

The U.S. Economy

In this chapter—

1.1. Introduction

1.2. The U.S. Economy: Year in Review

Components of GDP

Inflation and Prices

The Labor Market

1.3. The U.S. Forecast

Consumption and the Labor Market

Investment and Interest Rates

Government Spending

International Trade

Prices and Inflation

1.4. Alternative Scenarios

1.5. Forecast Summary and Conclusions

1.1. Introduction

The slumping U.S. economy continued its descent into 2009 as uncertainty in financial markets sapped the confidence of consumers, producers, and investors alike. In fact, the National Bureau of Economic Research, the organization officially responsible for determining the beginning and ending of recessions, confirmed what many suspected — that the U.S. economy was shrinking. More specifically, they determined that the economy had entered a recession in December of 2007 and has been in one ever since.

While there was certainly no shortage of dreary economic headlines throughout last year, the most notable were the collapse of several financial institutions, including investment banking giants Lehman Brothers and Bear Stearns and insurance conglomerate

American International Group (AIG). At the heart of these failures was the continued turmoil in housing and real-estate related asset markets. Such events have shaken confidence in financial markets and drastically limited the availability of credit, making producers weary or unable to expand or, in many cases, even continue production. Consumers have also been affected by tighter lending, unable to secure mortgages and lines of credit for other big-ticket items such as automobiles and home appliances.

Policymakers have responded in a variety of ways. The Federal Reserve has dropped the federal funds rate to almost zero, attempting to spur investment and borrowing-fueled consumption. In order to stem the harmful spillover of failing banks into other sectors of

1.1. Introduction, continued

the economy, Congress has given the Treasury Department authority to purchase up to \$700 billion of assets from failing financial institutions through the Troubled Asset Relief Program (TARP). So far, half of this money has been spent, while the Senate approved to release the second half on January 15, 2009. In order to encourage continued faith in the banking system, the Federal Deposit Insurance Corporation (FDIC) has increased its guarantee on individual deposit accounts from \$100,000 to \$250,000. While there has been no sign of recovery in the near-term, these policies may have prevented further economic collapse.

As this report goes to print, policymakers are also discussing the possibility of a massive fiscal stimulus bill, the cost of which may approach \$1 trillion. While specific details of a final plan are unavailable at this point, it is likely to include tax cuts, programs aimed at homeowners at risk for foreclosure, investments in infrastructure, and transfers to state and local governments.

This chapter provides an overview of the nation's current economic situation as well as

a short-term forecast of things to come.¹ As this goes to print, inflation-adjusted gross domestic product (GDP) is reported to have declined at an annual rate of only 3.8 percent in the fourth quarter of 2008, better than has been expected.² Unfortunately, the downward trend is expected to continue well into 2009, with minimal growth occurring in the second half of the year. Overall, the economy is expected to shrink by about 2.5 percent in 2009. The harmful effects of deflation (falling prices) combined with continued weakness in housing markets will drive down consumption and investment demand, leading to a 2.6 percent reduction in payroll employment and an unemployment rate of 8.5 percent. Strong growth should resume by the second half of 2010 as the housing market begins to rebound from its historic decline and credit markets unfreeze, once again giving producers and consumers sorely-needed access to funds.

1 CBER draws its U.S. forecast from IHS Global Insight, Inc.

2 Unless otherwise noted, all growth rates in this chapter are seasonally adjusted annual rates (SAARs).

1.2. The U.S. Economy: Year in Review

Gross Domestic Product (GDP) is the most widely-cited measure of economic activity. It measures the total production or value of goods and services produced and consumed in the country in a given period of time. For the first time since 2001, inflation-adjusted GDP fell at the end of 2007, ending a string of 24 consecutive quarters of growth (see Figure 1.1). While recovering from a recession in 2001, the economy grew at around 3 percent per year until mid-2006. Growth was sluggish for most of the subsequent twelve months. Output growth picked up briefly in the second and third quarters of 2007, but the economy has slipped considerably ever since. The third quarter of 2008 exhibited annualized inflation-adjusted GDP growth of -0.5 percent. The fourth quarter showed only a 3.8 percent setback, better than the 5.6 percent loss that was expected. However, all indications are that fourth quarter growth will be significantly less.

Consumer sentiment is at its lowest point since 1980 and data on retail sales for November and December show a sharp decline, dashing any hopes for a rebound driven by holiday shopping. In fact, fourth quarter GDP

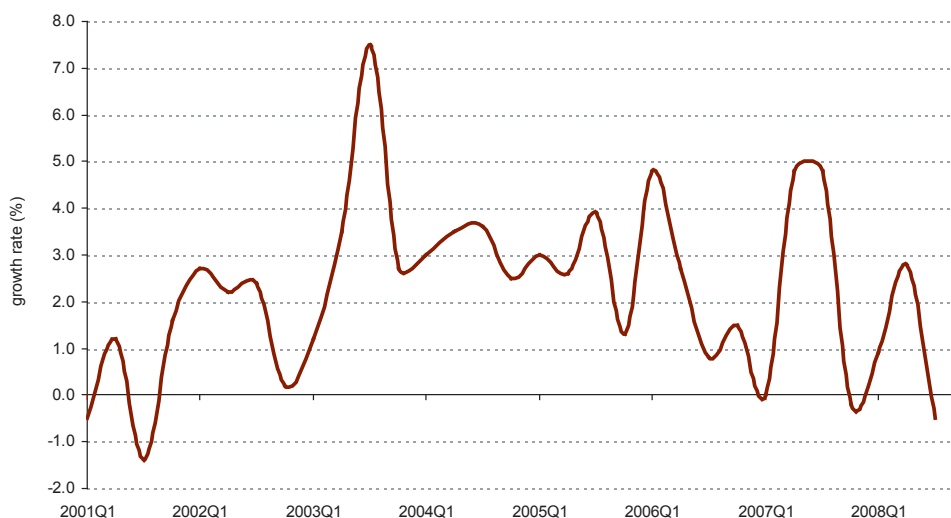
is expected to have decreased by an annualized 5.6 percent, the largest quarterly drop in almost thirty years. Overall, GDP is expected to have increased by only 1.2 percent in 2008, the smallest increase since 2001. Much of this gain can be attributed to fiscal policy actions such as the distribution of \$375 billion in TARP funds and the tax rebates of last spring.

