Presentation to a Salt Lake City Community Leaders Luncheon
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Update on the U.S Economy

Good afternoon. It's a pleasure to be here in Salt Lake City with you today. I'm delighted to have the opportunity to outline my thoughts on the U.S. economy and on monetary policy. I hope you'll have some comments and questions for me afterward. As President of the Federal Reserve Bank serving Utah and eight other Western states, it is my job to bring the economic insights and perspectives of business leaders in our region into deliberations at the policy table. So I am eager to know what issues and developments are particularly on your minds. Let me note, by the way, that my comments in these remarks and in the Q&A reflect my own opinions, not necessarily those of my colleagues in the Federal Reserve.

I'll start by addressing some major developments in the U.S. economy relating to employment and output growth. I'll review the recent past and indicate my sense of the economy's likely path going forward, focusing particularly on risks I see relating to energy and the housing sector. Next I'll turn to the inflation picture. Finally, I'll conclude with some thoughts on the course of monetary policy in the U.S.

Six weeks have now passed since Katrina and Rita delivered powerful blows to the U.S. Gulf Coast. Their consequences are by no means behind us and are shaping the near-term outlook in important ways. It goes without saying that the human tragedy has been enormous. According to a recent report, Louisiana alone attributes nearly a thousand deaths just to Katrina. The economic consequences for the region also are enormous. Millions of people were displaced, thousands of businesses and jobs were disrupted or destroyed, and the infrastructure took a severe beating. Hurricane Rita, of course, compounded the economic damage.

Staring into the face of such disasters, it is natural at first to want to use every tool at hand to try to help—which is precisely what the people of Utah did. I understand that Utahns mobilized immediately, sending volunteers to the stricken area and welcoming over five hundred evacuees to the state. The shelter that was put together so quickly at Camp Williams has been called a “mini-city,” with crucial services, like medical support and schooling, as well as those amenities—like hair salons and entertainment—that help give people a glimpse of “ordinary” life in such an extraordinary situation. I understand that now that Camp Williams is closed, apartments or hotels have been found for those who are staying in the area, and many of the children are registered in local schools. This open-handedness, this open-heartedness of the people here has, indeed, been a bright ray of light amid the dark despair that followed those storms.

As a policymaker, I, too, have been concerned about how best to help. As you know, at the September 20th meeting of the Federal Open Market Committee, the members voted to continue on the path of gradual tightening that began more than a year ago and increased the target federal funds rate by 25 basis points to 3.75 percent. This was a very conscious decision. It reflected a conviction, which I share, that monetary policy’s greatest contribution in a situation like this is in keeping the national economy on an even keel. Monetary policy, unfortunately, has little scope to cushion the immediate economic fallout because monetary actions can’t be directed only at a particular area of the country and because their effects take time to be felt. Instead, it's appropriate to use the tools of fiscal policy—especially government spending and transfers—to address the immediate crisis, and this process is, indeed, underway.

When Hurricane Katrina hit at the end of August, the economy was doing quite well. Over the preceding two and a half years, real GDP had grown steadily at, or above, its potential or long-run sustainable pace, which, due to continued robust structural productivity, is estimated at three to three and a quarter percent. In the second quarter, the latest for which we have data, real GDP performance was similar—that is, it grew by three and a quarter percent. With this stretch of near or above-trend growth in economic activity, slack in resource use has gradually, but steadily, diminished—that is, jobs have increased by more than enough to absorb a growing workforce. Unemployment has declined, and capacity utilization has risen. Indeed, the latest reading on unemployment before the storm was for August, and it came in at 4.9 percent, a number that's near conventional estimates consistent with so-called "full employment."

My medium-term outlook, before Katrina, was for growth averaging a pace sufficient to keep the economy operating in the vicinity of full employment, albeit with notable risks, particularly relating to energy prices and housing, two factors I will discuss in greater detail in just a moment. Evidence amassed since the storms suggests that the economy has been remarkably resilient and apt to remain on a solid track even though the storms will probably alter the near-term trajectory somewhat. The disruptions they caused will likely put a noticeable dent in overall growth of output and employment in the second half of this year, compared to earlier forecasts; indeed, in September, the unemployment rate rose by a couple of tenths of a percentage point to 5.1 percent, and most of this increase was probably due to the temporary effects of Katrina. For 2006, it seems likely that growth will pick up in the first half, as energy production comes fully back on line and rebuilding kicks in, and then will settle into a trend-like pattern in the second half.

