I am pleased to be here today to discuss the state of the U.S. economy and the near-term outlook. Despite some variability in quarterly growth rates last year, primarily related to declines in housing investment, the state of our economy looks good. The U.S. economy is highly productive, profit-making opportunities abound, interest rates and inflation are both relatively low and stable. The largest challenge facing the United States is not the business cycle but the task of adjusting on many fronts to the retirement of the baby boom generation. Fortunately, U.S. laws and institutions will enable us to face these challenges with a greater deal of optimism than in some other countries that will face the demographic challenge sooner and in larger measure than we will.

As background for discussing the economic outlook I’ll start by presenting a bird’s-eye view of recent developments in the U.S. economy, including those on the inflation front. Although my main topic is prospects for the U.S. economy over the next year or so, I do want to say a few words about some of the economic implications of long-run demographic change.

Before proceeding, I want to emphasize that the views I express here are mine and do not necessarily reflect official positions of the Federal Reserve System. I thank my colleagues at the Federal Reserve Bank of St. Louis for their comments, especially Kevin L. Kliesen, associate economist in the Research Division, who provided special assistance. However, I retain full responsibility for errors.

THE BIG PICTURE

The U.S. economy is fundamentally sound. Over the past few years, surveys of business economists by the National Association for Business Economics have regularly pointed to key sources of strength. These include a dynamic and flexible labor market and a financial system that rewards innovation and risk-taking by channeling capital to its highest rates of return. In short, our market-based economy affords firms the ability and the incentive to innovate and to adapt quickly to changes in relative demands for goods and services. Managements today respond promptly to various shocks that rattle the economy. The growing dynamism of the U.S. economy is nicely illustrated by the rise in the economy’s rate of productivity growth that began around 1995—a change of enormous importance. It does not yet appear that the current productivity boom has run its course.

The rise in productivity growth has increased the economy’s potential output growth. At present, many economists estimate the potential growth rate at between 3 and 3.5 percent. From mid-2003 to the beginning of 2006, the U.S. economy’s actual real GDP growth was above the growth of potential. Over this period, the economy’s growth could exceed long-run potential because the economy was recovering from the 2001 recession. Given that the economy’s actual growth cannot permanently exceed its potential growth, it was inevitable that some slowing was to occur. And, indeed, during the second and third quarters of 2006 real GDP growth averaged about 2 1/4 percent, considerably less than the roughly 3 3/4 percent growth experienced from the second quarter of...
2003 to the first quarter of 2006. As the growing economy absorbed underutilized labor and capital resources, the Fed gradually raised its target for the federal funds rate from 1 percent in 2004 to 5 1/4 percent in June of last year. The fed funds target rate remains today at 5 1/4 percent.

Monetary policy actions kept inflation largely, though not perfectly, in check and likely had something to do with the timing of slower GDP growth. I emphasize timing because slower GDP growth was inevitable as the margin of underutilized resources fell. As is so often the case, certain characteristics of the economic slowdown had little or nothing to do with monetary policy. Two other developments were important determinants of the nature of the economy last year. One was the sharp run-up in energy prices, which began to be reversed in the middle of 2006. The other was substantial weakness in housing markets, which may just now be showing very tentative signs of reaching bottom.

Three remarkable facts deserve attention. First, real GDP growth, though sluggish in 2002, has been robust since 2003, and the unemployment rate is now down to 4.6 percent. Second, long-term inflation expectations have hardly budged. Third, the quarterly average yield on 10-year nominal Treasury securities is actually slightly lower today than it was in mid 2002. The economy has performed well despite a near tripling of crude oil prices since December 2001. In years past, an energy price shock of this magnitude was typically associated with a substantial increase in inflation and a sharp recession.

Two things are different about energy price increases this time. One is that the increases were primarily a consequence of a booming world economy, which raised energy demand rather than a supply shock. Second, monetary policies here and in most other countries have done a fine job of anchoring inflation expectations.

The current housing slowdown, which is much in the news, is unusual in that it has not occurred against the backdrop of an economy-wide recession, when especially large declines in real residential fixed investment typically occur. For example, real residential fixed investment declined by about 40 and 45 percent, respectively, in the periods surrounding the 1973-75 and 1980-82 recessions. By contrast, real residential fixed investment has declined by about 13 percent since its peak in the third quarter of 2005.

