Speech before an Australian Business Economists luncheon
Sydney, Australia via satellite link from San Francisco
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The U.S Economy in 2006

Greetings, and many thanks for inviting me to join you today—or, perhaps I should say "tomorrow," since it's only Wednesday, March 15, for me. In my remarks, I will focus on the U.S. economy, and I'll organize my comments around three broad topics. The first is employment and output growth. The second is inflation. My third and last topic is the conduct of monetary policy.

In preparing for this talk, I took a quick look at the online edition of the *Sydney Morning Herald*—just to see if anything might jump off the page as particularly relevant to this discussion. In fact, something did jump off the page. It was a story on March 4 about Mardi Gras in New Orleans, where the city is still recovering from the devastation following Hurricanes Katrina and Rita.[1] I found it especially interesting that the story was the fifth "most viewed" article that day, indicating the ongoing concern Australians feel for the people in that beleaguered area—let me add that I also found that gratifying.

This story is relevant to my remarks today, of course, because of the effects that the hurricanes had on the U.S. economy last year, and because of their reverberations this year. As the newspaper story indicated, the loss and disruption of life, livelihoods, and property in New Orleans, and, indeed, in other parts of the Gulf Coast region, have been tragic. More threatening for the health of the national economy, of course, was the severe

[1] "A river runs through it, into a gulf of misfortune," by Michael Gawenda, *Sydney Morning Herald*, March 4, 2006. http://www.smh.com.au/news/world/a-river-runs-through-it-into-a-gulf-of-misfortune/2006/03/03/1141191849875.html

beating that the infrastructure took—most notably the infrastructure for energy. The timing was particularly unfortunate, because, for the preceding year and a half, energy prices had surged worldwide. So there were concerns that the damage to the Gulf's energy infrastructure might lead to a sustained hike in energy prices over and above those already high prices. Indeed, energy prices *did* spike after the storms, but then they retreated fairly quickly. So, at this point, the prices of oil, gasoline, and natural gas are actually *lower* than they were before the storms, though they are still a good deal higher than they were before the worldwide surge.

Overall, the economy has shown considerable resilience in the face of the direct effects of the hurricanes and the energy price shock. When the storms hit at the end of August, economic activity had been quite robust for several years, supported by monetary accommodation and strong productivity growth. Real GDP had grown steadily at, or above, its potential or long-run sustainable pace, which is estimated at around three and a quarter percent. This pattern continued even during the third quarter—immediately following the hurricanes—when real GDP grew by just over four percent.

In the fourth quarter, growth *did* drop sharply to about 1 ½ percent. However, a good deal of this slowdown appears to have been due to several temporary factors, none of which were related to the hurricanes. These included unusually harsh winter weather which held back retail activity, delays in some federal defense purchases which were moved from the end of last year into the first quarter of this year, and a dip in auto production.

As for the current quarter, the monthly data so far show significant strength in activity following the earlier weak quarter. The key issue is the extent to which this strength represents the pay-back from the temporary factors that restrained growth in the fourth quarter or whether it is driven by more fundamental factors that would be longer-lasting. At present, we don't have enough information to know for sure, and we will be watching the data with the utmost interest to see how this turns out.

My best guess is that a good part of this strength *is* the flip-side of the factors that made the economy weak in the fourth quarter, and therefore should not be extrapolated to subsequent quarters. Therefore, it seems likely that growth will settle back to a trend-like pattern as the year progresses. One likely contributing factor is the winding down of the rebuilding effort later in the year. Another is the lagged effect of monetary policy tightening; in other words, tighter financial conditions will have a dampening impact on interest-sensitive sectors, such as consumer durables, housing, and business investment.

What could punch a hole in this forecast? Let me focus on a few things in particular. One would be a serious retrenchment in house prices, which have soared in the U.S. during the past decade. I know that you have had some experience with housing booms as well. Starting in the mid-1990s, average house prices rose rapidly in Australia, but since 2003 they have been about flat and have had some effect in slowing consumer spending and borrowing. A risk to the U.S. forecast would come from a significant reversal of the boom in house prices, which *could* have a very restrictive impact, especially through negative wealth effects. However, so far, I'd say that we've only seen early signs of a cooling off in U.S. housing markets. While residential construction has held up pretty well so far, the data for new homes—a good indicator of current market conditions—show that sales have dropped off and that the median selling price is down modestly since last fall, although both still remain at relatively high levels. Looking ahead, the ratio of new houses for sale to those sold—a kind of inventory-to-sales ratio for homes—has risen rather sharply since the summer, suggesting that other signs of cooling in the housing market may become more evident.

