ECONOMIC ASSUMPTIONS AND ANALYSES

12. ECONOMIC ASSUMPTIONS

Five years ago, at the beginning of the new millennium, optimism about the Nation's economic future abounded, but that period of optimism was followed by a succession of shocks whose cumulative severity was as great as any previous setback in the postwar period. Now, five years later, the effects of these shocks have been overcome and faith in the economy and the future are once again on the rise.

Negative Shocks

Six substantial shocks buffeted the economy starting in 2000.

The stock market bubble burst in March 2000; by October 2002, the market had lost half its value. Household equity wealth fell by $7 trillion, wiping out two-thirds of the equity gain from the last half of the 1990s.

Business investment slowed to a trickle beginning in mid-2000 as the stock market decline mirrored a dramatic revision in business expectations, and collapsed the following year as firms began to work off a huge overhang of what was now perceived to be excess capital. The over-investment was due in part to inflated expectations about the return on new technology and to a surge in Y2K-related computer hardware and software investment that ended abruptly in 2000. Not until 2003 did capital spending turn up. This nearly three-year slump was one of the longest and deepest in the postwar period.

The terrorist attacks of September 11th and the possibility of even more dangerous attacks depressed consumer and business confidence for a time, while substantially increasing the resources that governments, families, and businesses needed to devote to security measures. The War on Terror, especially as fought through the campaigns in Afghanistan and Iraq, also contributed to heightened uncertainties. The increased uncertainty hampered investment planning and contributed to the slump in investment spending.

Corporate accounting scandals were uncovered throughout 2002–2003. Although the scandals had been long in the making, their sudden revelation came as a further shock to confidence. The subsequent bankruptcy of some once-well-regarded corporations further shook investor confidence, and the revelation of conflicts of interest at several major accounting firms and Wall Street brokerage houses cast doubt on the reliability of the information and advice provided by them, again making investors leery of putting money at risk in the market. The scandals and the reaction to them had the effect of prolonging the slump in business investment.

Recession or slumping growth mired major U.S. trading partners for most of this period which restrained U.S. exports, especially of manufactured goods. Output in Japan and in the European Union grew only 1 percent per year on average during 2001–2003; outright declines occurred in several countries during this period.

Oil prices doubled in 2003–2004. The benchmark price of West Texas intermediate crude oil jumped from $28 per barrel in May, 2003, to $55 at its peak in late October, 2004. Prices moved down thereafter, closing the year at $42. On balance, however, the rise in oil prices slowed U.S. growth during 2004.

Timely Response

Policymakers responded quickly and appropriately to this series of adverse shocks. Expansionary policies, both fiscal and monetary, were adopted in a timely manner, and when combined with the inherent resilience of the American economy, succeeded in overcoming the forces of restraint and minimizing the actual downturn in 2001. From the peak in the fourth quarter of 2000 to its low point in the third quarter of 2001, real Gross Domestic Product (GDP) edged down a mere 0.2 percent. Partly because of quick policy action, both consumer spending and housing investment held up much better during the 2001 slump than in previous business downturns, which helped limit the decline in real output. During the subsequent recovery through mid-2003, however, growth was not as robust as usual, which is not surprising in light of the shocks that continued to buffet the economy and the relatively mild downturn that limited the likely size of the rebound.

Policymakers responded to the disappointing recovery by providing additional fiscal and monetary stimulus. This renewed stimulus worked, and as a result, the economy has achieved robust growth and an improved labor market since mid-2003 without a significant increase in inflation or interest rates. As 2005 begins, the near-term economic outlook is promising. A wide range of indicators suggests that the economy will continue to expand at faster than normal rates of growth. More than 100 thousand new jobs are being created monthly, adding to the purchasing power of workers; consumer spending remains strong; businesses' capital spending is growing at a rapid rate, and order books are lengthening; home sales have reached record levels, boosting home prices and household wealth; and manufacturing production and exports are again expanding. The stock market finally bottomed in 2002, and it has risen sharply since last August, adding to household wealth and reducing the cost of capital to business. By early 2005, the major stock market indices had reached their highest levels since mid-2001.

Looking beyond the next few years, the outlook is also encouraging. Over the long-run, the growth of out-

put and the standard of living depend critically on productivity growth, and there is reason to be optimistic here. Productivity growth accelerated in the second half of the 1990s, and surprisingly in view of the shocks of recent years, it stepped up again after 2000 to reach a pace not seen in over fifty years. A slowdown from this torrid pace is expected by the Administration and most other forecasters, but even with a slowdown, productivity growth is expected to remain strong over the next decade, and with it the rise in the standard of living.

The Administration's near- and medium-term economic projections assume that the economy will not face exceptional disturbances in the coming years, unlike the last five. With that provision, the Administration anticipates strong, sustained growth, rising employment, and relatively low inflation and interest rates. The economic assumptions underlying the budget are close to those of the consensus of private-sector forecasts, and for real growth below those of the Congressional Budget Office. The prospects of a lengthy sustained expansion, exceptionally high productivity growth, and the Administration's policies mean that actual performance could exceed the official projections. In the interest of sound, prudent budgeting, however, the Administration has adopted a cautious economic forecast.

Policy Actions

Fiscal Policy: The Administration proposed, and Congress enacted, significant tax relief in each of the past four years designed to overcome the shocks that were restraining the economy and restore strong growth of output, income, and jobs. In addition to providing much needed near-term stimulus, the 2001 and 2003 Acts also were designed to raise long-term growth by reducing the disincentives and distortions in the tax system. These Acts reduced marginal tax rates on income, dividends, and capital gains. Lower tax rates encourage individuals and businesses to produce more, save more, and invest more. More saving and investment create capital, add to economic growth, and raise the standard of living. The combined tax relief from the four Acts totaled $68 billion in fiscal year 2001, $89 billion in 2002, $159 billion in 2003, and $272 billion in 2004, moderating to $189 billion in 2005.