Let me now turn to current economic developments in more detail, which will set the stage for the outlook portion of my talk. As I step back and survey the economic landscape, I see an economy that appears to be transitioning quite nicely from last year’s slow patch, to more sustainable growth.

**CURRENT DEVELOPMENTS**

During the past week or so we have seen a dizzying array—though typical, I might add—of economic reports. As usual, some were good and some were so-so. As usual, we need to be aware that first releases of data are often revised.

On balance, there seems to be a firmer tone to the latest data. Particularly noteworthy was the larger-than-expected increase in real GDP during the fourth quarter of 2006. Following relatively anemic rates of growth in the second and third quarters of 2006, growth of real GDP during the fourth quarter picked up nicely, rising to a 3.5 percent annual rate.

Keep in mind, though, that this estimate is the first for the fourth quarter and subject to revision. Measuring GDP growth over the four quarters of the year, real GDP increased by more than 3 percent for the fourth straight year. A closer look at the GDP report reveals that two areas of strength were real consumer outlays and foreign purchases of U.S. goods and services. To some extent, the former reflects the decline in energy prices that began in the middle of last year, which has restored some of the purchasing power that was lost when gasoline prices rose well above $3 per gallon in many parts of the country. The latter

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probably reflects the improving growth prospects for the rest of the world. Another striking aspect of the report was the 4.2 percent growth in real final sales. Hence, despite a modest downturn in inventory investment, which nevertheless remained positive, real GDP growth was quite strong.

Two other aspects of the GDP report were less favorable than the overall report. First, business fixed investment posted a slight decline in the fourth quarter. I suspect that the decline was nothing more than normal variation, perhaps a consequence in part of firms waiting for release of the new Vista operating system from Microsoft. Over the four quarters of 2006, nonresidential fixed investment rose by 6.8 percent, a healthy and expected increase given that the economy has continued to absorb excess capacity. At this point, forecasts still point to a healthy pace of growth in business capital outlays this year—and perhaps the better-than-expected increase in December factory orders is a reflection of this expected growth. Nonetheless, extension of the fourth quarter weakness in business capital outlays going forward certainly would be a cause for concern.

The second aspect of the GDP report that garnered a lot of attention was the nearly 20 percent rate of decline in residential fixed investment. The decline began in the second quarter and the pace of decline picked up in each subsequent quarter. Naturally, the sharp decline in private housing starts and sales imparted a significant drag on real GDP growth last year. During the second half of 2006, the contribution to real GDP growth from real residential fixed investment averaged about −1\frac{1}{4} percentage points.

Last year was a difficult environment for homebuilders. It was also difficult for some homeowners in those parts of the country where the pace of home price appreciation slowed to a standstill. I’ll focus on new single-family homes, since that is the dominant part of the new-home market; the number of multi-family units started has remained relatively constant since 1997, at about 340,000 units per year.

Following a record-setting rate of 1.7 million units started in 2005, single-family starts fell to 1.5 million units in 2006. This average, though, reflected a relatively large number of starts during the first half of the year and then a much lower level of starts during the second half of 2006. By December 2006, single-family starts were roughly 16.5 percent below their annual average.

In 2006, new home sales fell about 17\frac{1}{4} percent to a little more than 1 million units and builders soon found themselves facing an accumulation of unsold homes. As a result, inventories of new homes rose sharply relative to sales, and in July 2006 the inventory-sales ratio reached its highest level in more than 10 years.

In response, builders naturally began to reduce new construction. Part of this pullback was motivated by skittish households; cancellation rates, according to some large builders, reached 40 percent or more during the latter part of 2006. Although the majority of forecasters correctly anticipated softness in housing construction, the magnitude of the decline exceeded their expectations. In December 2005, the consensus of the Blue Chip forecasters was that real residential fixed investment would decline by only about 1.4 percent in 2006, using annual average data. Instead, the decline was about 4\frac{1}{4} percent, but was considerably steeper—more than 12.5 percent—measured from the fourth quarter of 2005 to the fourth quarter of 2006.

By some indicators, the housing market is beginning to show signs of stabilizing. New single-family home sales rose in December, the fourth increase in the past five months, while in January the National Association of Home Builders’ housing market index—a measure of builder confidence—rose to its highest level since July 2006. Further, the four-week moving average of the Mortgage Bankers Association index of applications for home purchases has increased nicely since its trough last October. Finally, the University of Michigan’s consumer survey of home-buying conditions in January 2007 reportedly rose to its highest level since mid-2005.