Components of GDP

By definition, GDP is the sum of spending by consumers on durable goods, non-durable goods, and services, investment spending (residential and non-residential construction, equipment, inventories, etc.), purchases by all levels of government, and net trade in international markets (exports minus imports). While we look to total GDP to draw broad conclusions on the overall status of the economy, it is extremely useful to look at these individual components to identify underlying trends and determine which sectors are contributing to growth, or decline, in the economy.

The largest component of GDP is consumption spending, which typically comprises about two-thirds of total GDP.

Figure 1.1. Inflation-Adjusted GDP Growth



Note: Seasonally-adjusted annual rate
Source: Bureau of Economic Analysis

1.2. The U.S. Economy: Year in Review, continued

After growing roughly 3 percent per year from 2005 to 2007, inflation-adjusted consumption increased by only 0.3 percent in 2008. This is the slowest growth since 1991, another recession year. Much of the slowdown occurred in the second half of the year, with declines of 3.8 and 2.6 percent in the third and fourth quarters, respectively.

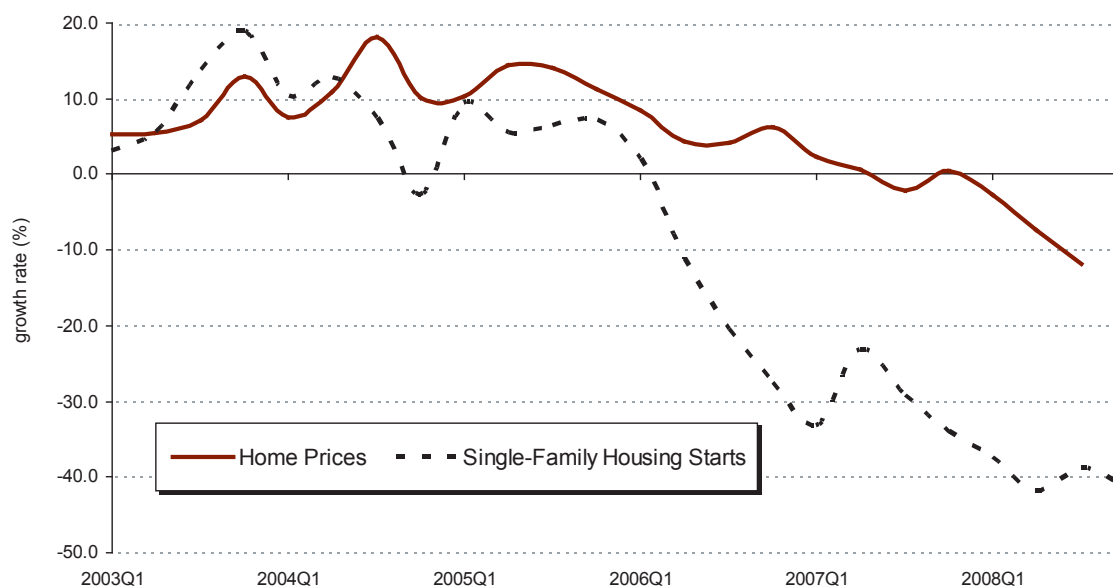
Consumption spending can be broken down further into three main categories: durables, non-durables, and services. Durable goods are things like appliances and automobiles while examples of non-durable goods are clothing and food. Although growth in all three categories was either flat or negative, it was the significant contraction in sales of durable goods that was most noteworthy, falling in every quarter of 2008. This is likely due to shaky consumer confidence and uncertainty regarding future economic conditions. Since durable goods tend to be large purchases, many households will avoid making these types of purchases if they are concerned about job security or future income in a shaky

economy. This is particularly evident for automobile sales, which fell 18 percent in 2008, the largest drop since 1980.

All in all, spending on durable goods fell by 4.3 percent for the year. Sales of non-durable goods, which are typically more stable since many non-durable goods are considered necessities, even fell slightly (0.3 percent). Spending on services (haircuts, oil changes, etc.) grew by only 1.5 percent. Quite often, the last few months of the year provide a boost to end-of-year consumption figures as holiday shopping is in full swing. This was not the case in 2008, with total retail sales falling 8.2 and 9.8 percent in November and December, respectively, compared to the same months in 2007. These are the two largest year-over-year drops since those data began being collected in 1966.

Like consumption, investment can be separated into several categories, many of which experienced negative growth in 2008. Residential fixed investment (housing) decreased by 21 percent over the course

Figure 1.2. Home Prices and Housing Starts



Note: Series are seasonally-adjusted annual rates
Source: Census Bureau and Fannie Mae

1.2. The U.S. Economy: Year in Review, continued

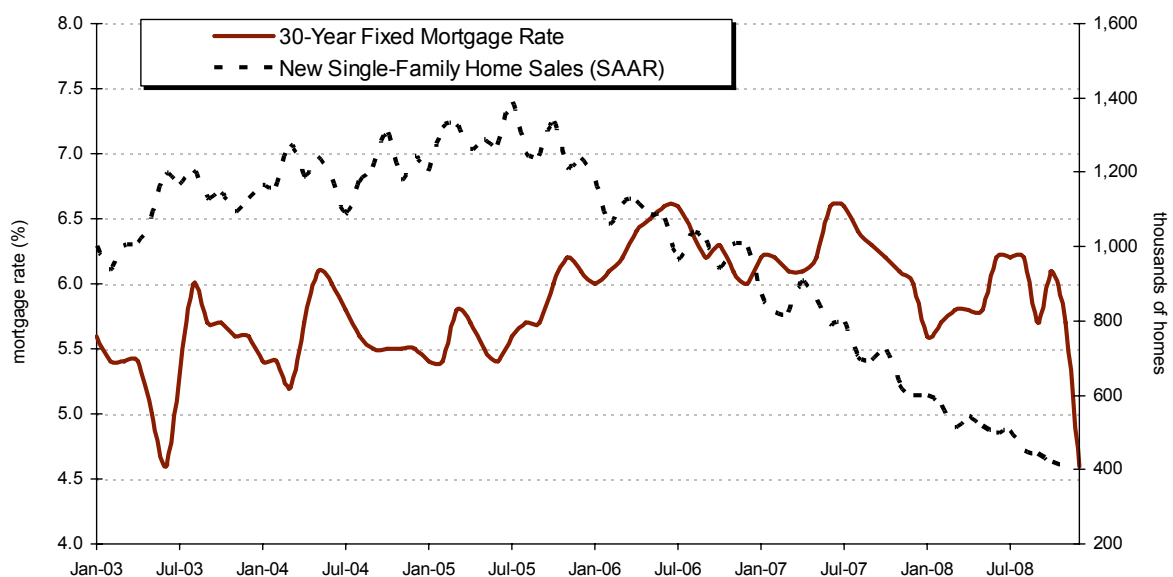
of the year, with every quarter displaying larger drops than the one before. Residential investment fell at an annual rate of almost 27 percent in the fourth quarter, the twelfth consecutive quarter of negative growth. Since this includes new housing construction, it is of no surprise that new housing starts have experienced an equally drastic decline, as shown in Figure 1.2. Housing starts are now at levels around one-third of their peak in the first quarter of 2006. As discussed in Chapter 2, the number of new building permits issued is down sharply in Tennessee as well.

