CHAPTER 1

The Year in Review and the Years Ahead

The expansion of the U.S economy continued for a sixth consecutive year in 2007. Economic growth was solid at 2.5 percent during the four quarters of the year, slightly below the pace during 2006. Payroll job growth set a record for continuous growth, eclipsing the previous record of 48 months. This economic growth came despite a reorientation of the U.S. economy away from housing investment and toward exports and investment in business structures. The persistent tumble in housing investment subtracted roughly a percentage point from real Gross Domestic Product (GDP) growth during the four quarters of the year. Although the quarterly pattern of real GDP was uneven, with strong growth in the second and third quarters and weak growth in the first and fourth quarters, much of the quarter-to-quarter variation can be attributed to net exports, a volatile component of GDP. In the wake of mounting problems with the performance of *subprime* (defined as higher risk) mortgages, financial markets from August onward were unsettled because of concerns about the risk entailed in holding some types of mortgage-backed securities, as well as fears about the financial health of some firms and the possibility of contagion to the nonfinancial economy. To insure against the downside risks from these financial and housing-related developments, the President called for an economic growth package to boost consumption, business investment, and labor demand.

The core CPI (consumer prices excluding food and energy) as well as the *price index* for GDP (covering everything produced in the United States) suggested that inflation had moved lower and into the moderate range by the end of 2007. Food price inflation climbed, however, while energy prices jumped toward the end of the year. In response to these output and inflation developments, the Federal Reserve held the Federal funds rate flat through August. The Federal Reserve then lowered its policy rate by a percentage point from September through December and another 1¼ percentage point in January to ease liquidity concerns in financial markets disturbed by the mortgage market tumble, and to bolster real activity. The Federal Reserve also took other liquidity-enhancing measures, including cutting the discount rate at which it lends to banks, and initiating a new auction approach to provide collateralized loans to banks.

This chapter reviews the economic developments of 2007 and discusses the Administration's forecast for the years ahead. The key points of this chapter are:

- Real GDP posted solid 2.5 percent growth during the four quarters of 2007, similar to the pace of a year earlier. The reorientation of aggregate demand that began in 2006 continued in 2007. Compared with the preceding years of the expansion, this reorientation included more growth from exports and business fixed investment, while residential investment flipped from contributing positively to GDP growth from 2003 to 2005 to subtracting from it in 2006 and 2007.
- Labor markets were tight in the first half of 2007 with job growth averaging 107,000 per month and the jobless rate at 4.5 percent. Labor market conditions slackened somewhat in the second half, with job growth slowing to 82,000 per month and the unemployment rate edging up to 4.7 percent in the third quarter and to 5.0 percent by December.
- Energy prices, which tend to be volatile, dominated the movement of overall inflation in the consumer price index (CPI), with large increases toward the end of the year. Core consumer inflation (which excludes food and energy inflation) moved down from 2.6 percent during the 12 months of 2006 to 2.4 percent in 2007. Food prices rose appreciably faster than core prices.
- Nominal wage gains of 3.7 percent for production workers were offset by the unexpected rise in energy prices. These nominal gains, however, exceeded measures of expected price inflation such as those from the market for the Department of Treasury's inflation-protected securities, about 2.2 percent. As a consequence, the pace of nominal wage increases implies an expectation of real wage gains during the next several years. In the long run, real wages tend to increase with labor productivity.
- The Administration's forecast calls for the economic expansion to continue in 2008, but at a slower pace than in the earlier years of this expansion. Slower growth is anticipated for the first half of the year, and the average unemployment rate for 2008 is projected to move up from the 2007 level. In 2009 and 2010 real GDP growth is projected at 3 percent, thereafter slowing, while the unemployment rate is projected to remain stable and below 5 percent in the 2009–10 period.
- The contraction of the secondary market for some mortgage securities and the ensuing write-downs at major financial intermediaries are a new downside risk to this expansion. As of the end of 2007, however, these developments had not greatly affected the nonfinancial economy outside of the housing sector (which had already been in decline for a year or so before the onset of the mortgage financing problems).
- To insure against the downside risks from these new financial developments, the President proposed tax relief and changes to depreciation schedules that reduce the cost of business investment. The policy changes are expected to boost real GDP growth and job creation.

Developments in 2007 and the Near-Term Outlook

The economy went through a period of rebalancing that began in 2006 and extended into 2007, with faster growth in business structures investment and exports offsetting pronounced declines in homebuilding, while consumer spending growth edged lower.

Consumer Spending and Saving

Real consumer spending slowed to a 2.5 percent growth rate during the four quarters of 2007, somewhat below the growth rates during the preceding 4 years of expansion and below the average rates of the preceding 30 years. Nominal consumer spending (that is consumer spending without adjusting for inflation) pulled back from its 16-year pattern of rising faster than disposable income, and the personal saving rate for the year as a whole ticked up from 0.4 to 0.5 percent. Factors that had pushed down the saving rate during recent years shifted into neutral: the wealth-to-income ratio plateaued and the unemployment rate (which is related to consumer confidence) stopped falling. Energy costs rose rapidly, but consumers continued to purchase similar quantities of energy, which kept the personal saving rate low. The general decline in the personal saving rate during the past 5 years (despite the uptick in 2007) continued a long-term trend that began in the 1980s.

Energy Expenditures

World demand for crude oil increased by 5.5 million barrels per day to 85 million barrels per day between 2003 and the first three quarters of 2007. The United States accounted for only a fraction (0.7 million barrels per day) of this increase, while demand in other OECD countries generally fell. (The OECD, or Organization for Economic Cooperation and Development, comprises 30 key developed economies.) The increase in non-OECD demand totaled 5.3 million barrels per day, with China's per-day consumption alone growing by 2.0 million barrels. In the face of this increase in world oil demand, consumers paid higher prices to maintain their consumption.

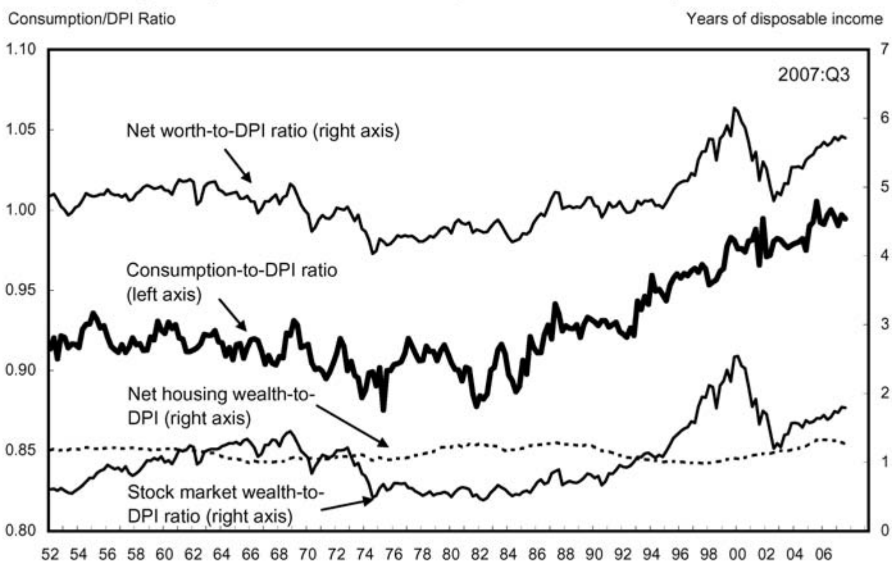
Crude oil prices rose again in 2007. The spot price for West Texas Intermediate (a benchmark variety of crude oil) rose to an average of $91 per barrel in the fourth quarter from an average of $66 per barrel in 2006. The price of natural gas, which rose sharply in 2005, then fell during 2006, was little changed on balance in 2007, while electricity prices continued their upward trend.

