



U.S. Economy in Recession: Similarities To and Differences From the Past

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Summary

According to the National Bureau of Economic Research (NBER), the U.S. economy entered a recession in December 2007. This recession has already lasted longer than the median length of the 10 previous recessions that have occurred since World War II. If forecasters are correct that the economy will continue to contract through the first half of 2009, this recession would be the longest of the post-war period. Although long, the recession was not deep for the first three quarters of 2008, as measured by the decline in gross domestic product (GDP). It deepened in the fourth quarter of 2008, however, and forecasters predict it will remain deep in the first half of 2009. The rise in unemployment was also modest until it began rising more quickly in September 2009.

The longest and deepest of the post-war recessions began in 1973 and 1981. Both of these recessions took place in a context of high inflation that made the Federal Reserve (Fed) hesitant to aggressively reduce interest rates to stimulate economic activity. The Fed has not shown a similar reluctance in the current recession. Although inflation exceeded the Fed's "comfort zone" in 2007 and 2008, it was not nearly as high as it was in the 1970s or 1980s recessions. Economists are divided over whether inflation or deflation (falling prices) is a bigger threat going forward.

Both the 1973 and 1981 recessions also featured large spikes in oil prices near the beginning of the recession—as did the current one. Oil markets disruptions and recessions have gone hand in hand throughout the post-war period.

The previous two recessions (beginning in 1991 and 2001) were unusually mild and brief, but subsequently featured long "jobless recoveries" where growth was sluggish and unemployment continued to rise. Since it does not appear that this recession will be brief, it is unclear whether another jobless recovery should be expected.

A decline in residential investment (house building) during a recession is not unusual, and it is not uncommon for residential investment to decline more than business investment and to begin before the recession. The current contraction in residential investment is unusually severe, however, as indicated by the atypical decline in national house prices.

One unique characteristic of the current recession is the severe disruption to financial markets. Financial conditions began to deteriorate in August 2007, but became more severe in September 2008. While financial downturns commonly accompany economic downturns, financial markets have continued to function smoothly in previous recessions. This difference has led some commentators to instead compare the current recession to the Great Depression. While the onset of both crises bear some similarities, to date, the effects on the broader economy have little in common. In the first year of the Great Depression, GDP fell almost 9%, prices fell 2.5%, and unemployment rose from 3.2% to 8.7% (eventually peaking at 24.9%). The change in GDP, prices, and unemployment in the current recession to date has not been noticeably different from the other post-war recessions. Most economists blame the severity of the Great Depression on policy errors—notably, the decision to allow the money supply to contract and thousands of banks to fail. By contrast, policymakers have aggressively intervened to ease monetary policy and provide direct assistance to the financial sector in the current recession.

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Introduction

The U.S. economy officially entered a recession in December 2007. To determine what type of policy intervention, if any, might be needed to mitigate the recession, Congress is concerned with how long and deep the recession would be without additional intervention. This report provides information on the patterns found across past recessions since World War II and analyzes how this recession might be different.

There is no simple rule-of-thumb to determine when recessions begin or end. Recessions are officially declared by the National Bureau of Economic Research (NBER), a non-profit research organization.¹ The NBER defines a recession as a “significant decline in economic activity spread across the economy, lasting more than a few months” based on a number of economic indicators, with an emphasis on trends in employment and income.² It is unlikely that all of those indicators will begin declining or rising simultaneously. Thus, when comparing historical episodes, some of the symptoms associated with a recession may occur before or after the recession has officially begun or ended. In the current episode, gross domestic product (GDP) began to fall (in the fourth quarter of 2007) before employment (in January 2008), and both deteriorated significantly in the fourth quarter of 2008.

The Length and Depth of Recessions

Recessions are not uncommon—2008 marked the 11th since World War II. In recent years, recessions have been less frequent—from 1982 to 2001, there were only two recessions—but the length between the current one and the prior one, 73 months, was comparable to the frequency of recessions from 1945 to 1981.