Home values have also continued to plummet, falling at an annualized rate of almost 12 percent in the third quarter of 2008 (see Figure 1.2), the largest such drop in history. Continuing falls in housing prices and labor market uncertainty have caused potential first-time homebuyers to delay buying with the hope that prices will fall even further, despite historically low mortgage rates, which have fallen for much of the past year and a half. Further exacerbating the

housing market situation is limited access to credit. Even those with relatively strong credit histories are finding it difficult to secure financing. Accordingly, the number of home sales has dropped consistently since the middle of 2005. Figure 1.3 shows the average rates on a 30-year fixed-rate mortgage as well as the number of home sales.

Although non-residential, or business, investment ended the year with positive growth of 1.8 percent, the trend is not encouraging. Business investment fell at an annual rate of over 18 percent in the fourth quarter of 2008, the largest such drop in over two decades. Much of this decrease is due to producers cutting back on purchases of equipment and software, which fell at an annual rate of 25.5 percent in the fourth quarter. The lone bright spot is the continued investment in business structures, which grew 11 percent in 2008. However, even this category of investment fell at an annual rate of 5.2 percent in the fourth quarter after three years of sustained strong growth. This does

Figure 1.3. Mortgage Rates and New Home Sales



Source: Census Bureau and Fannie Mae

1.2. The U.S. Economy: Year in Review, continued

not bode well for the construction industry now that investment in both residential and business structures is falling.

Government spending grew by an annualized 5.7 percent at the federal level and 1.2 percent at the state and local level in 2008. This represents a sharp increase in federal spending from 2007 (1.6 percent) and a reduction in state and local spending growth (2.3 percent). The growth at the federal level is likely due to increased borrowing to fund several new spending programs designed to combat the struggling economy as well as further increases in defense spending. Reductions in personal and corporate income and sales tax receipts have crippled the budgets of many states and localities.

The trend of improving trade balances continued in 2008, with sales of U.S. goods to foreign markets growing faster than imports for the fourth consecutive year. More specifically, exports grew at 6.4 percent while imports actually fell for the first time since 2001, by 3.1 percent. Since spending by domestic consumers on imported goods is counted in consumption, it is subtracted from export sales in order to avoid double counting and accurately determine how international trade has contributed to economic activity. Historically, U.S. imports have exceeded exports, subtracting from GDP and hindering economic growth. Fortunately, strong export growth for the past several years has led to declining trade deficits, as shown in Figure 1.4. However, weak global demand along with an appreciating dollar has recently led to a decline in U.S. export activity, with exports falling at an annual rate of 21 percent in the fourth quarter of 2008. Exports had been a major source of domestic economic growth, with growth rates higher than that of overall GDP for much of the past five years.

Inflation and Prices

Inflation is commonly measured as the change in the Consumer Price Index (CPI) in one period compared to another. The CPI

is designed to measure the cost of a typical market “basket” of goods and services that a typical household purchases. Figure 1.5 shows the monthly change in the CPI from the same month in the prior year. Prices began to rise quickly in the second half of 2007, with inflation rates reaching 5.5 percent in July, 2008. Much of this was due to skyrocketing energy, food, and commodity prices. This caused a great deal of concern for policymakers since maintaining low levels of inflation has been a primary goal of the Federal Reserve, which can influence inflation rates by controlling the nation’s money supply and determining key interest rates.

As consumption and investment demand continued their dramatic retreat in the second half of 2008, prices have begun to fall. Annual inflation actually decreased in December, with the CPI 0.1 percent less than it was a year earlier, the first year-over-year drop since the 1950s. Prices have fallen every month since August, with the largest drop occurring from October to November.

While we typically welcome low rates of price growth, we want to avoid prolonged periods of falling prices, or deflation. If producers and consumers begin to expect prices to fall, then consumers will delay spending as long as possible in an attempt to buy at a later date when prices are lower. Similarly, producers will not make investments in capital equipment if they expect lower equipment prices in the future and also expect to receive a lower price for their products. Low demand for goods and decreased production can lead to rising unemployment and falling incomes as producers strive to cut costs and reduce inventory. This can become a vicious cycle of falling prices and incomes and rising unemployment. A recent example is Japan, which entered a deflationary period in the early 1990s, prompting a decade of stagnant growth.

Often it is useful to exclude some items from the CPI in order to determine which goods are driving the movement in overall prices. Figure

continued on page 9

1.2. The U.S. Economy: Year in Review, continued

The Credit Crunch

Perhaps the most significant economic event of 2008 was the so-called “credit crunch,” when financial institutions, saddled with declining asset values, began to hoard cash rather than issue new loans in order to stay solvent. There is no single cause or simple explanation for how this came about. In some sense, the current state of credit markets and the financial industry in general is the result of a perfect storm of several trends, discussed in the following paragraphs.

Throughout the late 1990s and early 2000s, home prices rose at an unprecedented pace. As housing became less affordable, home buyers stretched their budgets and took out exotic mortgages in order purchase expensive homes. Since home value were rising, mortgage companies relaxed lending standards, issuing loans to borrowers with substandard credit ratings and requiring small down payments. After all, if the borrower defaulted the bank could repossess the home, which would be worth more than the balance due on the mortgage thanks to appreciation.

