Why was this reasonable enough thinking by firms? Because both they and their competitors were all in the same unpleasant straits, and they did not believe that the Fed was willing or able to keep a lid on overall prices. The result was an upward wage-price spiral that led to double-digit inflation. That inflation ended only after a major recession that sent the unemployment rate over 10 percent. So we have learned from hard experience that, as unpleasant as lower real wages

⁵ At the margins, the Federal Reserve might have some effect on the relative price of oil to the extent that changes in interest rates affect the exchange rate. But the real value of the dollar has depreciated only modestly over the past year, while oil prices have doubled. For this reason, the price of a barrel of oil has risen sharply, whether valued in terms of a depreciating currency, like the dollar, or in terms of an appreciating currency, like the euro.

⁶ For one contemporaneous and more complete discussion of the inflation of the 1970s, see Alan Blinder, *Economic Policy and the Great Stagflation*, Academic Press (1979).

are, they are an unavoidable consequence of a fundamentals-driven rise in commodity prices. But the development of a wage-price spiral, due to a loss of credibility in the Fed's determination to suppress it, may have even more devastating consequences.

Outlook

Now I'd like to pull all of these threads together to give you my outlook for the economy. Activity has been weak since late last year, and, given the three shocks I've discussed, I expect the economy to grow only modestly for the remainder of the year, but to pick up next year. The earlier policy easing by the Federal Reserve will help cushion the economy from some of the effects of the shocks, and the fiscal stimulus program is helping at present. Over time, the drag from housing will wane and credit conditions should improve.

On the inflation front, the predominant problem so far has been soaring food and energy prices. Headline inflation is likely to remain much higher than I would like over the next few quarters. My best guess, which could easily be wrong, is that, consistent with futures prices, commodity prices will level off and cease to put direct upward pressure on headline inflation. Core inflation has been better contained, but has still been running a bit higher than I would like. In the next few quarters, I wouldn't be surprised if it runs modestly higher, as businesses pass some of their higher energy and transportation costs on to customers. By early next year, however, I expect that, assuming commodity prices level off, core as well as headline inflation will moderate, as more slack in labor and product markets emerges. .

Policy

Let me now turn to monetary policy. We're approaching a crossroads. The FOMC responded to the difficult economic conditions that emerged last year by easing monetary policy substantially. Between September and April, the Committee reduced the federal funds rate by 3¼ percentage points to its current rate of 2 percent. With core consumer inflation running at about the same rate, the real funds rate is now around zero. These cuts in the target rate, along with the actions to foster greater liquidity in financial markets, have mitigated the worst effects of the squeeze on spending. I am somewhat reassured by the recent data, which suggest that my biggest fears on the downside have, so far, been avoided. Of course, the underlying housing, credit, and commodity-price issues are far from fully resolved. My discussion of those issues makes clear that a lot of uncertainty surrounds my outlook. A lot could still go wrong.

But maximum sustainable employment is only one of our mandates. The other is low and stable inflation. In the wake of rapid increases in prices for gasoline and food, consumer survey measures of longer term inflation expectations have turned up. In contrast, other surveys, such as the Survey of Professional Forecasters, show little erosion in long-term inflation expectations. In addition, the anecdotes I hear are more consistent with credibility than with an upward wage-price spiral. In particular, my contacts uniformly report that they see no signs of general wage pressures.

On balance, I still see inflation expectations as reasonably well anchored and I anticipate that consumer survey measures will come down once oil and food prices stop rising. But the risks to inflation are likely not symmetric and they have definitely increased. We cannot and will not allow a wage-price spiral to develop.

As I began with a reference to Shakespeare, let me end with one as well: For monetary policymakers, “readiness is all.” By this I mean that, in the face of these competing risks, we will monitor developments carefully and be prepared to act as needed to fulfill our mandate for sustainable economic growth and price stability.

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