As can be seen from **Table 1**, the current recession has already lasted longer than most. The median length of post-war recessions is 9.5 months. Recessions end because of monetary and fiscal stimulus—both have already been employed in the current episode—and because markets automatically adjust. If this recession were to follow the normal historical pattern, it would be expected to end fairly soon,³ before further policy steps could be taken.⁴ Forecasters predict that the economy will continue to contract through the first half of 2009, and grow slowly in the second half, however.⁵ If these forecasts are correct, the current recession could turn out to be the longest in the post-war period by at least a few months.⁶

¹ The NBER announced in December 2008 that the current recession began in December 2007. For more information, see CRS Report R40052, *What is a Recession and Who Decided When It Started?*, by Brian W. Cashell.

² National Bureau of Economic Research, *The NBER’s Recession Dating Procedure*, January 7, 2008.

³ Another possibility is that the NBER could have dated the beginning of the recession later in 2008, once unemployment began rising more quickly. If it had, then the recession to date would have been shorter, and perhaps further from its conclusion.

⁴ For a review of policy steps already taken and current policy proposals, see CRS Report R40104, *Economic Stimulus: Issues and Policies*, by Jane G. Gravelle, Thomas L. Hungerford, and Marc Labonte.

⁵ See, for example, *Blue Chip Economic Indicators*, vol. 34, no. 1, January 10, 2009.

⁶ The NBER does not declare the beginning or end of the recession until after the fact. Thus, the length of the recession will not be known until after the fact.

Table 1. Economic Indicators During Post-War Recessions

Dates	Duration (months)	Cumulative Percent Change			Unemployment Rate (Low to Peak)
		GDP	Consumption	Investment	
Nov. 1948 - Oct. 1949	8	-1.7%	3.3%	-8.5%	3.8% to 7.0%
July 1953 - May 1954	10	-2.7	-0.5	-3.2	2.6% to 6.0%
Aug. 1957 - April 1958	8	-3.7	-1.3	-8.4	4.2% to 7.4%
April 1960 - Feb. 1961	10	-1.6	0.9	-5.7	5.1% to 7.0%
Dec. 1969 -Nov. 1970	11	-0.6	1.4	-2.7	3.6% to 6.0%
Nov. 1973 - Mar. 1975	16	-3.0	-0.8	-15.3	4.6% to 9.0%
Jan. 1980 - July 1980	6	-2.2	-1.3	-8.2	6.0% to 7.8%
July 1981 -Nov. 1982	16	-2.9	0.7	-9.5	7.2% to 10.8%
July 1990 - Mar. 1991	9	-1.5	-0.9	-7.4	5.2% to 7.8%
March 200 - Nov. 2001	8	-0.2	1.1	-4.0	3.9% to 6.3%

Source: National Bureau of Economic Research; CRS calculations based on data from Bureau of Labor Statistics, Bureau of Economic Analysis.

Notes: Table measures changes in economic indicators from peak to trough, which do not always correspond with NBER business cycle dates. Investment growth excludes changes in inventories.

The 1973 and 1981 recessions were unusually long. They were also unusually deep, in terms of lost output. During the recession beginning in 1973, gross domestic product (GDP) fell by a cumulative 3%. During the recession beginning in 1981, GDP fell by a cumulative 2.9%, and this recession came on the heels of a 2.2% decline in GDP one year earlier. (The deepest recession was a relatively brief one in 1957.) To date, the fall in GDP during the current recession has been relatively mild, a cumulative 0.2% from the third quarter of 2007 to the fourth quarter of 2008. It is mild because GDP grew during the first and second quarters of 2008. But the decline in GDP accelerated in the fourth quarter of 2008, and forecasters predict that the recession will continue to be deep in the first half of 2009, so it may no longer be a mild recession by its conclusion.

Economists often attribute the unusual length and depth of the 1973 and 1981 recessions in part to the Federal Reserve’s decision to keep interest rates high. The federal funds rate peaked at 12.9% in July 1974 and 19% in July 1981. (After adjusting for inflation, these rates were not nearly as high as they appear because inflation was so much higher at the time.) The Fed had raised rates that high in order to reduce inflation, which, as measured in the GDP accounts, peaked at an annualized rate of 12.8% in the third quarter of 1974 and 11.1% in the fourth quarter of 1980. For that reason, some economists have described these recessions as “made in Washington”—had the Fed not raised rates so high, they argue, the recessions would presumably have been shorter and milder (although inflationary problems might have worsened).