Economic Growth and Tax Relief and Reconciliation Act: This act lowered marginal income tax rates; reduced the marriage tax penalty; and created a new, lower 10 percent tax bracket, among other changes. In July 2001, near the low point of the 2001 recession, taxpayers began receiving rebate checks reflecting their lower liability with the new 10 percent bracket; lower withholding schedules also went into effect at that time. With the benefit of hindsight, the fiscal stimulus from the tax relief was exceptionally well-timed: economic growth during the prior half-year had ground to a halt, yet it had resumed by year-end despite the terrorist attacks on September 11th.

Job Creation and Worker Assistance Act: In March 2002, the President signed this Act, which was designed to halt the ongoing slide in business capital spending and to aid unemployed workers. The Act permitted immediate depreciation of 30 percent of the value of qualified new capital assets put in place during the three years ending in September 11, 2004. Accelerated depreciation provided an incentive for firms to invest. For a limited time, more of a qualified investment could be written-off for tax purposes, thereby lowering the cost of capital and providing an incentive for firms to speed up their capital spending. The Act also extended unemployment insurance benefits to workers who had exhausted their normal benefits.

Jobs and Growth Tax Relief Reconciliation Act: In May 2003, the President signed both another extension of unemployment insurance benefits and the 2003 jobs and growth tax cut, which was designed to invigorate the lackluster recovery then underway. The Act lowered income tax rates, reduced the marriage penalty, raised the child tax credit, and raised the exemption amount for the individual Alternative Minimum Tax. Significantly, the Act reduced income tax rates on dividend income and capital gains, which reduced distortions in the tax code from the double taxation of corporate earnings. To stimulate business capital spending further, the Act raised the percentage of an asset's value that could be expensed immediately from 30 to 50 percent and lengthened the window of opportunity for businesses to take advantage of this benefit from September 11, 2004 to the end of the year. The Act also improved the outlook for small business investment and hiring by raising the maximum amount that a small business could expense from $25,000 per year to $100,000.

Working Families Tax Relief Act: In October 2004, the President signed this Act, which extended parts of the President's tax relief plan that were scheduled to expire at the end of 2004 and reinstated several expired or expiring business-related tax incentives. In doing so, the Act protected taxpayers from several scheduled tax increases. The Act also provided tax relief to certain military personnel with families, and simplified the tax code for many families by creating a uniform definition of a qualifying child for tax purposes.

The short-term benefits of the substantial tax relief of the past four years are evident in the strong expansion now underway. The longer-term benefits will be apparent in a more efficient allocation of the Nation's resources in coming years and a sustained increase in economic activity.

Monetary Policy: During the past four years, monetary policy has been focused on overcoming negative shocks and restoring strong, sustained growth. From the beginning of 2001 through mid-2003, the Federal Reserve lowered the target Federal funds rate 13 times, from 6½ percent to 1 percent. That low rate was maintained until June 2004 when the Federal Reserve began to increase the funds rate gradually. Over the course of 2004, it became increasingly evident that the economy was once again growing strongly and labor mar-

kets were improving, which reduced the need for monetary stimulus.

By December 2004, the Federal Reserve had raised the funds rate to 2¼ percent, a level that it believed was still accommodative. In its statement accompanying the December increase, the Federal Reserve indicated that it intended to move at a measured pace to reduce the accommodative stance of monetary policy further. As of early January, financial futures markets expected the funds rate to reach 3 percent by the end of 2005.

As a result of the accommodative monetary policy along with low expected inflation and sub-par growth, interest rates fell sharply from mid-2000 to mid-2003. The 91-day Treasury bill rate tracked the path of the funds rate, dropping by about 5 percentage points from its 2000 peak to a plateau of about 1 percent from mid-2003 to mid-2004, then rising to 2.2 percent by the end of 2004. As is usually the case, the swings in the longer-term interest rates were less than those of short-term rates. The yield on the 10-year Treasury note, for example, fell three percentage points from mid-2000 to 3.2 percent by mid-2003. This was its lowest level since the late 1950s. The yield fluctuated around a mild upward trend from mid-2003 to the end of 2004, finishing the year at 4.2 percent, a level that is still relatively low.

Private-sector financial instruments followed a similar pattern to U.S. Treasuries. The rate on 30-year fixed rate mortgages, for example, fell to 5.2 percent in June 2003, which was its lowest level since the early 1960s. The mortgage rate, like the long-term Treasury yield, then fluctuated around an upward trend and by the end of December 2004 had reached a level of 5.7 percent. Even so, the mortgage rate remained below its level in any month from the mid-1960s to early-2003.

Low interest rates have spurred interest-sensitive spending on such items as motor vehicles and housing. They have enabled homeowners to refinance their mortgages, saving on mortgage payments and enabling families to access some of their built-up home equity. Lower interest rates have enabled consumers, businesses, and governments to reduce their interest expenses. Finally, low rates have helped support the stock market.

In late 2002, the stock market responded to the cumulative effects of fiscal and monetary stimulus and the prospects of strong, sustained growth. Equity prices rose rapidly from the end of the third quarter of 2002 through the end of 2003. After remaining about unchanged during the first eight months of 2004, equity prices rose strongly once again. All told, from the beginning of October 2002 to the end of 2004, the S&P 500 and the Dow Jones Industrial Average gained about 45 percent; the hard-hit, technology-laden NASDAQ soared 85 percent. By the end of 2004, the S&P, NASDAQ and the Dow were at their highest levels since June 2001.