The past decade has also ushered in the prevalence of mortgage brokers. In the past, financial institutions that issued mortgages would typically own and service the loans throughout their lifetimes. Thus, they had every incentive to ensure the credit worthiness of those to whom they were lending money. Conversely, mortgage brokers issue loans and sell them to banks, greatly reducing the future repercussions of making a bad loan.

Companies that owned or originated mortgages often packaged them into bundles called mortgage-backed securities, selling them as investments to institutions such as pension funds, insurance companies, hedge funds, and banks. Since home values were rising, parties at each of level of this process did not closely examine these mortgages and accurately assess their risk. Companies such as Wachovia, Bear Stearns, Countrywide, and even Bank of America had billions of dollars worth of mortgages and mortgage-backed securities listed as assets on their balance sheets.

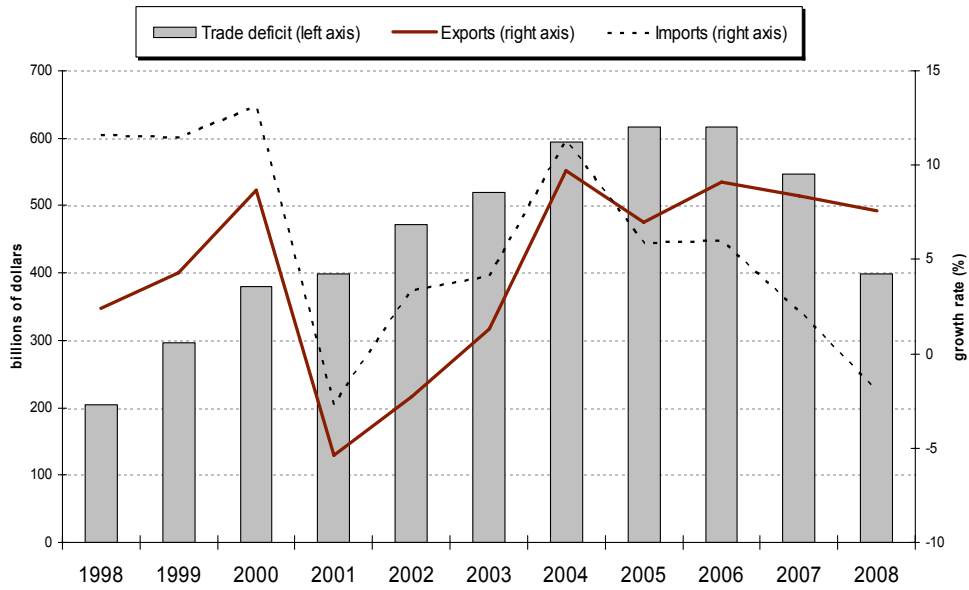
When home prices began to fall, the system unraveled. Subprime borrowers, homeowners who purchased homes they could not afford, and those with adjustable-rate mortgages facing interest rate hikes began to default on their payments at an alarming rate. These defaults decreased the value of mortgage-backed securities, which depend on homeowners’ mortgage payments to generate income for the investor. Losses mounted as the value of these securities plummeted. In many cases, the quality of mortgages in the asset was unknown. This uncertainty combined with the high probability of increasing defaults due to further declines in home values essentially eliminated the market for mortgage-backed securities, leaving many firms stuck with worthless assets.

As the value of mortgage-backed securities fell, so did the strength of firms’ balance sheets. These firms were saddled with bad assets that had stopped generating income, unable to secure funding due to lack of sufficient collateral. Since ownership of mortgage-backed securities was widespread, bank-to-bank lending activity decreased. Lenders could not be sure of repayment since the assets of borrowers were shrinking by the day. By the fall of 2008, bank-to-bank lending was almost nonexistent.

The credit freeze has spilled over into the broader economy as banks struggled with deteriorating balance sheets. For reasons outlined above, they could not borrow from other banks in order to make loans to firms or consumers. Instead of using the cash they had on hand to make loans, they held it in order to improve their balance sheets and maintain solvency. As a result, firms have been unable to secure credit for investment in capital equipment or to cover payroll, leading them to reduce production and lay off workers instead. Consumers, even those with good credit, have found it difficult to obtain financing for such things as going to college and purchasing automobiles, decreasing demand for many goods and services. This lack of available credit has contributed to the spiral of decreasing demand, falling prices, and shrinking production that we have witnessed over the past several quarters.

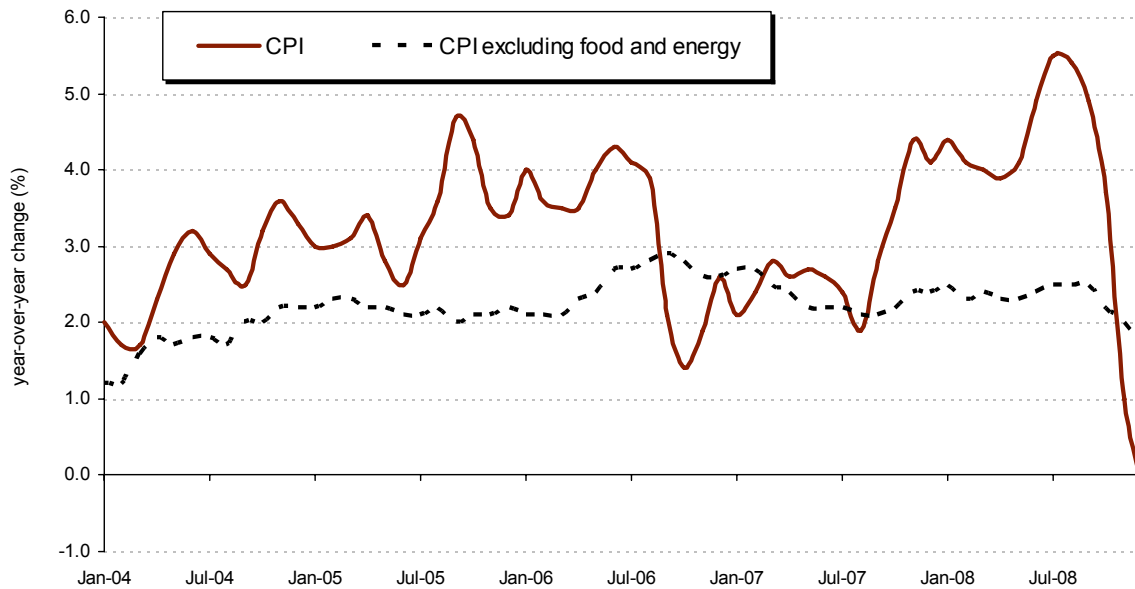
1.2. The U.S. Economy: Year in Review, continued

Figure 1.4. International Trade



Source: Bureau of Economic Analysis.

