

UNIVERSITY CLUB OF CHICAGO  
LEARN AT LUNCH LECTURE

Chicago, Illinois  
February 16, 2007

.....

**U.S. Economic Outlook**

As you may know, the Federal Reserve has two primary goals for monetary policy. One is to foster financial conditions that help the overall economy expand at its maximum sustainable pace. This is no easy task. The economy is made up of many diverse parts, and it rarely expands evenly in all sectors at the same time. Today, for example, the perspective of an exporter is quite different from the perspective of a homebuilder or mortgage broker and different still from the perspective of a retailer. The Fed is ill-equipped to and should not try to even out the differences among sectors. But by looking carefully at developments in the various sectors of the economy, we can identify risks to achieving overall sustainable growth.

Our second primary goal is to maintain price stability, or low and stable inflation. We also try to identify risks to this goal. Some are relatively easy to spot, such as cost pressures from a tight labor market, or shocks to energy and commodity prices. Others are more difficult to see, such as changes in consumer and business expectations about inflation.

So today, I'd like to give you my thoughts on recent developments in each of the sectors of the economy, and I'll discuss how they affect my outlook for growth and inflation in 2007 and 2008.

**The macroeconomy**

In order to see where the economy is heading, it's important to look back on where it's been. In 2006, the economy weathered some periods of uneven growth and a sharp decline in housing activity. However, the housing slowdown did not spill over to weaker growth in other sectors of the economy. Real gross domestic product, or real GDP—our broadest measure of economic output—increased 3.4 percent last year as currently estimated. Many economists estimate that the economy's potential growth rate—that is, the rate of growth

it can sustain over time given its labor and capital resources—is close to 3 percent. So growth in 2006 was a bit above potential. As a result, firms were hiring workers at an impressive pace, and labor markets continued to tighten; the unemployment rate fell to 4½ percent in the fourth quarter, down from 5 percent at the end of the previous year.

Yet as economic activity was proving resilient, inflation was running too high. Tightening resource pressures, as well as high energy and commodity prices, likely contributed to faster increases in prices. The Fed's preferred measure of inflation is the price index for personal consumption expenditures excluding food and energy, also known as core PCE. In 2006, core PCE increased 2.3 percent, up a bit from 2.1 percent in 2005. By contrast, I prefer inflation to be between 1 and 2 percent—that's the range that I consider to be most compatible with the Fed's goal of price stability. The monthly inflation rates did come in lower toward the end of the year, and I was pleased to see the improvement. However, it is much too early to say that inflation is no longer a concern.

So as I look ahead to this year, I see the economy with some solid underlying momentum behind it and inflation running too high. This week, the Federal Reserve published our biannual Monetary Policy Report to the Congress. In it, the participants on the Federal Open Market Committee gave our forecasts for GDP, unemployment, and inflation. The central tendency of the growth forecast is for real GDP to increase between 2½ and 3 percent in 2007.

The overall outlook is down somewhat from our last one, which we made in July. But looking at the performance of the sectors behind these forecasts, the major downside risks to the growth outlook have diminished.

## Housing

The most significant area of concern has been housing markets. Last year, home sales fell sharply and fewer new homes were built. Residential investment fell 13 percent, reducing GDP growth by ¾ of a percentage point. A key question for the outlook is: What will be the full extent of the housing slowdown?

To gain some insights into where housing activity may settle out, it's important to think about the factors that led to the housing boom during the first half of this decade. Part of the boom was the result of strong productivity growth, which led to solid income gains that many people spent on bigger and better homes. Additionally, financial innovations helped keep the cost of financing low and improved many people's access to credit—in fact, the housing boom coincided with large improvements in homeownership for people in all income and ethnic groups. So a boom in construction was needed to build the new homes that people were demanding. But once these homes were built, home building needed to settle back to more sustainable levels.

We have seen tentative signs that housing has begun to stabilize. Housing starts ticked up in November and December, new home sales increased in the fourth quarter, and applications for home-purchase mortgages have been running higher than they did last fall. And the same factors that supported the housing boom—strong productivity trends, improved access to credit, and low mortgage rates relative to historical norms—are still in place. These factors likely put a floor under how far housing will decline.

But after ticking up in November and December, housing starts declined sharply in January. These numbers can be highly volatile—especially during the winter months. Indeed, permits for home building also fell, but by a much smaller amount. But these data highlight that downside risks remain. Although demand is improv-

ing in some parts of the country, the progress is uneven. One national home builder recently reported that it has yet to see any stabilization in some Midwest markets, including Chicago and Detroit. Moreover, nationwide inventories of unsold homes remain much higher than they were a year ago. It will take some time for the excess inventory of homes to be sold. So while I think homebuilding will stabilize as we move through the year, I don't expect to see any noticeable increases, either.

There is also a risk that defaults on subprime mortgages could have a larger than expected effect on households and lenders. True, these instruments are riskier than traditional mortgages. Still, to the extent that both borrowers and lenders understand the risks involved and markets have priced this risk properly, these instruments represent a net gain to society by opening up financing to borrowers who previously could not obtain it. Here there is a role for public policy. On the part of the Fed, we are offering guidance to lenders with regard to the disclosure of terms and costs to borrowers and with regard to the risks of carrying such loans on their books. We are also promoting financial literacy efforts for borrowers.

