



When Do Recessions Begin and End?

The textbook definition of recession is two or more quarters of declining real gross domestic product (GDP). Though somewhat narrow, the definition is precise. The National Bureau of Economic Research's (NBER) Business Cycle Dating Committee (BCDC), however, uses this more-encompassing, if less-precise, definition: a period of at least a few months when "a significant decline in economic activity spreads across the economy." A recession occurs between a business cycle peak and trough. To identify these business cycle turning points, the BCDC examines a variety of economic indicators, including real GDP and employment.¹

The chart shows real GDP growth (top panel) and payroll employment growth (bottom panel) for recessions since 1949. Historically, these two indicators have tended to peak around the same time, with real GDP reaching a subsequent trough a little sooner than employment. For the recessions between 1949 and 1982, one quarter after the end of recession, average real GDP growth (top panel, black line) was strong, while average employment growth (bottom panel, black line) was positive but very weak; two quarters after, however, employment growth became relatively strong. Entering the 1990-91 and 2001 recessions, average real GDP growth (dotted line, top panel) and average employment growth (dotted line, bottom panel) peaked around the same time. After these recessions, however, the employment trough lagged the real GDP trough (and the official NBER trough) by many more months than it had historically—a phenomenon commonly called a "jobless recovery." Employment growth remained negative, on average, for the first three quarters and was minimal the next three quarters. Since the most recent recession, employment growth (bottom panel, blue line) has followed the "jobless" pattern rather than the historical pattern, excluding the positive growth in the third and fourth post-recession quarters (which was partly from the increase in temporary Census workers in early 2010).

For the pre-1990 recessions, the peak and trough dates of the major economic indicators were close. For the recessions since 1990, though, it appears the BCDC placed more weight on output variables than employment when determining the official end dates of these recessions. If, instead, the BCDC had placed more weight on employment than output, the official end dates would have been much later.

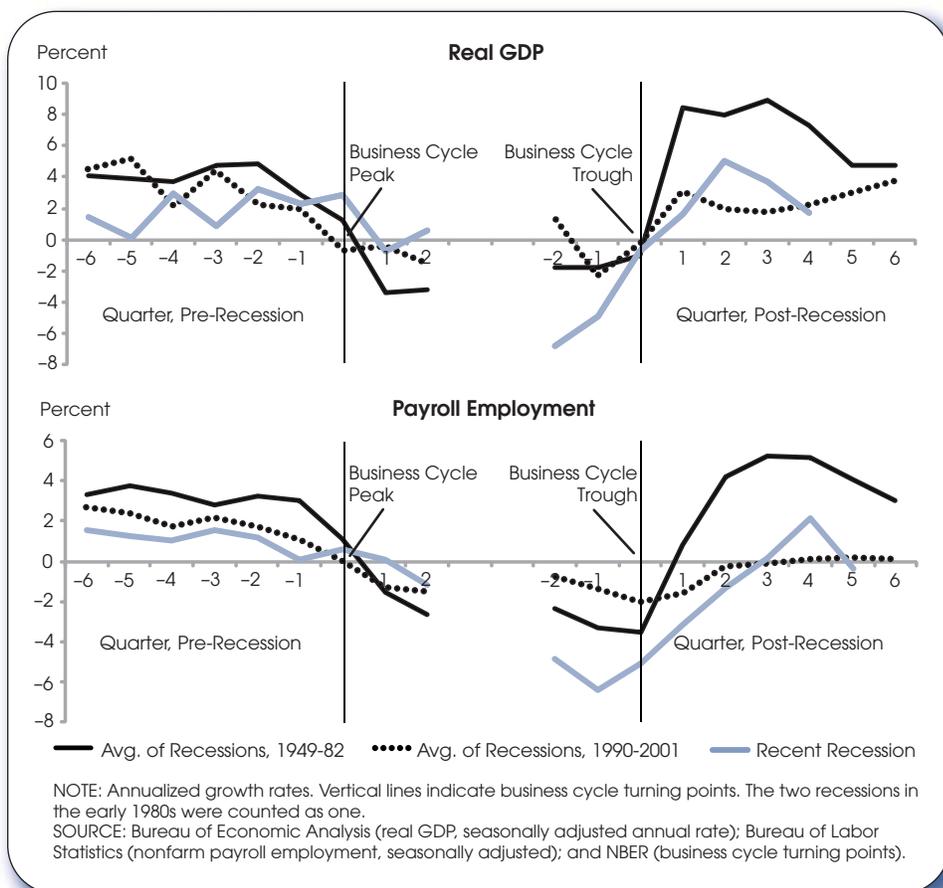
For example, the BCDC declared December 2007 as the beginning of a recession,

noting that several indicators had peaked around then but that GDP and real gross domestic income growth were more ambiguous. Nonetheless, the BCDC chose December 2007 because that date coincided with the clear peak of payroll employment. The BCDC declared June 2009 as the end of the recession, noting that, although employment did not hit a trough until December 2009, most other indicators (namely, the main monthly output measures) had hit a trough in June.² This example demonstrates the asymmetric predictive content of employment dynamics for identifying peaks and troughs in the business cycle, suggesting perhaps that employment dynamics are given more weight in identifying peaks and less weight in identifying troughs.

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¹ The BCDC also examines real income, real sales, industrial production, and other economic indicators; details about the BCDC's methods are available on the NBER website (www.nber.org/cycles/recessions.html).

² See the December 1, 2008, and the September 20, 2010, BCDC announcements for details on the turning point decisions (www.nber.org/cycles/main.html).



Views expressed do not necessarily reflect official positions of the Federal Reserve System.