ECONOMIC ASSUMPTIONS AND ANALYSES

12. ECONOMIC ASSUMPTIONS

By the end of 2006 the U.S. economy had entered its sixth year of expansion, with a moderate pace of economic growth, sustained increases in payroll jobs, relatively low levels of unemployment and underlying inflation, and good prospects for steady, sustained growth ahead.[1] The ongoing solid economic performance of recent years demonstrates the resilience of the U.S. economy and the beneficial effects of successful pro-growth policies, including tax relief, Federal Reserve monetary policy actions, and ongoing efforts to promote investment in innovative technologies and to liberalize international trade.

The performance of the past five years reveals the robust nature of the U.S. economic expansion and the ability of the economy to overcome a series of shocks, including: sharp declines in the stock market and in investment in business equipment that led to the economic slowdown and recession of 2000–2001; the terrorist attacks of September 11, 2001; the onset of the Global War on Terror; high and increasing prices for crude oil and energy in recent years; and the substantial damage and disruptions from the 2005 hurricane season. Further, during 2006, the U.S. economy began to experience adverse effects from a housing market slowdown. Despite these unfavorable events, the U.S. economy has continued to expand, with solid productivity and income growth, low unemployment, and the generation of more than 7.2 million payroll jobs since August 2003 (including revisions).

As 2007 begins, the Administration and other public and private forecasters expect the expansion to continue throughout the budget window, with sustained non-inflationary real growth providing a solid foundation for the Federal budget outlook.

Recent Economic Performance

At the time of the preparation of the Budget, real gross domestic product (GDP) in the U.S. economy has been increasing for 20 consecutive quarters, averaging 3.0 percent growth at an annual rate during the expansion. Over the four quarters of 2006, real GDP growth was on track to register about a 3.1 percent growth rate, following the same pace during 2005 and a 3.4 percent rate during 2004.

Increases in employment and ongoing strong gains in the efficiency of the U.S. workforce—that is, high growth in labor productivity—have combined to generate the sustained growth in real output in recent years.

- In labor markets, nonfarm payroll employment has increased by more than 7.2 million jobs since the post-recession low in August 2003, with about 2.0 million of those job gains occurring during 2006.
- Reflecting the improved labor situation, the unemployment rate was down to 4.5 percent in December 2006 from its post-recession high of 6.3 percent in June 2003—and recently has been at its lowest level in five years, and at levels below the averages of each of the past five decades.
- Labor productivity gains—the increase in output per hour of labor—have been remarkably strong during the expansion, providing a substantial boost to growth in real GDP. Output per hour in the nonfarm business sector has increased at a 3.0 percent average annual rate over the past five years, although at a slower 2.5 percent pace since the spring of 2003, reflecting the return to stronger employment growth.
- The productivity gains during the expansion reinforce the stronger trend productivity performance of the past decade. Since 1995, labor productivity in the nonfarm business sector has increased at about a 2.8 percent annual rate, double the 1.4 percent annual rate of gain in the period from 1973 to 1995.

Stronger growth in labor productivity is a fundamental building block for the longer-term performance of the economy and represents the essential basis for rising wages and increasing standards of living for American workers and families.

- Reflecting labor gains from stronger productivity growth, during 2006 real hourly earnings of production workers rose by 1.7 percent, the strongest annual gain in five years.
- Through November, real disposable personal income had increased by 3.0 percent at an annual rate during 2006, and the real per capita increase was at a 2.0 percent rate. By way of comparison, during the current expansion real disposable personal income per capita is up 9.7 percent, compared with the 6.7 percent increase during the equivalent period of the prior expansion of the 1990s.

Other economic indicators also provide evidence for the sustained growth performance of the U.S. economy in recent years and during 2006:

- Through the third quarter of 2006, real consumer spending had increased at a 3.4 percent annual rate, following increases at a 2.9 percent rate during 2005 and at a 4.0 percent rate during 2004. In the fourth quarter, consumption spending growth continued, providing a strong base for final demand in the economy at the end of the year.

[1] Economic performance is discussed in terms of calendar years. Budget figures are in terms of fiscal years.