This dynamic has not been important in the current recession, as the federal funds rate’s recent peak was 5.25%. Rising inflation was initially a concern in the current episode, but has never come close to the rates of the 1970s and 1980s—it peaked at 4.1% in the first quarter of 2007. Rising energy and commodity prices were temporarily pushing inflation up in the first half of

2008; since then, they have temporarily pushed inflation down. Going forward, views are divided on the outlook for inflation.⁷ Some commentators point to a federal funds rate of zero and the unprecedented scale of the Fed's intervention in financial markets as policies that will ultimately push inflation higher. Through direct lending and asset purchases, the Fed's outstanding support to the financial sector has, at times, exceeded \$1 trillion, compared to less than \$1 billion before the financial crisis began.⁸ In normal times, such interest rate and lending policies would be expected to be highly inflationary. But as the recession drives down aggregate demand, it puts downward pressure on inflation. Other commentators fear that the recession will be severe enough that avoiding deflation (falling prices) should be a greater priority than inflation. They argue that the Fed's intervention in financial markets is necessary to avoid a "liquidity trap," where lower interest rates no longer stimulate interest-sensitive spending. Although the Fed has brought the federal funds rate down to near zero, since it was only 5.25% when the Fed began reducing rates, the Fed's scope for easing monetary policy through traditional methods was somewhat limited. By contrast, the federal funds rate, although high, was reduced (peak to trough) by 6.8 percentage points in the 1973 recession and by 10.5 percentage points in the 1981 recession.

Unemployment in Recessions

Unsurprisingly, the deepest recessions also featured the largest increases in unemployment. The 1973 recession saw an increase in the unemployment rate of 4.4 percentage points, and the 1981 recession saw an increase of 3.6 percentage points (or 4.8 percentage points compared to the expansion that ended in 1980.) As of December 2008, the unemployment rate has risen 2.5 percentage points, but forecasters are predicting that by the time unemployment peaks, this recession will see one of the larger increases in unemployment in a post-war recession. **Figure 1** compares the change in the unemployment rate over the 13 months following the onset of the current recession to the average in the seven recessions (between 1960 and 2001) that preceded it and the first three recessions of the post-war period.⁹ The rise in the unemployment rate during this recession was comparable to the average in the previous seven recessions for the first 10 months following the recession's onset, but worsened somewhat beginning in the 11th month. The first three recessions of the post-war period featured noticeably larger increases in unemployment over a comparable period. Even after the recent acceleration in unemployment, the current recession is still not as deep as the first three as measured by unemployment. Most of the increase in unemployment in the current recession occurred after the first six months of the recession, underlining the initial mildness of the recession.

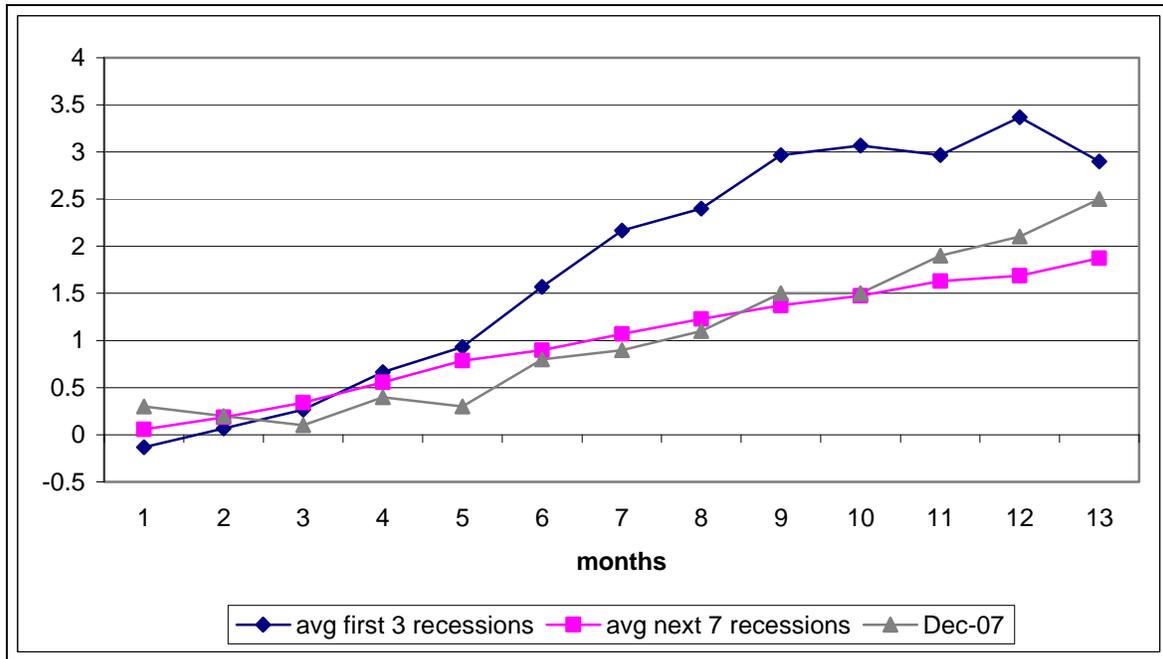
⁷ See CRS Report RL34562, *Slow Growth or Inflation? The Federal Reserve's Dilemma*, by Brian W. Cashell and Marc Labonte.