Recent Developments

Economic Growth: Beginning in the second quarter of 2003, the contractionary forces that had held back growth during the initial phase of the recovery gave way to stronger forces of expansion. During the year ending in the first quarter of 2004, inflation-adjusted Gross Domestic Product (GDP) increased 5.0 percent, the fastest advance of any four-quarter period in nearly two decades. Growth moderated to a 3.3 percent pace in the second quarter, but then picked up in the third quarter to a substantial 4.0 percent rate. Growth in the fourth quarter continued at a healthy pace. (Official estimates of fourth quarter growth were not available at the time the Budget was printed.) Although still relatively strong, growth in 2004 was hampered by the rise in oil prices.

Labor Market: In response to this stronger growth of output, the labor market also improved markedly. The Nation's payrolls began to increase in September 2003; by December 2004, there were 2.5 million more jobs than at the August low. (Based on preliminary indications from the Bureau of Labor Statistics, this figure is likely to be revised up, to at least 2.6 million, in the benchmark revision that will become available in early February after the Budget is printed.) The unemployment rate, which reached a peak of 6.3 percent in June 2003, fell to 5.4 percent by December 2004. Although still above its long-run sustainable rate, the level of the unemployment rate at the end of last year was lower than the average for the decades of the 1970s, 1980s, and 1990s.

Components of Aggregate Demand: During the six quarters from the second quarter of 2003 through the third quarter of 2004 (the latest quarter available when the Budget went to press), real GDP grew at a robust 4.6 percent annual average rate. That was a significant improvement from the sub-par 2.1 percent average pace during the first six quarters of the recovery. Faster growth of both consumer and business spending were largely responsible for the shift.

Consumer spending accounts for 70 percent of GDP, so its faster growth recently played a significant role in boosting overall growth. Consumer confidence took an upturn in early 2003, and as labor markets began to improve a few months later, consumers became increasingly willing and able to spend. During the six quarters ending in the third quarter of 2004, real consumer spending increased at a 3.9 percent annual rate, up from 3.3 percent during the prior six quarters. The saving rate, which had already declined to a historically low 1.0 percent by early 2003, fell even further to a mere 0.3 percent by November 2004. Underlying the gains in consumer spending have been increasing household wealth, led by higher home and stock prices, and rising after-tax incomes, supported by an improving labor market and tax relief.

Low mortgage interest rates and growing incomes also contributed to an exceptionally strong *housing* market. During the six quarters ending in the third

quarter of 2004, real residential investment rose at a 10.5 percent average annual rate, a considerable step up from the 5.2 percent pace during the initial six quarters of the expansion. Housing starts during the six quarters through the third quarter of last year were at the highest level in 25 years; home sales were at the highest level since recordkeeping began in the 1960s. Housing starts, home sales, and real residential investment eased during the second half of 2004, in part because of the rise in mortgage rates from their 2003 lows and in part because housing activity had risen to unsustainable levels. While the level of housing investment is expected to remain strong, housing is not projected to lead the expansion in 2005–2010.

The turnaround in *business capital spending* was even more dramatic and it contributed significantly to the step-up in the pace of overall economic activity. During the latest six quarters of available data, real business fixed investment grew at an average annual rate of 11.3 percent. In contrast, investment fell at a 6.2 percent pace during the prior six quarters. Underlying the recovery of capital spending has been the acceleration of overall output, more favorable financial conditions including low interest rates, a rising stock market, and the temporary provision of accelerated depreciation that expired at the end of 2004. Business investment is expected to continue at a rapid rate as the expansion matures.

The *foreign sector* was a small drag on overall growth during the six quarters through the third quarter of 2004, trimming about one-third of a percentage point from GDP growth. That was an improvement over the first six quarters of the expansion when net exports reduced growth by about three-quarters of a percentage point on average. Throughout the expansion, growth of U.S. exports was restrained by slow growth overseas. The exchange value of the dollar peaked in February 2002, declining 12 percent on a trade-weighted basis against the currencies of our major trading partners by September 2004. During the last three months of 2004, the dollar declined another six percent, which should work to reduce the U.S. trade imbalance during 2005. Although this has been a substantial decline, it has merely retraced an earlier run-up so that by mid-January 2005 the dollar had returned to its level of 1997.

The *government sector* grew more slowly during the latest six quarters. Real Federal purchases continued to grow strongly, at a 6.1 percent annual rate, led by spending on the War on Terror, but real State and local purchases increased at a slow 0.3 percent pace, down from 2.4 percent during the first six quarters of the expansion. State and local governments restrained spending to cope with exceptionally large fiscal deficits created by the sharp fall-off in revenues from mid-2001 to early-2002. Although State and local government revenues are on the rise again, their combined revenues had only returned to their level in early 2001 by the third quarter of 2004.

Productivity Growth: In contrast to the initial six quarters of the expansion when output growth was entirely accounted for by strong productivity growth, during the subsequent six quarters both increased labor hours and productivity have contributed to increased output. Since the official business cycle peak in the first quarter of 2001, productivity has risen at a remarkable 4.2 percent average annual rate. By way of contrast, during 1996 through 2000, productivity growth averaged 2.5 percent per year, and during 1974 through 1995, productivity growth was a mere 1.4 percent on average. Usually productivity growth surges temporarily during the initial phase of a recovery and then slows markedly. In the current expansion, productivity growth during the six quarters ending in the third quarter of 2004 was even faster than during the prior six quarters.

The exceptional productivity performance during the last four years has helped keep inflation low and thereby enabled the Federal Reserve to focus monetary policy on overcoming shocks and restoring sustainable growth. Because of robust productivity growth, businesses have not had to rely on labor input to the extent they otherwise might have, which has hampered employment. Over the long term, however, the faster the growth of productivity, the faster will be the growth of our output and standard of living. In the long run, faster productivity growth will not permanently restrain employment growth.

Inflation: The Consumer Price Index (CPI) rose 3.3 percent during 2004, up from 1.9 percent during 2003. Much of the pick up was due to a surge in energy prices, which rose at a 17 percent annual rate, compared with just 7 percent during 2003. Excluding the volatile food and energy components, the core CPI rose 2.2 percent during 2004, compared with 1.1 percent during 2003.