- Real fixed business investment in structures showed strong gains in 2006, rising at a 15 percent annual rate through the third quarter of the year, on track to being the strongest annual increase in more than two decades.
- Real business investment in durable equipment and software increased by 7.1 percent at an annual rate through the third quarter of 2006, following the increases of 7.0 percent during 2005 and 8.3 percent during 2004.
- Real net exports improved during the year as real exports grew by 9.0 percent at an annual rate through the third quarter of 2006—on track to being the strongest performance in 10 years.

Although the underlying trend performance of the U.S. economy has been good and the gains have translated into solid growth of output, incomes, wages, and accumulating wealth, the economy continues to face important challenges—some new, some ongoing including:

- *The housing market* and residential investment activity generally slowed sharply during 2006, subtracting significantly from real GDP growth as the year went on. Housing starts peaked at an annual rate of more than 2.2 million units early in the year, but fell back to about a 1.5 million to 1.6 million annual pace near the end of the year—the lowest in about 5 years. During 2006, real residential investment spending was on track to subtract about 0.7 percentage point from overall real GDP growth.
- *Manufacturing activity* showed signs of slowing at the end of the summer and into the fall. Industrial production of consumer durables slipped in September and October, reflecting declines in production of motor vehicles, energy products, and residential appliances, furniture, and carpeting. Survey measures of manufacturing activity also showed slowing activity. Even so, manufacturing industrial production rose in December and was 3.3 percent higher than in December 2005.
- *Energy prices*—notably crude oil, natural gas, and gasoline prices—increased sharply over the past five years and continued at relatively high levels during much of 2006. For example, the benchmark price for West Texas Intermediate crude oil increased from under $20 a barrel in December 2001 to about $74 a barrel in July 2006. Over the same period, the national average retail gasoline price rose from $1.09 a gallon to $2.98 a gallon. Some relief occurred during the second half of 2006 as the price of crude oil fell back to below $61 a barrel by the end of the year, and the retail gasoline price fell to $2.34 a gallon.
- *The lingering effects from hurricane damage* presented challenges during 2006 as the economy worked through and rebounded from the adverse effects of the severe 2005 hurricane season. Some of the persisting high energy prices in the first half of the year described above can be attributed to effects from hurricane damage to key oil, natural gas, and refining facilities.
- *Inflation* initially increased as the rise in energy and gasoline prices contributed to higher inflation rates during 2005 and through the middle of 2006—but price increases began to moderate by the end of 2006. The consumer price index (CPI) rose 2.5 percent during 2006 (December to December), down from a 3.4 percent rate during 2005.
- *Core inflation* rose during the first half of 2006 and then began to subside. Abstracting from volatile food and energy items shows that "core" CPI inflation was 2.6 percent during 2006, up from 2.2 percent during 2005. The price index for personal consumption expenditures excluding food and energy items from the National Income and Product Accounts (NIPAs)—which uses a method of calculation that eliminates one source of upward bias that exists in the CPI measures—was up at a 2.3 percent annual rate through November, compared to the 2.1 percent rate during 2005.
- *Imbalances in international accounts* persisted during 2006 with the trade deficit at about 6 percent of GDP and the current account deficit at nearly 7 percent of GDP. Even so, the international imbalances actually stabilized over the past year with little effect on real GDP growth—after having risen steadily over the past decade and subtracting 0.6 percentage point per year on average from GDP growth over that time.

The economy continued to grow in the face of these challenges, although growth has slowed somewhat over the past year. Despite the volatility in the overall rate of inflation, underlying inflation remains relatively subdued and was lower during the last six months than earlier in 2006. Meanwhile, expectations of future inflation do not appear to be adversely affecting business or household decisions. In general, despite adverse events and slowing performance in specific sectors, economic performance as a whole during 2006 confirms that the U.S. economy is on track for continued expansion with non-inflationary real growth.

Policy Background

The fiscal and monetary policies of the past five years have successfully contributed to the current good economic performance. The general fiscal policy outlook—as presented in the President's Budget—reflects the outlook for sustained expansion in the U.S. economy for the foreseeable future. Looking back, timely tax relief and reductions in interest rates promoted the economy's recovery from recession and helped the Nation overcome the adverse effects from the variety of shocks it faced. Those policies continue to provide a solid foundation for current and future economic performance.