⁸ See CRS Report RL34427, *Financial Turmoil: Federal Reserve Policy Responses*, by Marc Labonte.

⁹ For recessions lasting less than 13 months, the Figure continues to show the unemployment rate's path in the ensuing expansion.

Figure I. Cumulative Change in the Unemployment Rate Following Onset of Post-War Recessions

month 1 = first month of recession



Source: CRS calculations based on data from Bureau of Labor Statistics

Notes: Diamonds series tracks the average cumulative percentage point change in the unemployment rate in the recessions beginning in Nov. 1948, July 1953, and Aug. 1957. Square series tracks the average cumulative percentage point change in the unemployment rate in the recessions beginning in April 1960, December 1969, November 1973, January 1980, July 1981, July 1990, and March 2001.

The previous two recessions, in 1991 and 2001, were mild and brief as measured by the decline in GDP. Further, the rise in unemployment during both recessions was among the smallest in the post-war period. This is not the whole story, however, because, in both cases, unemployment continued to rise for over a year after the recession had ended. (In every other post-war recession, with the exception of the one beginning in November 1970, unemployment began falling within six months of the recession’s end.) These two episodes have been called “jobless recoveries.” If the rise in unemployment in the jobless recovery were included, the episode beginning in 1991 would have featured an above average rise in unemployment; but the episode beginning in 2001 would still remain below average. It is unclear whether the economy has changed in some fundamental way that makes jobless recoveries likely from now on, or if it was simply a coincidence that the last two recessions ended in this way. Since it does not appear that this recession will be brief, it is unclear whether another jobless recovery should be expected. All of the recessions followed by jobless recoveries featured a mild decline in GDP growth during the recession and weak GDP growth during the jobless recovery period. So whether there is a jobless recovery following the current recession is likely dependent on how strong economic growth is in the initial recovery period.

Consumption and Investment in Recessions

There are a few commonalities found across all previous post-war recessions. First, in all cases, consumption spending did not weaken as much as GDP, as shown in **Table 1**. In fact, in five out of 10 recessions, consumption continued to grow while GDP fell. To the extent that households can adjust their saving and borrowing levels, they are thought to generally prefer to “smooth” consumption over time, avoiding sudden increases and decreases. In the current recession, consumption continued to grow until the third quarter of 2008. It declined relatively rapidly in the third and fourth quarters of 2008, and cumulatively, the decline in consumption has outpaced the decline in output for the recession so far.

Second, in all recessions, investment spending fell more than GDP. This evidence casts doubt on the popular explanation that recessions are caused by declines in consumption. It suggests that the primary driver of the business cycle is cyclical changes in investment demand. Investment demand can be separated into two categories—business investment (in plant and equipment) and residential investment (home building). Cyclical changes in business investment could be driven by changes in business conditions, confidence, or credit conditions. Residential investment is driven by changes in housing demand and credit conditions. Changes in credit conditions are heavily influenced by monetary policy.