The market for previously sold single-family homes may also have stabilized. Existing home
sales rose a modest 0.1 percent in the fourth quarter of 2006, after declining 6.4 percent in the third quarter. Moreover, the pending home sales index reported by the National Association of Realtors turned up in January, registering its largest monthly increase since March 2004. Although the inventory of existing homes for sale, relative to sales, has also dropped over the past few months, its December level of 6.5 was still a bit above that for new homes, which stood at 5.9.

While recent data seem to point in a favorable direction, we must recognize that the housing market is not out of the woods yet. The most pressing issue for builders remains the backlog of unsold homes, at which they are chipping away, and the continued high rates of canceled orders.

A special word of caution is in order concerning housing data. Starts and permits data are routinely affected by weather variations, especially in the winter. To an unusual degree, sales data are affected by cancellations, which occur when buyers walk away from sales contracts. In published data, cancelled sales are not subtracted from new sales to create a net sales series. Moreover, cancelled sales are not put back into the data on the inventory of unsold new homes. Anecdotal reports clearly indicate that cancellations have been material. Thus, official data overstate net sales of new homes and underestimate the inventory of unsold homes. Finally, favorable recent news on the inventory of existing homes for sale may well have been influenced by discouraged homeowners taking their properties off the market rather than by actual sales.

House price data are also subject to distortions. For existing homes, the median sales price data released by the National Association of Realtors (NAR) show a decline starting in August and continuing every month except for a solid recovery in December. However, median price data can be distorted by a changing mix of sales. Fewer sales of high-end homes will reduce the median. Data released by the Office of Housing Enterprise Oversight (OFHEO) are not subject to this problem, but only cover homes financed by conforming mortgages, which are currently capped at $417,000. Although a changing mix of homes sold is not a problem with this series, high-end homes are excluded altogether. The OFHEO home price series derived from mortgage data for newly purchased homes shows an annual rate of price change of only about 1.5 percent in the third quarter of 2006, the latest data available as of this time.

To avoid the statistical limitations of the NAR and OFHEO price data, we can turn to the Case-Shiller price series for 20 cities, available through November 2006. The 20-city composite series shows declines for both October and November; in November, the series was only 1.7 percent above its prior year level. Moreover, the November decline from October occurred in 17 of the 20 cities.

My summary conclusion on home prices is that we have evidence of pervasive weakness last year. It remains to be seen what this year will bring, but at a minimum we can say that we do not have evidence as yet that home prices have stabilized.

For forecasters and policymakers, a key unknown is the long-run sustainable level of housing starts going forward. If the recent rate of starts has been above this sustainable rate, then we would expect to see an extended period of slower-than-normal activity until the inventory bulge is worked off. By the same token, if starts have fallen to a level that is below their sustainable rate, then we can expect that the inventory bulge will be worked off this year, so that the level starts will return to their normal rate sometime later this year.

Statistically, there are several ways to estimate the normal level of starts. A common method is to estimate a model of some sort. For our purposes, assume that single-family housing starts in any year is a function of three primary variables: interest rates, household income and demo-

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2 The model specifies the log-level of single-family starts as a function of the level of the 10-year Treasury yield, the log-level of households and the log-level of real GDP. The model is an ARMA specification of AR (1) and MA (2). The model uses annual data, 1965 to 2006. Further details are available on request.
In 2006, a model of this sort projected that housing starts would total about 1.7 million units, about 12.5 percent more than the actual level of about 1.5 million units. Assume: 1) no change in the average level of interest rates this year (relative to 2006); 2) that real GDP increases by 3 percent this year; and 3) that the number of households increases by 1 percent. With these assumptions, the model predicts that single-family housing starts will total about 1.4 million units this year, which we can compare to the actual 1.5 million units in 2006. This projection for 2007, which would be a 2.5 percent decline from 2006’s average, appears to be at the high-end of most forecasters’ expectation, perhaps because the model just outlined makes no allowance for the overhang of excessive inventory at the beginning of this year. But, eventually, as the inventory is worked off, home-building activity should pick up substantially from the 2006 year-end level of about 1.2 million units at an annual rate.

Some economists have worried that a potential side effect from the housing recession would be to drag down consumer spending more generally as home prices leveled off. Yet, as the fourth-quarter GDP report revealed, real consumer outlays appear to be holding up well.