Now to the two risks to output growth and employment that I mentioned—energy prices and housing. As I said, these were present even before Katrina struck. Over the two previous years, energy prices had surged worldwide, with the price of oil more than doubling and even spiking at one point to over $70 per barrel. The macroeconomic effect of higher energy prices is to dampen aggregate demand, as the additional amount that households are forced to spend for the same amount of gasoline, natural gas, heating oil, and so on, diminishes their ability to spend on other goods and services. Likewise, firms feel the bite in narrower profit margins which may crimp the amount they decide to spend on investment in plant and equipment.

The outlook for trend-like growth in output that I discussed earlier incorporates noticeable effects of the energy shock on household and business spending. However, there are inevitable uncertainties about the intensity of these effects. For example, the intensity depends importantly on whether the higher prices are viewed as transitory—a passing phenomenon—or as a more permanent feature of the economic landscape. If they are seen as largely transitory, then consumers and firms typically try to maintain something close to their usual level of spending while the higher prices last—perhaps by dipping into their reserves. If higher energy prices are expected to persist, however, a deeper and longer-lasting cutback in spending is more likely.

To gauge perceptions concerning the permanence of higher energy prices, the natural place to look is at futures prices. Even before Katrina, they suggested that higher prices may be here to stay. For example, during the run-up of spot oil prices over the past year and a half, far-dated futures prices rose sharply. Most likely, these futures prices reflected the sense that global demand for oil would remain strong in an environment where there is little excess supply available and where geopolitical uncertainty creates risks to existing supplies.

With first Katrina and then Rita slamming into the Gulf Coast, the energy situation naturally has become even more of a concern, since that area has such an extensive drilling, refining, and distribution infrastructure. For example, offshore crude oil and natural gas production in the Gulf of Mexico accounts for approximately 29 percent and 20 percent, respectively, of total U.S. production levels. Importantly, Gulf Coast refineries account for a whopping 47 percent of total U.S. refining capacity. The latest reports indicate that some of the energy infrastructure of the Gulf has been restored, but progress has been slower than originally expected. Roughly 65 percent of offshore oil and 56 percent of offshore gas production in the Gulf still remains shut in, and about ten percent of U.S. refinery capacity is off line. Energy prices have been quite volatile. At this point, retail gasoline and natural gas prices remain well above pre-Katrina levels, while oil prices and wholesale gasoline prices have actually fallen below those prevailing before the hurricanes.

Early signs suggest that spending is holding up reasonably well in the wake of higher energy prices, although consumer confidence dropped substantially after the storms. It will obviously be important to monitor consumer spending carefully in the months ahead, as higher energy prices show up in winter heating and electricity bills.

In addition to the uncertainties raised by higher energy prices, there are downside risks to economic growth relating to the housing market. This sector has been a key source of strength in the current expansion, and the concern is that, if house prices fell, the negative impact on household wealth could lead to a pullback in consumer spending. Certainly, analyses do indicate that house prices are abnormally high—that there is a "bubble" element, even accounting for factors that would support high house prices, such as low mortgage interest rates. So a reversal is certainly a possibility. Moreover, even the portion of house prices that *is* explained by low mortgage rates is at risk. There is a controversy about just why the rates have stayed so low. Over the past year, the Fed has raised the federal funds rate significantly. Normally, long-term interest rates also rise with increases in the expected path for the federal funds rate. But, long-term rates—such as those on 30-year fixed rate mortgages—have actually fallen over the period. This is what Chairman Greenspan has labelled a conundrum because there seems to be no convincing explanation for it. So, we can't rule out the possibility that they would rise to a more normal relationship with short-term rates. This obviously might take some of the "oomph" out of the housing market. My bottom line is that while I'm certainly not predicting anything about future house price movements, I think it's obvious that a substantial cooling off of the housing sector represents a downside risk to the outlook for growth.

My focus thus far has been on developments that relate to the Fed's objective of keeping the economy growing and operating in the vicinity of full employment.

