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*Congressional Research Service*

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# Employment Growth in the Current Economic Expansion

**Keywords**

Employment, economic, growth, productivity, expansion, inflation, business, labor, market, output, goods, firm

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## Employment Growth in the Current Economic Expansion

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### Summary

Although real gross domestic product (GDP) surpassed its previous peak in the fourth quarter of 2001, total employment still had not regained its previous peak as of July 2003. For that reason, the economy is said by some to be experiencing a “jobless recovery.” It is not unusual for the production of goods and services to increase ahead of employment in the early stages of an economic expansion. But in the case of the current expansion, the lag is longer than usual. One explanation for the longer lag hinges on the relationship between employment and productivity growth. The increase in productivity growth may have temporarily reduced the unemployment rate below the rate at which inflation might be expected to accelerate. If that is true, and if that rate has since rebounded, then it is unlikely that the current expansion will be able to sustain the combination of low unemployment and inflation that characterized the latter stages of the 1990s economic expansion. This report will be updated as economic events warrant.

The current economic expansion, which began in November 2001<sup>1</sup>, has been one of relatively sluggish employment growth. Although real gross domestic product (GDP) surpassed its previous peak in the fourth quarter of 2001, total employment still had not regained its previous peak as of July 2003. For that reason, the economy is said by some to be experiencing a “jobless recovery,” not unlike the beginning of the economic expansion of the 1990s.<sup>2</sup>

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<sup>1</sup> The dates of business cycle turning points (i.e., the ends of economic expansions and contractions) are determined by the business cycle dating committee of the National Bureau of Economic Research.

<sup>2</sup> For a more detailed comparison of the current expansion with past experience and an examination of the outlook for the labor market, see: CRS Report RL32047, *The ‘Jobless Recovery’ From the 2001 Recession: A Comparison to Earlier Recoveries and Possible Explanations*, by Marc Labonte and Linda Levine.

It is not unusual for the production of goods and services to increase ahead of employment in the early stages of an economic expansion. But in the case of the current expansion, the lag is longer than usual. Whether or not there is a role for policy to promote not just economic growth but employment growth in particular may depend on the reasons for the relatively sluggish recovery in the labor market.

This report begins by examining the relationship between employment and output over the course of a typical business cycle. In particular, factors that may affect growth in output and employment over the course of the business cycle are discussed. Finally, potential explanations for the sluggish employment growth in the current economic expansion are explored.

## **The Labor Market, Output, and the Business Cycle**

The connection between the market for goods and services and the market for labor might be described as elastic. Variations in the demand for goods and services need not immediately affect labor market conditions for a number of reasons. In the very short run, for example, an increase in demand for goods can be met by reducing the stock of inventories.

Firms also face significant costs associated with the hiring and firing of workers. If a drop in the demand for a firm's goods is believed to be temporary, that firm may choose not to lay off workers but keep them in anticipation of a turnaround in business. As a result, hours worked may vary more in the short run than total employment.

Another reason a firm may be reluctant to lay off workers in the short run is that it may have invested considerable time and money in the training of its workforce. What the firm might save by laying off some employees could well be much less than what it would cost to hire and train new workers when business picks up. Conversely, when business recovers, there is less immediate need to hire. Firms can increase output without increasing employment by increasing labor hours, and getting idle labor working again. Because of these factors, employment tends to pick up relatively slowly in the very early stages of an economic expansion.

In contrast, there is a tendency for output to grow relatively rapidly in the early stages of an expansion. This is due to the cyclical nature of labor productivity. At the beginning of an economic contraction, output falls. But, because firms are initially reluctant to lay off workers, output falls by more than employment. That causes productivity growth, or output per worker, to decline.

If a contraction continues for an extended period, firms will start to lay off workers, but the first to be laid off will be among those most recently hired with less training and experience and thus are relatively less productive than those who have been with the firm longer. Reducing employment tends to moderate any slowdown in the growth of labor productivity.

As the contraction comes to an end, and the economy starts to expand again, firms can increase their output of goods or services by increasing hours or putting idle labor back to work. In this way output can be increased with relatively little increase in labor, and that yields an increase in measured productivity. Assuming those who are more