The strength of consumer outlays is surely due to a sustained healthy labor market outlook, which we can expect to help keep consumer spending on a solid footing this year. Although last week’s employment report showed that job gains in January were a bit below expectations, job gains over the previous months were revised substantially higher as a result of the annual benchmark revision to the establishment survey by the Bureau of Labor Statistics (BLS). According to the BLS, nonagricultural payroll employment in the benchmark month—March 2006—was revised up by 752,000, an unusually large revision. Average monthly job gains from March 2006 to December 2006 were also boosted, from their original estimate of 148,000 per month to 174,000 per month.

Data revisions are one of the numerous sources of uncertainties that face monetary policymakers. The reason is that our current policies are always calibrated to the data that present themselves to us today—in real-time—and how the data map into the near-term outlook for economic activity and inflation. There is always the risk that our current policy can inadvertently be either too restrictive or too stimulative. That’s part of the challenge of making monetary policy. As I think you can see from my earlier remarks, we dig deeply into the data and our inferences from what we observe are not always in accord with a surface reading of the data.

**RECENT INFLATION DEVELOPMENTS**

I’ll now discuss recent developments on the inflation front. Last year’s CPI inflation news was somewhat peculiar in that, over the 12 months ending December 2006, inflation measured by the all-items CPI—sometimes called “headline inflation”—declined but core inflation, which excludes food and energy prices, rose slightly. Headline CPI inflation slowed from 3.4 percent in 2005 to 2.6 percent in 2006, while the inflation rate measured by the PCE price index rose from 2.9 percent to 2.3 percent over the same period.

The moderation of headline inflation is undoubtedly a reflection of the sharp decline in energy prices over the second half of 2006. Most economists believe that core inflation is a better measure of inflation pressures. The core PCE price index rose slightly from 2.1 percent in 2005 to 2.2 percent in 2006 and the core CPI index rose even more, from 2.2 to 2.6 percent. Fortunately, core price pressures have eased of late: The three-month rate of change in the core PCE was 1.7 percent, while the six-month rate of change was 1.9 percent. Clearly, the momentum seems to be headed in a favorable direction, as last week’s FOMC press release noted.

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3 Inflation is measured as the percent change, December to December.
But before we declare victory and head home, it's wise to consider some of the upside risks that I worry about. One of these risks, as I've noted earlier, is the possibility that we might be underestimating the likely pace of economic activity. If we get an upside surprise on GDP growth, then monetary policy may have to be tightened somewhat.

Another risk is that labor productivity growth might be lower than currently expected. Data released just two days ago indicate that in 2006 the annual average increase in productivity in the nonfarm business sector was 2.1 percent, down slightly from the increase of 2.3 percent in 2005 and down substantially from the average rate of 3.2 percent for 2000-2004. Given that the economy’s potential growth depends on trend growth in productivity and in the labor force, we will have to watch trends in both of these closely in the years ahead.

THINKING ABOUT THE OUTLOOK

In its policy statement issued after the meeting last week, the FOMC noted that the economy seems likely to expand at a moderate pace over coming quarters. My own take on what “moderate pace” means is that real GDP is likely to increase by roughly 3 percent over the four quarters of this year—particularly if the housing market is near an inflection point and no longer a significant drag on growth. But I want to emphasize that fluctuations in growth are normal and that no policy action is necessarily indicated if growth comes in somewhat above or below that outlook. When data come in outside the range expected, we need to understand the reasons and the likelihood that the departure will be sustained unless there is an offsetting policy response. Only then does it make sense to consider a policy response.

Regarding the outlook for inflation, I’ve said for quite some time that it might take a while for underlying price pressures to recede. Recent inflation data themselves, and other information relevant to judging the inflation outlook, suggest that the inflation rate is likely to fall into a reasonable range this year. If, however, core inflation seems to be settling at a rate above 2 percent, then such an outcome would be unacceptable to me. I put a very high weight on the Fed’s responsibility to maintain low and stable inflation.

At some point we’ll almost certainly see some surprises in the data. Long experience with economic forecasts indicates that we need to consider as a standard feature of the environment GDP forecast errors in the neighborhood of 1 1/2 percentage points on a four-quarter-ahead horizon. Thus, a forecast of 3 percent GDP growth should be expressed as 3 percent plus or minus 1 1/2 percent. From experience, an outcome in this range has a probability of about two-thirds. The other one-third probability is divided equally above and below the range. Thus, the probability of an outcome significantly different from the baseline forecast is not small. The FOMC is prepared to respond when the outcome promises to depart from the baseline in a sustained way.