Figure 1.5. Inflation



Source: Bureau of Labor Statistics

1.2. The U.S. Economy: Year in Review, continued

1.5 also displays the change in price of a basket of goods that excludes food and energy, the prices of which can be particularly volatile. This is often referred to as core inflation. Once food and energy prices are removed, inflation appears to be much more stable and was in a more desirable range of 2 to 2.5 percent for 2008, dropping slightly as the year came to a close.

Since overall inflation is much lower than core inflation, we might expect the difference to be driven by energy and/or food prices. Figure 1.6 shows historical oil and gasoline prices. The price of oil has dropped from an average of about \$134 per barrel in June of 2008 to about \$40 per barrel in December as economic slowdown across the globe has tempered once-skyrocketing energy demand. Retail gasoline prices have followed in step, falling from an average of over \$4.00 per gallon during the summer to under \$1.70 at the end of the year.

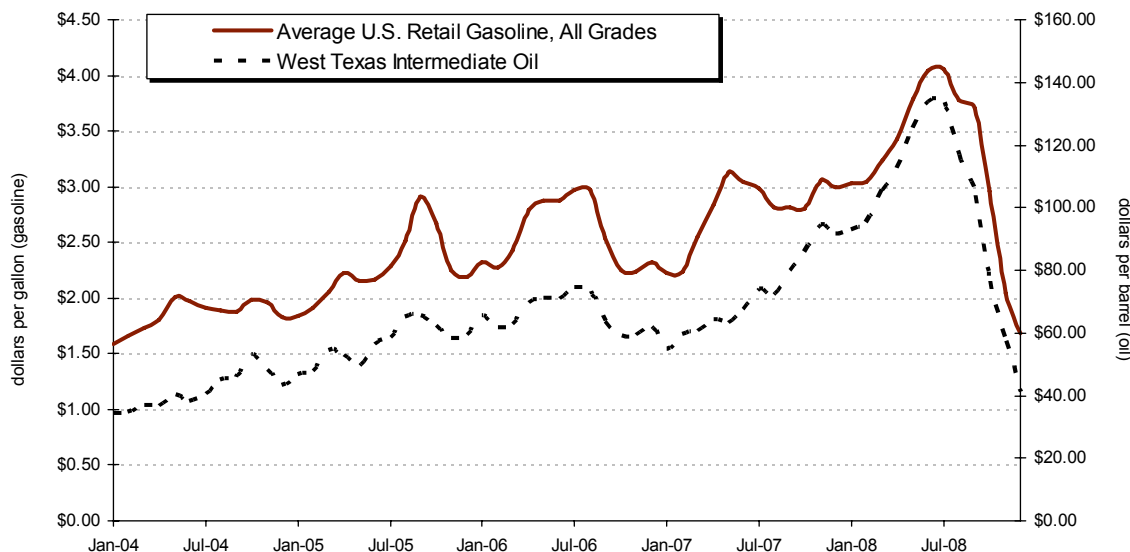
The Labor Market

Underscoring the contraction of the U.S. economy has been a tumultuous labor market. Figure 1.7 shows the civilian unemployment

rate, which measures the share of the national labor force that is out of work but actively seeking employment. Unemployment has risen steadily throughout the past year and a half, up from 4.4 percent in March of 2007 to currently over 7 percent. Even worse, the upward trend has become more severe over the past few months, with a rise from 6.2 percent in September to 7.2 in December. This is highest unemployment rate since the early-1990s. Unfortunately, unemployment rates tend to underestimate weakness in the labor market because many people who struggle to find jobs get discouraged and simply quit looking, dropping out of the labor force entirely. These people are not counted when calculating the unemployment rate. Further, workers whose hours are cut back are still counted as being employed, despite the reduction. Anecdotal evidence suggests a recent wave of furloughs, the scope of which seems unprecedented, contributing to labor market weakness.

Figure 1.7 also shows the unemployment rates of adult males and females aged 20 years and older. Historically, these groups

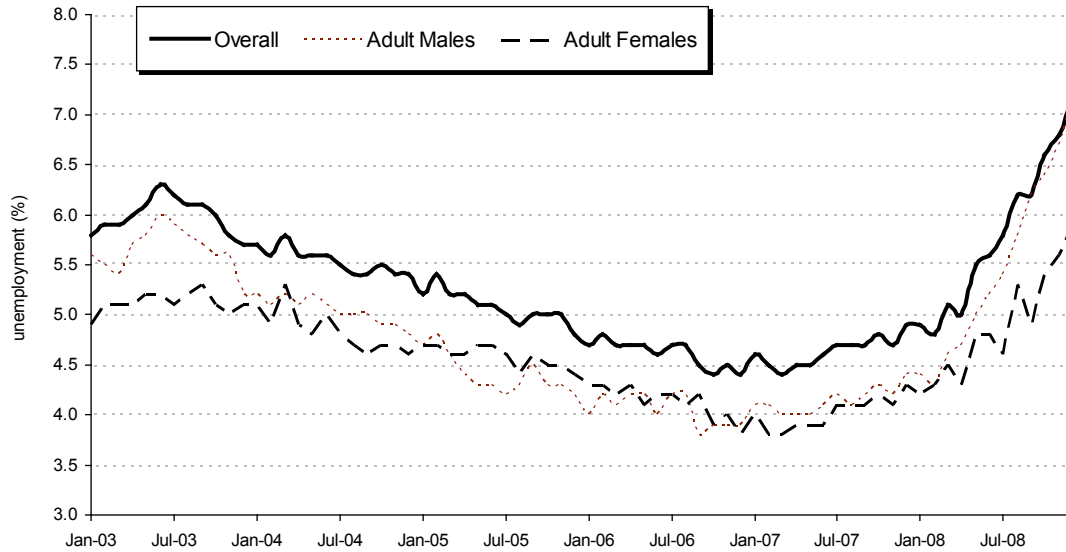
Figure 1.6. Average Gasoline and Oil Prices



Source: Energy Information Administration and the Federal Reserve Bank of St. Louis

