I appreciate the opportunity this morning to present the Federal Reserve's semiannual report on monetary policy.

Monetary policy this year has confronted an economy that slowed sharply late last year and has remained weak this year, following an extraordinary period of buoyant expansion.

By aggressively easing the stance of monetary policy, the Federal Reserve has moved to support demand and, we trust, help lay the groundwork for the economy to achieve maximum sustainable growth. Our accelerated action reflected the pronounced downshift in economic activity, which was accentuated by the especially prompt and synchronous adjustment of production by businesses utilizing the faster flow of information coming from the adoption of new technologies. A rapid and sizable easing was made possible by reasonably well-anchored inflation expectations, which helped to keep underlying inflation at a modest rate, and by the prospect that inflation would remain contained as resource utilization eased and energy prices backed down.

In addition to the more accommodative stance of monetary policy, demand should be assisted going forward by the effects of the tax cut, by falling energy costs, by the spur to production once businesses work down their inventories to more comfortable levels, and, most important, by the inducement to resume increases in capital spending. That inducement should be provided by the continuation of cost-saving opportunities associated with rapid technological innovation. Such innovation has been the driving force raising the growth of structural productivity over the last half-dozen years. To be sure, measured productivity has softened in recent quarters, but by no more than one would anticipate from cyclical influences layered on top of a faster long-term trend.

But the uncertainties surrounding the current economic situation are considerable, and, until we see more concrete evidence that the adjustments of inventories and capital spending are well along, the risks would seem to remain mostly tilted toward weakness in the economy. Still, the FOMC opted for a smaller policy move at our last meeting because we recognized that the effects of policy actions are felt with a lag, and, with our cumulative 2-3/4 percentage points of easing this year, we have moved a considerable distance in the direction of monetary stimulus. Certainly, should conditions warrant, we may need to ease further, but we must not lose sight of the prerequisite of longer-run price stability for realizing the economy's full growth potential over time.
Despite the recent economic slowdown, the past decade has been extraordinary for the American economy. The synergies of key technologies markedly elevated prospective rates of return on high-tech investments, led to a surge in business capital spending, and significantly increased the growth rate of structural productivity. The capitalization of those higher expected returns lifted equity prices, which in turn contributed to a substantial pickup in household spending on a broad range of goods and services, especially on new homes and durable goods. This increase in spending by both households and businesses exceeded even the enhanced rise in real household incomes and business earnings. The evident attractiveness of investment opportunities in the United States induced substantial inflows of funds from abroad, raising the dollar's exchange rate while financing a growing portion of domestic spending.

By early 2000, the surge in household and business purchases had increased growth of the stocks of many types of consumer durable goods and business capital equipment to rates that could not be sustained. Even though demand for a number of high-tech products was doubling or tripling annually, in some cases new supply was coming on even faster. Overall, capacity in high-tech manufacturing industries, for example, rose nearly 50 percent last year, well in excess of its already rapid rate of increase over the previous three years. Hence, a temporary glut in these industries and falling short-term prospective rates of return were inevitable at some point. This tendency was reinforced by a more realistic evaluation of the prospects for returns on some high-tech investments, which, while still quite elevated by historical standards, apparently could not measure up to the previous exaggerated hopes. Moreover, as I testified before this Committee last year, the economy as a whole was growing at an unsustainable pace, drawing further on an already diminished pool of available workers and relying increasingly on savings from abroad. Clearly, some moderation in the pace of spending was necessary and expected if the economy was to progress along a more balanced growth path.

In the event, the adjustment occurred much faster than most businesses anticipated, with the slowdown likely intensified by the rise in the cost of energy that until quite recently had drained businesses and households of purchasing power. Growth of outlays of consumer durable goods slowed in the middle of 2000, and shipments of nondefense capital goods have declined since autumn.

Moreover, weakness emerged more recently among our trading partners in Europe, Asia, and Latin America. The interaction of slowdowns in a number of countries simultaneously has magnified the softening each of the individual economies would have experienced on its own.

