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## **The U.S. Economic Outlook**

Thanks for that very kind introduction. It's a pleasure to meet with you today. As Leslie said, I served as a monetary policymaker once before--back in the mid-1990s, when I was a member of the Board of Governors of the Federal Reserve System in Washington, D.C. Since then, of course, there have been some important developments and advances in the conduct of monetary policy.

One that began while I was at the Board involved communication. The Federal Open Market Committee took some significant steps toward improving the way it conveys its messages to the markets, the press, and the public. An important impetus was the conviction that the more people understand about the goals of monetary policy and how the Committee is trying to achieve them, the more effective policy can be. The reason is that it's not just today's level of the federal funds rate that matters for the way people make decisions in the marketplace. What also matters are people's expectations about future policy actions. That's because those expectations have a strong influence on today's longer-term interest rates and financial conditions more generally and therefore on the economic decisions and plans of households and businesses.

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\* The opinions expressed in this speech are those of the author and do not necessarily reflect the views of the Federal Reserve Bank of San Francisco or of the Board of Governors of the Federal Reserve System.

In the years since I was at the Board, the Committee has worked to improve their communications to help shape those expectations. One way, of course, is through speeches like this one. But an important institutional step was developing the press statement that is now released at the close of each policy meeting of the FOMC. It has evolved to explain the Committee's outlook for the economy and inflation and how it perceives the balance of risks to those outlooks.

The Committee took another significant step in its communications efforts at its last meeting on December 14. It voted to speed up the release of the minutes of the meetings. Now, the minutes come out three weeks after each meeting and therefore before the next meeting, rather than a day or two after it. This, of course, makes the information in the minutes more useful in assessing the Fed's next policy decision. The new schedule was announced in the same press statement that announced the quarter point increase in the fed funds rate. One reporter--who's well known for his coverage of the Fed--said this: "The most important step Federal Reserve officials took was not raising their target for the overnight lending rate by a quarter point. It was the decision to release the minutes of each FOMC meeting three weeks after it occurs." For those of you who have never read the minutes, they summarize the discussions among all nineteen people at the meeting—so naturally you get to see the variety of viewpoints the participants hold.

As many of you know, when the minutes were released on January 4, there was a lot of focus on the paragraphs that described some risks that could lead to higher inflation. But if you read through the document, you'll find that it also contains a discussion of factors that may put downward pressure on inflation. Indeed, at several

points, the minutes say that the Committee felt that inflation and longer-term inflation expectations remain well-contained and the risks to price stability are roughly equal. In fact, those are the very words the Committee members agreed to use in the official press statement.

My own view is consistent with that statement--I do think the inflation risks are fairly well balanced. I agree that there are forces that could cause inflation to rise. But since the reaction to the minutes focused so much on those forces, I thought I'd use this occasion as a chance to give "equal time" to the other side--the counterbalancing forces that can hold inflation in check. As always, these remarks reflect my own views and not necessarily those of my colleagues in the Federal Reserve.

Before discussing inflation, however, let me start with a brief description of my views on the real side of the economy--that is, on output and employment.

### **The real side of the economy**

The good news is that we've now seen enough positive signs in the economy to have some confidence that it is on course for self-sustaining growth. Over the past year and a half, output growth averaged four and a half percent, solidly above trend, which, by most estimates, is around three and a quarter to three and a half percent. In particular, recent data show strength in manufacturing output and consumer spending.

In terms of the labor market, the data have finally become more consistently positive, especially since mid-year. Taking the average over all of 2004, the economy gained about 185,000 jobs per month. Though this is not a fantastic performance, it is sufficient to suggest that the labor market finally is firming up enough to gradually

eliminate the resource slack that remains. And that's certainly something many people have been eagerly waiting for.

Although this overall performance is pretty good, I think it's important to qualify it a bit by noting what the context is: In order to get this performance, monetary policy has had to be extremely accommodative--and for a very long time. Indeed, the economy has been getting a push not only from substantial monetary stimulus, but also from substantial fiscal stimulus, including several tax cut packages and increased spending on defense and homeland security.

So, one might ask, given all this stimulus, why isn't the economy doing even better? What's holding it back? I can think of a few factors, some of which will come up again when I discuss inflation.

One is the oil price shock. Although consumer spending has been remarkably resilient in the face of this shock, the evidence does suggest that there was some negative impact on spending over the past year.

Another factor involves the large and growing trade gap. By reducing the need for domestic production of goods and services, the trade deficit subtracted more than half a percentage point from real GDP growth over the past year. Whether the trade gap will narrow depends—in part—on the strength of economic growth among our trading partners, because that affects demand for our exports. However, most of our major trading partners have had only moderate growth recently. It is true that non-oil import prices have risen modestly over the past year, while the prices of U.S. exports have declined relative to foreign price levels. Such price shifts do tend to curb imports and boost exports over time. But they are hardly enough to stem the tide of rising imports

into this country or to stimulate our own exports very much in the face of only moderate growth abroad.