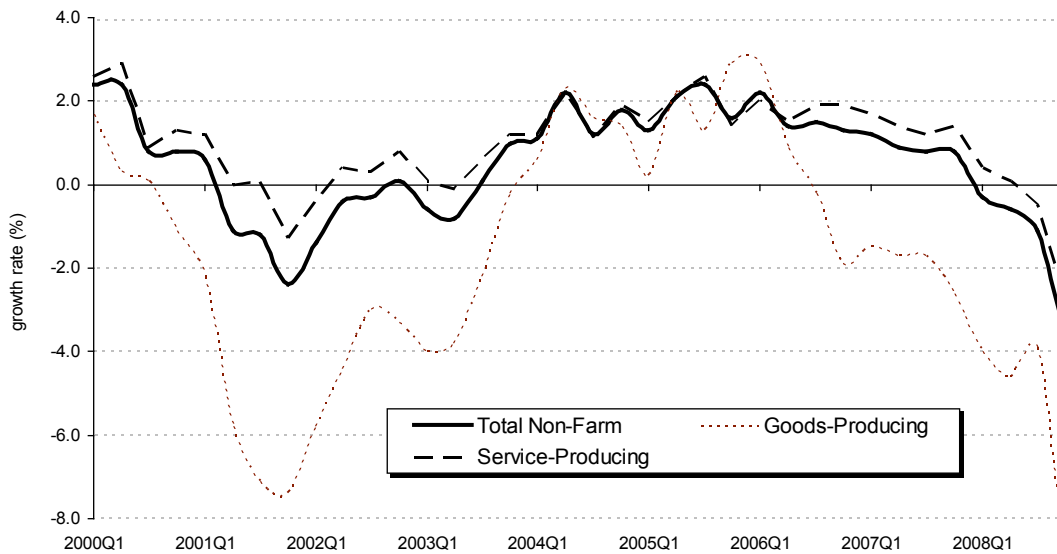
1.2. The U.S. Economy: Year in Review, continued

Figure 1.7. Unemployment Rates



Note: Series is seasonally-adjusted
 Source: Bureau of Labor Statistics

Figure 1.8. Employment Growth



Note: Series are seasonally-adjust annual rates
 Source: Bureau of Labor Statistics

1.2. The U.S. Economy: Year in Review, continued

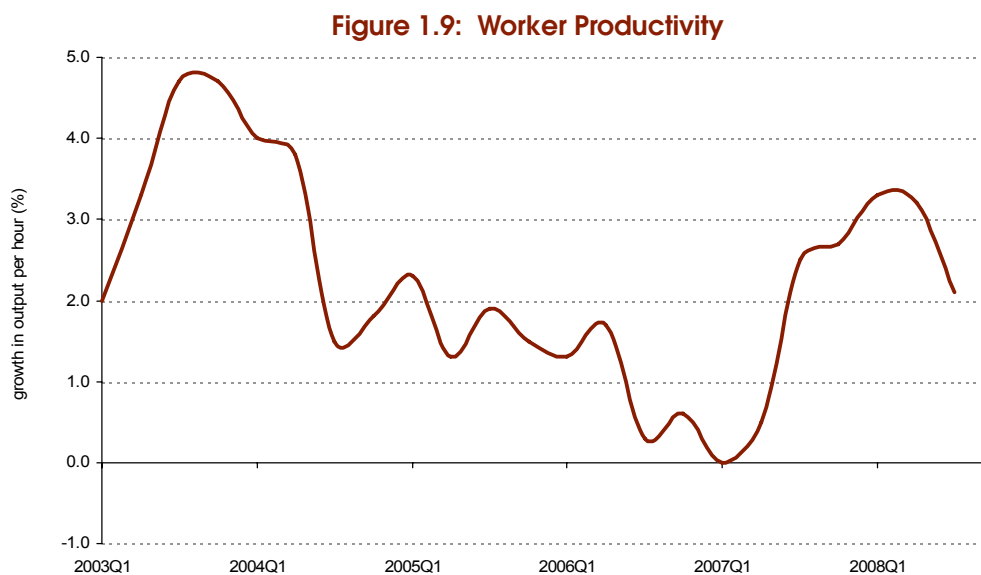
have had unemployment rates roughly 0.7 and 0.5 percentage points lower than overall unemployment, respectively. However, unemployment among adult males has risen much faster than that among women and the overall population, reaching 7.2 percent in December of 2008. This is likely due to the fact that sectors of the economy that are struggling more heavily, such as construction and the manufacturing of automobiles and heavy machinery employ a disproportional share of males.

It is no surprise that a rising unemployment rate corresponds to falling employment. Annualized employment growth, shown in Figure 1.8, has fallen since late 2005. However, non-farm payroll growth did not turn negative until 2008, and since that time the labor market has continued to contract. In fact, the economy has now shed jobs for twelve consecutive months. Total non-farm employment declined at an annual rate of 3.7 percent in the fourth quarter of the year, the largest quarterly drop since 1975. Overall, 2.6 million jobs were lost in 2008.

Goods-producing industries have shed the largest fraction of jobs, with employment decreasing at an annual rate of 9.2 percent

in the fourth quarter of 2008 (see Figure 1.8). Employment in these industries has decreased for 10 consecutive quarters. Although manufacturing employment has been in steady decline since the late 1970s, an even greater share of recent job losses have come from that sector. Over the past decade, manufacturing jobs have decreased by over 4 million, which represents a 23 percent decline. There are 430,000 fewer manufacturing jobs at the end of 2008 than there were at the beginning of the year, which followed a drop of 275,000 jobs in 2007. Employment in service-based industries has decreased slightly less than in the overall economy, slipping into negative growth only in the second half of the year.

Figure 1.9 shows the change in average worker productivity over the past six years. Although employment has decreased sharply, worker productivity was relatively strong in 2008, growing at 2.6 percent, the highest level since 2004. Solid productivity gains have helped to offset the steady fall in manufacturing and overall employment. However, these gains have slowed considerably, with the third and fourth quarters exhibiting growth of only 1.3 and 0.4 percent, respectively.



