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## The Long Slog: Economic Growth Following the Great Recession

by Thomas F. Siems

**A**t 18 months, the Great Recession of 2007–09 was the longest and deepest economic downturn in terms of lost gross domestic product (GDP) since the Great Depression of the 1930s.<sup>1</sup> So how has the economy performed since the contraction officially ended more than four years ago? And how does the most recent recession and recovery compare with past business cycles?

The simplest way to date the onset of expansions and contractions in U.S. economic activity, or business-cycle troughs and peaks, is to examine the change in real GDP—that is, the inflation-adjusted value of all economic output. A popular marker used to define an economic recession is the presence of two or more consecutive quarters of decline in real GDP. But this rule-of-thumb indicator has some drawbacks: It is a quarterly instead of monthly measure, and it may not fully reflect all changes in economic activity that impact the business cycle.

### Coincident Index Underscores Cycle's Depth

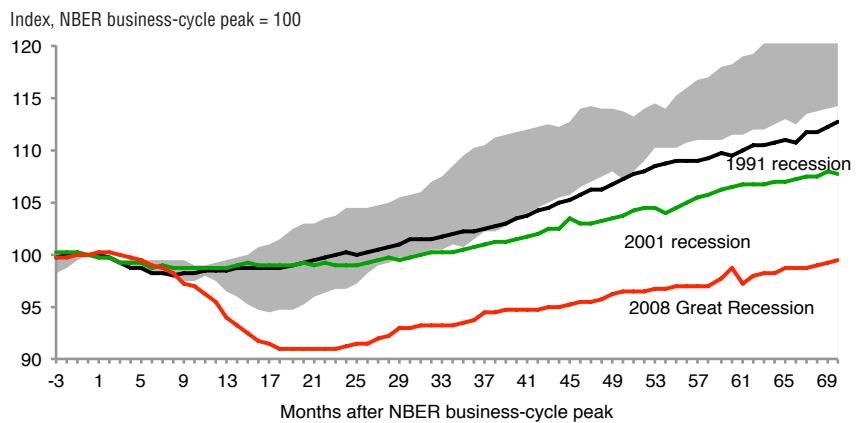
The study of U.S. business-cycle movements can be traced to the 1930s. Wesley Mitchell and Arthur Burns were the first economists to develop business-cycle indicators for analyzing alternative sequences of economic expansions and contractions.<sup>2</sup> Subsequently, their general approach has been refined and improved to the point where the Conference Board now regularly publishes monthly reports of three broad classes of business-cycle indicators: leading, coincident and lagging.<sup>3</sup>

Turning points in the Conference Board's coincident index are most closely aligned with the dates the National Bureau of Economic Research (NBER) uses to identify peaks and troughs in the business cycle. The NBER, the accepted arbiter for setting dates of business-cycle peaks and troughs, defines a recession as "a significant decline in economic activity." The NBER has no fixed rules to determine contractions and expansions but instead examines a range of economic indicators in arriving at a monthly chronology. The coincident index serves as a useful proxy for understanding movements in aggregate economic activity because it is composed of four indicators: payroll employment, industrial production, personal income, and manufacturing and trade sales.

To assess the strength of economic recoveries across time, Chart 1 compares several business cycles by indexing the coincident index at the NBER peak month for each business cycle. The 1991 (black line), 2001 (green) and 2007 (red) business cycles are superimposed on the range (shaded area) of movement in the coincident index over the previous four major business cycles from 1960 to 1982, excluding the short 1980 recession.

The red line in Chart 1 shows the severity of the Great Recession. At its trough in June 2009, the coincident index was more than 9 percent below the level at the NBER peak month (December 2007). Moreover, the chart illustrates a disturbing trend that the more-recent economic recoveries have been losing steam and that growth has progressed at slower rates than in previous cycles.

## Chart 1 Business-Cycle Movements According to the Coincident Index



NOTE: Shaded area represents the range of coincident index movements for the four major NBER business cycles from 1960 to 1982. SOURCES: Conference Board; National Bureau of Economic Research (NBER); author's calculations.

### DALLAS FED RESOURCES

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The recovery following the 1991 recession carved out a new slowest-growth path—that is, the point where the black line dips below the gray shaded area—40 months after its NBER peak. For the recovery following the 2001 recession, another new slowest-growth path emerged after 29 months. Strikingly, the newest slowest-growth path was formed during the *downturn* of the Great Recession, after only nine months. And after the recession hit its trough, the road back to the NBER peak level has been extremely long and slow.