Higher energy prices may have indirectly contributed to higher core inflation as they fed through to the costs of non-energy goods and services. Businesses also may have increased their markup of prices over unit labor costs, which had been subdued by weak demand earlier in the expansion. Reflecting the decline in crude oil prices in the closing months of 2004, gasoline prices moved down in November and December, suggesting that the energy-related upward push on the CPI was abating.

Summary: Entering 2005, the economy appears poised for continued strong expansion. Overall growth, led by consumer and business spending, is at a pace that suggests the steady creation of new jobs and a lower unemployment rate. Core inflation, although higher than in 2003, is still relatively low. Interest rates, too, are at historically low levels.

Economic Projections

The Administration's economic projections, based on information available as of early December, are summarized in Table 12–1. These assumptions are close to those of the Congressional Budget Office and the con-

sensus of private-sector forecasters, as described in more detail below and shown in Table 12–2. In brief, the assumptions call for a continuation of the recent trends of strong, sustained growth, improving labor markets, low inflation, and, even allowing for a projected rise in the next few years, relatively low interest rates.

Real GDP, Potential GDP, and Unemployment Rate: Real GDP, which is estimated to have increased 4.4 percent in 2004 on a year-over-year basis, is projected to increase 3.6 percent this year. During the next few years, growth is likely to continue to exceed the long-run potential growth rate. As a result, the unemployment rate, at 5.4 percent in December, is projected to decline to 5.1 percent at the end of 2006 and then remain at that level. That rate is the center of the range that is thought to be consistent with stable inflation. The main sources of growth in demand in coming years are likely to be business capital spending, net exports, and to a lesser extent, consumer spending. The contributions to overall growth from residential investment and the government sector are expected to be small at best.

Potential growth is approximately equal to the sum of the trend rates of growth of the labor force and of productivity. Potential GDP growth is projected to be 3.2 percent through 2008, and then edge down to 3.1 percent during 2009–2010, primarily because of an assumed slowing in labor force growth. The labor force is projected to grow about 1.2 percent per year through 2008 on average, slowing to about 0.8 percent yearly on average during 2009–2010 as increasing numbers of baby boomers enter retirement.

Trend productivity growth is assumed, conservatively, to be 2.6 percent per year. That pace is noticeably below the average since the business cycle peak in the first quarter of 2001 (4.2 percent per year). It is, however, close to the pace during 1996–2000 (2.5 percent) and not far from the average since the official productivity series began in 1947 (2.3 percent).

Table 12–1. ECONOMIC ASSUMPTIONS [1]

(Calendar years; dollar amounts in billions)

	Actual 2003	Projections						
		2004	2005	2006	2007	2008	2009	2010
Gross Domestic Product (GDP):								
Levels, dollar amounts in billions:								
Current dollars	11,004	11,731	12,392	13,083	13,797	14,537	15,306	16,112
Real, chained (2000) dollars	10,381	10,842	11,233	11,626	12,011	12,395	12,782	13,179
Chained price index (2000=100), annual average	106.0	108.3	110.4	112.6	114.9	117.3	119.8	122.3
Percent change, fourth quarter over fourth quarter:								
Current dollars	6.2	6.3	5.5	5.6	5.4	5.4	5.3	5.3
Real, chained (2000) dollars	4.4	3.9	3.5	3.4	3.2	3.2	3.1	3.1
Chained price index (2000=100)	1.7	2.3	1.9	2.0	2.1	2.1	2.1	2.1
Percent change, year over year:								
Current dollars	4.9	6.6	5.6	5.6	5.5	5.4	5.3	5.3
Real, chained (2000) dollars	3.0	4.4	3.6	3.5	3.3	3.2	3.1	3.1
Chained price index (2000=100)	1.8	2.1	1.9	2.0	2.1	2.1	2.1	2.1
Incomes, billions of current dollars:								
Corporate profits before tax	874	998	1,307	1,276	1,265	1,266	1,270	1,292
Wages and salaries	5,104	5,345	5,649	5,988	6,340	6,719	7,104	7,502
Other taxable income [2]	2,311	2,451	2,549	2,675	2,798	2,917	3,047	3,181
Consumer Price Index: [3]								
Level (1982–84=100), annual average	184.0	188.9	193.4	197.8	202.5	207.4	212.4	217.5
Percent change, fourth quarter over fourth quarter	1.9	3.4	2.0	2.3	2.4	2.4	2.4	2.4
Percent change, year over year	2.3	2.7	2.4	2.3	2.4	2.4	2.4	2.4
Unemployment rate, civilian, percent:								
Fourth quarter level	5.9	5.4	5.3	5.1	5.1	5.1	5.1	5.1
Annual average	6.0	5.5	5.3	5.2	5.1	5.1	5.1	5.1
Federal pay raises, January, percent:								
Military [4]	4.7	4.15	3.5	3.1	NA	NA	NA	NA
Civilian [5]	4.1	4.1	3.5	2.3	NA	NA	NA	NA
Interest rates, percent:								
91-day Treasury bills [6]	1.0	1.4	2.7	3.5	3.8	4.0	4.1	4.2
10-year Treasury notes	4.0	4.3	4.6	5.2	5.4	5.5	5.6	5.7

NA = Not Available.

[1] Based on information available as of December 3, 2004.

[2] Dividends, rent, interest and proprietors' income components of personal income.

[3] Seasonally adjusted CPI for all urban consumers.

[4] Percentages apply to basic pay only; 2003 and 2004 figures are averages of various rank- and longevity- specific adjustments; percentages to be proposed for years after 2006 have not yet been determined.

[5] Overall average increase, including locality pay adjustments. Percentages to be proposed for years after 2006 have not yet been determined.