Fiscal Policy: Beginning in 2001, the Administration proposed, and the Congress enacted, significant tax relief designed to overcome the shocks and recession—promoting recovery in the growth of output, income, and jobs—and to provide a strong basis for continued

economic expansion in the long term. Key tax relief legislation included:

- *The Economic Growth and Tax Relief and Reconciliation Act of 2001* lowered marginal income tax rates; reduced the marriage tax penalty; and created a new, lower 10 percent tax bracket, among other changes.
- *The Job Creation and Worker Assistance Act of 2002* permitted immediate depreciation of 30 percent of the value of qualified new capital assets put in place for three years. The Act also extended unemployment insurance benefits to workers who had exhausted their normal benefits.
- *The Jobs and Growth Tax Relief Reconciliation Act of 2003* lowered income tax rates, reduced the marriage penalty, raised the child tax credit, and raised the exemption amount for the individual Alternative Minimum Tax. The Act also reduced tax rates on dividend income and capital gains and expanded bonus depreciation and small business expensing of equipment purchases.

Additional legislation of recent years has extended tax relief, helping to ensure that key provisions would continue and not expire.

Monetary Policy and Interest Rates: As 2007 begins, the Federal Reserve continues to orient monetary policy toward promoting sustained non-inflationary real growth in the U.S. economy. As the expansion strengthened, the Federal Reserve raised the Federal funds rate in a steady series of increases from 1 percent to 5.25 percent. The Federal funds rate remained at 5.25 percent over the second half of 2006. In a recent policy statement, the Federal Open Market Committee stated that "the economy seems likely to expand at a moderate pace on balance over coming quarters... Nonetheless... some inflation risks remain." The Administration's forecast for the 3-month Treasury bill rate, presented below, was derived to be consistent with market expectations for the interest rate outlook at the time the forecast was completed.

During 2006, longer-term interest rates, notably the yield on 10-year Treasury notes, remained low by historical standards. The 10-year rate traded as low as 4.3 percent in January and as high as 5.25 percent in June, but it ended the year at 4.7 percent. With the Federal funds rate exceeding 5 percent for most of the year, the low 10-year Treasury yields during the year produced a somewhat inverted structure of interest rates across short- to long-term maturities.

Trade and Regulatory Policies and Competitiveness Initiatives: Beyond these budget and monetary policies, the Administration continues to work to advance a comprehensive set of policies to promote the short- and long-term performance of the U.S. economy, including trade and regulatory policies and initiatives aimed at boosting competitiveness in domestic and international markets. Expanding opportunities in international trade and investment is one of the Administration's top priorities. Efforts continue to negotiate and implement bilateral, regional, and multilateral agreements to promote international trade and investment with countries around the world. These policies create and expand markets for U.S. exports and strengthen the U.S. economy while also creating new economic opportunities for our trading partners—including helping to alleviate poverty in the developing world and promote democratic reform. The Administration's American Competitiveness Initiative is targeted at advancing U.S. competitiveness through promoting technological innovation, opening new markets, increasing research in the physical sciences and engineering, and protecting intellectual property. Efforts also continue to streamline and simplify Federal regulations that can hinder economic growth and job creation.

Economic Projections

The Administration's economic projections, based on information available as of mid-November 2006, are summarized in Table 12–1. These assumptions are close to those of the Congressional Budget Office and the consensus 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 sustained growth, solid jobs growth, low inflation, and relatively low interest rates.

Real GDP, Potential GDP, and Unemployment Rate: Real GDP, which is estimated to have increased 3.1 percent in 2006 on a fourth quarter-over-fourth quarter basis, is projected to increase 2.9 percent this year. During the next few years, both actual and potential growth are projected to moderate slightly from 3.1 percent for 2008 to 2.9 percent by 2012. As a result, the unemployment rate, which dipped as low as 4.4 percent late in 2006, is projected to edge up to its sustainable rate of 4.8 percent and 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 most.

For the private business sector of the economy, potential growth is approximately equal to the sum of the trend rates of growth of the labor force and of productivity. Potential growth of total GDP (including government sectors) is projected to be about 3.1 percent over the next two years, trending down to 2.9 percent by 2012, primarily because of an assumed slowing in labor force growth. The labor force is projected to grow about 1.0 percent per year through 2008 on average, slowing to about 0.7 percent yearly on average during 2009–2012 as increasing numbers of baby boomers enter retirement.

