Thank you for inviting me to speak with you today. I am pleased to have the opportunity to address both leading financial professionals - the members of Financial Executives International - as well as future leaders - the students here at Drake University. In my remarks today, I will discuss the near-term outlook for the U.S. economy and some of the longer-run issues that economic policy makers should consider. I want to emphasize that these views are my own and not necessarily those of my colleagues on the Federal Open Market Committee (FOMC).

Economic activity slowed in the middle part of this year. Real gross domestic product increased at a 2.6 percent annual rate in the second quarter of this year, and last week the Commerce Department announced that output rose at only a 1.6 percent rate in the third quarter. These figures are down notably from the nearly 3-1/2 percent average pace of the preceding two years. Despite the recent slowing in output, however, resource utilization remains relatively high by historical standards and thus continues to be a potential source of upward pressure on inflation.

In the aftermath of the 2001 recession, the FOMC eased monetary policy substantially. However, the degree of easing in place in 2003 and 2004 was clearly unsustainable and risked overheating the economy. Since mid-2004, the FOMC has gradually moved monetary policy from an accommodative stance to a more neutral position. As a consequence, the elements now appear to be in place for some easing of resource utilization rates over the next year or so and a reduction in inflationary pressures. However, substantial uncertainty surrounds the near-term outlook. In determining the future path of interest rates, the FOMC will be guided by the incoming data on both output and prices, so let’s begin by reviewing recent developments.

Economic activity

The slowdown in the growth of real GDP since the spring largely reflects a cooling of the housing market: The number of single-family and multifamily housing starts has fallen nearly 25 percent since the beginning of the year; sales of both new and existing homes have dropped sharply since their peak of last summer, and the inventory of unsold homes has soared. At the same time, homes are appreciating more slowly and in some markets prices are even declining.

While much of the downshift in the housing market appears to have occurred already, some further softening may yet lie ahead. Nonetheless a variety of factors should help limit any remaining contraction in housing demand. For example, despite the 4-1/4 percentage point increase in short-term interest rates over the past two years, the interest rate on a thirty-year fixed-rate mortgage has increased only about 1/2 percentage point, and borrowing costs continue to be relatively low. The ongoing growth in real incomes and the recent increase in the stock market wealth of households should also support the demand for housing.

It is encouraging also that the recent weakness in residential construction does not appear to have spilled over to other sectors. For instance, employment has been growing smartly in nonresidential construction, even as it has shrunk in the residential sector. In addition, consumer confidence currently stands a bit above its long-run average and consumption is still being fueled by past house-price gains, which raised household wealth. This contrasts with previous slowdowns in the housing market, which have typically coincided with widespread economic weakness.

Although the slowdown in the housing market has so far done little to reduce consumer outlays, other factors do appear to have had a damping effect. In particular, consumption likely was restrained earlier this year by the rise in energy prices, which took a large bite out of household budgets. The rise in energy prices over the past few years has also affected the auto sector - reducing the demand for sport utility vehicles and other gas-guzzling automobiles. As a result, inventories of these vehicles have risen, and domestic automakers have been cutting production in response.

In the business sector, spending on nonresidential construction has been particularly robust. In the third quarter, nonresidential investment grew at an annual rate of 14 percent, down from the sizzling
20 percent pace in the previous quarter but still very substantial. Expenditures on drilling and mining structures have increased particularly rapidly in response to high prices for natural gas and crude oil. Investment in other types of structures, such as offices and commercial buildings, has also been strong over the past year or so.

Spending on equipment and software, which grew quite rapidly from mid-2004 to early 2006, has advanced at a more moderate pace lately. The recent slowdown in the growth of business sales would be expected, all else equal, to have a damping influence on capital spending, and in fact business confidence has moved down since the start of the year. However, order books for capital goods such as industrial machinery and other types of heavy equipment appear to be full and should support near-term investment gains. Moreover, the demand for information technology equipment is also likely to be well maintained, in part because of the recent introduction of a new generation of microprocessing chips and more-efficient large servers.