With the rise in energy prices, the share of energy in total purchases rose sharply. From 2003 to 2007, consumer energy prices increased 41 percent relative to non-energy prices, while real consumption of energy per household fell only 3 percent (according to data from the National Income and Product Accounts). As a result, energy expenditures, which were about 5 percent of consumer purchases in 2003, rose to 6 percent of consumer purchases in 2006 and 2007. Between 2004 and 2006, consumers appear to have maintained both energy and nonenergy consumption by reducing their personal saving, which by 2007 (although up from 2006) averaged only 0.5 percent of disposable personal income. This continued rapid rise in energy prices suggests that consumers' adaptation to these prices remains unfinished. Consumers have chosen to respond to the energy-price shock by using savings to buffer some of its effects, but this response is probably temporary.

Wealth Effects on Consumption and Saving

Household wealth rose rapidly relative to disposable personal income from 2002 through the second quarter of 2007, supporting the growth of consumption and a decline in the saving rate. Over the 2002–07 period, the ratio of household wealth to annual-income increased 0.7 years, to 5.7 years of accumulated income (that is, consumers collectively accumulated an extra 70 percent of a years' income). During the late 1990s and again during 2004–06, a strong rise in household net worth coincided with a sizable increase in consumer spending relative to disposable personal income (Chart 1-1).

Chart 1-1 **Consumption and Net Worth Relative to Disposable Personal Income (DPI)**
Consumption gains from 2004 to 2006 were partly supported by an increase in net worth (wealth).
In 2007, wealth grew only as fast as income as housing wealth was held down by flat house prices.



Sources: Department of Commerce (Bureau of Economic Analysis), Federal Reserve Board, and Council of Economic Advisers.

Unlike recent years, however, the 2007 gains did not reflect large increases in housing wealth (net of mortgage debt), which peaked—relative to income—in the first half of 2006, and has edged lower since (see Chart 1-1). The housing price rise of 1.8 percent during the year that ended with the third quarter of 2007 was a substantial deceleration from the 11 percent annual rate during the 3 preceding years and was less than the growth of income. Stock-market wealth rose during the four quarters through the third quarter of 2007 (the most recent wealth data) and accounted for all of the four-quarter gain. By the third quarter of 2007, the overall wealth-to-income ratio was well above its 50-year average.

Projected Consumer Spending

Looking ahead, the path of consumer spending is projected to reflect the recent flattening of the wealth-to-income ratio. Real consumer spending during the four quarters of 2008 is expected to grow 2.1 percent, down from an average of about 3 percent during the past 3 years. This projected rate is less than the projected 2008 growth of *real disposable personal income* (household income less taxes, adjusted for inflation), and so the saving rate is forecasted to continue edging up in 2008. After that, real consumption is projected to increase at about the same pace as real GDP and real income.

Housing Prices

Nationally, nominal house price appreciation slowed to a crawl in 2007, and house prices fell when corrected for inflation. An inflation-adjusted version of the housing price index (the nominal version of which is compiled by the Office of Federal Housing Enterprise Oversight (OFHEO) from home sales and appraisals during refinancing) increased at an average annual rate of 6.3 percent from 2000 to 2005. It then slowed to 4.0 percent during the four quarters of 2006, and declined at a 3.2 percent annual rate during the first three quarters of 2007. (These inflation-adjusted prices are deflated by the consumer price index.) The homes covered by this OFHEO-created housing price index are those which are financed or refinanced by one of the government-sponsored housing enterprises and must therefore have mortgages below the conforming loan limit (currently $417,000). Another relevant measure of home prices (the S&P/Case-Shiller Index), has fallen 6.7 percent in real terms during the year that ended with the third quarter of 2007; this index covers a smaller portion of the country than the OFHEO measure but is more comprehensive with regard to homes with large mortgages.

The deceleration of housing prices along with falling standards for subprime mortgages in 2005 and 2006 has led to a rising delinquency rate for subprime adjustable-rate mortgages (where the rate on the mortgages resets after an initial period), which severely disrupted the secondary market for nonconforming mortgages in 2007. In contrast, the market for conforming mortgages continued to function well. (Conforming loans must meet certain loan-to-value and documentation requirements in addition to being below the conforming loan limit.) See Chapter 2, "Credit and Housing Markets" for a more extensive analysis.

Residential Investment

Every major measure of housing activity dropped sharply during 2006 and 2007, and the drop in real residential construction was steeper than anticipated in last year's *Report.* Housing starts (the initiation of a homebuilding project), new building permits, and new home sales have fallen more than 40 percent since their annual peaks in 2005. The drop in home-construction activity subtracted an average of almost 1 percentage point at an annual rate from real GDP growth during the last three quarters of 2006 and the four quarters of 2007. Furthermore, even if housing starts level off at their current pace, lags between the beginning and completion of a construction project imply that residential investment will subtract from GDP growth during the first half of 2008.

During 2007, as in 2006, employment in residential construction fell, as did production of construction materials and products associated with new home sales (such as furniture, large appliances, and carpeting). Yet despite these housing sector declines, the overall economy continued to expand (see Box 1-1).

Box 1-1: Indirect Effects of the Housing Sector

Thus far, the sharp drop in homebuilding has not prevented robust activity outside of the housing sector. Employment fell in sectors related to new home construction and housing sales. Despite these repercussions, overall payroll employment continued to increase, and real consumer spending continued to move upward through the end of 2007. The unemployment rate, however, increased, by 0.6 percentage point during the 12 months of the year.

Although residential investment fell sharply, real GDP growth during 2007 was sustained by increases in other forms of investment. As shown in the chart below, private and public nominal nonresidential construction (that is, construction of office buildings, shopping centers, factories, and other business structures) grew rapidly during the year.

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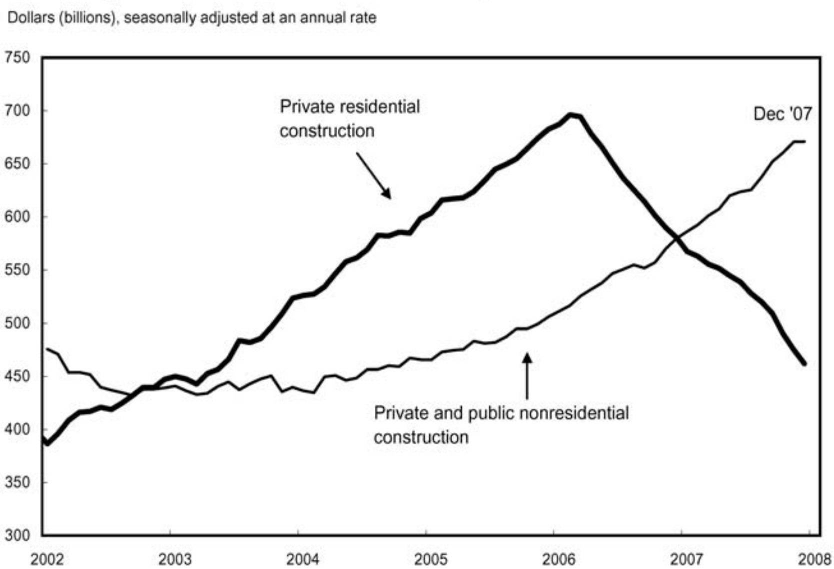
Box 1-1 — continued

Nonresidential construction draws from some of the same resources (such as construction labor and materials) as the residential construction sector. The high level of residential investment during the past couple of years may have limited the growth of investment in nonresidential structures. While the case for housing crowding out other sectors is strongest for nonresidential investment, residential investment competes with all other sectors of production in credit and labor markets. A drop in the share of the economy engaged in housing could provide some room for other sectors to grow.