Indeed, 70 months after the start of the Great Recession in December 2007, the coincident index has not yet returned to its prerecession NBER peak level. Using the coincident index to proxy growth, we find the strength of the four economic recoveries in the 1960s, '70s and '80s is far greater than that experienced following the three most recent recessions. The average annual growth rate in the coincident index for the first four recoveries was 3.9 percent, nearly twice the average annual rate of 2.1 percent for the last three recoveries.

#### Indicators Comparatively Weak

Chart 2 examines the movements of several economic indicators in the 70 months since each business-cycle peak. As shown, real GDP is 5.3 percent higher than it was when the Great Recession began, compared with average real GDP growth of more than 20 percent for the six previous recoveries at this same point in the business cycle. The chart also indicates that after 23 quarters from the NBER peak, real GDP growth for the previous recoveries ranged from 15 to 35 percent.

The coincident index and its four economic indicators are also highlighted in Chart 2. Through October 2013, the coincident index is 0.6 percent below its value when the Great Recession began. By comparison, all of the six previous recoveries had surpassed their NBER recession peak values an average 14 percent by this same point in the business cycle, ranging from an increase of 8 to 25 percent.

A similar story can be told for each of the four economic indicators that make up the coincident index. For payroll employment, jobs are 1.1 percent below the level when the Great Recession began, compared with an average increase above peak of 10.4 percent for the previous six business cycles. Industrial production remains 0.8 percent below its level when the Great Recession began, compared with an average increase of 16.8 percent for the previous six business cycles.

The only two indicators that have surpassed their pre-Great Recession peak levels are personal income and manufacturing and trade sales. Personal income is 3.6 percent higher than when

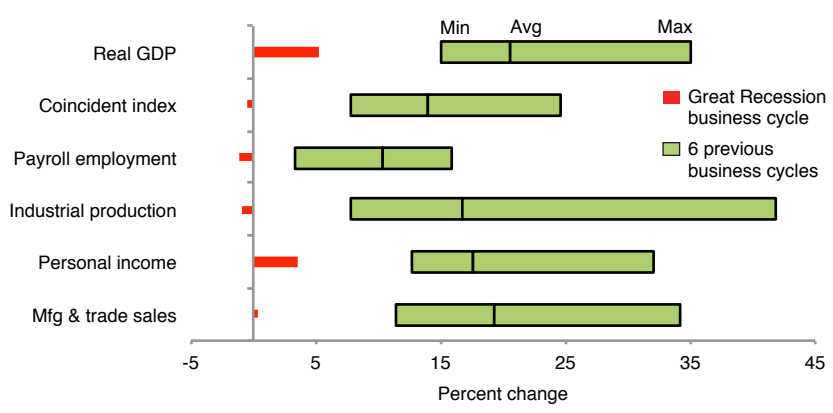
## ABOUT FINANCIAL INSIGHTS AND FIRM

*Financial Insights* is published periodically by FIRM – Financial Institution Relationship Management – to share timely economic topics of interest to financial institutions.

FIRM was organized in 2007 by the Federal Reserve Bank of Dallas as an outreach function to maintain mutually beneficial relationships with all financial institutions throughout the Eleventh Federal Reserve District. FIRM’s primary purpose is to improve information sharing with district financial institutions so that the Dallas Fed is better able to accomplish its mission. FIRM also maintains the Dallas Fed’s institutional knowledge of payments, engaging with the industry to understand market dynamics and advances in payment processing.

FIRM outreach includes hosting economic roundtable briefings, moderating CEO forums hosted by Dallas Fed senior management, leading the Dallas Fed’s Community Depository Institutions Advisory Council (CDIAC) and Corporate Payments Council (CPC), as well as creating relevant webcast presentations and this publication. In addition, the group supports its constituents by remaining active with financial trade associations and through individual meetings with financial institutions.