Going forward, a couple of factors that could take some steam out of the expansion are related to fiscal policy and business investment. While fiscal policy stimulated the economy over the last couple of years, with tax cuts and spending increases, this year most estimates indicate that it is likely to become roughly neutral, if current plans remain in place. In terms of business investment, the good news is that it has finally rebounded, reaching a double-digit rate for the past three quarters. But there are hints of a possibility that business investment in high-tech could slow down. At this point, the data are too recent to be conclusive, but they are suggestive. In the third quarter, the growth rate in businesses' real investment in high-tech fell to just over eight percent—far below what it was over the prior four quarters. And since the middle of last year, growth in high-tech manufacturing production slowed noticeably. Another hint comes from the recent slide in the stock prices of some major high-tech firms; insofar as stock prices are good predictors, this suggests a more subdued outlook. Moreover, during the last year, quality-adjusted computer prices haven't been falling as fast, and that may signal some slowing of technological innovation in this sector. Finally, there is some industry opinion that the pace of software development is beginning to slow.

Although I've spent a fair bit of time discussing several current and potential drags on the economy, I want to emphasize that, overall, my view is positive. I think the data are pretty convincing that the economy is on course for sustainable growth, probably modestly above trend, for this year.

## **Balanced risks to inflation**

Now let me turn to inflation, where we have two main measures of consumer prices to consider. One is the consumer price index, the CPI—in particular, the core CPI, which excludes volatile food and energy prices. Over the last twelve months, inflation in this measure has come in at a relatively moderate two and a quarter percent. This is up noticeably from 2003, in part reflecting some pass-through of higher oil prices into core prices as well as increases in both commodity and import prices. The other measure of core consumer inflation, which is based on the personal consumption expenditures index, gives a somewhat more reassuring picture. Inflation according to the core PCE has been more modest, averaging only one and a half percent over the past year and just one and a quarter percent over the past three months. So, overall, recent data show core consumer inflation behaving reasonably well.

My expectation is that inflation will remain well contained, assuming that the economy grows at a pace which is modestly above trend. There are risks to this forecast but, as I said, I consider them fairly well balanced, not asymmetric. To explain my view, I would like to rely on the so-called Phillips Curve framework, which is conventionally used by economists to forecast inflation. The framework suggests that five main factors influence inflation. These are (1) the extent of slack in the labor market, (2) the public's expectations of future inflation, (3) the extent to which businesses mark up their costs in setting prices, (4) movements in important relative prices, especially the price of oil and the foreign exchange value of the dollar, and (5) productivity growth.

I'll start with labor market slack, which matters for inflation to the extent that it affects the pace of compensation growth. The unemployment rate currently stands at

just under five and a half percent. Most economists would agree that some slack remains in labor markets which should be putting downward pressure on labor cost increases and inflation. With the unemployment rate likely to fall gradually toward full employment over the next couple of years, the extent of this downward pressure should diminish. By itself, that does suggest the potential for some slight upward drift of inflation.

There is considerable uncertainty and debate about how much slack remains and how fast it's likely to diminish. A key part of the debate centers on the recent fall in labor force participation--that is, the fraction of the population that's working or looking for work. This decline in labor force participation started around the time the economy slowed at the beginning of the 2001 recession. The question is whether this is a cyclical phenomenon that will reverse as the current expansion picks up more steam, or whether it's a new trend that's independent of the business cycle. If it's cyclical, and labor force participation does begin to rise, this will mean more downward pressure on inflation. If it's not--that is, if participation does not rise or continues to fall--this will mean the remaining slack in the economy will diminish faster, creating upward pressure on inflation sooner. There are good arguments on both sides of this issue, and it's too soon to tell from the data which one will prove to be more accurate. So, the bottom line is that there is some uncertainty about the true extent of slack and its impact on the inflation outlook.

The second factor which affects inflation is inflationary expectations. We learned during the 1970s that once people begin to expect higher inflation, those expectations may affect wage bargaining. Expecting higher inflation, workers demand, and firms are more likely to grant, correspondingly higher wage and salary increases. Once higher

inflationary expectations become embodied in wage and salary bargaining, inflation can start spiraling upward. So, this possibility represents a risk for inflation.

One way to gauge whether inflationary expectations have risen is through financial market indicators, such as the spread between the yield on Treasury bonds and on Treasury inflation-indexed securities. This spread is a measure of the inflation compensation demanded by market participants. Recently there has been a noticeable increase in the average compensation for inflation over the next five years. Looking further out, however, we see almost no change in the compensation for inflation from five to ten years into the future. Survey measures of long-term inflation expectations have also been extremely stable. The stability of long-term inflation expectations presumably reflects the market's view that the Fed will continue to demonstrate that it is willing to do what is necessary to ensure price stability in the U.S. economy.

Both slack and inflation expectations often work through changes in labor compensation to influence price increases. It's hard to find evidence suggesting upward pressure through this channel. For example, over the past three years, the pattern of growth in total compensation in private industry, as measured by the employment cost index, has been pretty steady--about three and three-quarters percent. Looking 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 this year, since it's doubtful that offsetting increases in wages and salaries would completely fill the gap that quickly.