However, like central banks worldwide, the Federal Reserve is also keenly focused on maintaining price stability. In my judgment, inflation has been relatively well-contained and essentially compatible with the Fed's price stability objective, although rapid increases in energy prices over the past year have boosted headline CPI inflation to a whopping 4.7% over the last twelve months, a level not seen since 1991. Abstracting from volatile food and energy prices, however, core consumer price inflation, as measured by the CPI, registered a moderate 2.1 percent over the 12 months ending in September. A second key index of core consumer prices, the core PCE, or personal consumption expenditures index, also rose 2 percent over the 12 months ending in August. There is an anomaly here because the PCE price index typically rises about 0.5 percent less rapidly than the core CPI measure, and the aberrant difference between the two measures places inflation over the past 12 months, based on the core PCE, near the top of my comfort range. In contrast, over the past six months, core inflation has been more modest. The core PCE was up 1.6% at an annual rate in the six months ending in August—which is right near the middle of my preferred range. Core CPI inflation has been well behaved as well.

The question for policy, of course, concerns the future, not the past. Increases in energy prices, exacerbated by events in the Gulf Coast, are likely to continue boosting headline inflation. And a key question is whether higher energy prices also will elevate core inflation. In part, this depends on whether businesses are able to pass through higher energy and material prices or instead are forced to absorb them into the bottom line. Many of our contacts report that keen competition, coupled with healthy profit margins, is limiting their ability to pass these costs along. To the extent that there is some pass-through, however, core inflation could be higher, for a time. Even so, any boost in core inflation should prove transitory if energy prices stabilize unless—and it's a big unless—these developments impact wage and salary developments in a broad-based way. Those of you who lived through the 1970s will remember that higher oil prices touched off a wage-price spiral that pushed inflation into double-digit territory. At this stage, wage and salary growth seems quite well-contained, and I see no evidence of feedbacks from energy prices to wage bargaining. The risk, though, is that, without appropriate policy, we could see a repetition of the 70's type dynamic.

Naturally, much research has gone into analyzing what happened during the 1970s, and I'm glad to report that there are major differences between now and then. One of the key findings concerns the role that inflation expectations play in generating the wage-price spiral. To sum up a great deal of research very briefly, the idea is that inflation expectations are like self-fulfilling prophecies. If people expect higher inflation, they will behave in the marketplace in ways that will actually generate higher inflation; for example, they will rush to make purchases thinking that tomorrow's price will be higher than today's. And, higher expected inflation will tend to be built into wage bargaining, which raises costs to businesses that, in turn, may get built into the prices of their products. Unwinding the inflationary spiral is no easy task. In the early 1980s, the Fed did it by slamming hard on the brakes. The costs of this action were high—the economy went through a double-dip recession, and the unemployment rate hit 10 percent in 1982. Since then, the Fed has continued to work to lower the inflation rate with considerable success. As a result, it appears that the public expects inflation to remain in a low range—as economists express it, inflation expectations have become "well anchored" to price stability.

What's the evidence on people's inflation expectations? One source of information comes from responses to surveys about inflation expectations. A recent survey taken by the University of Michigan recorded a large jump in inflation expectations over the next twelve months, and a smaller increase in longer-term expectations. But I would not read too much into this, since the short-term survey results reflect recent energy price developments, and they also account for at least part of the uptick in longer-term expectations.

An alternative source of information on inflation expectations comes from analyses using a financial instrument that is called TIPS for short. This stands for Treasury Inflation-Protected Security, a class of government debt obligation that was first issued in 1997. The key feature of TIPS is that the payments to investors adjust automatically to compensate for the actual change in the CPI. Conventional Treasury securities, in contrast, do not provide such protection, so investors in those securities protect *themselves* by demanding nominal interest rates that compensate them for expected inflation as well as for bearing the risk that actual inflation could turn out to differ from their expectations. In principle, having information from both types of Treasury securities allows researchers to separate out the inflation compensation component embedded in nominal interest rates, and this provides a rough proxy for inflation expectations.[1]

[1] For more on TIPS, see "Inflation Expectations: How the Market Speaks," by Simon Kwan, *FRBSF Economic Letter* 2005-25.

Using this kind of analysis, we can obtain an estimate of inflation compensation over various time horizons. Not surprisingly, compensation for average inflation over the next five years has risen as energy prices have surged. However, it is notable that longer-term inflation expectations—those covering the period from five years ahead to ten years ahead—appear to have declined by half a percentage point since the Fed began tightening policy. This development supports the view that the public has confidence in the FOMC's commitment to price stability, even in the face of a large energy price shock. However, the Federal Reserve cannot take it for granted that inflation expectations will remain well-contained. Rather, it is the job of a central bank to earn, through its actions, the public's confidence in its commitment to price stability.