Construction

Although private residential construction has fallen sharply from its peak, nonresidential investment continues to grow and absorb some of the resources formerly used in the residential sector.



Source: Department of Commerce (Census Bureau).

The housing market could also affect the rest of the economy through the wealth channel. That is, declines in housing prices could reduce household net worth and thereby reduce consumption. The increase in housing prices during 2000–2005 contributed noticeably to the gain in the ratio of household wealth to income (shown earlier in Chart 1-1) and supported growth in consumer spending. In contrast, gains in housing wealth came to a virtual halt during 2007.

In addition to incomes and mortgage rates, the number of homes built is underpinned by demographics. Homebuilding during 2004 and 2005 averaged about 2.0 million units per year, in excess of the 1.8- or 1.9-million unit annual pace of housing starts that would be consistent with some demographic models for a decade-long period, leading to an excess supply of houses on the market. More recently, the 1.2 million unit pace during the fourth quarter of 2007 is well below this long-term demographic target. The pace of homebuilding has now been below this level for long enough that the above-trend production of 2004 and 2005 has been offset by the more recent below-trend production. Yet the construction of new homes continued to fall rapidly through year-end 2007, with the undershooting possibly reflecting uncertain prospects for house prices as well as elevated inventories of unsold new and existing homes. Once prices become firm and inventories return to normal levels, home construction should rebound, but it is difficult to pinpoint when this will occur. The residential sector is not expected to make positive contributions to real GDP growth until 2009.

Business Fixed Investment

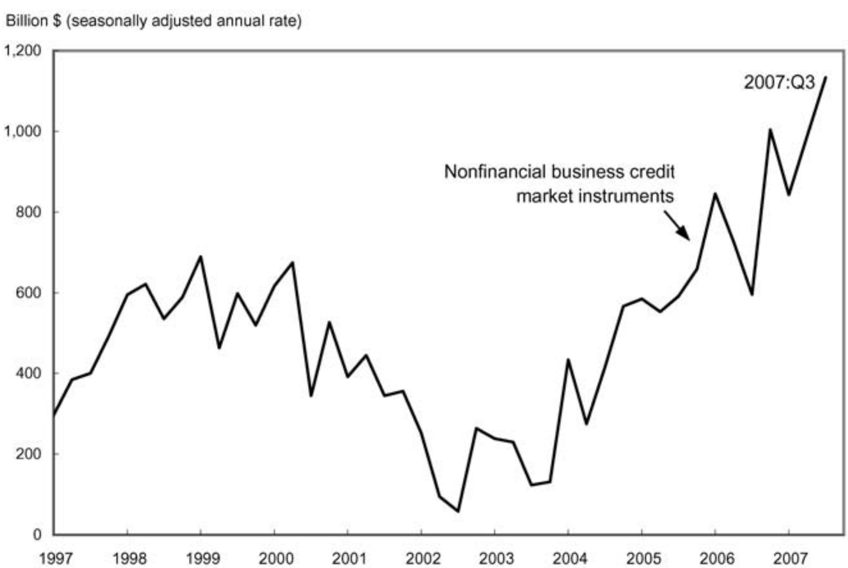
During the four quarters of 2007 real business investment in equipment and software (that is, measured at constant prices) grew 3.7 percent, a bit faster than the 2006 pace but notably slower than the 8 percent average pace during the 3 preceding years. Its fastest-growing components during 2007 included computers, software, and communication equipment while investment in industrial equipment grew slowly. Transportation equipment, however, fell substantially due to environmental regulations (on particulate matter emissions issued in 2000 but effective in 2007) that raised truck prices in 2007 and led trucking firms to advance heavy truck purchases into 2006 from 2007.

In contrast to residential investment, real business investment in nonresidential structures grew at a strong 16 percent annual rate over the four quarters of 2007. The gains during 2007 were the second consecutive year of strong growth, which was a marked reversal from the declines during the period from 2001 to 2005. Nearly 70 percent of total growth in nonresidential structures was accounted for by office buildings, lodging facilities, power facilities, and petroleum and natural gas exploration and wells. This sector maintained its ability to borrow funds needed for construction, as net borrowing for nonfinancial corporate commercial mortgages rose 6.5 percent at an annual rate during the first three quarters of 2007.

One risk to the near-term investment forecast is that the recent turmoil in the market for mortgage-backed securities may somehow reduce the funds available for business investment. Most new investment—at least for the corporate sector as a whole—is being financed with internally generated funds for new investment (undistributed profits plus depreciation, also known as *cash flow*) which were at normal levels through the third quarter of 2007. As for the amount that nonfinancial firms must borrow to finance investment (the financing gap), the flows showed no shortfall, at least through the third quarter of 2007 (Chart 1-2). A shortage of investment funds, though possible, appears unlikely. Corporations have been able to finance investment directly through the bond market without penalty as interest rates on 10-year high-grade corporate bonds in the second half of 2007 were little different from the first half of the year. Nevertheless the market for investment funds merits close attention as yields on lower-grade corporate bonds have edged up, the number of newly announced leveraged buyouts have fallen sharply, and the October survey of senior loan officers reported tighter lending standards for loans to large and small companies.

Business investment growth is projected to remain solid in 2008, although probably below the 7½ percent growth rate during the four quarters of 2007. Continued growth in output combined with a tight labor market is expected to maintain strong demand for new capital. In the longer run, real business investment is projected to grow slightly above the growth rate of real GDP.

Chart 1-2 **Net Debt Issuance**
Evidence suggests that the nonfinancial business sector has had no problems borrowing funds through 2007:Q3.



Source: Federal Reserve Board, Flow of Funds.

Business Inventories

Inventory investment was volatile during the past year or so and had a noticeable influence on quarter-to-quarter fluctuations in real GDP, especially the weakness in the first and fourth quarters and the strength in the third quarter. Inventories of motor vehicles on dealer lots and in transit were an important contributor to these fluctuations as they were liquidated during the first half of 2007, and built up in the third quarter before being liquidated again in the fourth quarter. Real nonfarm inventories grew at only an average 0.2 percent annual pace during 2007, a growth rate that is well below the pace of real GDP growth over the same period. Coming off a long-term decline, the inventory-to-sales ratio for manufacturing and trade (in current dollars) rose in late 2006 before being reduced sharply in 2007.

Manufacturing and trade inventories appear to be roughly in line with sales as of November 2007 and do not appear to require dramatic swings in production. Inventory investment is projected to be fairly stable during the next several years, as is generally the case for periods of stable growth. The overall inventory-to-sales ratio is expected to continue trending lower.

Government Purchases

Real Federal consumption and gross investment grew 1.6 percent during 2007, a slowdown from the 2006 pace. Quarterly fluctuations in this spending category were considerable, with nearly all the volatility due to the defense component. Defense spending plunged in the first quarter of 2007 but grew rapidly during the second and third quarters of the year.