Moreover, there is another factor that could allow inflation to fall even if labor compensation were to begin to accelerate. The extent to which businesses have marked up the prices of their products over the unit labor costs they face has been extraordinarily large for some time now. This large mark-up could return to more normal levels through faster growth in labor compensation or falling inflation, or through some combination of the two. Historical experience with this adjustment suggests that the restraint on inflation could be quite significant even if compensation growth did begin to move upward. The high current markup thus represents the potential for downward pressure on inflation.

A fourth set of factors influencing inflation includes the significant changes that have occurred in the price of oil and in the dollar over the past year or so. Both higher oil prices and the lower dollar would be expected to put moderate upward pressure on inflation, at least for a time. And, as I said, we're probably seeing this already in the consumer price index. The key question is whether this upward pressure on inflation will persist. The answer depends on at least two developments. One, obviously, is whether oil prices keep rising and the dollar keeps falling. But predicting the direction of either oil prices or the dollar is notoriously difficult, so this uncertainty in itself is a double-edged risk for inflation. The second development again is inflation expectations. So long as oil prices and the dollar remain at their present levels, their effects on inflation are likely to be only temporary, implying that the size of the upward pressure should diminish over time. It is only if the current inflationary effects of these movements become embedded in inflation expectations and wage bargaining that they are likely to persist. But, as I argued earlier, long-term inflation expectations remain stable and labor compensation increases have been steady and moderate.

The final factor I want to mention that impacts inflation is productivity growth. 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 an amazing four percent--so far in this decade. Of course, it's not reasonable to expect the four percent pace to be maintained in the long run. A number of 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.

How does productivity growth affect inflation? With rapid productivity growth, firms have the capacity to expand production to meet growing demand with lower unit costs of production, and therefore they don't need to raise prices as much to generate a profit. Eventually, of course, unit costs are likely to rise as workers seek higher wages to compensate them for their increased productivity. But during the adjustment period--which can last for a considerable period of time--there is downward pressure on inflation. By the same token, slower growth in productivity could lead to upward pressure on inflation for a time.

The issue for inflation going forward is whether productivity growth will match the trend rate of around two and a half percent that I mentioned before. If so, core inflation seems likely to remain stable, near its current moderate pace, assuming no new developments in compensation or profit margins. I see the risks in this regard as fairly well balanced. One argument on the side of slowing is related to stories we've heard about the business caution that was an important feature of the last recession. It's understandable that the investment bust in the last recession, the tragedy of 9/11, the wars in Afghanistan and Iraq, and the corporate governance scandals could have eroded

business confidence. And that may have made firms reluctant to take on the long-run commitment of adding workers. Some argue that this factor accounts for much of the productivity growth we saw since the recession. In this view, when firms become more confident about the future, they will hire more workers and productivity growth will slow. This argument would be more convincing if the data showed that firms are boosting their productivity by making their existing employees work longer hours. But the admittedly limited data we have--which covers only production and nonsupervisory workers--don't show that. Rather, they show that hours have been declining since the late 1990s.

There are two other arguments on the side of slowing productivity growth. The first is related to the recent moderation in the pace of price declines for high-tech goods. This could imply that technological progress is slowing to some extent. Second is the recent weakness in high-tech investment, which would mean that firms may be beginning to engage in less so-called capital deepening---in other words, they may not be adding as much capital to the production process.

While these developments are a source of concern, it's too soon to tell if they'll last very long. 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--as much as half a percentage point during that period. 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. For example, one of our contacts told us that his law firm had discovered they could use computer search facilities to look for incriminating evidence in email files; that meant less labor on the project and therefore reduced legal expenses.

Second, one fundamental way that technology enhances productivity is by allowing firms to reorganize work-place processes. For example, major banks report that, through ongoing use of technology, they have been able to support growth in customers and services with fewer staff. A further example is the continuing expansion of Wal-Mart and other big-box stores, a trend that has had a dramatic effect on productivity growth in the retail and wholesale sectors. This process of using technology to reorganize work processes, of course, takes time. 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, mark-ups, oil prices, the dollar, and productivity--it seems that the most likely outcome over the next year or so is that inflation will remain well contained, which is definitely encouraging. Moreover, while I see a lot of uncertainty in the outlook, taken together the risks appear to be reasonably well balanced on the upside and the downside.

### **Monetary Policy**

I'd like to conclude by returning briefly to where I began—with the FOMC's press statement and the release of the minutes of the last meeting. As I said, my views are generally quite consistent with those in the statement. We know that the current

policy stance is accommodative, and that, as the expansion firms up, that degree of accommodation will have to diminish. But the pace of removing policy accommodation will depend on how developments unfold. If the economy expands a good deal faster, or if we see the upside risks to inflation materialize, it may be appropriate to remove accommodation more rapidly. If the expansion slows, or if we experience some of the downside inflation risks, there will be more opportunities for the Committee to pause.

I hope that my comments today have illustrated in part how the Committee's consensus comes from some deep and careful thinking about a wide and complex variety of possible developments in the economy, much of which is laid out in the minutes. Perhaps I've even intrigued some of you who have never read the minutes to take a look at them. As I said, the decision to release them sooner is part of an important effort to make the central bank's decisions in pursuit of price stability and maximum sustainable employment more transparent to the public.

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