Table 12–1. ECONOMIC ASSUMPTIONS [1]

(Calendar years; dollar amounts in billions)

	Actual 2005	Projections						
		2006	2007	2008	2009	2010	2011	2012
Gross Domestic Product (GDP):								
Levels, dollar amounts in billions:								
Current dollars	12,456	13,248	13,946	14,711	15,507	16,316	17,148	18,003
Real, chained (2000) dollars	11,049	11,412	11,721	12,077	12,451	12,827	13,211	13,599
Chained price index (2000=100), annual average	112.7	116.1	119.0	121.8	124.6	127.2	129.8	132.4
Percent change, fourth quarter over fourth quarter:								
Current dollars	6.4	5.9	5.5	5.5	5.3	5.2	5.0	5.0
Real, chained (2000) dollars	3.1	3.1	2.9	3.1	3.1	3.0	3.0	2.9
Chained price index (2000=100)	3.1	2.7	2.5	2.3	2.2	2.1	2.0	2.0
Percent change, year over year:								
Current dollars	6.3	6.4	5.3	5.5	5.4	5.2	5.1	5.0
Real, chained (2000) dollars	3.2	3.3	2.7	3.0	3.1	3.0	3.0	2.9
Chained price index (2000=100)	3.0	3.0	2.5	2.4	2.2	2.1	2.0	2.0
Incomes, billions of current dollars:								
Corporate profits before tax	1,519	1,779	1,785	1,815	1,839	1,846	1,860	1,879
Wages and salaries	5,665	6,115	6,478	6,862	7,248	7,628	8,035	8,454
Other taxable income [2]	2,563	2,754	2,949	3,112	3,261	3,404	3,579	3,756
Consumer Price Index: [3]								
Level (1982—84=100), annual average	195.3	201.7	206.0	211.4	216.8	222.0	227.2	232.5
Percent change, fourth quarter over fourth quarter	3.7	2.3	2.6	2.6	2.5	2.4	2.3	2.3
Percent change, year over year	3.4	3.3	2.1	2.6	2.5	2.4	2.3	2.3
Unemployment rate, civilian, percent:								
Fourth quarter level	5.0	4.5	4.7	4.8	4.8	4.8	4.8	4.8
Annual average	5.1	4.6	4.6	4.8	4.8	4.8	4.8	4.8
Federal pay raises, January, percent:								
Military [4]	3.5	3.1	2.7	3.0	NA	NA	NA	NA
Civilian [5]	3.5	3.1	2.2	3.0	NA	NA	NA	NA
Interest rates, percent:								
91–day Treasury bills [6]	3.1	4.7	4.7	4.6	4.4	4.2	4.1	4.1
10–year Treasury notes	4.3	4.8	5.0	5.1	5.2	5.3	5.3	5.3

NA = Not Available.
[1] Based on information available as of mid-November 2006.
[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; percentages to be proposed for years after 2008 have not yet been determined.
[5] Overall average increase, including locality pay adjustments. Percentages to be proposed for years after 2008 have not yet been determined.
[6] Average rate, secondary market (bank discount basis).

Trend productivity growth in the nonfarm business sector [2] is assumed to be 2.6 percent per year. The 2.6 percent trend pace is noticeably below the average since the business cycle peak in the first quarter of 2001 (3.1 percent per year). It is, however, close to the pace from 1995 through 2000 (2.5 percent) and not far from the 60-year average since the official productivity series began in 1947 (2.3 percent).

Inflation: Inflation moderated in 2006, in large part because of declining energy prices. With the recent easing of these prices, inflation is likely to be lower in 2007. On a year-over-year basis, the CPI is projected to increase 2.1 percent this year but to rebound to 2.6 percent in 2008, with the increase moderating to 2.3 percent a year through 2012. This inflation rate is lower than the average during each decade of the 1970s, 1980s, and 1990s. The GDP price index is projected to increase 2.5 percent in 2007, moderating to 2.0 by 2011 and 2012, slightly less than CPI inflation, which is the usual pattern.