[6] Average rate, secondary market (bank discount basis).

Inflation: Inflation increased in 2004, in large part because of the surge in energy prices. With the recent easing of these prices, inflation is likely to be lower in 2005. On a year-over-year basis, the CPI is projected to increase 2.4 percent this year and remain close to that level in each year through 2010. This inflation rate is lower than the average during each decade of the 1970s, 1980s, and 1990s. The GDP chain-weighted price index is projected to increase around 2.0 percent in each year through 2010, slightly less than the CPI, which is the usual pattern.

The forecast of low inflation reflects the current very low core inflation rate, modest inflationary expectations, the additional downward pressure on wages and prices that will persist until excess labor and capital resources are fully re-employed, and the Federal Reserve's focus on removing policy accommodation at a measured pace so as to avoid an over-heated economy.

Interest Rates: As usually occurs during an expansion, interest rates are projected to rise. The 3-month Treasury bill rate, which was 2.2 percent at the end of December, is expected to increase to 4.2 percent by 2010. The yield on the 10-year Treasury note, 4.2 percent at the end of last year, is projected to increase to 5.7 percent by 2010. The larger increase at the shorter end of the maturity spectrum than at the longer end is also typical of past cyclical experience.

The forecast rates are historically low: the projected averages for 3-month and 10-year Treasuries during 2005–2010 are lower than the averages for these instruments during each decade of the 1970s, 1980s, and 1990s. The relatively low projected yields are due largely to the relatively low projected inflation rate. Adjusted for inflation, the projected real interest rates are close to their historical averages.

Income Shares: The share of labor compensation in GDP is projected to rise from its low level in 2004 while the share of corporate profits is projected to decline from the unusually high levels of 2004 and anticipated for 2005. In recent years, growth of labor compensation adjusted for inflation has not kept up with the growth of productivity. During the projection period, however, labor compensation is expected to catch up, which would raise the labor share in GDP back to its historical average.

Among the components of labor compensation, the wage share in GDP is expected to rise from its recent low level while the share of supplements to wages and salaries is expected to remain at around the high level reached in 2004. The supplement share in GDP has risen because of rapidly growing health insurance contributions paid by employers and by sharply higher employer contributions to defined-benefit pension plans.

Corporate profits before tax as shown in Table 12.1 jumps sharply as a share of GDP in 2005 because of the end of the accelerated depreciation permitted by the 2002 and 2003 tax acts. Accelerated depreciation lowered profits before tax compared with what they otherwise would have been in 2003 and 2004 by allowing firms to write off more of their investment sooner. After 2004, however, corporate profits before tax will increase both because new investment will not qualify for the temporary acceleration and because the remaining depreciation permitted on investment that used this provision will be less.

Among the other income components, the share of personal interest income in GDP is projected to decline reflecting the low nominal interest rates of recent years. The remaining shares of the tax base (dividends, rental income, and proprietors' income) are projected to remain relatively stable at around their 2004 levels.

Comparison with CBO and Private-Sector Forecasts

In addition to the Administration, the Congressional Budget Office (CBO) and many private-sector forecasters also make economic projections. CBO develops its projections to aid Congress in formulating budget policy. In the executive branch, this function is performed jointly by the Treasury, the Council of Economic Advisers, and the Office of Management and Budget. Private-sector forecasts are often used by businesses for long-term planning. Table 12–2 compares the 2006 Budget assumptions with projections by the CBO and the Blue Chip Consensus, an average of about 50 private-sector forecasts.

The three sets of economic assumptions are based on different underlying assumptions concerning economic policies. The private-sector forecasts are based on their appraisals of the most likely policy outcomes, which vary among the forecasters. The Administration forecast generally assumes that the President's Budget proposals will be enacted. The CBO baseline projection assumes that current law as of the time the estimates are made remains forever unchanged. Despite their differing policy assumptions, the three sets of economic projections, shown in Table 12–2, are very close. The similarity of the Budget economic projection to both the CBO baseline projection and the Consensus forecast underscores the cautious nature of the Administration forecast.

For real GDP, the Administration, CBO, and the Blue Chip Consensus anticipate strong growth this year. The Administration projects 3.6 percent growth on a year-over-year basis, about the same as the private sector consensus and slightly below CBO's forecast. For calendar year 2006, the Administration, at 3.5 percent, is mid-way between the consensus (at 3.4 percent), and CBO's 3.7 percent. Thereafter, the Administration's projection is very close to the consensus growth rate but generally below CBO's. Over the six-year span as a whole, the Administration and the private sector consensus both project a 3.3 percent average annual growth rate, CBO 3.5 percent.

All three forecasts anticipate continued low inflation in the range of 1.5 to 2.1 percent as measured by the GDP chain-weighted price index, and between 1.9 and 2.5 percent as measured by the CPI, with CBO lower than the Administration and the private sector consensus, which are close to each other. The three unem-

Table 12–2. COMPARISON OF ECONOMIC ASSUMPTIONS

(Calendar years)