Because the extent of the slowdown was not anticipated by businesses, some backup in inventories occurred, especially in the United States. Innovations, such as more advanced supply-chain management and flexible manufacturing technologies, have enabled firms to adjust production levels more rapidly to changes in sales. But these improvements apparently have not solved the thornier problem of correctly anticipating demand. Although inventory-sales ratios in most industries rose only moderately, those measures should be judged against businesses' desired levels. In this regard, extrapolation of the downtrend in inventory-sales ratios over the past decade suggests that considerable imbalances emerged late last year. Confirming this impression, purchasing managers in the manufacturing sector reported in January that inventories in the hands of their customers had risen to excessively high levels.
As a result, a round of inventory rebalancing was undertaken, and the slowdown in the economy that began in the middle of 2000 intensified. The adjustment process started late last year when manufacturers began to cut production to stem the accumulation of unwanted inventories. But inventories did not actually begin falling until early this year as producers decreased output levels considerably further.

Much of the inventory reduction in the first quarter reflected a dramatic scaling back of motor vehicle assemblies. However, inventories of computers, semiconductors, and communications products continued to build into the first quarter, and these stocks are only belatedly being brought under control. As best we can judge, some progress seems to have been made on inventories of semiconductors and computers, but little gain is apparent with respect to communications equipment. Inventories of high-tech products overall have probably been reduced a bit, but a period of substantial liquidation of stocks still seemingly lies ahead for these products.

For all inventories, the rate of liquidation appears to have been especially pronounced this winter, and the available data suggest that it continued, though perhaps at a more moderate pace, this spring. A not inconsequential proportion of the current liquidation undoubtedly is of imported products, and thus will presumably affect foreign production, but most of the adjustment has fallen on domestic producers.

At some point, inventory liquidation will come to an end, and its termination will spur production and incomes. Of course, the timing and force with which that process of recovery plays out will depend on the behavior of final demand. In that regard, the demand for capital equipment, particularly in the near term, could pose a continuing problem. Despite evidence that expected long-term rates of return on the newer technologies remain high, growth of investment in equipment and software has turned decidedly negative. Sharp increases in uncertainties about the short-term outlook have significantly foreshortened the time frame over which businesses are requiring new capital projects to pay off. The consequent heavier discounts applied to those long-term expectations have induced a major scaling back of new capital spending initiatives, though one that presumably is not long-lasting given the continuing inducements to embody improving technologies in new capital equipment.

In addition, a deterioration in sales, profitability, and cash flow has exacerbated the weakness in capital spending. Pressures on profit margins have been unrelenting. Although earnings weakness has been most pronounced for high-tech firms, where the previous extraordinary pace of expansion left oversupply in its wake, weakness is evident virtually across the board, including most recently in earnings of the foreign affiliates of American firms.

Much of the squeeze on profit margins of domestic operations results from a rise in unit labor costs. Gains in compensation per hour picked up over the past year or so, responding to a long period of tight labor markets, the earlier acceleration of productivity, and the effects of an energy-induced run-up in consumer prices. The faster upward movement in hourly compensation, coupled with the cyclical slowdown in the growth of output per hour, has elevated the rate of increase in unit labor costs. In part, fixed costs, nonlabor as well as labor, are being spread over a smaller production base for many industries.

The surge in energy costs has also pressed down on profit margins, especially in the fourth
and first quarters. In fact, a substantial portion of the rise in total costs of domestic nonfinancial corporations between the second quarter of last year and the first quarter of this year reflected the increase in energy costs. The decline in energy prices since the spring, however, should be contributing positively to margins in the third quarter. Moreover, the rate of increase in compensation is likely to moderate, with inflation expectations contained and labor markets becoming less taut in response to the slower pace of growth in economic activity. In addition, continued rapid gains in structural productivity should help to suppress the rise in unit labor costs over time.

Eventually, the high-tech correction will abate, and these industries will reestablish themselves as a solidly expanding, though less frenetic, part of our economy. When they do, growth in that sector presumably will not return to the outsized 50 percent annual growth rates of last year, but rather to a more sustainable pace.