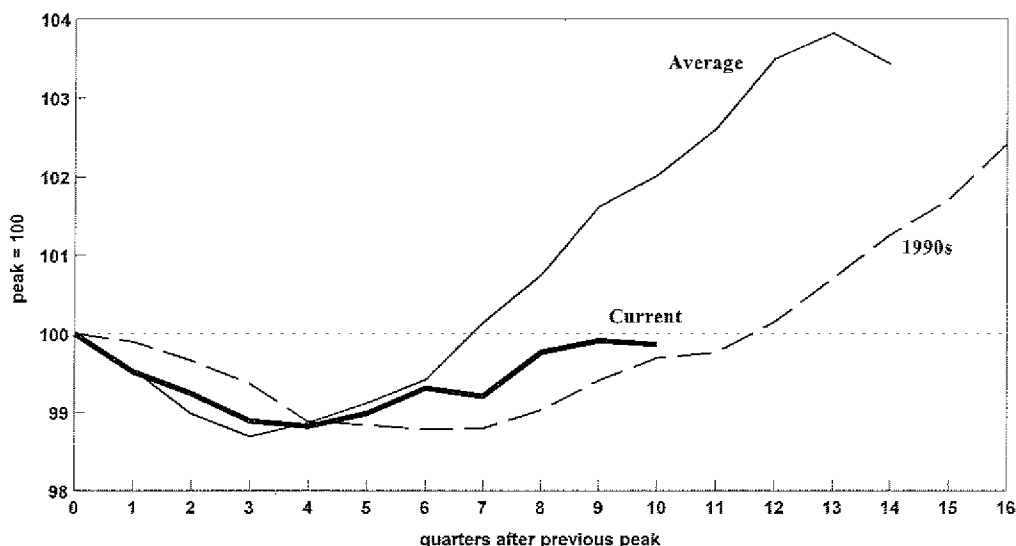
productive are hired first, as the economy continues to expand and production continues to increase, each addition to employment contributes less to overall output and so the growth rate of productivity slows.

Because of this cyclical pattern, it is not unusual to see output recover from the effects of an economic downturn more rapidly than employment. In the eight economic expansions since 1948, employment has regained its previous peak, on average, 1.75 quarters after real output surpassed its previous peak.

In the last two economic expansions, however, that lag has increased. In the expansion of the early 1990s, employment did not regain its previous peak until 5 quarters after real output did. In the current economic expansion, employment still had not reached its previous peak 6 quarters after real GDP did.

Figure 1 compares employment growth during the current economic expansion with previous expansions. Average employment growth following each of the cyclical peaks is shown. The starting point for each line is the previous peak in civilian employment, not the NBER business cycle peak. The expansion of the 1990s is shown separately because it too was described as a jobless recovery.

**Figure 1. Employment and the Business Cycle**



Source: Department of Labor, Bureau of Labor Statistics.

The chart makes clear that employment in the current economic expansion has recovered more slowly than has been the case in prior economic upswings. It also shows that the labor market was slower than usual to recover following the 1990 economic contraction.

It is unclear why the labor market was so slow to recover from the 1990 economic contraction. Some have pointed to the relative mildness of that contraction, and to the fact that job losses were widespread, and included many white collar jobs and jobs in the

finance, insurance, and real estate industry.<sup>3</sup> It has also been suggested that productivity growth may have played a role. Productivity growth briefly surged in 1992, which may have led policymakers to underestimate the economic growth rate that would be required to reduce unemployment.<sup>4</sup>

The quantity of goods and services produced can increase either by employing more labor or by increasing the productivity of the labor that is employed. In the most recent expansion, it would appear that much of the growth in output since the previous peak can be explained by increasing productivity rather than through an increasing labor force. It may be that the increasing productivity has also played a role in the sluggish recovery of the labor market in the current expansion.

## Why is Employment Slow to Recover?

Although it is typical for employment growth to lag overall economic growth in the early stages of an expansion, the lag is longer than usual in the current upswing. One explanation for the longer lag hinges on the relationship between employment and productivity growth.

The level of employment at any time is determined by the supply of and demand for labor. On the supply side are individuals with different skills and abilities looking for work. On the demand side are firms looking for workers with the specific skills they require to produce goods and services. Jobseekers are assumed to have a minimum salary, in economics jargon their “reservation wage,” they are willing to accept. Until they get an offer that satisfies this minimum they will continue searching.<sup>5</sup>

The wage a firm is willing to pay depends, in part, on worker productivity. An increase in productivity is likely to lead to an increase in the wages offered by employers. Other things being equal, a higher wage will lead to an increase in employment because a greater number of jobseekers will be able to satisfy their reservation wage.

This implies an asymmetry in that employers are aware of the increase in productivity and that jobseekers are not. If there ever is such a disparity, it seems unlikely to persist. Eventually, workers and jobseekers could be expected to perceive the increase in productivity and consequently raise their reservation wage. Any employment effect resulting from a one-time increase in productivity growth would thus be likely to be temporary.

This is, in the view of some analysts, what happened in the late 1990s. More than a few economists were surprised that, during the expansion of the 1990s, both unemployment and inflation rates remained low by recent historical standards. It had

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<sup>3</sup> Jennifer M. Gardner, “The 1990-91 recession: how bad was the labor market?,” *Monthly Labor Review*, June 1994, pp. 3-11.

<sup>4</sup> Robert J. Gordon, “The Jobless Recovery: Does It Signal a New Era of Productivity Led Growth?,” *Brookings Papers on Economic Activity*, 1:1993, pp. 271-316.