Second is another issue related to the housing market—the so-called "bond rate conundrum," wherein long-term interest rates are unusually low relative to short-term rates. There are various theories about why the risk premium on bonds is so low, but, frankly, it remains a conundrum. If risk premiums rose to more historically normal levels, this would obviously have negative implications not only for housing markets, but also for long-term business investment.

The third thing that might upset the forecast is a further sustained surge in energy prices. If these prices stay at their current levels, any negative effect they might have should dissipate over 2006, and as that happens, it would actually contribute to higher overall economic growth. However, energy markets are highly susceptible to shocks from political and other developments—I need only mention Nigeria and Iran to illustrate the point in the current environment. So this factor remains, as always, a wild card in the outlook.

Indeed, not only is there uncertainty about where energy prices will go in the future, but there also is a good deal of uncertainty about how much of an effect a further change in energy prices would have. This uncertainty has been heightened by the strength of consumer and business spending in the face of the surge in energy prices that started over two years ago. Of course, it's possible that higher energy prices *have* had a negative impact on spending, which has been offset by other stimuli, such as rising home prices. This remains an open issue.

Turning to labor markets, as the economy has strengthened in recent years, slack in these markets has gradually, but steadily, diminished—for example, jobs have increased by more than enough to absorb a growing workforce, and the unemployment rate has declined. Indeed, for February, unemployment came in at 4.8 percent, a number that's slightly below conventional estimates consistent with so-called "full employment."

And that brings me to the inflation situation. Specifically, this relatively low unemployment number raises the question of whether the economy has already gone a bit beyond full employment. If it has, then, with real GDP growth expected to exceed its potential rate in the first half of this year, the strain on resources could build further, intensifying inflationary pressures. Additional inflationary pressures at this point would be particularly unwelcome, because inflation is now toward the upper end of my "comfort zone." Let me get quite specific on this point. When I say "inflation," I'm referring to the core personal consumption expenditures price index; that is, the index that excludes the volatile food and energy component. This measure is up by 1.8 percent over the twelve months ending in January. When I say "my comfort zone," I'm referring to the range between one and two percent that I have previously enunciated as an appropriate goal of monetary policy.

I've tried to present the inflation issue in rather stark terms because it is, after all, of the utmost importance for monetary policy. So let me give you my own take on the matter. First, I think it's important to look beyond the unemployment rate to other measures of slack to get a full picture. Doing so *does* give a somewhat more mixed picture. For example, there is some indication of slack from the employment-to-population ratio—at nearly 63 percent, it is still below its long-run average; of course, using the long-run average as a benchmark may somewhat overstate the case, since ongoing declines in labor force participation as the baby boom generation ages will tend to lower the ratio. Another indicator is the Conference Board's diffusion index for job market perceptions. This index appears to be a rather direct measure of perceptions of labor market tightness, and it remains shaded toward the side of some excess capacity in labor markets. Measures of slack in product markets also are mixed. Capacity utilization in manufacturing is above its long-run average, but some measures of the output gap still show some excess capacity.

So these measures suggest a range of estimates from a modest amount of slack to a modest amount of excess demand in the U.S. economy. Of course, some would argue that what matters is not just U.S. productive capacity, but also *worldwide* productive capacity. As I'm sure you know the argument is that if the U.S. reaches full employment, we can simply tap the vast workforces in China, India, and elsewhere around the world and import those goods to our economy. Since labor costs tend to be low in many developing economies, the ability to switch from domestic to imported goods could moderate the wage and price increases which would otherwise occur as slack in the U.S. labor market shrinks.