The forecast of low inflation reflects the current very low core inflation rate, falling energy prices, modest inflation expectations, the downward pressure on inflation due to both domestic and global competition, and the Federal Reserve's monetary policy.

Interest Rates: Short-term interest rates are projected to decline somewhat and long-term rates to rise slightly, achieving a more normal yield curve spread. The 3-month Treasury bill rate, which was 4.9 percent at the end of December, is expected to decrease to 4.1 percent by 2011. The yield on the 10-year Treasury note, 4.7 percent at the end of last year, is projected to increase to 5.3 percent by 2010.

The forecast rates are historically low: the projected averages for 3-month and 10-year Treasuries during 2007–2012 are lower than the averages for these instruments during each decade of the 1970s, 1980s, and

[2] The nonfarm business sector accounts for about three-fourths of the value of GDP, with households, institutions, and government accounting for the remainder. The nonfarm business sector serves as the standard sector of reference for productivity because of its reliable measurement.

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 2006, while the share of corporate profits is projected to decline from the unusually high levels of 2006 and those anticipated for 2007. In recent years, growth of hourly compensation adjusted for inflation has lagged the growth of productivity. During the projection period, however, real hourly labor compensation is expected to catch up, which would raise the labor share in GDP back to about 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 2006.

Corporate profits before tax jumped sharply as a share of GDP in 2005 and 2006 in part due to 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. Since 2004, however, corporate profits before tax have been higher than normal both because new investment has not qualified for the temporary acceleration and because the remaining depreciation permitted on 2003 and 2004 investment that used this provision has been thereby reduced.

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. Personal dividend income's share, too, is projected to decline, reflecting the declining profit share. A slight rise is projected for proprietors' income, while the remaining share of the tax base, rental income, is projected to remain relatively stable at around its 2006 level.

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 Department, the Council of Economic Advisers, and the Office of Management and Budget. Private-sector forecasts are often used by businesses for current decision-making and in long-term planning, and the "consensus" or average serves as a useful benchmark for comparison. Table 12–2 compares the 2008 Budget assumptions with projections as of January 2007 by CBO and by 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 Administration forecast generally assumes that the President's Budget proposals will be enacted. In contrast, the CBO baseline projection assumes that current law as of the time the estimates are made remains unchanged. The 50 or so private forecasters in the Blue Chip Consensus make differing policy assumptions. 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 conservative nature of the Administration forecast.

For real GDP, the Administration, CBO, and the Blue Chip Consensus anticipate moderate growth this year. The Administration projects 2.7 percent growth on a year-over-year basis, slightly higher than either the Consensus or CBO's forecast, which are 2.4 percent and 2.3 percent, respectively. For calendar year 2008, the Administration, CBO, and the Consensus all forecast 3.0 percent real growth. The three forecasts are in agreement in both 2009 (3.1 percent) and 2010 (3.0 percent). In 2011 and 2012, the Administration's projection is about the same as the Consensus growth rate but CBO's is slightly lower. Over the six-year span as a whole, the Administration, CBO and the Consensus all project average annual growth rates in a narrow range of 2.8 to 3.0 percent.

All three forecasts anticipate continued low inflation in the range of 1.8 to 2.5 percent as measured by the GDP price index; and, after 2007, between 2.2 and 2.6 percent as measured by the CPI, with CBO lower than the Administration and the Consensus, which are close to each other. The three unemployment rate projections are also similar with projected rates in the narrow range of 4.8 percent to 5.0 percent after 2007. All three project slightly falling short-term interest rates and a slight rise in long-term rates during the next few years, with the Administration's short-term rates slightly below the Blue Chip's and CBO's, and the long-term rate forecasts nearly identical.

Changes in Economic Assumptions

The economic assumptions underlying this Budget for 2008 are similar to those of the 2007 Budget, as shown in Table 12–3.

Real GDP growth is now expected to be 2.7 percent in 2007, 3.0 percent in 2008, and 3.1 percent in 2009 on a year-over-year basis, moderating gradually to 2.9 percent by 2012. In comparison, last year's Budget projections showed 3.3 percent real growth for both 2007 and 2008, moderating to 3.0 percent by 2012. Despite the lower real growth forecast this year, the level of nominal GDP is now projected to be higher than in the 2007 Budget projection because of a faster-than-expected rise in the GDP price index last year and slightly higher projected GDP inflation in the next few years.