Both business investment and residential investment fell in each of the post-war recessions. In eight out of 10 recessions, there was a larger percentage decline in residential investment than in business investment.¹⁰ To date, the percentage decline in residential investment has been much larger in the current recession—business investment did not begin to fall until the third quarter of 2008. Further, in nine out of 10 past recessions, the decline in residential investment preceded the decline in GDP growth.¹¹ This pattern held in the current recession as well. Many economists have argued that the housing crash caused the current recession. The fact that the decline in residential investment preceded the decline in GDP is not necessarily evidence that housing crashes have also caused other post-war recessions. It may be that recessions are caused by a tightening in credit conditions, and residential investment is the sector that is first and most affected by tighter credit conditions. For example, the deep decline in residential investment in the early 1980s is usually attributed to the Fed’s decision to push the federal funds rate as high as 19%. While residential investment has fallen in all other post-war recessions, national house prices have not since the major data series were first collected, until now. (Prices may have fallen during the Great Depression and previous recessions.) National house prices have fallen 11% since their peak in April 2007,¹² and residential investment has fallen by almost half from its peak. This is one indication that the current housing crash has been more severe than others. Unlike many other post-war recessions, housing may be a cause, rather than a symptom, of the current recession.

¹⁰ Since business investment accounts for a larger share of GDP than residential investment, the decline in dollar terms was not always larger.

¹¹ Economist Edward Leamer estimates that residential investment is responsible for 26% of the weakening in the economy before the average recession, and 11% of the weakness during the recession. Edward Leamer, “Housing is the Business Cycle,” *National Bureau of Economic Research working paper*, no. 13428 (September 2007).

¹² Based on the Federal Housing Finance Administration’s Purchase-Only House Price Index, a national measure of single-family houses with conforming mortgages based on resale data.

Recessions and Oil Prices

Another commonality between this recession and past recessions is the behavior of oil prices. The recessions of 1973 and the early 1980s are remembered for their oil shocks, and this pattern is not uncommon. In a famous article, economist James Hamilton identified disruptions to oil supply before all but one of the post-war recessions—a pattern that has continued in every recession since his article was published, including the latest.¹³ Crude oil prices rose from \$51 per barrel in January 2007 to a peak of \$129 per barrel in July 2008. By the end of 2008, prices had fallen by half, which should eventually offset much of the contractionary effects of the previous price increase on GDP. Evidence against attributing the economic downturn to rising oil prices would be the fact that oil prices rose significantly in the previous expansion without any noticeable effect on GDP growth. For example, prices rose from \$37 per barrel in December 2004 to \$69 per barrel in July 2006.

Recessions and the World Economy

As a result of the current global nature of the financial turmoil, there has been speculation—although it is too soon to be sure—that there will be a global recession as well.¹⁴ In 2009, the International Monetary Fund (IMF) projects that world GDP growth will be -2.0% in developed economies, contracting in all of the G-7 economies,¹⁵ and 0.5% in the world overall.¹⁶ A widespread recession would not be unusual. For example, between 1980 and 1982, all of the G-7 countries except France and Japan experienced a contraction in GDP for at least one year (and growth was close to zero in France in 1981). Likewise, between 1991 and 1993, all of the G-7 countries except Japan experienced a contraction in GDP for at least one year (and growth was close to zero in Japan in 1992 and 1993.)

Recessions and the Financial Sector

As noted above, the data available so far indicate a relatively mild recession that historical patterns suggest might not persist much longer. Evidence in favor of predicting a longer and deeper recession is the severity of the financial downturn that began in August 2007 and worsened in September 2008. In the fourth quarter, the decline in GDP accelerated markedly. While a diminished investor appetite for risk and a stock market decline before or during a recession is common, this recession has featured a breakdown in activity in certain financial markets, such as the market for asset backed securities, commercial paper, and interbank lending, and the failure (or government rescue to avoid failure) of several large, established financial firms. Considering that investment spending is always highly cyclical, disruptions in financial markets suggest that the decline in business investment, which has been mild to date

¹³ James Hamilton, "Oil and the Macroeconomy Since World War II," *Journal of Political Economy*, vol. 91, no. 2, 1983, p. 228.