This brings me to a discussion of recent Fed actions. Over the past sixteen months, with the U.S. economy growing slightly above trend and unemployment gradually declining toward normal levels, the Federal Open Market Committee has been lifting its foot off the monetary accelerator at a measured pace--bit by bit. We've been gradually removing the policy accommodation that had been put in place during the 2001 recession and then held there during the slow recovery when there was even a risk of deflation. The objective of these policy actions has been to position the economy on a trajectory characterized by "full employment" and price stability—the two main policy goals articulated in the Federal Reserve Act. As slack in labor markets is absorbed, real output growth must converge toward a sustainable long-run pace for inflation to remain under control. This, in turn, requires that monetary policy revert to a so-called "neutral" stance.

After eleven 25-basis point upward moves since June 2004, the federal funds rate now stands at 3.75 percent, so the question of exactly what constitutes a neutral stance has become more compelling. Conceptually, policy can be deemed "neutral" when the federal funds rate reaches a level that is consistent with full employment of labor and capital resources over the intermediate run. The value of this rate depends on the strength of spending—that is, the aggregate demand for U.S. produced goods and services. Aggregate demand, in turn, depends on a number of factors. These include fiscal policy; the pace of growth in our main trading partners; movements in asset prices, such as stocks and housing, that influence the propensity of households to save and spend; the slope of the yield curve, which determines the levels of long-term interest rates associated with any given value of the federal funds rate; and the pace of technological change, which influences investment spending. The neutral value of the federal funds rate also depends on, and rises roughly in tandem with, inflation itself, because it is mainly inflation-adjusted, or real, not nominal interest rates, that influence spending.

The neutral rate is easy to define conceptually, but it's difficult to know in practice when we're there, because estimates of the neutral rate are highly uncertain and the factors influencing that rate can change over time.[2] That said, a number of different techniques can be used to estimate the neutral rate and, based on such estimates, I consider it reasonable to put the current neutral rate in the range of 3-1/2 to 5-1/2 percent. At 3-3/4 percent, the current federal funds rate is toward the lower end of this band. This suggests a presumption that the rate will need to be raised further. Indeed, financial markets now appear to expect the funds rate to peak at about 4½ percent—in the middle

[2] "Estimating the 'Neutral' Real Interest Rate in Real Time," by Tao Wu, *FRBSF Economic Letter* 2005-27 [Forthcoming].

of this neutral range. Again though, I want to emphasize that there is no way to know precisely what the neutral stance is.

To my mind this means that, as the federal funds rate target nears a reasonable estimate of the neutral rate, monetary policy must become more and more dependent on incoming data relating to the strength of aggregate spending. It is equally important, of course, to monitor developments relating to inflation, because the very notion that a neutral policy stance is appropriate is premised on the assumption that inflation is and will remain well-contained in a zone corresponding to price stability.

The ideal trajectory for the economy and the funds rate that I have described remains a plausible, even probable, scenario. At its September meeting, the risks engendered by Hurricane Katrina were very much on the minds of Committee members. Sharp jumps in energy prices always put U.S. monetary policy on the horns of a dilemma. On one side, the negative impact on spending tends to damp economic activity, which calls for a more accommodative policy, although in this case, the rebuilding effort will provide an important offset. On the other side, higher energy prices add to inflationary pressures, potentially calling for a tighter policy. Although the effects of Katrina and Rita will remain uncertain for some time and the storms may alter the pattern of growth over the next year or so, it seems likely that economy will prove resilient in the medium term. With long-term inflation expectations still well-contained, the prospects for core inflation over the medium term also, to my mind, look favorable. It thus made sense to me to continue the gradual removal of policy accommodation.

Going forward, it will be necessary to continue to monitor developments closely and weigh options carefully. As I noted, the data dependence of policy becomes more critical the closer we get to a neutral stance. One option that is clearly not on the table is allowing an unacceptable rise in inflation. It has taken many years of consistent performance for the Federal Reserve to earn the public's confidence in its commitment to price stability, and this consistency of purpose remains essential.

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