The unemployment rate projection has been adjusted slightly, reflecting a new assessment of the "natural

Table 12–2. COMPARISON OF ECONOMIC ASSUMPTIONS

(Calendar years)

	Projections						Average, 2007–12
	2007	2008	2009	2010	2011	2012	
GDP (billions of current dollars):							
2008 Budget	13,946	14,711	15,507	16,316	17,148	18,003	
CBO January	13,805	14,472	15,196	15,923	16,647	17,395	
Blue Chip Consensus January	13,843	14,561	15,323	16,116	16,937	17,805	
Real GDP (chain-weighted): [1]							
2008 Budget	2.7	3.0	3.1	3.0	3.0	2.9	3.0
CBO January	2.3	3.0	3.1	3.0	2.7	2.7	2.8
Blue Chip Consensus January	2.4	3.0	3.1	3.0	2.9	3.0	2.9
Chain-weighted GDP Price Index: [1]							
2008 Budget	2.5	2.4	2.2	2.1	2.0	2.0	2.2
CBO January	1.9	1.8	1.8	1.8	1.8	1.8	1.8
Blue Chip Consensus January	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Consumer Price Index (all-urban): [1]							
2008 Budget	2.1	2.6	2.5	2.4	2.3	2.3	2.4
CBO January	1.9	2.3	2.2	2.2	2.2	2.2	2.2
Blue Chip Consensus January	2.0	2.3	2.3	2.3	2.3	2.4	2.3
Unemployment rate: [2]							
2008 Budget	4.6	4.8	4.8	4.8	4.8	4.8	4.8
CBO January	4.7	4.9	5.0	5.0	5.0	5.0	4.9
Blue Chip Consensus January	4.8	4.9	4.9	4.9	4.9	4.9	4.9
Interest rates: [2]							
91–day Treasury bills:							
2008 Budget	4.7	4.6	4.4	4.2	4.1	4.1	4.4
CBO January	4.8	4.5	4.4	4.4	4.4	4.4	4.5
Blue Chip Consensus January	4.9	4.8	4.7	4.5	4.5	4.6	4.7
10–year Treasury notes:							
2008 Budget	5.0	5.1	5.2	5.3	5.3	5.3	5.2
CBO January	4.8	5.0	5.1	5.2	5.2	5.2	5.1
Blue Chip Consensus January	4.8	5.0	5.2	5.2	5.2	5.3	5.1

Sources: Congressional Budget Office; Blue Chip Economic Indicators, Aspen Publishers, Inc.
January 2007 Blue Chip Consensus forecast for 2007 and 2008; Blue Chip October 2006 long-run extension for 2009—2012.
[1] Year-over-year percent change.
[2] Annual averages, percent.

rate" consistent with stable inflation. While the 2007 Budget had the rate level at 5.0 percent in future years, the rate is now projected to stabilize at 4.8 percent in the outyears. The 3-month Treasury bill rate is expected to trend downward, ultimately to the same level, 4.3 percent, as before. The 10-year Treasury note rate is now projected to rise to 5.3 percent by 2010, lower than the previous assumption that it would reach 5.6 percent.

Structural and Cyclical Balances

Historically, a budget measure called the structural balance has provided an alternative perspective on the stance of fiscal policy as compared to the unadjusted budget balance which includes a component related to the cyclical performance of the economy. For example, when the economy operates below potential, the unemployment rate exceeds the long-run sustainable average consistent with price stability. As a result, receipts are lower and outlays for unemployment-sensitive programs (such as unemployment compensation and food stamps) are higher; the deficit is larger (or the surplus smaller) than 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 of the deficit that remains when the unemployment rate is at its long-run value is then called the structural deficit (or structural surplus). In the typical post-World War II business cycle, the structural balance has provided a gauge of the surplus or deficit that would persist if the economy were 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. It is not possible, however, to estimate the cyclical component of the stock market accurately, and for that reason, all of the stock

Table 12–3. COMPARISON OF ECONOMIC ASSUMPTIONS IN THE 2007 AND 2008 BUDGETS

(Calendar years; dollar amounts in billions)