	Projections						Average, 2005–10
	2005	2006	2007	2008	2009	2010	
GDP (billions of current dollars):							
2006 Budget	12,392	13,083	13,797	14,537	15,306	16,112	
CBO January	12,396	13,059	13,766	14,486	15,210	15,940	
Blue Chip Consensus January [2]	12,398	13,066	13,762	14,496	15,265	16,098	
Real GDP (chain-weighted): [1]							
2006 Budget	3.6	3.5	3.3	3.2	3.1	3.1	3.3
CBO January	3.8	3.7	3.7	3.4	3.1	2.9	3.5
Blue Chip Consensus January [2]	3.6	3.4	3.2	3.2	3.1	3.3	3.3
Chain-weighted GDP Price Index: [1]							
2006 Budget	1.9	2.0	2.1	2.1	2.1	2.1	2.0
CBO January	1.8	1.5	1.7	1.8	1.8	1.8	1.7
Blue Chip Consensus January [2]	2.0	2.0	2.1	2.1	2.1	2.1	2.1
Consumer Price Index (all-urban): [1]							
2006 Budget	2.4	2.3	2.4	2.4	2.4	2.4	2.4
CBO January	2.4	1.9	2.1	2.2	2.2	2.2	2.2
Blue Chip Consensus January [2]	2.5	2.3	2.4	2.4	2.4	2.4	2.4
Unemployment rate: [3]							
2006 Budget	5.3	5.2	5.1	5.1	5.1	5.1	5.2
CBO January	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Blue Chip Consensus January [2]	5.2	5.2	5.1	5.1	5.1	5.1	5.1
Interest rates: [3]							
91-day Treasury bills:							
2006 Budget	2.7	3.5	3.8	4.0	4.1	4.2	3.7
CBO January	2.8	4.0	4.6	4.6	4.6	4.6	4.2
Blue Chip Consensus January [2]	3.0	3.8	4.1	4.3	4.2	4.2	3.9
10-year Treasury notes:							
2006 Budget	4.6	5.2	5.4	5.5	5.6	5.6	5.3
CBO January	4.8	5.4	5.5	5.5	5.5	5.5	5.4
Blue Chip Consensus January [2]	4.7	5.3	5.6	5.6	5.6	5.6	5.4

Sources: Congressional Budget Office; Blue Chip Economic Indicators, Aspen Publishers, Inc.
[1] Year-over-year percent change.
[2] January 2005 Blue Chip Consensus forecast for 2005 and 2006; Blue Chip October 2004 long-run extension for 2007 - 2010.
[3] Annual averages, percent.

ployment rate projections are also similar with a projected rate just above 5 percent in the later years of the forecast. All three project slightly rising interest rates during the next few years, with CBO's increase slightly larger than those of the Administration and the private sector projection.

Changes in Economic Assumptions

The economic assumptions underlying this Budget are similar to those of the 2005 Budget, as shown in Table 12–3.

As in last year's Budget, real GDP growth is expected to be 3.6 percent in 2005 on a year-over-year basis and moderate gradually to 3.1 percent in the outyears. Consequently, the levels of real GDP projected this year are little changed from those of the 2005 Budget when allowance is made for the Commerce Department's historical revisions to the National Income and Product Accounts released in July 2004. The level of nominal GDP is now projected to be higher than in the 2005 Budget because of a faster-than-expected rise in the GDP price index last year and higher projected GDP inflation in the coming years.

The unemployment rate projection is virtually identical to last year's. As in the 2005 Budget, the rate is expected to decline to 5.1 percent by 2007 and remain at that relatively low level. Interest rates are expected to trend upward, as before. However, by 2009 the 3-month Treasury bill rate is projected to be 0.3 percentage point lower than in the 2005 Budget, and the yield on the 10-year Treasury note is expected to be 0.2 percentage point lower.

Structural and Cyclical Balances

When the economy is operating below potential, as is projected to be the case for the next few years, the unemployment rate exceeds the long-run sustainable average consistent with price stability. As a result, receipts are lower than they would be if resources were more fully employed, and outlays for unemployment-sensitive programs (such as unemployment compensation and food stamps) are higher; the deficit is larger (or the surplus is smaller) than would be the case if the unemployment rate were at its sustainable long-run average. The portion of the deficit (or surplus) that can be traced to this factor can be called the cyclical component. The portion that would remain if the unem-

Table 12–3. COMPARISON OF ECONOMIC ASSUMPTIONS IN THE 2005 AND 2006 BUDGETS

(Calendar years; dollar amounts in billions)

	2004	2005	2006	2007	2008	2009	2010
Nominal GDP:							
2005 Budget assumptions [1]	11,622	12,197	12,807	13,460	14,163	14,902	15,671
2006 Budget assumptions	11,731	12,392	13,083	13,797	14,537	15,306	16,112
Real GDP (2000 dollars):							
2005 Budget assumptions [1]	10,837	11,226	11,608	11,994	12,377	12,763	13,159
2006 Budget assumptions	10,842	11,233	11,626	12,011	12,395	12,782	13,179
Real GDP (percent change): [2]							
2005 Budget assumptions	4.4	3.6	3.4	3.3	3.2	3.1	3.1
2006 Budget assumptions	4.4	3.6	3.5	3.3	3.2	3.1	3.1
GDP price index (percent change): [2]							
2005 Budget assumptions	1.2	1.3	1.5	1.7	2.0	2.0	2.0
2006 Budget assumptions	2.1	1.9	2.0	2.1	2.1	2.1	2.1
Consumer Price Index (percent change): [2]							
2005 Budget assumptions	1.4	1.5	1.8	2.1	2.4	2.5	2.5
2006 Budget assumptions	2.7	2.4	2.3	2.4	2.4	2.4	2.4
Civilian unemployment rate (percent): [3]							
2005 Budget assumptions	5.6	5.4	5.2	5.1	5.1	5.1	5.1
2006 Budget assumptions	5.5	5.3	5.2	5.1	5.1	5.1	5.1
91-day Treasury bill rate (percent): [3]							
2005 Budget assumptions	1.3	2.4	3.3	4.0	4.3	4.4	4.4
2006 Budget assumptions	1.4	2.7	3.5	3.8	4.0	4.1	4.2
10-year Treasury note rate (percent): [3]							
2005 Budget assumptions	4.6	5.0	5.4	5.6	5.8	5.8	5.8
2006 Budget assumptions	4.3	4.6	5.2	5.4	5.5	5.6	5.7

[1] Adjusted for July 2004 NIPA revisions.
[2] Year-over-year.
[3] Calendar year average.

