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The U.S Economy and Monetary Policy

It's a pleasure and an honor to speak to you today, and I thank you for the kind invitation. Indeed, I'm always eager to accept invitations to speak in London, because it was my home many years ago, when I was on the faculty of the London School of Economics. I came to know and love the city then, and I'm always happy to return.

My main topics today are the U.S. economy and the Federal Open Market Committee's conduct of monetary policy. I'd like to start with conditions in the U.S. economy, including output growth and employment as well as inflation. I'll review the recent past and indicate my sense of the likely path going forward, along with some of the risks that I see—especially energy and house prices, concerns that our two countries share in common. I'll conclude with some thoughts on the course of monetary policy in the U.S.

Obviously, at the forefront of everyone's mind are the two huge hurricanes that recently struck the U.S. Gulf Coast. The human tragedy following Katrina is enormous. I know the nation is grateful for the outpouring of sympathy and tangible support from the rest of the world, not the least of which is your own country's offer of food, expert personnel, and search-and-rescue gear. We all mourn the loss of life, and we are working to alleviate the dire conditions for many of the survivors. The economic consequences for the region, of course, also are enormous. Katrina displaced millions of people, disrupted or destroyed thousands of businesses and jobs, and wrought severe damage on much of the infrastructure. Hurricane Rita, of course, has compounded the economic damage, however, early reports indicate little lasting effect on energy production, refining, and distribution.

Staring into the face of such disasters, it is natural at first to want to use every tool at hand to try to help, including monetary policy. However, it seems clear that where monetary policy can make its greatest contribution 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.

When Hurricane Katrina hit at the end of August, the economy was actually doing reasonably well. Over the preceding two and a half years, real GDP had grown steadily at, or above, its long-run sustainable pace, which, based on continued robust structural productivity, is estimated at three to three and a quarter percent. And in the second quarter, the latest for which we have data, the preliminary estimate looks similar—that is, real GDP 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 grown and capacity utilization has risen. According to the latest data, which are for August, and therefore before the

storm, the U.S. unemployment rate was at 4.9 percent, a number that's near conventional estimates consistent with so-called "full employment."

As this scenario has unfolded—above-trend growth and diminishing slack—the FOMC has been able to lift its foot off the accelerator bit by bit, 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 a risk of deflation. At each of its last 11 meetings—including the one last week—the Committee raised the federal funds rate by a quarter of a percentage point, bringing it to three and three-quarters percent today.

The goal of these policy actions, of course, is to establish a solid trajectory for the economy going forward. As slack in labor markets is absorbed, real output growth must converge toward its potential rate for inflation to remain under control, which, in turn, requires that monetary policy reach a so-called "neutral" stance. Such a trajectory still remains a plausible, even probable, scenario. However, looking ahead I'd say there are a number of uncertainties and risks that could complicate things considerably, and these were evident even before the havoc unleashed by Hurricane Katrina.

Heading my list of risks to the economy in both the near and medium-term is energy prices. In the two years before Katrina struck, 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 dollars people spend for the same amount of gasoline, natural gas, heating oil, and so on, take away from their spending on other goods and services. Likewise, firms feel the bite in terms of their profit margins or the dollars they would have spent on investment in plant and equipment.

The intensity of this dampening effect 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 transitory, then consumers and firms will tend 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 the perception of 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. During the run-up of spot prices over the past year and a half, far-dated oil 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 severe, 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 19 percent, respectively, of total U.S. production levels. Importantly, Gulf Coast refineries account for a whopping 47 percent of total U.S. refining capacity. While futures prices gyrated a lot around the time both hurricanes struck, since then, they've settled back to roughly their pre-hurricane levels.