**Chart 2** | Change in Economic Indicators 70 Months After Previous Business-Cycle Peak



NOTE: Green bars show the minimum, average and maximum changes over the six business cycles as defined by the NBER from 1960 to 2001, excluding the short 1980 recession.  
 SOURCES: Conference Board; Bureau of Economic Analysis; author’s calculations.

the Great Recession began, and manufacturing and trade sales is 0.3 percent higher. However, these increases compare poorly with average increases over the past six business cycles of 17.7 percent for personal income and 19.4 percent for manufacturing and trade sales.

### A Sluggish Revival

Two factors help clarify why it has taken so long for the coincident index to rebound when compared with previous recoveries: 1) the Great Recession was much deeper than other post-World War II recessions, and 2) the rate of growth since the Great Recession’s trough has been much weaker than for most previous recoveries.

In general, comparing the indicators in the current recovery with those at the same point in previous business cycles makes it clear that economic growth following the Great Recession has been a long slog. Moreover, the sluggish comeback marks the continuation of a trend in which the nation has shown less resiliency coming out of recession than it did in the more distant past.

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NOTES  
<sup>1</sup> See “Branding the Great Recession,” by Thomas F. Siems, Federal Reserve Bank of Dallas *Financial Insights*, vol. 1, no. 1, May 31, 2012.  
<sup>2</sup> “Statistical Indicators of Cyclical Revivals,” by Wesley C. Mitchell and Arthur F. Burns, Bulletin 69, National Bureau of Economic Research, May 28, 1938.  
<sup>3</sup> See [www.conference-board.org/data/bci.cfm](http://www.conference-board.org/data/bci.cfm).

## Noteworthy Items

### CALENDAR OF EVENTS

**Dec. 5**  
CEO Forum  
College Station, Texas

**Dec. 10**  
Economic Roundtable  
Laredo, Texas

**Jan. 23, 2014**  
Economic Outlook  
Presentation  
Southlake, Texas

**Feb. 7**  
Economic Insights:  
Conversations with the  
Dallas Fed  
(Webcast)

**Ben Bernanke addresses “Communication and Monetary Policy” at the National Economists Club Annual Dinner (Nov. 19, 2013)**

Chairman Bernanke discusses how the Federal Reserve’s communications have evolved in the recent years and how enhanced transparency is increasing the effectiveness of monetary policy. Furthermore, he explains why policy transparency remains an “essential element of the Federal Reserve’s strategy for meeting its economic objectives.”

**Janet Yellen provides a statement before the Committee on Banking, Housing and Urban Affairs (Nov. 14, 2013)**

During her confirmation hearing, Yellen discusses improvements made across sectors since the recent crisis and her plans to move toward a “more normal approach to monetary policy” if confirmed as the next Fed chairman.

**Richard Fisher speaks on “A U.S. Economic Update and Perspective on Monetary Policy” before the Australian Business Economists (Nov. 4, 2013)**

President Fisher discusses the uncertainty that has plagued the U.S. and concludes that “the economy of the United States is hog-tied by a government that is sadly ineffective and, in fact, counterproductive.” Fisher notes that “while the Fed has been moving at the speed of a boomer in full run, the federal government of the United States has at best exhibited the adaptive alacrity of a koala (without being anywhere near as cute).”

**Richard Fisher speaks on “Uncertainty Matters” at the Causes and Macroeconomic Consequences of Uncertainty Conference (Oct. 3, 2013)**

President Fisher examines the effects of uncertainty on aggregate economic activity and explores the link between policy and uncertainty. While not advocating any change to the Federal Open Market Committee’s 2 percent target, Fisher asserts that “a policy that takes a longer-term perspective and is properly communicated and executed—so as to instill confidence that monetary policy will hew to a 2 percent inflation target rather than fixate on the run-rate of the past four quarters or the outlook for the next four—may better supply the longer-term comfort that households and businesses need to plan and budget.”

**The Federal Reserve System releases the “Payment System Improvement – Public Consultation Paper” (Sept. 10, 2013)**

The paper summarizes the Federal Reserve’s perspectives on the key gaps and opportunities in the U.S. payment system and identifies the desired outcomes that close these gaps and capture the opportunities. Payment system participants and end users are encouraged to provide comments on gaps and desired outcomes articulated in the paper, on potential strategies and tactics to shape the future of the U.S. payment system and on the Reserve Banks’ role in implementing these strategies and tactics. The consultation paper is available online, along with the survey for responding to questions posed in the paper. Responses may be submitted until Dec. 13, 2013.