In my view, globalization has had a profound impact on the U.S. economy, affecting product, financial and labor markets. The growing capacity of foreign countries to supply goods and services to the U.S. market has impacted the structure of wages and the bargaining power of workers. But there are good reasons to doubt that such factors are sufficient to sever the usual link between labor market slack and wage and price pressures. First, many goods and most services—from heart transplants to haircuts and new houses—must be produced in the U.S., so foreign capacity is not an issue there. Indeed only 10% of American workers are in manufacturing, which is arguably the sector most exposed to foreign competition.

Second, there is the issue of foreign exchange rates. The dollar prices of goods that we import into the United States depend on the prices of those goods in their respective foreign currencies, and also the exchange rates of these currencies vis à vis the dollar. However, the exchange rates of many currencies are not fixed vis à vis the dollar and exchange rate movements—difficult as they are to predict--can offset a good deal of the effects of import prices on inflation. In order to utilize the productive capacity in foreign countries, we need to run a trade deficit. In principle, such deficits put downward pressure on our exchange rates, at least over time, and this tends to raise prices paid for these goods in the U.S. Looking at the U.S. data on non-oil import prices, in recent years they have risen at a 2-1/2 to 3 percent rate—which is actually slightly *faster* than the U.S. core consumer inflation rate. Finally, growth is strong in many parts of the world, at present, and it is not just foreign supply but also foreign demand that is expanding. Indeed, strong global growth has played a role in boosting energy prices.

So, overall, while I'm glad to see some lively debate on this issue, I'm not convinced that foreign capacity is a major reason to shrug off concerns about the possibility of overshooting capacity in U.S. labor and product markets. And, as I've said, it appears that the economy is near full usage of resources, but it's not clear whether we are slightly above capacity or below.

A second factor to consider in the inflation picture is inflation *expectations*. As you know, under certain circumstances, inflation expectations can be 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 they will tend to build higher expected inflation into wage bargaining, raising costs to businesses, which, in turn, may get built into the prices of their products. So inflation expectations that are well-anchored to price stability can make a crucial contribution to low and stable inflation going forward.

On Monday, I gave a speech in Washington D.C. to the National Association of Business Economists that argued that inflation expectations in the U.S. are not as well anchored as they could be, and also not as well anchored as they are in many other developed countries, because those countries have explicit, numerical inflation goals and the U.S. does not.[2] However, I also argued that U.S. inflation has become much better anchored as a result of the efforts of the Fed to enhance communication and transparency. A good example of this is that the recent surge in energy prices has generally not been passed through to core inflation to a significant extent.[3] This result shows up in the stability of our measures of core inflation.

There also is indirect evidence from the financial markets. For example, using analyses that compare the real yields on Treasury Inflation-Protected Securities, or TIPS for short, with those on standard Treasury securities that are *not* indexed to compensate for inflation developments, we can estimate what the market thinks inflation

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[2] See "Enhancing Fed Credibility," delivered March 13, 2006, to the National Association of Business Economists' Annual Washington Policy Conference in Washington, D.C. http://www.frbsf.org/news/speeches/2006/0313.html

[3] Bharat Trehan, "Oil Price Shocks and Inflation," *FRBSF Economic Letter*, Number 2005-28, October 28, 2005.

will do over the life of the securities.[4] Compensation for average inflation over the next five years has been volatile at times since energy prices began rising in late 2003, and not surprisingly, has risen on balance by almost a full percentage point over that period. However, it is notable, and encouraging, that longer-term inflation expectations—those covering the period from five years ahead to ten years ahead—are essentially unchanged on balance over that same period.

Both slack and inflation expectations often work through changes in labor compensation to influence price increases. So, keeping a close eye on compensation can provide a check on one's views on the other factors. Looking at this channel, it's hard to find evidence suggesting upward inflationary pressures. For example, growth in total compensation in private industry, as measured by the Employment Cost Index, actually declined last year to only 3 percent from 3 ¾ in 2004. Going behind these numbers, we find that they include both a deceleration in wages and salaries and unusually large increases in benefit costs. Looking ahead, recent surveys suggest that growth in health insurance costs is likely to moderate significantly this year. To some extent, such moderation could hold down overall compensation growth, since it's doubtful that offsetting increases in wages and salaries would completely fill the gap that quickly.