Before Hurricane Katrina, the outlook was for very strong growth in the second half of this year, with a return to trend-like growth in 2006. Indeed, a concern at the time was that the

economy's momentum was sufficiently strong that it might overshoot full employment, adding to inflationary pressures. The damage and destruction from the hurricanes have significantly raised uncertainties about the outlook through three main channels. One is the immediate and direct effects on businesses and jobs in the Gulf Coast region; the second is the longer-term effects of higher energy prices on consumer and business spending throughout the nation; the third is the spending devoted to rebuilding the affected area

The direct effects will alter the near-term trajectory of the national economy. These disruptions seem very likely to put a noticeable dent in overall U.S. growth in the second half, which will only be partly offset by increased government spending for reconstruction. Most estimates of the size of the dent run around half a percent, and that seems about right to me. This suggests that growth in the second half may be only modestly above the potential rate.

Turning to 2006, it seems likely that growth will rebound as energy production comes fully back on line and rebuilding kicks in. However, the magnitude of the rebound is highly uncertain, with considerable risks on both the upside and downside. Estimates of the extent of spending are escalating, and the recovery and bounce-back—fueled by massive fiscal stimulus—could propel the U.S. economy on an unsustainable upward trajectory. Alternatively, the recovery could proceed less quickly and less vigorously than one might hope over the next few months. Even before Rita, the pace of restarting closed oil and natural gas platforms and rigs in the Gulf of Mexico damaged by Katrina had leveled off, and the prognosis for restarting the remaining closed facilities, as well as refineries and natural gas treatment plants, remained in question. It is too soon to say which of these risks might materialize. Some reports say the recovery in oil and natural gas production and in oil refining is moving ahead faster than expected. At the same time, facilities in the region are still operating well below capacity.

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Turning to inflation, the data on core price inflation covering the months before Katrina were encouraging. Despite rapid increases in energy prices, prices for core personal consumption expenditures rose at only a 1-1/2 percent rate over the six months through July, right in the middle of my preferred range. Core CPI inflation has been well behaved as well. Of course, six months of data do not make a trend, and forthcoming data bear continued close scrutiny, but what I've seen so far gives me some reassurance that unacceptably high inflation remains just a risk, not the most likely outcome.

Another encouraging development is that labor compensation is still growing at a modest pace. This suggests that at least some slack remains in labor markets, a good sign for inflation going forward. Labor compensation growth, as measured by the Employment Cost Index and measures of wages and salaries drawn from the employment surveys, remains remarkably subdued. An alternative index of compensation growth that includes bonuses and stock options, from the Productivity and Cost report, indicates an elevated rate of growth in compensation per hour over the past year, but my sense is that this may be more an outlier than a strong signal of tight labor markets and wage pressure.

Events in the Gulf Coast obviously will tend to push up headline inflation through higher energy prices. An important question concerns the extent to which higher energy prices will work their way into core inflation—that is, excluding energy and food prices. There is a chance that core inflation may be raised for a time, as a part of the rise in energy prices gets passed through to other goods and services. However, a more persistent increase in inflation, such as

was witnessed during the 1970s, seems unlikely as long as inflation expectations remain well contained.

During the 1970s, higher oil prices touched off a wage-price spiral which was costly to unwind. In contrast, U.S. experience since the early 1980s reveals no evidence of passthrough from real energy prices to core inflation. The crucial difference seems to be that, during the 1970s, the public's inflation expectations became unmoored from price stability, whereas, since the early 1980s, they have been well-anchored. Evidence comes from the relative stability of longer-term inflation expectations as derived from the market for inflation-protected Treasury securities this year, even as oil prices surged. This stability supports the view that the public has confidence in the FOMC's commitment to price stability. A recent consumer confidence survey recorded a worrisome jump in inflation expectations, but I would not read too much into this, since the survey was conducted so soon after Katrina.

Given these considerations, I wouldn't be surprised to see core PCE inflation actually fall a bit over the next two years and to see the longer-run trend settle in near the center of my 1 to 2 percent comfort zone. 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.

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In addition to energy prices, the huge and unsustainable current account deficit and the budget deficit pose longer-term risks to the U.S. economic outlook. Indeed, the latter is even more of an issue now, with the massive rebuilding plans for the Gulf Coast. But I want to focus my remarks today on another longer-term issue, namely, the housing market, as this is a situation that has also been a concern in the U.K.