## Consumption

Beyond the issue of housing activity itself, there has been concern that the slowdown in housing could spill over into other sectors of the economy, such as consumer spending.

Consumers adjust their spending patterns based on many factors, including their current income, their expected earnings, and their overall wealth. For most American households, the value of their home accounts for between  $\frac{1}{2}$  and  $\frac{2}{3}$  of their total assets. As home prices soared from 2001 to 2005—rising an average of 9 percent per year—the resulting increase in wealth contributed to strong consumer spending. But home price appreciation slowed sharply last year—the gain in home values was about half as fast—leading many to worry that a pullback in consumer spending would soon follow.

Despite these worries, consumer spending has been well maintained; it grew 3.7 percent in 2006, which is a robust pace by historical standards. Any drag from slower increases in housing wealth has been more than offset by positive fundamentals underlying consumer demand. Job creation has been continuing at an impressive pace, generating solid increases in income. The recent decline in energy prices has also been a positive factor. Whereas household budgets were strained by the run-up to \$3-per-gallon gas prices, the retreat in gas prices has improved purchasing power. And the recovery in the stock market helped mitigate the wealth impact of slower home-price appreciation.

Moreover, the long-run expected earnings of households—that is, their permanent income—looks good. This reflects trends in productivity. Increases in worker productivity, or output per hour of work, eventually show through to increases in wages, salaries, and benefits. Productivity growth has averaged  $2\frac{1}{2}$  percent over the past ten years. Solid gains should continue, as technology advances further, workers become more skilled in using technology, and managers find new ways to apply technology to their businesses.

Looking to 2007, consumer spending should continue to be supported by healthy labor markets, lower energy prices, and solid productivity trends. However, slower house price appreciation and the past increases in interest rates should boost savings and lower consumption relative to income. Balancing all of these forces, I think we will see solid growth in consumption in line with longer-run trends.

## Business investment

Let's now turn to the business sector. Business capital expenditures—that is, spending on equipment, software, and commercial construction activity—rose a healthy 6¾ percent in 2006.

We should see continued growth in investment in 2007. The cyclical fundamentals driving investment are somewhat mixed, although on balance positive. On the upside, corporate profits have been strong, and financial conditions are quite favorable for retooling or expanding capacity. But business investment usually lags the economic cycle somewhat, and the slightly softer economic growth recently is likely to restrain investment.

The longer-term fundamentals continue to be strong. Advances in technology are an important driver of spending for equipment and software. Computer makers are always developing new and faster PCs and servers to replace older machines. And technology is embedded in other kinds of equipment that isn't considered high tech. For example, modern machine tools contain a great deal of hardware and software that allow them to precisely cut and mill complex structures. Ongoing improvements in technology should help maintain healthy demand for high-tech equipment and for some kinds of industrial machinery. Of course, spending on equipment is always uneven across sectors. Demand for small machines used in residential construction is likely to moderate in line with the trends in the housing market.

The outlook for business investment in structures is relatively favorable. Growth in construction spending by businesses was particularly strong in 2006. The gains were widespread in such diverse categories as health care facilities, office buildings, retail space, and power generators. And high levels of energy prices spurred ongoing strong growth in mining and drilling activities. But the recent declines in energy prices make it less likely that we will see further large increases in such expenditures going forward. So some slower growth in structures investment may be expected in 2007.

The last major category of business spending is inventory investment. As we moved through 2006, a few industries found themselves overstocked with materials or products. Many of those manufacturers, such as the domestic automakers and steel producers, are based here in the Midwest. Their subsequent efforts to lower inventories contributed some to the weakness in manufacturing production that we saw in the second half of the year.

But these are just isolated examples. Looking at the economy as a whole, I don't see evidence of widespread inventory overhangs that would lead to significant production cuts. At the same time, inventories are not so lean that I'd expect a burst of stock building that would boost aggregate activity. So while we could see some quarterly volatility, on balance I expect inventory investment to be a relatively neutral factor for growth in 2007.

## International trade

The final piece of the growth picture is international trade. Although the United States continues to run a trade deficit, trade last year helped our economic growth. The trade deficit shrank, adding about ½ of a percentage point to real GDP growth. Solid growth abroad fueled demand for U.S. products, including many from companies headquartered in the Midwest. For example, Caterpillar's sales growth in the fourth quarter was led by foreign demand, and Boeing has a deep backlog of orders from foreign carriers. I was in India recently, and I was amazed to see firsthand the progress and the vigorous expansion in the Indian economy. Too often commentators bemoan the rise in India, China, and other countries as coming at the expense of the U.S.

Certainly, difficult displacements can take place because of international trade, and we should do our best to provide assistance to those affected. But trade is mutually beneficial overall. As countries like India grow, they buy more from us. Indeed, our exports to India have more than doubled in the past three years. Looking ahead, most forecasters expect continued solid growth in the world economy in 2007, which should help sustain growth in our exports.