The final factor in the inflation picture that I'd like to discuss is productivity. For about ten years now, U.S. productivity growth has been very strong. It grew at around two and a half percent in the latter half of the 1990s and has increased even more rapidly—at 3 ¼ percent—so far in this decade. Of course, it's not reasonable to expect the rather extraordinary 3 ¼ percent pace to be maintained in the long run. A number of

[4] Simon Kwan, "Inflation Expectations: How the Market Speaks," *FRBSF Economic Letter*, Number 2005-25, October 3, 2005.

leading experts estimate the trend rate at around two and a half percent, still a very high number that would dramatically enhance living standards in this country over the years.

The issue for inflation going forward is whether productivity growth will match the trend rate of around two and a half percent. One argument on the side of slowing productivity growth is the recent moderation in the pace of price declines for high-tech goods. This could imply that technological progress is slowing to some extent.

While this is a source of concern, it's too soon to tell how long it will last. Moreover, there are a couple of reasons to think that firms may learn to use the technology they already have in place to become more productive, and that could keep productivity growing rapidly over the next several years. First, some evidence suggests that the extraordinarily high rates of investment in high-tech equipment during the second half of the 1990s actually led to a *reduction* in productivity growth—nearly half a percentage point during that period.[5] The reason is that firms had to devote a lot of human capital and time to learn how to get the most out of it. If firms continue to increase their proficiency in using the technology they already have, this could help keep productivity growing at a robust pace. Second, one fundamental way that technology enhances productivity is by allowing firms to reorganize and streamline the way people work. This is a process that takes some time, of course. And all signs suggest that it is ongoing and likely to continue playing out for a good while.

Let me summarize this discussion of the inflation outlook. When I look at all of the elements that influence inflation—slack, inflation expectations, oil prices, and productivity—it seems that the most likely outcome over the next year or so is that

[5] See "Productivity Growth in the 1990s: Technology, Utilization, or Adjustment?" by S. Basu, J.G. Fernald, and M.D. Shapiro, *Carnegie-Rochester Conference Series on Public Policy* 55, December 2001, pp. 117-165.

inflation will remain contained. And, while I would be happier if recent core inflation had been a bit lower, it is encouraging that core inflation has been essentially compatible with price stability, even in the face of a rather large oil shock that started well before Katrina.

This brings me to my last point, the conduct of policy. I'd like to start by summarizing my views on the economic situation: while we face a great deal of uncertainty, the economy appears to be approaching a highly desirable glide path. First, real GDP growth currently appears to be quite strong, but there is good reason to expect it to slow to around its potential rate as the year progresses. Second, it appears that we are operating in the vicinity of "full employment" with a variety of indicators giving only moderately different signals. Finally, inflation is near the high end of my comfort zone, but it appears well contained at present, and my best guess for the future is that it will remain well contained.

Of course, the key question for policy is what interest rate path will help the economy achieve the glide path? As you know, the Fed has raised the federal funds rate by 25 basis points at each of the last 14 FOMC meetings for a total increase of 350 basis points. Until recently, the funds rate was low enough that it seemed rather clear that this path of gradually removing accommodation had some way to go. That is why, up until last November, our post-FOMC-meeting press release stated that "…the Committee believes that policy accommodation can be removed at a pace that is likely to be measured."

However, once the rate got to 4 percent in November, the issue of exactly how much accommodation actually remained in the economy became more of a judgment call. As a result, our most recent press release, from late January, states that, “the Committee judges that some further policy firming may be needed to keep the risks to the attainment of both sustainable economic growth and price stability roughly in balance.” Indeed, I view decisions about the stance of policy going forward as quite data-dependent. On the one hand, I will be alert to any incoming data suggesting that economic growth is less likely to slow to a sustainable pace or that inflation is less likely to remain contained; however, I will also be looking for signs of the delayed effects on output and inflation of our past policy actions and will be sensitive to the possibility that policy could overshoot. While the Committee must always have the flexibility to respond to changing circumstances, the need for the flexibility to respond appropriately to incoming data is especially important right now.

Thanks very much for your attention, and I look forward to taking your questions.

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