The share of residential investment in GDP is now at its highest level in decades, and this sector has been a key source of strength in the current expansion. The question is: will this source of strength reverse course and become instead a source of weakness? Put more bluntly: Is there a house-price "bubble" that might collapse, and if so, what would that mean for the U.S. economy? To answer this question, let me begin by clarifying what I mean by the term "bubble." A bubble does not just mean that prices are rising rapidly—it's more complicated than that. Instead, a bubble means that the price of an asset—in this case, housing—is significantly higher than its fundamental value.

One common way of thinking about housing's fundamental value is to consider the ratio of housing prices to rents. The price-to-rent ratio is equivalent to the price-to-dividend ratio for stocks. In the case of housing, rents reflect the flow of benefits obtained from housing assets—either the monetary return from rental property, or the value of living in owner-occupied housing. Historically, the ratio for the U.S. has had many ups and downs, but over time it has tended to return to its long-run average. In other words, when the price-to-rent ratio is high, housing prices tend to grow more slowly or fall for a time, and when the ratio is low, prices tend to rise more rapidly. I want to emphasize, though, that this is a loose relationship that can be counted on only for rough guidance rather than a precise reading.

Currently, the ratio for the U.S. is higher than at any time since data became available in 1970—about 25 percent above its long-run average. Of course, the results vary widely from place to place in the U.S. and in different countries. For Los Angeles and San Francisco, the

price-to-rent ratio is about 40 percent higher than the normal level, while for Cleveland the ratio is very near its historical average. For the U.K., the ratio is more than double its long-run average, whereas in Japan it's only about three-quarters of its normal level.¹

Higher than normal ratios do not necessarily prove that there's a house-price bubble. House prices could be high for some good, fundamental reasons. For example, in the U.S. recent changes in tax laws may be having an effect. In 1998, tax rates on capital gains were lowered and the exemption from capital gains taxation for housing was raised to \$500,000. Both of these changes would reduce the potential tax bite from selling one home and buying another. Another development, which may be making housing more like an investment vehicle in the U.S., is that it's now easier and cheaper to get at the equity—either through refinancing, which has become a less costly process, or through an equity line of credit. Both of these innovations in mortgage markets make the funds invested in houses more liquid.

Probably the most obvious candidate for a fundamental factor—in the U.S. and in the U.K. —is low mortgage interest rates. But in the U.S. this phenomenon raises some issues of its own because there is a controversy about just why the rates have stayed so low. As I've said, 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.

While the fundamentals I've mentioned do play a role, the consensus seems to be that much of the unusually high price-to-rent ratio for housing remains unexplained. Moreover, with controversy over exactly why long-term interest rates have remained so low, we can't rule out the possibility that they would rise to a more normal relationship with short-term rates, and this obviously might take some of the "oomph" out of the housing market. So, while I'm certainly not predicting anything about future house price movements, I think it's obvious that the housing sector represents a risk to the U.S. outlook.

This brings me to the debate about how monetary policy should react to unusually high prices of houses—or other assets, for that matter. I know you're all familiar with the issues, as they have been in the public spotlight here in the United Kingdom for some time. But let me frame them briefly. As a starting point, the issue is *not* whether policy should react at all; I believe there is quite general agreement that policy *should* be calibrated to the wealth effects of house prices on output and inflation. The debate lies in determining when, if ever, policy should be focused on deflating the asset price bubble itself.²

In my view, the weight of a decision to deflate an asset price bubble rests on positive answers to three questions. First, if the bubble were to collapse on its own, would the effect on the economy be exceedingly large? Second, is it unlikely that the Fed could mitigate the consequences? Third, is monetary policy the best tool to use to deflate a house-price bubble?

My answers to these questions in the shortest possible form are, "no," "no," and "no." In the most thorough possible form, my answers might take a few hours, and would give full play to the many gray areas that are involved. Since the short answer is not satisfactory and the thorough one overwhelms our time limits, I will compromise and give just a brief explanation for my trio of "nos."