The defense appropriations act for fiscal year (FY) 2007 provided $70 billion for operations in Afghanistan and Iraq. The FY 2007 supplemental appropriation for defense provided an additional $107 billion for ongoing operations in Afghanistan and Iraq. Another $70 billion in emergency funding for FY 2008 was provided in the consolidated appropriations act. The first continuing resolution for FY 2008 and the defense appropriations act for FY 2008 provided $17 billion for mine-resistant vehicles and other funding for Afghanistan and Iraq. Another supplemental appropriation for operations in Afghanistan and Iraq is likely for FY 2008.

Nominal Federal revenues grew 12 percent in FY 2006 and 7 percent in FY 2007. These rapid growth rates exceeded growth in outlays and GDP as a whole, and the U.S. fiscal deficit as a share of GDP shrank from 3.6 percent in FY 2004, to 1.9 percent in FY 2006, to 1.2 percent in FY 2007.

Real State and local government purchases rose 3 percent during 2007, the second consecutive year of moderate growth. This followed 3 years of little change. In the wake of the 2001 recession, this sector fell sharply into deficit in 2002. Revenues began to recover in 2003, and the sector was out of deficit by 2005, allowing for an increase in state and local consumption and investment in 2006 and 2007. This pattern of delayed response to downturns resembles the pattern during the business-cycle recovery of the 1990s.

The State and local government sector slipped into a small deficit over the first three quarters of 2007 reflecting strong growth in outlays that were not matched by an increase in revenues. In 2008, only slow growth can be anticipated for this sector's consumption and gross investment because of decelerating housing prices and their effects on property tax receipts—which comprise about 20 percent of this sector's revenues.

Exports and Imports

Real exports of goods and services grew 8 percent during the four quarters 2007, the fourth year of annual growth in excess of 7 percent. The pace of export expansion reflects rapid growth among our trading partners, expanded domestic production capacity, and changes in the terms of trade associated with exchange rate trends between 2002 and 2006 that made American goods cheaper relative to those of some other countries (Chapter 3 analyzes recent export growth in greater detail). Real GDP among our advanced-economy trading partners (that is, the other 29 member countries of the OECD) is estimated to have grown at rates of 3.3 and 2.7 percent during the four quarters of 2006 and 2007, respectively, after growing at an average pace of 2.4 percent during the preceding 3 years. In addition, the economies of some of our major emerging-market trading partners such as China, Singapore, and India are growing at rates of 8 to 11 percent per year, although these countries receive only about 8 percent of our exports. The OECD projects that real GDP among our advanced-economy trading partners will slow to a still-solid 2.4 percent growth rate during the four quarters of 2008. The International Monetary Fund projects that real GDP among the group of emerging market economies will slow to a still-strong 7.4 percent growth rate for 2008 as a whole.

The fastest growth in U.S. goods and services exports was to India, but exports to China, Africa, and the Middle East also grew rapidly. Despite the rapid growth of exports to these emerging economies, the European Union (EU) remains the major overseas export destination, consuming over 25 percent of our exports. By country, Canada accounts for the largest share of U.S. exports, at over 19 percent.

Real imports grew 1.4 percent annual rate during 2007, the slowest pace since 2001. Real imports of nonpetroleum goods grew 1.2 percent during 2007, also the slowest rate of increase since 2001. Real petroleum imports have edged up 2.5 percent during 2007, while nominal imports surged 49 percent due to rising oil prices. The rise in oil prices has been less of a drag on the U.S. economy than similar rises have been because it has been offset by the strong growth in foreign economies, which has boosted U.S. exports.

Indeed, the growth in foreign economies is what has largely induced the multi-year increase in oil prices (Box 1-2).

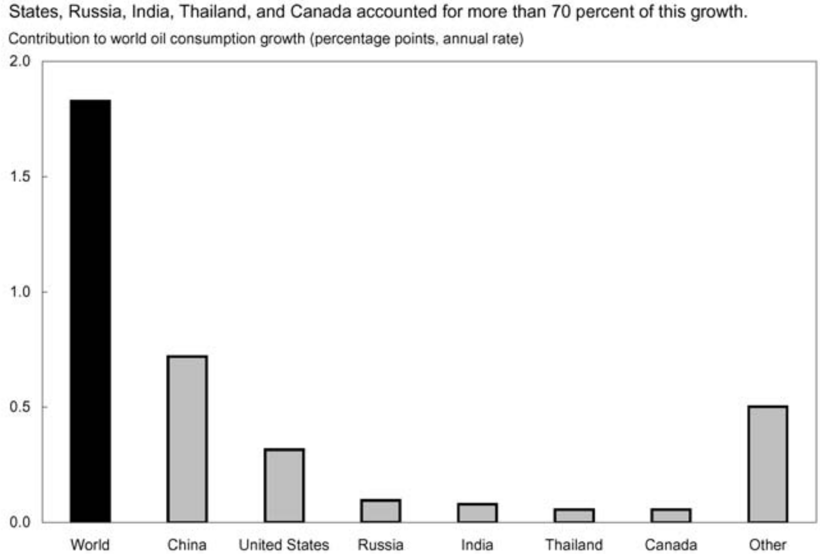
Box 1-2: Macroeconomic Effects When Oil Price Increases Are Induced by Foreign Demand

The cost of imported crude oil increased nearly $40 per barrel from 2003 to 2007, the largest dollar increase on record. Earlier price increases in 1973, 1979, and 1990 were followed by recessions, a development that has not occurred during the current episode. What has happened recently that has allowed the United States to maintain strong growth in the face of this price surge?

Economic growth outside the United States increased about 2.1 percentage points from the 3.5 percent annual growth rate during the 15 years from 1989 to 2003 to a 5.6 percent annual rate during the 4 years from 2004 to 2007 according to estimates from the International Monetary Fund. The increase in real GDP growth among our trading partners probably caused an increase in both the demand for oil and the price of oil, and also an increase in U.S. exports to our trading partners. Rapidly growing countries (China, Russia, India, and Thailand) accounted for much of the increase in oil demand during the 4 years from 2002 to

Oil Consumption Growth by Country (4 years from 2002 to 2006)

World oil demand (excluding OPEC) rose at a 1.8% annual rate from 2002 to 2006. China, the United States, Russia, India, Thailand, and Canada accounted for more than 70 percent of this growth.



Source: Department of Energy (Energy Information Administration).

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Box 1-2 — continued

2006 as shown in the chart. Countries showing the largest increases in oil consumption tended to be those showing the largest growth rates during the past 4 years. In addition, U.S. exports grew rapidly to those countries that have recently signed and implemented free trade agreements with the United States (as discussed in Chapter 3).

An increase in real output growth among our trading partners of about 1 percent can be expected to increase our exports by about 1 percent as well. The cumulative 9 percent higher growth among our trading partners (2.1 percent for each of 4 years) could thus have generated as much as $120 billion per year of exports. In comparison, the $40-per-barrel oil price increase added about $150 billion per year to the Nation's bill for oil imports (at 3.7 billion barrels of oil per year).

The *current account deficit* (the excess of imports and income flows to foreigners over exports and foreign income of Americans) averaged 5.5 percent of GDP during the first three quarters of 2007, down from its 2006 average of over 6 percent. The decline in the current account deficit reflects strong export growth and moderate import growth, although domestic investment continues to exceed domestic saving, with foreigners financing the gap between the two.