Table 12–4. ADJUSTED STRUCTURAL BALANCE

(In billions of dollars)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Unadjusted surplus or deficit (–)	125.5	236.2	128.2	–157.8	–377.6	–412.1	–426.6	–390.1	–312.1	–250.8	–232.9	–207.3
Cyclical component	86.3	127.3	66.0	–62.8	–102.0	–60.2	–30.0	–13.4	–0.7	–0.2	.....	.....
Structural surplus or deficit (–)	39.2	108.8	62.1	–95.0	–275.6	–351.9	–396.6	–376.6	–311.4	–250.6	–232.9	–207.3
Deposit insurance outlays	5.3	3.1	1.6	1.0	1.4	2.0	0.3	1.0	2.3	2.3	2.2	1.8
Adjusted structural surplus or deficit (–)	44.5	111.9	63.7	–94.0	–274.1	–350.0	–396.3	–375.7	–309.1	–248.3	–230.7	–205.5

NOTE: The NAIRU is assumed to be 5.2% through calendar year 1998 and 5.1% thereafter.

ployment rate was at its long-run value is then called the structural deficit (or structural surplus).

Historically, the structural balance has often provided a clearer understanding of the stance of fiscal policy than has the unadjusted budget balance which includes a cyclical component. In the typical post-World War II business cycle, the structural balance has provided a clearer gauge of the surplus or deficit that would persist in the long run with the economy operating at the sustainable level of unemployment.

Conventional estimates of the structural balance are based on the historical relationship between changes in the unemployment rate and real GDP growth on the one hand, and receipts and outlays on the other. For various reasons, these estimated relationships do not take into account all of the cyclical changes in the economy. One example of a cyclical phenomenon not captured in these estimates was the sharply rising stock market during the second half of the 1990s. It boosted capital gains-related receipts and pulled down the deficit. The subsequent fall in the stock market reduced receipts and added to the deficit. Some of this rise and fall was cyclical in nature. Receipts would probably be higher today, if the cyclical component were removed from the stock market, although recently the stock market has recovered some of its earlier losses with a positive effect on receipts. It is not possible, however, to estimate the cyclical component of the stock market accurately, and for that reason, all of the stock market's contribution to receipts is counted in the structural balance.

Other factors unique to the current economic cycle provide other examples of less than complete cyclical adjustment. The extraordinary fall-off in labor force participation, from 67.1 percent of the U.S. population in 1997–2000, to 66.0 percent in 2004 appears to be

at least partly cyclical in nature, and most forecasters are assuming some rebound in labor force participation as the expansion continues. Since the official unemployment rate does not include workers who have left the labor force, the conventional measures of potential GDP, incomes and Government receipts understate the extent to which potential work hours have been underutilized in the current expansion to date because of the decline in labor force participation.

A third example is the fall-off in the wage and salary share of GDP, from 49.2 percent in 2000 to 45.5 percent in the third quarter of 2004. Again this change is widely suspected to be at least partly cyclical. Since Federal taxes depend heavily on wage and salary income, the larger-than-predicted decline in the wage share of GDP suggests that the true cyclical component of the deficit is understated for this reason as well.

There are also lags in the collection of tax revenue that can delay the impact of cyclical effects beyond the year in which they occur. The result is that even after the unemployment rate has fallen, receipts may remain cyclically depressed for some time until these lagged effects have dissipated.

For all these reasons, the current estimates of the cyclical deficit are probably understated and perhaps by a large margin. The current unemployment gap is only 0.3 percentage points, and the Administration forecasts that the gap will be closed within two years, but in the broader sense discussed above, the cyclical gap in receipts is likely to be much larger than this and will not close as quickly.

From 1999 to 2001, the unemployment rate appears to have been lower than could be sustained in the long run. Therefore, as shown in Table 12–4, in those years the structural surplus was smaller than the actual surplus, which was enlarged by the boost to receipts and the reduction in outlays associated with the low level of unemployment.

Sensitivity of the Budget to Economic Assumptions

Both receipts and outlays are affected by changes in economic conditions. This sensitivity complicates budget planning because errors in economic assumptions lead to errors in the budget projections. It is therefore useful to examine the implications of possible changes in economic assumptions. Many of the budgetary effects of such changes are fairly predictable, and a set of rules of thumb embodying these relationships can aid in estimating how changes in the economic assumptions would alter outlays, receipts, and the surplus or deficit. These rules of thumb should be understood as suggesting orders of magnitude; they ignore a long list of secondary effects that are not captured in the estimates.

Economic variables that affect the budget do not usually change independently of one another. Output and employment tend to move together in the short run: a high rate of real GDP growth is generally associated with a declining rate of unemployment, while moderate or negative growth is usually accompanied by rising unemployment. In the long run, however, changes in the average rate of growth of real GDP are mainly due to changes in the rates of growth of productivity and labor force, and are not necessarily associated with changes in the average rate of unemployment. Inflation and interest rates are also closely interrelated: a higher expected rate of inflation increases interest rates, while lower expected inflation reduces rates.

Changes in real GDP growth or inflation have a much greater cumulative effect on the budget over time if they are sustained for several years than if they last for only one year. Highlights of the budgetary effects of the above rules of thumb are shown in Table 12–6.