Note: Seasonally-adjusted annual rate
Source: Bureau of Labor Statistics

1.3. The U.S. Forecast

The economy will continue its contraction at least through the first half of 2009, eventually generating slow, but positive, growth around mid-year. The major factors contributing to the turnaround will be thawing credit markets resulting from low interest rates and the continued injection of federal funds into the financial sector, stabilization in the housing market as low prices finally attract pent-up demand, and the passage of a massive federal stimulus bill. However, late-year gains will not be enough to offset significant declines in the first and second quarters. Inflation-adjusted GDP will decrease by 2.5 percent in 2009, leaving year-end growth in negative territory for the first time since 1991. This drop would be the largest since 1948, when inflation-adjusted GDP began being calculated. All broad sectors of the economy are expected to decline in the coming year, with the exception of government spending, as shown in Figure 1.10. Contributing to this decline will be falling consumer prices, further declines in housing markets, and extremely weak labor markets.

Consumption and the Labor Market

Labor market conditions are expected to deteriorate further in 2009, with employment falling by 2.6 percent, the largest drop in over a decade. This represents the elimination of about 3.5 million jobs, most of which are likely to be lost in manufacturing and other goods-producing industries, and will bring total employment back to 2005 levels. Most of this decline is expected occur in the early part of the year, with annualized declines in the first and second quarters of 4.1 and 2.8 percent, respectively. Declining payrolls will push the unemployment rate to almost 9 percent by the end of 2009, the highest since 1983.

Even those with job security will see their incomes stagnate, although positive gains in productivity will keep personal income growth from turning negative. Productivity is expected to increase by only 1.1 percent in 2009, less than half of what it was in 2008. Significant job losses combined with modest

productivity gains will contribute to stagnant growth in personal income, which is expected to grow by less than 1 percent – the lowest since those data have been collected beginning in 1960. These factors, along with further declines in housing wealth, will take their toll on consumption spending as households cut back, particularly on bit-ticket purchases.

As a result, spending on durable goods is projected to decline by 6 percent, outpacing last year's decline of 4.3 percent. However, the entire decline is expected to be concentrated in the first quarter, with strong growth in the remainder of the year. Non-durable consumption will fall by less than 2 percent. Fortunately, consumption of services is expected to finish the year in the black, posting a small increase of 0.4 percent, with larger gains as the year progresses. Overall, consumption spending is expected to fall by 0.9 percent in 2009, the first outright annual decline since 1980.

The silver lining in the bleak consumption outlook for the coming year is that positive income growth, although small, combined with a significant decrease in consumption spending will lead to the highest savings rate in over fifteen years. The national saving rate has been decreasing steadily since the early 1980s. While this may be just a short-term increase rather than a shift in long-term trend, a higher savings rate provides households with additional cushion against job or income loss and encourages long-term economic growth. Some of this will be out of necessity as a lack of credit availability will force some households to save in order to purchase large items.

Investment and Interest Rates

Retreating consumer demand combined with the threat of deflation will cause businesses to reduce their investment even further in 2009. Following the sharp decline in the fourth quarter of 2008, business investment is projected to decrease by over 15 percent in 2009. The largest decreases are anticipated to incur in the transportation equipment and industrial equipment sectors,

1.3. The U.S. Forecast, continued

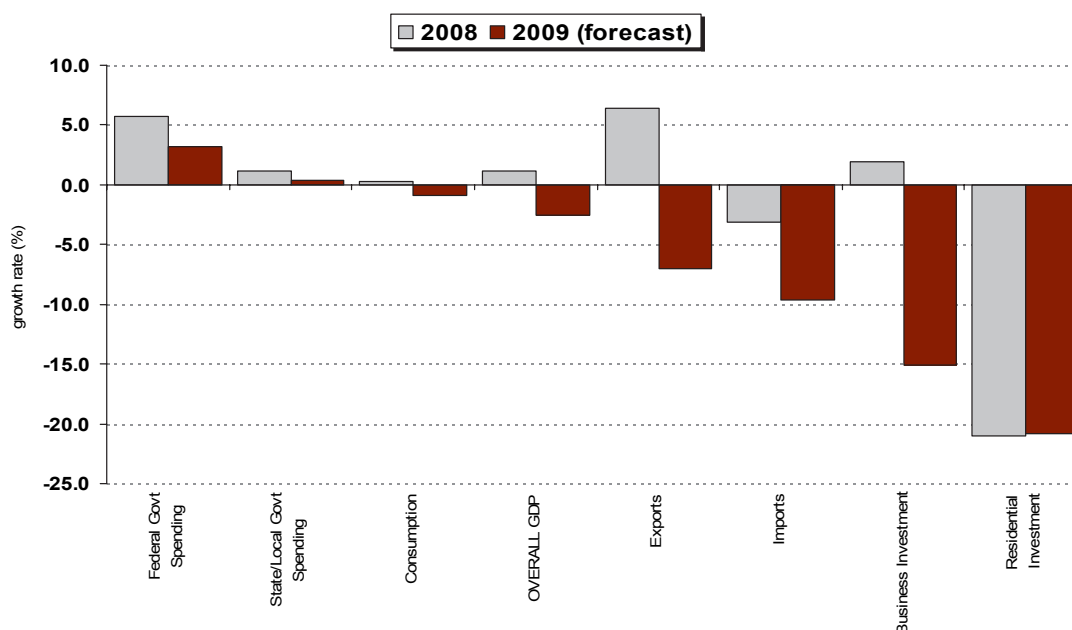
with annual declines of 44.1 and 21.8 percent, respectively. After several years of above-average growth, investment in non-residential structures is expected to fall by over 16 percent, putting further pressure on the construction industry.

Unfortunately, the housing market has yet to exhibit any signs of stabilization, the turnaround of which will be essential to support economic recovery. Residential fixed investment will fall in 2009 at almost the same rate as in 2008 – by 20.8 percent. This will mark the fourth year in a row of negative housing investment. Accordingly, new housing starts will decrease by a third, falling to levels 70 percent below the peak in 2005, with only 600,000 new units beginning construction. Sales of existing homes will fall by only 9 percent in the coming year, slightly less than the 14 percent drop in 2008, as the housing market continues to search for a bottom. This will occur despite mortgage rates falling further, staying around 5 percent throughout the year.

In times of weak investment demand, the Fed typically lowers interest rates in order to make borrowing cheaper. That is, firms can borrow money to invest in capital equipment or expand inventories at lower cost while consumers face lower rates on loans for homes and durable goods such as automobiles. However, the primary instrument through which the Fed influences interest rates, the federal funds rate, is almost zero. There is very little that the Fed can do at this point to encourage investment. The federal funds rate is expected to average only 0.13 percent for 2009, down an average of 1.9 percent in 2008.