Employment

Nonfarm payroll employment increased by 1.14 million jobs during 2007, an average pace of about 95,000 jobs per month. The unemployment rate rose slightly over the same period, ticking up 0.6 percentage point to 5.0 percent. The average unemployment rate in 2007 was 4.6 percent, equal to the 2006 average. Both the 2007 average and the December 2007 level of the unemployment rate were below the prevailing rates in each of the three decades of the 1970s, 1980s, and 1990s.

The service-providing sector accounted for all of the year's job gains, as construction employment fell due to continued weakness in the housing market and manufacturing employment continued its downtrend for the tenth consecutive year. (Despite the job losses, manufacturing output continues to increase because of rapid productivity growth.) Employment in mining (which includes oil drilling) rose 5.5 percent during 2007. The goods-producing sector has accounted for a diminishing share of total employment in each of the past five decades. Education and health services (which constituted 13 percent of employment at the end of 2007) added the largest number of jobs, accounting for 47 percent of total job growth.

During the 12 months of 2007, the unemployment rate for the major education groups edged up; it increased 0.3 percentage point for those holding at least a bachelor's degree, 0.4 percentage point for those whose education ended with a high school degree or those with some college, and 1.0 percentage point among those who did not finish high school. By race and ethnicity, the unemployment rate for black Americans rose by 0.7 percentage point, and was about 4 percentage points above the rate for whites, a smaller margin than during most of the past 35 years. Unemployment rates among whites rose 0.4 percentage point, and among Hispanics rose 1.4 percentage points. By sex, the jobless rate for both adult men and adult women increased 0.5 percentage point to 4.4 percent in December 2007.

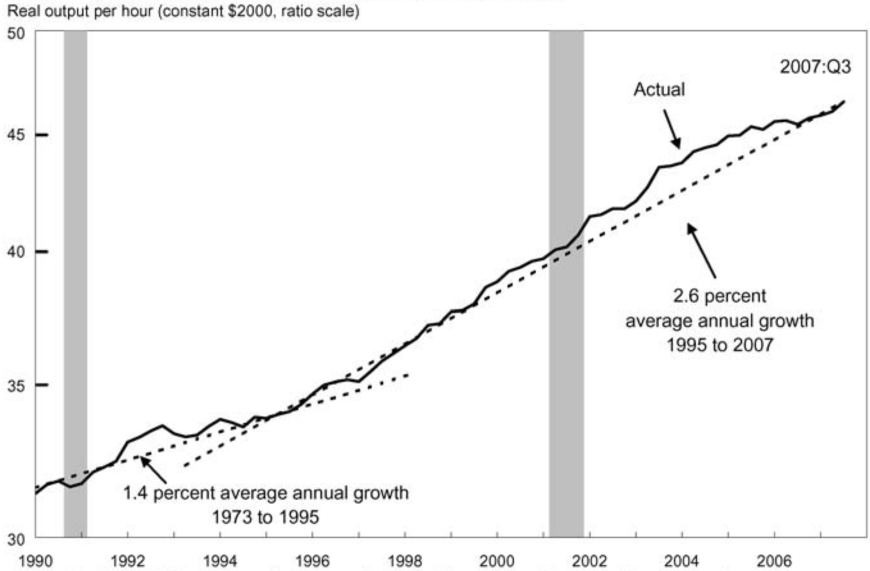
The median duration of unemployment edged up from 7.5 to 8.4 weeks during the 12 months of 2007, following a substantial decline during the preceding 2 years. The number of long-term unemployed (those who are jobless for 15 weeks or more) rose by 426,000 over the same period. Although this is not a welcome development, increases in unemployment rates (and implicitly increases in duration as well) were built into last year's Administration forecast as the low jobless rates at the end of 2006 were not judged to be sustainable in the long run.

The Administration projects that employment will increase at an average pace of 109,000 jobs per month during the four quarters of 2008, before picking up to 129,000 jobs per month in 2009. In the longer run, the pace of employment growth will slow, reflecting diminishing rates of labor force growth due to the retirement of the baby-boom generation. The Administration also projects that the unemployment rate will edge up from 2007 to 2008 as a whole, before returning to 4.8 percent in 2010, the middle of the range consistent with stable inflation in the long run.

Productivity

Productivity growth has a standard cyclical pattern. It usually falls during a recession, grows rapidly during the early stages of a recovery, but then slows as the recovery matures. The current business cycle began on an unusual note, with strong productivity growth of 4.6 percent at an annual rate (rather than the usual decline) during the three quarters of the 2001 recession. After that, the pattern of productivity followed a more-usual business-cycle pattern with strong (3.1 percent annual rate) growth during the first 3 years of the expansion, followed by a slowing to a 1¾ percent annual rate during the most recent 3-year period. Averaging across the entire 6½-year period since the business-cycle peak in the first quarter of 2001, labor productivity has increased at a 2.7 percent annual rate. This pace is not significantly different from the pace between 1995 and 2001. As can be seen in Chart 1-3, a trend

Chart 1-3 **Output per Hour in the Nonfarm Business Sector**
Productivity has trended up at about a 2.6% annual rate since 1995.



Note: Productivity is the average of income- and product-side measures. Shading indicates recessions.
Sources: Department of Commerce (Bureau of Economic Analysis) and Department of Labor (Bureau of Labor Statistics).

line with a 2.6 percent annual rate of growth from 1995 to 2007 captures most of the movement of productivity over this period.

The continuation of this roughly 2.6 percent growth in labor productivity is striking, given a flat or diminished contribution from *capital deepening* (the increase in capital services per hour worked). The 1995 to 2001 acceleration may be plausibly accounted for by a pickup in capital deepening and by increases in organizational capital (the investments businesses make to reorganize and restructure themselves, in this instance in response to newly installed information technology). After 2001, a reduced rate of capital deepening—on its own—would have suggested a slowing in the rate of productivity growth. Productivity growth in the recent period therefore appears to be supported by factors that are more difficult to measure than the quantity of capital, such as intangible investments in technology and business practices.

Productivity growth is projected to average 2.5 percent per year during the 6-year span of the budget projection (Table 1-2, later in this chapter), which is about the same as the average annual pace since 1995. The projected growth rate is slightly below the 2.6 percent annual pace discussed in last year's *Report,* and reflects the downward revisions to real GDP and other output measures announced in the annual revisions to the National Income and Product Accounts in July 2006 and July 2007.