¹⁴ See CRS Report RL34742, *The U.S. Financial Crisis: The Global Dimension with Implications for U.S. Policy*, coordinated by Dick K. Nanto.

¹⁵ The G-7 countries consist of the United States, United Kingdom, France, Italy, Germany, Canada, and Japan.

¹⁶ International Monetary Fund, *World Economic Outlook Update*, Washington, DC, January 2009.

cumulatively, could potentially get much deeper. Given the lag between changes in financial conditions and economic activity, it is plausible that economic conditions could get worse in 2009, even though the historical pattern would suggest that, after a year, a recovery would not be far off.

Comparisons Between the Current Recession and the Great Depression

Some commentators have suggested that the financial crisis makes the Great Depression a more relevant comparison to present day conditions than the other post-war recessions. While the current financial downturn has been the most severe in the post-war period by many measures, there are many differences between the current situation and the Great Depression. While the stock market crash of 1929 played a role in setting the economic downturn in motion, there is a consensus among economists that policy errors caused the downturn to become the Great Depression.¹⁷ Among the most important errors were the Fed's failure to counteract the contraction in the money supply, which caused overall prices to fall a cumulative 25%, and bank runs which caused thousands of banks to fail. (The money supply fell primarily in order to maintain the gold standard, and the economic growth rate was high after the United States left the gold standard.)

By contrast, policymakers have responded aggressively and unconventionally to attempt to contain the current crisis. The Federal Reserve (Fed) has reduced short-term interest rates to nearly zero. Direct Fed assistance outstanding to the financial system has exceeded \$1 trillion, and Congress has authorized Treasury to provide an additional \$700 billion to the financial system through the Troubled Assets Relief Program.¹⁸ Widespread bank runs have not occurred since the introduction of deposit insurance in the 1930s, and similar runs on money market mutual funds in 2008 were circumvented when Treasury temporarily guaranteed their principal. Treasury also temporarily guaranteed certain bank debt to ensure that banks would not lose access to borrowing markets.

During the Great Depression, policymakers were also reluctant to stimulate the economy through fiscal expansion (a larger structural budget deficit).¹⁹ By contrast, the Congressional Budget Office projects that the budget deficit will increase as a share of GDP from 1.2% in 2007 to 8.3% in 2009 (not including the proposed economic stimulus package). There was also a belief among some policymakers at the time that recessions were healthy processes that purged the economy of inefficiently allocated resources—a view that fell out of favor as the Depression worsened, and was replaced by the view that prudent policy changes could avoid the needless waste of recessions.

¹⁷ For an overview, see Ben Bernanke, "The Macroeconomics of the Great Depression: A Comparative Approach," *Journal of Money, Credit, and Banking*, vol. 27, no. 1 (February 1995).

¹⁸ See CRS Report RL34730, *The Emergency Economic Stabilization Act and Current Financial Turmoil: Issues and Analysis*, by Baird Webel and Edward V. Murphy.

¹⁹ Much of the increase in the budget deficit during the Great Depression was caused by falling revenues due to the Depression, rather than the introduction of new policy measures that were deficit-financed. The structural budget deficit refers to the budget deficit that would occur in the absence of changes in economic conditions.

The Great Depression included two recessions, with the first lasting 3 ½ years and the second, beginning four years later, lasting another year. The current recession started too recently to compare it to the entire period, but a comparison of data now and during the first year of the recession indicate that the current recession so far has much more in common with other post-war recessions than with the Great Depression. In the first year of the Great Depression, GDP fell almost 9%, prices fell 2.5%, and unemployment rose from 3.2% to 8.7% (eventually peaking at 24.9%). By contrast, GDP rose about 1% for 2008 overall, prices rose almost 4%, and the unemployment rate rose from 4.6% to 5.8%.²⁰

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²⁰ Quarterly data does not exist for the 1920s and 1930s, so this comparison is for annual data in 1930 and 2008. Percent changes for annual data compare the mid-point of the current year to the mid-point of the previous year.