Although incoming data will at some point surprise us, what should not be surprising is the Fed’s commitment to maintaining price stability. Inflation forecasts over the next four quarters are also subject to standard errors. Over a longer horizon, though, the inflation issue is not one of forecast errors but of policy commitment and policy errors. My commitment, certainly, is to do what I can to promote policy adjustments that will yield an inflation outcome, on average over a period of several years, centered on 1 1/2 percent on the core PCE price index. Such an outcome will ensure that the FOMC maintains its current high level of credibility. Maintaining price stability is central to maximizing sustainable economic growth and the highest possible level of employment. Stable inflation also contributes greatly to the economy’s ability to adjust successfully to inevitable shocks. That has been the Fed’s message—and its stated policy—for many years. It has been a successful strategy.
LONG-RUN CHALLENGES

In an outlook speech, I cannot skip the opportunity to discuss briefly the economic implications of the changing demographic situation in the United States and the rest of the world. Demands on government from our aging population center on, but are not confined to, financing this country’s two primary programs for the elderly—Social Security and Medicare. Chairman Bernanke recently testified before the U.S. Congress on this matter.4

The macroeconomic implications of demographic change are significant. The retirement of the baby boomers is expected to reduce the economy’s labor force participation rate dramatically. The participation rate is the percentage of persons age 16 and over in the labor force, either working or seeking work. Declining growth in the labor force has important implications for our long-run, sustainable growth of GDP.

In its latest Budget and Economic Outlook, the Congressional Budget Office estimates that the average annual growth of potential output from 1950 to 2006 was 3.4 percent. The 3.4 percent is divided between labor productivity growth of 1.8 percentage points and labor force growth of 1.6 percentage points. Over the next 10 years, the CBO expects these contributions to change dramatically. From 2007 to 2017, the CBO projects that productivity will increase by an average of 2 percent per year; however, owing to the gradual declines in the labor force participation rate, the growth of the labor force is projected to increase by an average of only 0.7 percent per year. Hence, the CBO projects the growth of the economy’s potential output will slow by about 0.75 percentage points in the coming decade to a little more than 2.5 percent. This projection, if accurate, has serious long-term implications.

In a previous speech, I discussed the possibility that participation rates among older workers might rise modestly in the coming years. If that happens, labor force growth will not slow as rapidly as some projections indicate because more people over age 65 will be continuing to work than past retirement patterns would lead us to expect.5 But the demographics tell us that such an outcome only delays inevitable adjustment. It could be that more of those in the 65-69 age group might work than has been the case recently, but when those same persons become the 75-79 age group we can be pretty sure that most will be retired. Because labor represents the largest single input in U.S. production, GDP will eventually begin to exhibit a slower rate of growth unless there is an offsetting increase in the economy’s structural rate of productivity growth.6 Because income for the country as a whole depends on production, slower growth in GDP and income implies slower growth in consumption of U.S. households.

The likely result is that, all else equal, a decrease in labor supply growth will lead to slower growth in our economic well-being. Since monetary policy can affect only prices and not quantities in the long run, the Fed cannot alter this situation.

My discussion of the macroeconomic outlook may seem somewhat abstract, as is unavoidably the case when discussing a GDP of $11.422 trillion. That is a larger number than I can comprehend. Slower growth in this number is also hard to make real to us as individuals. The demographic challenge, however, will be felt by every firm in the economy. I know that we at the Federal Reserve Bank of St. Louis are acutely aware of the significant number of employees retiring over the next decade. Those retiring employees are our little piece of the nation’s demographic challenge. My confidence in the United States meeting the challenge reflects my confidence in the nation’s decentralized market system. Individual firms will adjust, by persuading some

4 See Bernanke (2007).
5 See Poole (2006).
6 Of course, this assumes that immigration rates or changes in fertility rates do not materially alter the projected growth of potential labor force.
employees to retire later, by moving younger employees more quickly into positions of responsibility and by substituting capital for labor. The challenge for governments will be more difficult, because political decisions are not reached as easily as decisions in individual firms. Still, if we approach the political issues with full understanding of the fundamentals of the demographics and with the spirit of compromise that characterizes our democracy, I am confident that we’ll come out the other side of the demographic transition in fine shape.

REFERENCES