	2006	2007	2008	2009	2010	2011	2012
Nominal GDP:							
2007 Budget assumptions [1]	13,192	13,931	14,693	15,473	16,288	17,154	18,059
2008 Budget assumptions	13,248	13,946	14,711	15,507	16,316	17,148	18,003
Real GDP (2000 dollars):							
2007 Budget assumptions [1]	11,433	11,813	12,198	12,580	12,970	13,373	13,779
2008 Budget assumptions	11,412	11,721	12,077	12,451	12,827	13,211	13,599
Real GDP (percent change): [2]							
2007 Budget assumptions	3.4	3.3	3.3	3.1	3.1	3.1	3.0
2008 Budget assumptions	3.3	2.7	3.0	3.1	3.0	3.0	2.9
GDP price index (percent change): [2]							
2007 Budget assumptions	2.4	2.2	2.1	2.1	2.1	2.1	2.2
2008 Budget assumptions	3.0	2.5	2.4	2.2	2.1	2.0	2.0
Consumer Price Index (percent change): [2]							
2007 Budget assumptions	3.0	2.4	2.4	2.4	2.4	2.5	2.5
2008 Budget assumptions	3.3	2.1	2.6	2.5	2.4	2.3	2.3
Civilian unemployment rate (percent): [3]							
2007 Budget assumptions	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2008 Budget assumptions	4.6	4.6	4.8	4.8	4.8	4.8	4.8
91–day Treasury bill rate (percent): [3]							
2007 Budget assumptions	4.2	4.2	4.3	4.3	4.3	4.3	4.3
2008 Budget assumptions	4.8	4.9	4.7	4.6	4.4	4.3	4.3
10–year Treasury note rate (percent): [3]							
2007 Budget assumptions	5.0	5.4	5.5	5.6	5.6	5.6	5.6
2008 Budget assumptions	4.8	5.0	5.1	5.2	5.3	5.3	5.3

[1] Adjusted for July 2006 NIPA revisions.
[2] Year-over-year.
[3] Calendar year average.

market's contribution to receipts is counted in the structural balance.

Other factors unique to the current economic cycle provide additional examples of less-than-complete cyclical adjustment. The fall-off in labor force participation, from 67.1 percent of the U.S. population in 1997–2000 to 66.1 percent in 2004–2006, appears to be at least partly cyclical in nature. 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 45.3 percent in the second quarter of 2006. Again, this change is widely suspected to be partly cyclical. Since Federal tax collections 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.

Table 12–4. ADJUSTED STRUCTURAL BALANCE

(Fiscal years; in billions of dollars)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Unadjusted surplus or deficit (–)	128.2	–157.8	–377.6	–412.7	–318.3	–248.2	–244.2	–239.4	–187.2	–94.4	–53.8	61.0
Cyclical component	92.7	–28.7	–70.8	–33.4	–5.5	15.1	8.6	–4.8	–3.1	–0.4	0.0	0.0
Structural surplus or deficit (–)	35.5	–129.0	–306.8	–379.3	–312.9	–263.3	–252.8	–234.6	–184.1	–93.9	–53.8	61.0
Deposit insurance outlays	1.6	1.0	1.4	2.0	1.4	1.1	2.2	3.4	5.6	5.9	6.1	3.9
Adjusted structural surplus or deficit (–)	37.1	–128.0	–305.3	–377.4	–311.5	–262.2	–250.6	–231.2	–178.5	–88.0	–47.7	65.0

NOTE: The NAIRU is assumed to be 4.8% in 2006 and subsequent years, 4.9% in earlier years.

For all these reasons, the current estimates of the cyclical deficit are probably understated. The current unemployment gap is believed to be near zero, and the Administration forecasts that it will remain so, but in the broader sense discussed above, the cyclical gap in receipts is likely to still be large and only slowly shrinking.

During fiscal year 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 that year 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. Similarly, in 2006 the unemployment rate appeared to be slightly lower than the "natural rate," rendering the structural deficit for that year slightly higher than the actual deficit, and that effect persists into 2007.

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 slow 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 the 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 interest 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 12–5.