<sup>5</sup> Bharat Trehan, “Productivity Shocks and the Unemployment Rate,” Federal Reserve Bank of San Francisco *Economic Review*, 2003, pp. 13-27.

been believed that an unemployment rate much below 6% was inconsistent with falling, or even stable, rates of inflation.

There was one explanation for the concurrently low rates of inflation and unemployment of the second half of the 1990s that many found convincing. Beginning in 1995, the growth rate of productivity accelerated.<sup>6</sup> That was unusual at that stage of an economic expansion and thus unexpected. If workers and jobseekers were slow to recognize that productivity growth had accelerated they would also be slow to raise their wage demands to reflect their increased contribution to the production of goods and services.

If firms noticed the increase in productivity before workers did, then the demand for labor might rise in advance of the wage demands of workers. In this way, unemployment might fall without any upward pressure on wages. That seems to be what happened in the latter stages of the 1990s economic expansion.

But it may be unrealistic to assume that such an asymmetry in the perceptions of firms and jobseekers can persist. Sooner or later workers are likely to become aware of the increase in productivity and increase their wage demands to reflect that increase. To the extent that wage demands increase, the rate of hiring would tend to slow. If that is what is happening now, it may be retarding growth in employment just as the economy is in the early stages of expansion.

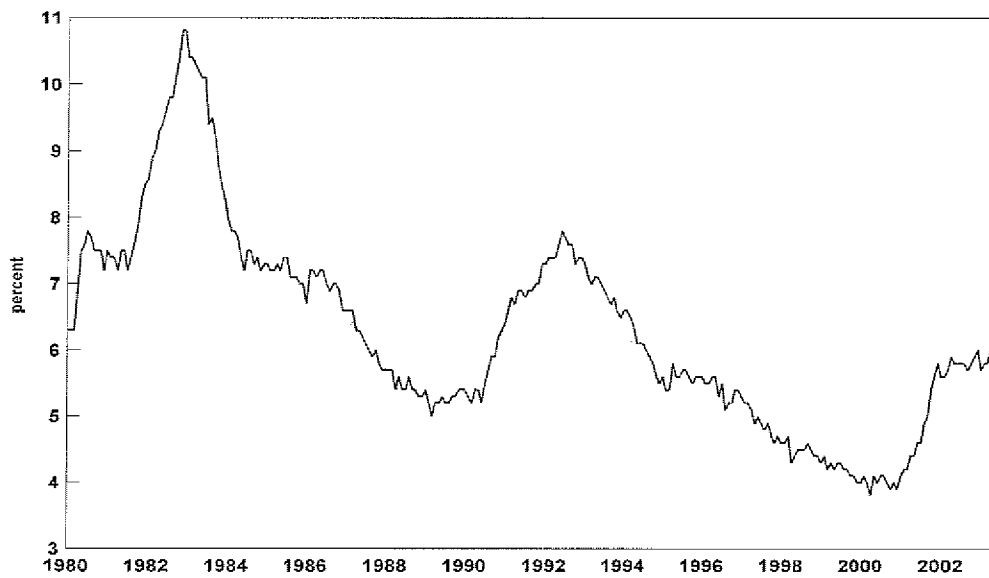
Another factor that may explain the apparently slow recovery of employment is that the peak level of employment reached at the end of the 1990s expansion may have been higher than would have been the case in the absence of the acceleration of productivity. Figure 1 shows the recent history of the civilian unemployment rate.

Up until the mid 1990s, many economists estimated that the lowest the unemployment rate could go without risking an acceleration of inflation was about 5.5%.<sup>7</sup> But the unemployment rate went well below that level in the late 1990s without any appreciable rise in the inflation rate. This is also known as the non-accelerating inflation rate of unemployment, or NAIRU. Because of the acceleration in productivity which began in 1995, there may have been a temporary decline in the unemployment rate below which inflation might be expected to accelerate. But, if that decline was only temporary, then some of the slack in the job market may have been reduced by a rebound in the NAIRU, narrowing the gap between actual and “full” employment.

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<sup>6</sup> See: CRS Report RL31428, *Productivity Growth: Recent Trends and Future Prospects*, by Brian W. Cashell.

<sup>7</sup> CRS Report RL30391, *Inflation and Unemployment: What is the Connection?*, by Brian W. Cashell.

**Figure 2. Civilian Unemployment Rate**

Source: Department of Labor, Bureau of Labor Statistics.

## Conclusions

Economic expansions have many characteristics in common, but the current one is notable for the relatively slow recovery in the labor market. One reason for that may be that the preceding contraction was relatively mild. The unemployment rate so far has remained well below the level reached in each of the two previous contractions.

The acceleration in productivity growth observed in the second half of the 1990s may also be responsible. The increase in productivity growth may have temporarily reduced the unemployment rate below which inflation might be expected to accelerate. If that is true, and if that rate has since rebounded, then it is unlikely that the current expansion will be able to sustain the combination of low unemployment and inflation that characterized the latter stages of the 1990s economic expansion.