Prices and Wages

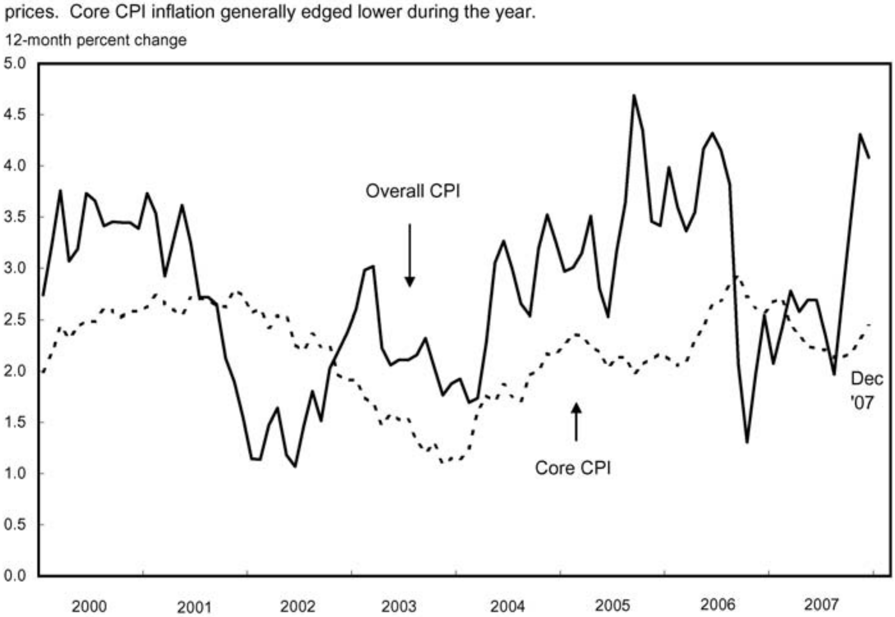
As measured by the consumer price index (CPI), overall inflation rose from 2.5 percent during the 12 months of 2006 to 4.1 percent during 2007 (Chart 1-4), with the increase due to an acceleration of food and energy prices. Energy prices accelerated from a 2.9 percent increase in 2006 to a 17.4 percent increase in 2007. Food prices increased 4.9 percent during 2007, up sharply from the 2.1 percent pace of the previous year. Core CPI prices (that is, excluding food and energy) increased 2.4 percent during 2007, down from a 2.6 percent increase a year earlier.

Prices of petroleum products climbed 29.4 percent during 2007 while natural gas prices fell slightly. Electricity prices increased 5.2 percent, which was less than the rate of increase a year earlier. As of late-January 2008, futures prices show that market participants expect crude oil prices to edge down during 2008 from their current high level while natural gas prices are expected to rise.

The rapid increase in food prices during 2007 reflects worldwide agricultural supply and demand conditions, such as the drought in Australia (a major wheat exporter), the demand for corn-based ethanol, and short-supply

Chart 1-4 **Consumer Price Inflation**

The increase in overall CPI inflation during 2007 was entirely due to an acceleration in food and energy prices. Core CPI inflation generally edged lower during the year.



Source: Department of Labor (Bureau of Labor Statistics).

conditions for dairy herds. The supply constraints during 2007 for wheat and dairy products appear temporary and are expected to return toward normal during 2008.

The 0.2 percentage point deceleration of core CPI prices was accounted for primarily by rent of shelter, which slowed to a 3.1 percent rate of increase from a 4.3 percent rate of increase during the 12 months of 2006. The Administration projects that the CPI will increase 2.1 percent in 2008, slightly less that the 2.4 percent rate of increase of the core CPI during 2007; energy and food prices are expected to be little changed in 2008 following their recent large increases.

Hourly compensation (which was about 62 percent of nonfarm business output) has increased at roughly the same 3 percent rate in 2007 as during the preceding 2 years according to the Employment Cost Index (ECI) for the private sector. The wage and salary index grew 3.3 percent, little changed from 3.2 percent a year earlier, while growth of hourly benefits slowed to 2.4 percent. Another measure of hourly compensation from the productivity and cost dataset increased slightly faster than the ECI.

Unit labor costs (labor compensation per unit of output) have put little, if any, upward pressure on inflation thus far, and it appears unlikely that they will over the next year. Unit labor costs grew only 0.7 percent at an annual rate during the first three quarters of 2007 which is less than the 2.6 percent growth in the GDP price index during the same interval.

Average hourly earnings of production or non-supervisory workers (who constitute about 80 percent of total employment on nonfarm payrolls) increased 3.7 percent (in nominal terms) during the 12 months through December 2007—somewhat below the pace a year earlier of 4.3 percent. These nominal hourly earnings were outstripped by the 4.4 percent increase in the overall CPI for wage earners, and so real earnings fell 0.7 percent during 2007 (following a 1.8 percent gain in 2006). Even so, the recent pace of these nominal wage increases is above various measures of expected price inflation (such as those implied by the market for inflation-indexed Treasury securities), and suggests that employers and employees expect a gain in real earnings in 2008. The situation is similar to a year ago, but during 2007, price inflation was higher than expected because of sharp and unanticipated increases in food and energy prices. In the long run, real hourly compensation increases with productivity growth, which is projected to remain solid.

Among the many available measures of inflation, the Administration forecast focuses on two: the consumer price index and the price index for GDP. The CPI measures prices for a fixed basket of consumer goods and services. It is widely reported in the press, and is used to index Social Security benefits, the individual income tax, Federal pensions, and many private-sector contracts. The GDP price index covers prices of all final goods and services produced in the United States, including consumption, investment, and government purchases. In contrast to the CPI, its weights are not fixed, but move to reflect changes in spending patterns. Of the two indexes, the CPI tends to increase more rapidly, in part because it measures a fixed basket of goods and services; the GDP price index increases less rapidly because it reflects the shifting of household and business purchases away from items with increasing relative prices and toward items with decreasing relative prices. Additionally, the GDP price index (which includes investment goods) places a larger weight on computers, which tend to decline in price (on a quality-adjusted basis), while the CPI places a much larger weight on rent and energy.

The "wedge," or difference between the CPI and the GDP measures of inflation, has implications for Federal budget projections. A larger wedge (with the CPI rising faster than the GDP price index) raises the Federal budget deficit because Social Security and Federal pensions rise with the CPI, while Federal revenue tends to increase with the GDP price index. For a given level of nominal income, increases in the CPI also cut Federal revenue because they raise the brackets at which higher income tax rates apply and affect other inflation-indexed features of the tax code.

Is rising inflation a problem for the United States? Although the CPI accelerated to a 4.1 percent rate of increase during 2007, the acceleration was entirely a result of food and energy price increases that are not likely to be repeated. Nor do market participants expect it to be repeated, as is evident from the well-anchored long-run consumer price inflation expectations in the market for inflation-indexed securities. Furthermore, most of the price increases for petroleum do not reflect prices charged by workers or firms in the United States because 65 percent of petroleum is imported. The GDP price index better captures the prices that Americans are charging for their labor and services, and it decelerated to a 2.6 percent increase during 2007 from a year-earlier pace of 2.7 percent. Prices for business investment—which is not captured in the CPI—slowed noticeably in 2007. In sum, long run inflation expectations remain stable, and inflation as measured by the broad-based GDP price index remained moderate in 2007.

Financial Markets

The Wilshire 5000 (a broad stock market index) increased 3.9 percent during 2007, while the Standard and Poor 500 (an index of the 500 largest corporations) increased 3.5 percent. This was the fifth consecutive year of stock market gains, and it followed 3 years of declines.

Yields on 10-year Treasury notes ended 2006 at 4.6 percent—near the low end of the historical range—and fell another 46 basis points during 2007. These yield dropped further in January. The low level of these long-term interest rates was due in part to low and stable long-run inflation expectations.

The Administration's forecast of short-term interest rates is roughly based on financial market data as well as a survey of economic forecasters at the date that the forecast was developed in mid-November. The near-term forecast has been overtaken by events as interest rates have fallen notably since the forecast was finalized. Whatever the starting point, the Administration projects the rate on 91-day Treasury bills to edge up gradually to 4.1 percent by 2011 and then remain at that level. At that level, the real rate (that is, the nominal rate less the rate of inflation) on 91-day Treasury bills would be close to its historical average.