For real growth and employment:

- As shown in the first block, if in 2005 for one year only, real GDP growth is lower by one percentage point and the unemployment rate permanently rises by one-half percentage point relative to the budget assumptions, the fiscal year 2005 deficit is estimated to increase by $13.0 billion; receipts in 2005 would be lower by $10.2 billion, and outlays would be higher by $2.8 billion, primarily for unemployment-sensitive programs. In fiscal year 2006, the estimated receipts shortfall would grow further to $21.8 billion, and outlays would increase by $8.1 billion relative to the base, even though the growth rate in calendar year 2006 equaled the rate originally assumed. This is because the level of real (and nominal) GDP and taxable incomes would be permanently lower, and unemployment permanently higher. The budget effects (including growing interest costs associated with larger deficits) would continue to grow slightly in each successive year. During 2005–2010, the cumulative increase in the budget deficit is estimated to be $195 billion.
- The budgetary effects are much larger if the real growth rate is permanently reduced by one percentage point and the unemployment rate is unchanged, as shown in the second block. This scenario might occur if trend productivity were permanently lowered. In this example, during 2005–2010, the cumulative increase in the budget deficit is estimated to be $529 billion.
- The third block shows the effect of a one percentage point higher rate of inflation and one percentage point higher interest rates during calendar year 2005 only. In subsequent years, the price level and nominal GDP would be one percent higher than in the base case, but interest rates and future inflation rates are assumed to return to their base levels. In 2005 and 2006, outlays would be above the base by $11.0 billion and $19.1 billion, respectively, due in part to lagged cost-of-living adjustments. Receipts would fall by $10.0 billion in 2005, due to the temporary effect of higher interest rates on finanical corporations' profits and taxes, but then would rise by $28.4 billion above the base in 2006 due to the sustained

effects of inflation on the tax base, resulting in a $9.3 billion improvement in the 2006 budget balance. In subsequent years, the amounts added to receipts would continue to be larger than the additions to outlays. During 2005–2010, cumulative budget deficits would be $38 billion smaller than in the base case.

- In the fourth block example, the rate of inflation and the level of interest rates are higher by one percentage point in all years. As a result, the price level and nominal GDP rise by a cumulatively growing percentage above their base levels. In this case, the effects on receipts and outlays mount steadily in successive years, adding $388 billion to outlays over 2005–2010 and $492 billion to receipts, for a net decrease in the 2005–2010 deficits of $104 billion.

The table also shows the interest rate and the inflation effects separately. These separate effects for interest rates and inflation rates do not sum to the effects for simultaneous changes in both. This occurs largely because the gains in budget receipts due to higher inflation result in higher debt service savings when interest rates are assumed to be higher as well (the combined case) than when interest rates are assumed to be unchanged (the separate case).

- The outlay effects of a one percentage point increase in interest rates alone are shown in the fifth block. The receipts portion of this rule-of-thumb is due to the Federal Reserve's deposit of earnings on its securities portfolio and the short-term effect of interest rate changes on financial corporations' profits (and taxes).
- The sixth block shows that a sustained one percentage point increase in the GDP chain-weighted price index and in CPI inflation decrease cumulative deficits by a substantial $257 billion during 2005–2010. This large effect is because the receipts from a higher tax base exceeds the combination of higher outlays from mandatory cost-of-living adjustments and lower receipts from CPI indexation of tax brackets.

The last entry in the table shows rules of thumb for the added interest cost associated with changes in the budget deficit.

The effects of changes in economic assumptions in the opposite direction are approximately symmetric to those shown in the table. The impact of a one percentage point lower rate of inflation or higher real growth would have about the same magnitude as the effects shown in the table, but with the opposite sign.

Table 12–5. SENSITIVITY OF THE BUDGET TO ECONOMIC ASSUMPTIONS

(In billions of dollars)

Budget effect	2005	2006	2007	2008	2009	2010	Total of Effects, 2005-2010
Real Growth and Employment							
Budgetary effects of 1 percent lower real GDP growth:							
(1) For calendar year 2005 only: [1]							
Receipts	–10.2	–21.8	–24.3	–25.6	–27.0	–28.4	–137.2
Outlays	2.8	8.1	8.8	10.6	12.5	14.7	57.4
Increase in deficit (–)	–13.0	–29.8	–33.0	–36.2	–39.5	–43.1	–194.6
(2) Sustained during 2005–2010, with no change in unemployment:							
Receipts	–10.4	–34.0	–62.9	–94.5	–129.0	–166.3	–497.1
Outlays	*	0.5	2.1	5.0	9.3	15.3	32.2
Increase in deficit (–)	–10.4	–34.5	–65.0	–99.5	–138.4	–181.6	–529.3
Inflation and Interest Rates							
Budgetary effects of 1 percentage point higher rate of:							
(3) Inflation and interest rates during calendar year 2005 only:							
Receipts	–10.0	28.4	37.1	24.7	26.0	27.4	133.6
Outlays	11.0	19.1	17.5	16.3	15.7	15.5	95.2
Decrease in deficit (+)	–21.0	9.3	19.6	8.3	10.3	11.9	38.4
(4) Inflation and interest rates, sustained during 2005–2010:							
Receipts	–10.0	22.7	67.2	100.7	136.0	175.1	491.7
Outlays	11.4	34.5	56.9	76.8	95.0	113.3	387.8
Decrease in deficit (+)	–21.4	–11.8	10.4	24.0	41.0	61.8	103.9
(5) Interest rates only, sustained during 2005–2010:							
Receipts	–20.5	–11.4	6.3	11.8	16.0	20.9	23.1
Outlays	8.8	24.3	37.0	46.0	53.3	60.1	229.5
Increase in deficit (–)	–29.3	–35.7	–30.7	–34.1	–37.3	–39.2	–206.4
(6) Inflation only, sustained during 2005–2010:							
Receipts	10.5	34.0	60.8	88.6	119.7	153.8	467.4
Outlays	2.7	10.5	20.5	32.0	43.7	56.2	165.5
Decrease in deficit (+)	7.8	23.6	40.3	56.6	76.0	97.6	301.9
Interest Cost of Higher Federal Borrowing							
(7) Outlay effect of $100 billion increase in borrowing in 2005	1.3	3.5	4.2	4.7	5.0	5.4	24.2

* $50 million or less.

[1] The unemployment rate is assumed to be 0.5 percentage point higher per 1.0 percent shortfall in the level of real GDP.