Current financial conditions also are supportive of business spending. Corporate balance sheets are strong and flush with cash, and broad stock price indexes are up more than 10 percent so far this year. At the same time, yield spreads on corporate bonds across the ratings spectrum have been low, supported by the strong balance sheets and robust profit growth.

**Inflation**

The picture painted here is one of an economy that has been growing solidly, albeit at a rate below its potential. What are the implications of this picture for inflation prospects? Consumer prices excluding food and energy have accelerated over the past year, and this clearly is a concern. The core inflation rate rose 2.4 percent over the most recent four quarters, up from 2.0 percent for the same period a year ago. In thinking about the macroeconomic consequences of inflation, it makes sense to abstract from the prices of energy and food when the focus is on the short run. Temporary shocks to food and energy prices typically don’t translate into changes in inflationary pressure. However, if these shocks persist, they may have an effect on core inflation and, more generally, on the economic behavior of households and businesses. Core inflation can be affected when the price changes are propagated along the production chain – say from oil prices to the prices of chemicals and ultimately to the prices of goods made with those chemicals. In addition, the shocks to food and energy prices may affect inflation expectations. Thus, we also pay attention to broader measures of inflation.

Nonetheless, the scene appears to be set for a deceleration in prices over time. One contributing factor is likely to be the slowing in activity I already discussed, which should ease the overall pressure on resources. Another important factor affecting the inflation outlook is household and business expectations for inflation. As best we can judge, inflation expectations appear to be well contained: Measures of longer-term inflation expectations, based on surveys and on a comparison of yields on nominal and inflation-indexed government debt, have remained within the ranges in which they have fluctuated in recent years. Finally, the recent decline in energy prices, if it is sustained, should reduce cost pressures along the production chain.

One upside risk to the inflation outlook comes from the labor market. The unemployment rate declined steadily between the second half of 2003 and the beginning of 2006 and has stood at a relatively low 4.7 percent for the past six months. With labor markets comparatively tight by historical standards, unit labor costs have begun to accelerate, especially since the end of last year, and firms may pass on some of these higher costs to consumers. However, the large markup of prices over costs – the margin is currently well above its historical average – could act as a shock absorber if cost strains were to intensify. Thus, in my judgment, inflation appears poised to decelerate in coming months as energy prices stabilize and resource pressures ease. But the risks to that outlook seem tilted toward the upside.

**Aggregate supply**

In considering the appropriate setting for monetary policy, the level of the economy’s underlying productive capacity - its potential output - is the benchmark against which we assess actual output. Accordingly, whether the recent slowdown in economic activity eases resource constraints enough to reduce inflationary pressure depends importantly on how fast potential output is growing. If the key determinants of potential output - the workforce, economic efficiency, and the capital stock - grow quickly, as they did in the second half of the 1990s, then GDP can also rise quickly without increasing
the pressure on the economy’s resources. Conversely, a reduced rate of growth of potential output would require slower growth of actual GDP to keep resource pressures from increasing.

I’d like to spend a little time examining in greater depth the outlook for some of the factors that determine potential output, starting with the labor force. The size of the labor force depends on a combination of two factors: the size of the working-age population and the likelihood that members of this population join the labor force - a likelihood that economists refer to as the labor force participation rate.

The labor force participation rate tends to vary over the business cycle as potential workers become more or less encouraged about job prospects. However, the influence of labor force participation on potential output does not depend on short-run conditions in the labor market but rather on long-run changes due to demographic and social factors. For instance, in the 1950s and 1960s the labor force participation rate stood at just under 60 percent. In subsequent years, women entered the labor force in large numbers and thus dramatically pushed up the participation rate. Indeed, by some estimates, the increase in the labor force participation of women aged sixteen years and older added a little more than 1/2 percentage point per year to the growth rate of potential output between the late 1960s and the early 1990s.