For real growth and employment:

- As shown in the first block, if in 2007 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 2007 deficit is estimated to increase by $16.1 billion; receipts in 2007 would be lower by $13.4 billion, and outlays would be higher by $2.7 billion, primarily for unemployment-sensitive programs. In fiscal year 2008, the estimated receipts shortfall would grow further to $27.7 billion, and outlays would increase by $8.0 billion relative to the base, even though the growth rate in calendar year 2008 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 2007–2012, the cumulative increase in the budget deficit is estimated to be $243 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 2007–2012, the cumulative increase in the budget deficit is estimated to be $689 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 2007 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 2007 and 2008, outlays would be above the base by $10.8 billion and $18.3 billion, respectively, due in part to lagged cost-of-living adjustments. Receipts would rise by $23.2 billion in 2007, but then would rise by $44.5 billion above the base in 2008 due to the sustained effects of the elevated price level on the tax base, and to the temporary effect of higher 2007 interest rates on financial corporations' profits and taxes, resulting in a $26.1 billion improvement in the 2008 budget balance. In subsequent years, the amounts added to receipts would continue to be larger than the additions to outlays. During 2007–2012, cumulative budget deficits would be $130 billion smaller than in the base case.
- In the fourth block, 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 $344 billion to outlays over 2007–2012 and $834 billion to receipts, for a net decrease in the 2007–2012 deficits of $490 billion.
- 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 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 price index and in CPI inflation decreases cumulative deficits by a substantial $445 billion during 2007–2012. This large effect is because the receipts from a higher tax base exceed the combination of higher outlays from mandatory cost-of-living adjustments and lower receipts from CPI indexation of tax brackets. Outlays for discretionary programs are assumed to be unchanged in spite of the higher inflation rate. The separate effects of higher inflation and higher interest rates in the fifth and sixth blocks do not sum to the effects for simultaneous changes in both in the fourth block. 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 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

(Fiscal years; in billions of dollars)

Budget effect	2007	2008	2009	2010	2011	2012	Total of Effects, 2007–2012
Real Growth and Employment							
Budgetary effects of 1 percent lower real GDP growth:							
(1) For calendar year 2007 only: [1]							
Receipts	–13.4	–27.7	–31.2	–33.8	–35.6	–37.6	–179.3
Outlays	2.7	8.0	10.3	12.3	14.4	16.4	63.9
Increase in deficit (–)	–16.1	–35.7	–41.5	–46.1	–49.9	–54.0	–243.3
(2) Sustained during 2007–2017, with no change in unemployment:							
Receipts	–13.6	–43.6	–80.4	–123.2	–167.6	–216.2	–644.7
Outlays	0.2	1.3	3.8	7.6	13.0	18.8	44.8
Increase in deficit (–)	–13.8	–44.9	–84.2	–130.8	–180.6	–235.0	–689.4
Inflation and Interest Rates							
Budgetary effects of 1 percentage point higher rate of:							
(3) Inflation and interest rates during calendar year 2007 only:							
Receipts	23.2	44.5	38.4	34.4	36.1	38.2	214.8
Outlays	10.8	18.3	15.2	14.1	13.4	12.6	84.4
Decrease in deficit (+)	12.4	26.1	23.2	20.4	22.7	25.6	130.4
(4) Inflation and interest rates, sustained during 2007–2017:							
Receipts	23.2	71.3	116.5	160.5	206.4	256.5	834.3
Outlays	11.2	32.9	52.1	68.6	83.3	96.1	344.1
Decrease in deficit (+)	12.0	38.3	64.4	91.9	123.1	160.4	490.1
(5) Interest rates only, sustained during 2007–2017:							
Receipts	9.7	28.5	38.7	41.9	45.0	47.4	211.1
Outlays	7.7	21.5	31.0	36.6	39.7	41.5	178.0
Increase in deficit (–)	2.0	7.0	7.6	5.3	5.2	5.9	33.1
(6) Inflation only, sustained during 2007–2017:							
Receipts	13.4	42.7	77.7	118.3	161.0	208.5	621.6
Outlays	3.5	11.7	21.9	33.6	46.4	59.0	176.2
Decrease in deficit (+)	9.9	31.0	55.8	84.7	114.6	149.5	445.4
Interest Cost of Higher Federal Borrowing							
(7) Outlay effect of $100 billion increase in borrowing in 2007	2.5	5.1	5.2	5.2	5.3	5.5	28.8

$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.