Of course, investment spending ultimately depends on the strength of consumer demand for goods and services. Here, too, longer-run increases in real incomes of consumers engendered by the rapid advances in structural productivity should provide support to demand over time. And thus far this year, consumer spending has indeed risen further, presumably assisted in part by a continued rapid growth in the market value of homes, from which a significant amount of equity is being extracted. Moreover, household disposable income is now being bolstered by tax cuts.

But there are also downside risks to consumer spending over the next few quarters. Importantly, the same pressure on profits and the heightened sense of risk that have held down investment have also lowered equity prices and reduced household wealth despite the rise in home equity. We can expect the decline in stock market wealth that has occurred over the past year to restrain the growth of household spending relative to income, just as the previous increase gave an extra spur to household demand. Furthermore, while most survey measures suggest consumer sentiment has stabilized recently, softer job markets could induce a further deterioration in confidence and spending intentions.

While this litany of risks should not be downplayed, it is notable how well the U.S. economy has withstood the many negative forces weighing on it. Economic activity has held up remarkably in the face of a difficult adjustment toward a more sustainable pattern of expansion.

The economic developments of the last couple of years have been a particular challenge for monetary policy. Once the financial crises of late 1998 that followed the Russian default eased, efforts to address Y2K problems and growing optimism—if not euphoria—about profit opportunities produced a surge in investment, particularly in high-tech equipment and software. The upswing outstripped what the nation could finance on a sustainable basis from domestic saving and funds attracted from abroad.

The shortfall of saving to finance investment showed through in a significant rise in average real long-term corporate interest rates starting in early 1999. By June of that year, it was evident to the Federal Open Market Committee that to continue to hold the funds rate at the then-prevailing level of 4-3/4 percent in the face of rising real long-term corporate rates would have required a major infusion of liquidity into an economy already threatening to overheat. In fact, the increase in our target federal funds rate of 175 basis points through May of 2000 barely slowed the expansion of liquidity, judging from the M2 measure of the
money supply, whose rate of increase declined only modestly through the tightening period.

By summer of last year, it started to become apparent that the growth of demand finally was slowing, and seemingly by enough to bring it into approximate alignment with the expansion of potential supply, as indicated by the fact that the pool of available labor was no longer being drawn down. It was well into autumn, however, before one could be confident that the growth of aggregate demand had softened enough to bring it into a more lasting balance with potential supply. Growth continued to decline to a point that by our December meeting, the Federal Open Market Committee decided that the time to counter cumulative economic weakness was close at hand. We altered our assessment of the risks to the economy, and with incoming information following the meeting continuing to be downbeat, we took our first easing action on January 3. We viewed the faster downshift in economic activity, in part a consequence of the technology-enhanced speed and volume of information flows, as calling for a quicker pace of policy adjustment. Acting on that view, we have lowered the federal funds rate 2-3/4 percentage points since the turn of the year, with last month's action leaving the federal funds rate at 3-3/4 percent.

Most long-term interest rates, however, have barely budged despite the appreciable reductions in short-term rates since the beginning of the year. This has led many commentators to ask whether inflation expectations have risen. Surely, one reason long-term rates have held up is changed expectations in the Treasury market, as forecasts of the unified budget surplus were revised down, indicating that the supplies of outstanding marketable Treasury debt are unlikely to shrink as rapidly as previously anticipated. Beyond that, it is difficult to judge whether long-term rates have held up because of firming inflation expectations or a belief that economic growth is likely to strengthen, spurring a rise in real long-term rates.

One measure often useful in separating the real interest rates from inflation expectations is the spread between rates on nominal ten-year Treasury notes and inflation-indexed notes of similar maturity. That spread rose more than three-fourths of a percentage point through the first five months of this year, a not insignificant change, though half of that increase has been reversed since. By the nature of the indexed instrument, the spread between it and the comparable nominal rate reflects expected CPI inflation. While actual CPI inflation has picked up this year, this rise has not been mirrored uniformly in other broad price measures. For example, there has been little, if any, acceleration in the index of core personal consumption expenditure prices, which we consider to be a more reliable measure of inflation. Moreover, survey readings on long term inflation expectations have remained quite stable.