In answer to the first question on the size of the effect, it could be large enough to feel like a good-sized bump in the road, but the economy would likely be able to absorb the shock.. For example, a reversion to the long-run price-rent ratio would appear to represent a shock that is only about half the size of U.S. stock market collapse in 2000 and 2001.

In answer to the second question on timing, the spending slowdown that would ensue is likely to kick in gradually, because it mainly affects household wealth. That would give the Fed time to cushion the impact with an easier policy.

In answer to the third question on whether monetary policy is the best tool to deflate a house-price bubble, there are several points to consider. For one thing, no one can predict exactly how much tightening would be needed, or by exactly how much the bubble should be reduced. Beyond that, a tighter policy to deflate a housing bubble could impose substantial costs on other sectors of the economy that would lead to equally unwelcome imbalances. Finally, it's possible that other strategies, such as tighter supervision or changes in financial regulation, would not only be more tailored to the problem, but also less costly to the economy.

Taking all of these points into consideration, it seems that the arguments against trying to deflate a bubble outweigh those in favor of it. So, my bottom line is that monetary policy should react to rising prices for houses or other assets only insofar as they affect the central bank's goal variables—output, employment, and inflation. But let me stress that the debate surrounding these issues is still very much alive.

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I'd like to wrap up with a few thoughts on U.S. monetary policy, and particularly on last week's policy meeting. Of course, the risks engendered by Hurricane Katrina were very much on our minds and added to an already challenging situation. Higher energy prices put U.S. monetary policy on the horns of a dilemma. On one side, the negative impact of higher energy prices on spending tends to damp economic activity, which calls for a more accommodative policy, although in this case, the rebuilding effort will provide some offset. On the other side, it adds to inflationary pressures, which calls for a tighter policy.

Although the effects of Katrina and Rita will remain uncertain for some time, it appears that the most likely outcome is a significant dip in growth in this quarter and the next, stemming both from the direct loss of activity in the Gulf Coast region and the rise in energy prices, followed by a rebound in the first half of next year as the region rebuilds. Given this best guess, it made sense to me to continue the gradual removal of policy accommodation. So, for the eleventh straight meeting, the Committee voted to increase the federal funds rate by 25 basis points.

Going forward, the Committee will certainly continue to monitor developments closely and weigh the options carefully. 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. As William Pitt, the Elder, once said, "Confidence is a plant of slow growth." I would add that it is also a plant that needs constant nurturing; in other words, to maintain its credibility, the Federal Reserve must deliver—again and again—on its commitment to price stability.

¹ *Erratum* (posted November 7, 2005). The statement about the U.S. data beginning in 1970 is correct as it stands. The table below clarifies and corrects the estimates cited. Note that differences in the numbers do not alter the overall import of the paragraph.

Price-to-rent ratios

	<u>Sample length</u>	<u>% difference from long-run average</u>	<u>% by which house prices would have to change to return ratio to its long-run average, holding other things equal</u>
U.S.	1982.4-2005.2	38	-28
S.F.	1982.4-2005.2	79	-44
L.A.	1982.4-2005.2	74	-42
Cleveland	1982.4-2005.2	22	-18
U.K.	1982.2-2004.2	59	-37
Japan	1982.2-2004.2	-28	+39

Sources: U.S. 1970-2004: repeat transactions price indexes from OFHEO and Freddie Mac, and tenants' rent index from CPI; see also Joshua Gallin, "The Long-Run Relationship between House Prices and Rents," Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series #2004-50 (<http://www.federalreserve.gov/pubs/feds/2004/200450/200450abs.html>). Other U.S. and MSAs: house prices from OFHEO; rents from the BLS. U.K.: property prices are All Dwellings Price Index from U.K. Department of Environment; rents from CPI. Japan: house prices are Nationwide Residential Land Price Index from Japan Real Estate Institute; rents are from CPI.

² For a fuller discussion of these issues, see Glenn D. Rudebusch, "Monetary Policy and Asset Price Bubbles," *FRBSF Economic Letter* 2005-18 (August 5, 2005).
<http://www.frbsf.org/publications/economics/letter/2005/el2005-18.html>