The yield on 10-year Treasury notes on November 15 (when the forecast was finalized) was 4.17 percent. The January decline in this yield means that this near-term forecast has also been overtaken by events. The Administration expects the 10-year rate to increase, eventually reaching a normal spread of about 1.2 percentage points over the 91-day Treasury-bill rate by 2012. An increase in yield also appears to be expected by market participants (as evidenced by higher rates on 20-year Treasury notes than on notes with 10-year maturities). As a result, yields on 10-year notes are expected to increase somewhat further, reaching a plateau at 5.3 percent from 2012 onward.

The Long-Term Outlook Through 2013

During the sixth year of expansion in 2007, the composition of demand was reshuffled, a process that is likely to continue in 2008. The period of somewhat slower-than-normal growth that began in 2007 is likely to continue into 2008. Thereafter, the economy is projected to expand at a roughly steady rate at or just below 3.0 percent. Having reached a level of resource utilization consistent with stable inflation by the end of 2007, inflation will remain in the low-to-moderate range currently suggested by core inflation rates. Payroll job growth is expected to remain solid while the unemployment rate is expected to be little changed over the projection interval (Table 1-1). The forecast is based on conservative economic assumptions that are close to the consensus of professional forecasters. These assumptions provide a sound basis for the Administration's budget projections.

Growth in GDP over the Long Term

The Administration projects that, following a slight pickup of growth from 2008 to 2009, real GDP will increase at a slowly diminishing rate from 2009 through 2013, due to the expected retirement of the baby-boom generation. Indeed, real GDP is projected to decelerate from a 3.0 percent growth rate during the four quarters of 2009 to 2.8 percent by 2013. The average growth rate during this interval is roughly in line with the consensus of private

Table 1-1.—*Administration Economic Forecast*[1]

Year	Nominal GDP	Real GDP (chain-type)	GDP price index (chain-type)	Consumer price index (CPI-U)	Unemployment rate (percent)	Interest rate, 91-day Treasury bills[2] (percent)	Interest rate, 10-year Treasury notes (percent)	Nonfarm payroll employment (average monthly change, Q4-to-Q4, thousands)[3]
	Percent change, Q4-to-Q4				Level, calendar year			
2006 (actual)	5.4	2.6	2.7	1.9	4.6	4.7	4.8	192
2007	5.1	2.7	2.3	3.9	4.6	4.4	4.7	129
2008	4.8	2.7	2.0	2.1	4.9	3.7	4.6	109
2009	5.1	3.0	2.0	2.2	4.9	3.8	4.9	129
2010	5.0	3.0	2.0	2.3	4.8	4.0	5.1	118
2011	5.0	2.9	2.0	2.3	4.8	4.1	5.2	112
2012	4.9	2.8	2.0	2.3	4.8	4.1	5.3	102
2013	4.9	2.8	2.0	2.3	4.8	4.1	5.3	92

[1]Based on data available as of November 15, 2007.

[2]Secondary market discount basis.

[3]The figures do not reflect the upcoming BLS benchmark which is expected to reduce 2006 and 2007 job growth by a cumulative 300,000 jobs.

Sources: Council of Economic Advisers, Department of Commerce (Bureau of Economic Analysis and Economics and Statistics Administration), Department of Labor (Bureau of Labor Statistics), Department of the Treasury, and Office of Management and Budget.

forecasters for those years. After 2008, the year-by-year pace is close to the estimated growth rate of *potential real* GDP, a measure of the rate of growth of productive capacity. (An economy is said to be growing at its potential rate when all of its resources are utilized and inflation is stable. The supply-side components of potential GDP growth are presented in Table 1-2 and are discussed below.) The unemployment rate is projected to be roughly flat in 2008 and 2009 at around its December 2007 level before edging back down to 4.8 percent thereafter. As discussed below, potential GDP growth is expected to slow in the medium term as productivity growth reverts toward its long-run trend (about 2.5 percent per year), and to slow further during the period from 2008 to 2011 as labor force growth declines due to the retirement of the baby-boom generation.

The growth rate of the economy over the long run is determined by its supply-side components, which include population, labor force participation, the ratio of nonfarm business employment to household employment, the length of the workweek, and labor productivity. The Administration's forecast for the contribution of the growth rates of different supply-side factors to real GDP growth is shown in Table 1-2.

The labor force participation rate generally fell from 2001 to 2007 and is projected to trend lower through 2013. The recent behavior stands in contrast to the long period of increase from 1960 through 1996. Looking

Table 1-2.—*Supply-Side Components of Real GDP Growth, 1953–2013*
[Average annual percent change]

Item	1953 Q2 to 1973 Q4	1973 Q4 to 1995 Q2	1995 Q2 to 2001 Q1	2001 Q1 to 2007 Q3	2007 Q3 to 2013 Q4
1) Civilian noninstitutional population aged 16+[1]	1.6	1.4	1.2	1.2	0.9
2) PLUS: Civilian labor force participation rate	0.2	0.4	0.1	-0.3	-0.2
3) EQUALS: Civilian labor force[2]	1.8	1.8	1.4	0.9	0.7
4) PLUS: Civilian employment rate	-0.1	0.0	0.3	-0.1	0.0
5) EQUALS: Civilian employment[2]	1.7	1.8	1.6	0.8	0.7
6) PLUS: Nonfarm business employment as a share of civilian employment[2,3]	-0.1	0.1	0.4	-0.5	0.0
7) EQUALS: Nonfarm business employment[4]	1.6	1.9	2.0	0.4	0.7
8) PLUS: average weekly hours (nonfarm business)	-0.3	-0.3	-0.1	-0.2	0.0
9) EQUALS: Hours of all persons (nonfarm business)[4]	1.3	1.6	1.9	0.2	0.7
10) PLUS: Output per hour (productivity, nonfarm business)[4]	2.5	1.5	2.4	2.7	2.5
11) EQUALS: Nonfarm business output[4]	3.8	3.1	4.3	2.9	3.2
12) PLUS: Ratio of real GDP to nonfarm business output[5]	-0.2	-0.2	-0.5	-0.3	-0.4
13) EQUALS: Real GDP	3.6	2.8	3.8	2.6	2.8

[1]Adjusted by CEA to smooth discontinuities in the population series since 1990.

[2]BLS research series adjusted to smooth irregularities in the population series since 1990.

[3]Line 6 translates the civilian employment growth rate into the nonfarm business employment growth rate.

[4]Nonfarm employment, workweek, productivity, and output sourced from the BLS productivity and cost database.

[5]Line 12 translates nonfarm business output back into output for all sectors (GDP), which includes the output of farms and general government.

Note: 1953 Q2, 1973 Q4, and 2001 Q1 are NBER business-cycle peaks.
Detail may not add to total because of rounding.

Sources: Council of Economic Advisers, Department of Commerce (Bureau of Economic Analysis) and Department of Labor (Bureau of Labor Statistics).