Now, the United States is facing another change in the trend of labor force participation. The baby boomers, the large population born between 1946 and 1964, are getting older, and the oldest are turning sixty this year. Older individuals tend to have relatively low participation rates, with many people starting to retire in their fifties and more still when they reach sixty and then sixty-five. Thus, with the aging of the boomers, a large share of the population is entering the low-participation years, which will tend to pull down the aggregate labor force participation rate.

Recent work by economists at the Federal Reserve Board has explored how changes in the age distribution of the population affect the participation rate. For instance, between 1995 and 2005 the participation rate declined on net from 66.4 percent to 66.0 percent. The study suggests that changes in the age distribution of the population - the movement of a large portion of the population from their high-participation-rate years to their later, low-participation-rate years - can explain the bulk of the decline. The changing age distribution - primarily the aging of the baby boomers - is expected to lower the participation rate by about 0.2 percentage point next year and continue to lower it over the next several years.

However, this decomposition assumes that the participation rate for each age group is constant at its average between 1995 and 2005. But the propensity of individuals of a given age to participate in the labor force changes over time. Already, individuals aged fifty-five and older are working more than they did ten years ago, perhaps because of better health; higher levels of education; and a reduction, over time, in the share of workers employed in physically strenuous occupations. Unfortunately, there is still much we do not understand about the increase in the participation rates of older workers, so it is difficult to predict how much their participation will rise in the future. However, given the magnitude of the predicted age-related decline, it is unlikely that changes in behavior could completely offset it.

As I noted earlier, the reduction in the growth of the labor force and, thus, of potential output has important implications for how we interpret incoming economic data. For example, to the extent that the aging of the baby boomers reduces the growth in labor force participation and hence potential output, the benchmark we use for assessing the macroeconomic implications of actual GDP growth will need to be lower. Similarly, changes in the expected growth rate of the labor force affect our interpretation of the monthly employment data. If the labor force participation rate remains at its current level, then what might be thought of as the “equilibrium” growth rate of payroll employment - that is, the increase consistent with a stable unemployment rate - would be about 140,000 per month. However, if the labor force participation rate instead declines 0.2 percentage point over the next year, as suggested by the Fed’s staff research, then the comparable equilibrium payroll employment growth would be closer to 110,000 per month.

While reductions in the labor force participation rate will apparently damp the growth rate of potential output in coming years, productivity growth, another important factor in determining the capacity of the

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economy, likely will remain supportive. Although productivity growth has stepped down from the scorching pace seen early in the recovery, factors remain in place for continued solid growth over the next few years. One element is capital deepening, that is, the rate at which the stock of equipment, software, and so forth is expanding relative to the number of workers, or - to put it even more simply, how fast workers are getting more of the tools they need. As I mentioned earlier, business investment spending has been strong in recent years and seems likely to remain at a high level for some time. Another element is improvements in the efficiency of how businesses do business. Here it appears that the flexibility of business processes and product, financial, and labor markets in the United States will continue to allow for the quick adoption of new technologies and the efficient reallocation of resources.

On balance, despite the outlook for continued solid longer-run productivity growth, the slowing in trend labor force growth will likely yield a modest deceleration the growth of potential output. However, the considerable uncertainty that, as I noted earlier, surrounds the prospect for all of these elements makes it extremely difficult in real time to discern changes in potential output. Ferreting out the changing trends in these elements is an important part of making monetary policy. For example, the early identification of the resurgence of productivity growth, and hence of potential output growth, that began in the mid-1990s allowed the Federal Reserve to put in place a monetary policy that accommodated both strong economic growth and low inflation during the second half of that decade.² Similarly, it is important now to try to understand the new forces determining potential output growth so that monetary policy can respond accordingly.

² One of the papers used by many observers inside and outside the Federal Reserve to suggest the possibility of a mid-1990s inflection point in productivity growth was Carol Corrado and Lawrence Silfman (1999), "Decomposition of Productivity and Unit Costs," American Economic Review, vol. 89 (May), pp. 328-32.