Since there may be little room for monetary policy to help spur the economy, government officials have been discussing an increase in federal spending, with some funds being directed to financial institutions. As mentioned in the sidebar on the recent credit crunch, many banks are not issuing new loans, preventing both consumers and producers from borrowing even if they wished to do so. The hope is that infusing banks with new funds

Figure 1.10: Annual Growth in Primary Components of GDP



Source: IHS Global Insight, Inc. Executive Summary, January 2009

1.3. The U.S. Forecast, continued

will cause them to make more loans and spur investment.

Government Spending

Over the past few months, federal policymakers have discussed the possibility of a massive piece of legislation in the hope that it will provide a short-term boost to the economy. On January 15, the U.S. House of Representatives unveiled an \$825 billion proposal that includes both tax cuts and increased government spending tentatively called the American Recovery and Reinvestment Act of 2009. Of that sum, \$550 billion are for additional government spending, which would represent a little less than 6 percent of total GDP. The tax cuts are designed to leave households with more after-tax income, potentially boosting projected declines in consumption spending. There are a variety of spending provisions in the bill, including funding for infrastructure improvements such as upgrading the nation's electrical grid, highway maintenance, and spending on mass transit systems. Also proposed are increases in transfer programs such as the federal food stamp program, unemployment benefits, and Medicaid. Investments in the labor force and other knowledge-based capital include increasing federal grants for science and research, expanded financial aid for higher education, and transfers to local school districts.

As with all legislation intended to boost short-term economic activity, there is considerable debate on the proper structure and scope. In terms of priorities, each bit of increased spending carries with it important tradeoffs that must be considered. Consumer relief would likely mean significant spending on imports, which would not increase domestic demand and help stem job losses. Infrastructure projects often take years to get off the ground due to long lags between planning and implementation. There is also disagreement regarding the optimal size of such a bill. Some economists argue that the any short-run benefits are outweighed by the

long-run budget implications of such a huge increase in public debt that must be paid back at some point, reducing future economic growth. Others have called for an even larger bill, arguing that \$825 billion is not large enough to stabilize the economy.

Spending at the federal level is expected to grow in 2009 at a 3.2 percent rate. This is less than the 5.7 percent growth in 2008. If the proposed spending bill gets larger, expect growth rates to exceed this estimate. A large portion (\$79 billion) of the proposed bill is transfers to state and local governments to help them combat sluggish tax revenue collections. Low tax collections caused by decreased economic activity in general will contribute to state and local government expenditure growth of only 0.4 percent.

International Trade

U.S. imports will continue to dominate exports in 2009, as has been the case over the past three decades, subtracting from economic growth. Both are expected to decrease in 2009, a symptom of deteriorating global economic conditions. However, the trade deficit will improve in 2009 thanks to imports falling more than exports. Just as a weak labor market will keep demand low for domestically-produced goods, demand for foreign products will shrink as well, decreasing imports by 9.6 percent. As a global economic slowdown reduces the incomes of foreign consumers, sales of U.S. goods on the international market (exports) will decrease by 7 percent. Combined, these two trends will result in a negative trade deficit and a drag on economic growth, but its impact will be smaller than it has been in several years.

Prices and Inflation

The period of declining prices witnessed over the last quarter of 2008 is expected to continue into 2009, falling throughout the first half of the year. Overall, prices are expected to fall by 2.2 percent in the coming year as higher unemployment and stagnant incomes place downward pressure on prices. Expect

1.3. The U.S. Forecast, continued

prices to rise slowly in the second half of the year as consumers regain confidence and the economy begins a slow recovery. One of the major factors keeping overall CPI low will be oil prices. West Texas Intermediate crude, currently at around \$40 per barrel, will fall to under \$30 per barrel in the middle of the year, reflecting weak global energy demand.

Overall, oil will average about \$34 per barrel for 2009. By 2010, modest inflation will return as low interest rates and the increasing availability of credit push up demand, leading to higher prices.

1.4. Alternative Scenarios

While the economy is projected to shrink by the largest amount in the post-war era, it could fall by even more. If more financial institutions go under, the financial crisis could become even more severe as the remaining banks try to fortify their balance sheets by holding reserves rather than lending. This would reduce both consumption and investment further than already anticipated, which would lead to larger job losses and higher unemployment. This more pessimistic scenario would involve more serious deflation, with a 3.2 percent drop in the CPI and unemployment of 8.8 percent. Overall, inflation-adjusted gross domestic product would fall by 3.5 percent. The probability of a more severe recession than the baseline

forecast highlighted in this chapter stands at 20 percent.

Unfortunately, even the most optimistic scenario entails further economic contraction. If financial markets react positively to government policy and credit markets unfreeze, then the economy could begin to show early signs of stabilization. If lending resumes and prices don't fall as much as predicted, investment demand may not be as weak as in the baseline forecast. While residential and business investment still falls in this scenario, unemployment only reaches 8.1 percent in 2009 and prices drop 1.6 percent, leading GDP to fall by only 1.5 percent. The probability of a scenario such as this also stands at 20 percent.

1.5. Forecast Summary and Conclusions

Expect the current recession to continue through at least mid-2009 as producers scale back operations and reduce their workforces even further, consumers remain pessimistic about future incomes and diminishing housing equity, and banks limit access to lines of credit.

- Inflation-adjusted GDP will decrease by 2.5 percent in 2009, the largest drop since at least 1948, before returning to positive but below average growth in 2010
- The U.S. will enter a period of deflation, as the Consumer Price Index falls by 2.2 percent over the course of the 2009 before yielding to moderate inflation in 2010
- The housing market falls further, with 33 percent fewer new housing starts, 9 percent fewer sales of existing homes, and 21 percent less residential fixed investment
- Business investment will fall by about 15 percent as producers expect future price decreases
- Federal government spending will increase by 3.2 percent or more, depending on the final outcome of proposed legislation, while state and local spending will increase by only 0.4 percent
- Imports and exports will both fall (9.6 percent and 7 percent, respectively), but the trade deficit will improve despite remaining negative
- Unemployment will rise to 8.5 percent in 2009 with payroll employment declining by 2.6 percent before peaking above 9 percent in 2010