The lack of pricing power reported overwhelmingly by business people underscores the quiescence of inflationary pressures. Businesses are experiencing the effects of softer demand in product markets overall, but these effects have been especially marked for many producers at earlier stages of processing, where prices generally have been flat to down thus far this year. With energy prices now also moving lower and the lessening of tautness in labor markets expected to damp wage increases, overall prices seem likely to be contained in the period ahead.

Forecasts of inflation, however, like all economic forecasts, do not have an enviable record. Faced with such uncertainties, a central bank's vigilance against inflation is more than a monetary policy cliche; it is, of course, the way we fulfill our ultimate mandate to promote
maximum sustainable growth.

A central bank can contain inflation over time under most conditions. But do we have the capability to eliminate booms and busts in economic activity? Can fiscal and monetary policy acting at their optimum eliminate the business cycle, as some of the more optimistic followers of J.M. Keynes seemed to believe several decades ago?

The answer, in my judgment, is no, because there is no tool to change human nature. Too often people are prone to recurring bouts of optimism and pessimism that manifest themselves from time to time in the buildup or cessation of speculative excesses. As I have noted in recent years, our only realistic response to a speculative bubble is to lean against the economic pressures that may accompany a rise in asset prices, bubble or not, and address forcefully the consequences of a sharp deflation of asset prices should they occur.

While we are limited in our ability to anticipate and act on asset price bubbles, expectations about future economic developments nonetheless inevitably play a crucial role in our policymaking. If we react only to past or current developments, lags in the effects of monetary policy could end up destabilizing the economy, as history has amply demonstrated.

Because accurate point forecasts are extraordinarily difficult to fashion, we are forced also to consider the probability distribution of possible economic outcomes. Against these distributions, we endeavor to judge the possible consequences of various alternative policy actions, especially the consequences of a policy mistake. We recognize that this policy process may require substantial swings in the federal funds rate over time to help stabilize the economy, as, for example, recurring bouts of consumer and business optimism and pessimism drive economic activity.

In reducing the federal funds rate so substantially this year, we have been responding to our judgment that a good part of the recent weakening of demand was likely to persist for a while, and that there were significant downside risks even to a reduced central tendency forecast. Moreover, with inflation low and likely to be contained, the main threat to satisfactory economic performance appeared to come from excessive weakness in activity.

As a consequence of the policy actions of the FOMC, some of the stringent financial conditions evident late last year have been eased. Real interest rates are down on a wide variety of borrowing instruments. Private rates have benefited from some narrowing of risk premiums in many markets. And the growth of liquidity, as measured by M2, has picked up. More recently, incoming data on economic activity have turned from persistently negative to more mixed.

The period of sub-par economic performance, however, is not yet over, and we are not free of the risk that economic weakness will be greater than currently anticipated, and require further policy response. That weakness could arise from softer demand abroad as well as from domestic developments. But we need also to be aware that our front-loaded policy actions this year coupled with the tax cuts under way should be increasingly affecting economic activity as the year progresses.

The views of the Federal Reserve Governors and Reserve Bank Presidents reflect this assessment. While recognizing the downside risks to their current forecast, most anticipate
at least a slight strengthening of real activity later this year. This is implied by the central tendency of their individual projections, which is for real GDP growth over all four quarters of 2001 of 1-1/4 to 2 percent. Next year, the comparable figures are 3 to 3-1/4 percent. The civilian unemployment rate is projected to rise further over the second half of the year, with a central tendency of 4-3/4 to 5 percent by the fourth quarter and 4-3/4 to 5-1/4 percent four quarters later. This easing of pressures in product and labor markets lies behind the central tendency for PCE price inflation of 2 to 2-1/2 percent over the four quarters of this year and 1-3/4 to 2-1/2 percent next year.

As for the years beyond this horizon, there is still, in my judgment, ample evidence that we are experiencing only a pause in the investment in a broad set of innovations that has elevated the underlying growth in productivity to a rate significantly above that of the two decades preceding 1995. By all evidence, we are not yet dealing with maturing technologies that, after having sparkled for a half-decade, are now in the process of fizzling out. To the contrary, once the forces that are currently containing investment initiatives dissipate, new applications of innovative technologies should again strengthen demand for capital equipment and restore solid economic growth over time that benefits us all.