Box 1-3: Aging and the Pattern of Labor Force Participation

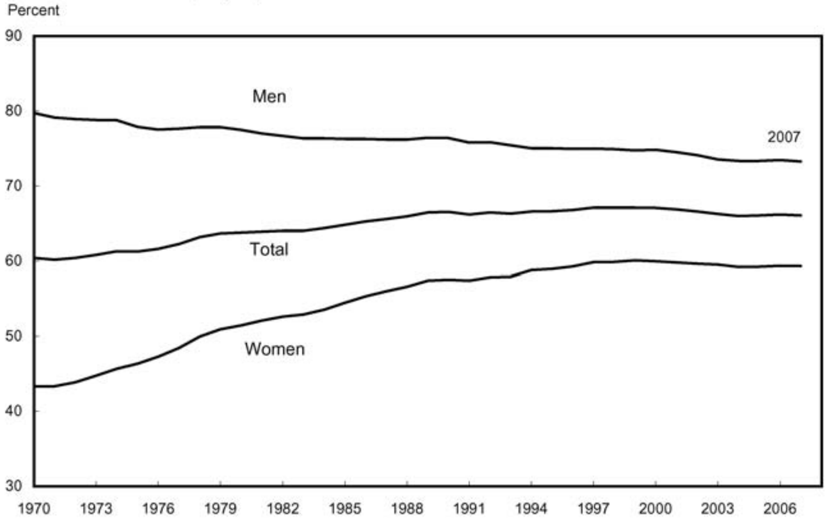
The overall labor force participation rate trended up to 67.1 percent in 1997, and after holding steady between 1997 and 2000, has generally edged lower during the past 7 years. Men's labor force participation rates fell fairly steadily through 2004. Women's labor force participation rose steadily through 1999, and has edged lower since then.

continued on the next page

Box 1-3 — continued

Labor Force Participation Rates for Men and Women (1970–2007)

The female labor force participation rate plateaued from 1999. Men's participation has trended lower, but has fallen only slightly since 2004.



Note: Persons 16 years and over; annual data only.
Source: Department of Labor (Bureau of Labor Statistics).

Participation in the labor force (by working or by looking for a job) declines as people age through their 50s and 60s as is shown for women in the chart below. As a result, the overall rate of labor force participation is projected to decline as the baby-boom cohorts (those born between 1946 and 1964) advance into age brackets with much lower participation rates.

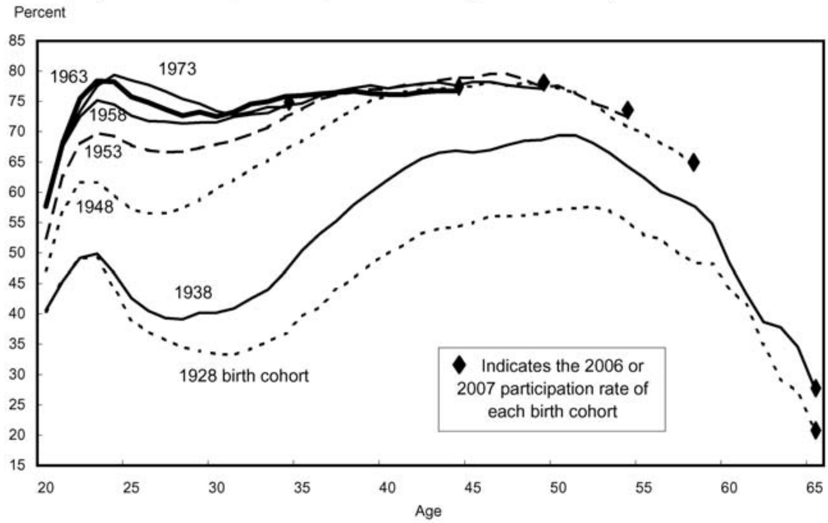
Female participation rises rapidly from age 20 to 24, drops off during the child-rearing years, and then rises again to a maximum in the 40 to 50 age bracket, as shown in the chart above. Looking at how the shape of this age-participation profile has evolved shows some striking changes: The participation rates of women in their 40s moved upward rapidly from the cohorts born in 1928 to those born in 1948, but has not risen any further in the years since. Also, the dip in participation during the child-rearing years has become less pronounced. Neither of these patterns of evolution suggests that the pre-1999 trend of rising female participation will re-emerge. Although participation of women over age 55 rose dramatically from the cohort born in 1938 to the cohort born in 1948, the age-participation profile of the cohort born in 1958 suggests that this trend of rising participation of older women is unlikely to

continued on the next page

Box 1-3 — continued

Female Labor Force Participation Rates by Age

Participation rates edge down after age 50 and fall sharply after age 60. Participation rates of the 1963 cohort (44 years old in 2007) were no higher than those 44-year-olds 5 or 10 years earlier.



Sources: Department of Commerce (Census Bureau) and Department of Labor (Bureau of Labor Statistics) with interpolations by the Council of Economic Advisers.

continue. This follows because the 1958 cohort shows no advance in participation at age 49 (their age in 2007) compared with somewhat older cohorts (such as the 1948 or 1953 cohorts shown in the chart), hinting that the rising participation rates for older women has plateaued. Also, the drop in participation during the child-rearing years has almost vanished, leaving only a little room for further increase among 25- to-35-year-old women.

ahead, the participation rate is projected to decline, reflecting the aging of the baby-boom cohorts, leading to more retirements and a likely increase in the share of people on disability pensions (Box 1-3).

The Composition of Income over the Long Term

The Administration's economic forecast is used to estimate future government revenues, a purpose that requires a projection of the components of taxable income. The income-side projection is based on the historical stability of labor compensation as a share of gross domestic income (GDI). During the first half of 2007, the labor compensation share of GDI was 56.9 percent (according to the preliminary data available when the projection was finalized), below its 1963–2006 average of 58.0 percent. From this jump-off point, the labor share is projected to slowly return toward its historical average, reaching 57.7 percent by 2013. (Another definition of the labor share—including the imputed wages of the self-employed—is higher, about 62 percent for the nonfarm business sector.)

The labor compensation share of GDI consists of wages and salaries (which are taxable), nonwage compensation (employer contributions to employee pension and insurance funds, which are not taxable), and employer contributions for social insurance (which are not taxable). The Administration forecasts that the wage and salary share of compensation will change little between 2007 and 2013.

As the labor share of GDI increases toward its historical average, the capital share of GDI is expected to edge down from its currently high level before eventually reaching its historical average in 2012. Profits during the first half of 2007 were about 11.6 percent of GDI, well above their post-1959 average of roughly 9 percent. Book profits (also known in the national income accounts as *profits before tax*) are expected to decline as a share of GDI. The GDI share of other taxable income (rent, dividends, proprietors' income, and personal interest income) is projected to edge up slightly over the next 2 years.

Conclusion

The economy entered a period of rebalancing in 2006 and 2007, as higher growth of nonresidential investment and exports offset the lower rates of housing investment. This rebalancing—and the reduced rate of growth that goes with it—is projected to continue in 2008. The bipartisan economic growth package called for by the President would provide insurance against the near-term risks of any broader economic slowdown related to financial and housing-related developments by providing a boost to consumption, business investment, and job creation. The economy is projected to settle into a steady state in which real GDP grows at about 2.9 percent per year, the unemployment rate stays around the level consistent with stable inflation (about 4.8 percent) and inflation remains moderate and stable (about 2.3 on the CPI). Consumer spending is projected to grow in line with disposable income, and business investment and exports are projected to grow a bit faster than GDP as a whole. Economic forecasts are subject to error, and unforeseen positive and negative developments will affect the course of the economy over the next several years. Given the economy's strong basic structure, free mobility of labor, relatively low taxes, well-balanced capital markets, and openness to trade, prospects for continued growth in the years ahead remain good. Later chapters of this *Report* explore how pro-growth policies such as tax reform, fiscal restraint, open commerce, and market-based reforms can enhance our economic performance.