## Inflation

The outlook for growth that I have just described is one in which the economy expands on average at a rate slightly below its long-run potential in 2007. And in 2008 we expect growth to be near potential. The brief period of below-potential growth would be consistent with slight increases in the unemployment rate and other measures of resource slack. But the magnitude of the increases would likely be modest. Indeed, the central tendency of the FOMC forecasts for both 2007 and 2008 is for an unemployment rate of  $4\frac{1}{2}$  to  $4\frac{3}{4}$  percent, which would represent little change from its current value.

These levels of unemployment are relatively low by historical standards, and they raise at least some concern about whether labor market conditions are tighter than can be sustained in the long run. Long periods of low unemployment are often associated with rising costs and prices. When “Help Wanted” signs are everywhere and businesses have trouble filling their job openings, they try to attract and retain workers by offering higher wages that can exceed growth in productivity. These costs must be passed on to someone: either businesses bear the cost through lower profits or consumers pay the cost through higher prices. Many economists estimate that the natural rate of unemployment, or the unemployment rate that can be sustained in the long run, is around 5 percent. While there is a great deal of uncertainty surrounding these estimates, unemployment in the range envisioned in the FOMC’s outlook likely indicates a vibrant labor market in which an increasing number of firms may begin to bid up wages in excess of productivity.

But we are not at that point yet. I’ve heard more than a few stories of shortages of highly skilled workers, but thus far the increases in overall compensation have been relatively moderate. Furthermore, firms often tell me that productivity gains have given them a great deal of flexibility to produce without generating cost pressures. Still, we need to be careful to watch for the emergence of the kind of economy-wide strains on resource utilization that can increase inflationary pressures. Such increases in inflationary pressures would be of concern because, as I noted earlier, I view inflation as already being too high.

The good news is that we’ve actually seen some improvements in inflation. Just a few months ago, the 12-month change in core PCE was 2.4 percent, but by December it was 2.2 percent. The FOMC outlook anticipates further declines. The central tendency forecast expects inflation of 2 to  $2\frac{1}{4}$  percent for 2007 and  $1\frac{3}{4}$  to 2 percent for 2008. If inflation were to come in at the middle or bottom of such ranges, that would represent good progress toward price stability.

One development helping to ease inflationary pressures is the recent fall in energy prices. The previous run-up in the price of oil was likely one of the main culprits responsible for boosting core inflation. Even though measures of core inflation do not reflect changes in energy prices directly, businesses often pass through higher energy costs to the prices of products that are included in the core. Increases in fuel costs boosted airfares. Higher shipping costs increased the consumer price of many manufactured goods. And higher prices for plastics and other petrochemicals raised the cost of manufacturing many products. Now, with energy

prices having fallen, a reasonable expectation is that consumer prices should not need to increase as rapidly and core inflation should fall.

While the steady progress on inflation envisioned by the FOMC is the most likely scenario, there is a risk that inflation will stay stubbornly high. First, the economy appears to be operating in the neighborhood of its potential level of output. Unemployment is below many estimates of its natural rate, and other measures of resource pressures, such as capacity utilization, also suggest that little slack remains. Growth in compensation per hour has not moved up much over the past year, but unit labor costs have accelerated because of slower growth in productivity. Although the underlying trend is still solid, productivity growth over the past several quarters has moderated from exceptionally strong rates. In this environment, tight labor markets could generate additional cost pressures. That said, profit margins are relatively high, so some further increases in labor costs could be absorbed by businesses in the form of lower margins.

Second, with inflation having run above 2 percent for so long, inflation expectations could become stuck in a range that would not be conducive to price stability. If firms and workers expect inflation to be high, they will want to keep up with the general increase in prices and costs. As a result, they will set higher prices and wages or build in plans for automatic increases. In this way, higher inflation expectations can become self-fulfilling. That is, they can lead to a persistently higher inflation rate, instead of simply a temporary increase. To date, inflation expectations appear to be contained. Nonetheless, the longer inflation runs above levels consistent with effective price stability, the greater the danger that expectations of future inflation will settle in above those levels as well.

### Policy implications

In setting policy, the Federal Reserve needs to be mindful of the risks to the outlook for both growth and inflation. In my judgment, while some risks to the outlook for growth remain a concern, these have diminished noticeably in recent months. Housing will likely still be a negative for growth during the first half of this year, but it has shown signs of stabilization. And the risks of spillovers to other parts of the economy do not appear to be unduly large.

We have also seen some lessening of inflation risks in recent months. Readings on core inflation have been somewhat better, and the fall in energy prices should provide some additional help going forward. But as I have noted, I expect the economy to continue to operate at a high level relative to its potential, which could eventually lead to the emergence of increased inflationary pressures. In addition, if actual inflation does not show clear enough signs of returning to the center of the range I associate with price stability, there is a danger that expectations of inflation could run too high, which would likely be a self-fulfilling prophesy.

Taking all of these factors into account, my assessment is that the risk of inflation remaining too high is greater than the risk of growth falling too low. Thus, some additional firming of policy may yet be necessary to address this inflation risk. Of course, whether policy will need to be adjusted and the degree of any adjustment will depend on the data we see in the months to come and how that data influences our forecast of the economy.