Measuring (Most of) the Slack in the Labor Market

Carlos Garriga, *Research Officer and Economist*

Federal Reserve Chair Janet Yellen recently expressed concern that the labor market will not fully recover from the financial crisis without appropriate policy accommodation.[1] Chair Yellen has used her so-called dashboard of jobs data to argue that considerable slack, or underutilized resources, still exists in the labor market five years after the end of the Great Recession.[2] Quantifying the magnitude of the slack in the economy can be a challenge. For instance, the unemployment rate is not a sufficient statistic to assess the degree of slack because it does not account for discouraged workers who have temporarily dropped out of the labor force. Chair Yellen's measures of slack compare pre-recession averages (2004-07) with current performance. The measures show a weak recovery in the labor market that has been used as a justification for continued Fed stimulus.

> **Compared with previous recessions, the manufacturing sector does not show much slack. The construction sector, on the other hand, is below potential.**

A standard approach to measuring slack in the labor market is to compare its current state with its potential state. A simple way of calculating the potential state is to superimpose previous growth trends onto the current recovery. In this essay, I attempt to measure slack in the labor market by comparing the current recovery with previous recoveries at the sector level. If individual sectors are recovering at slower rates than in the past, it is reasonable to believe that these sectors are sources of slack. Alternatively, if individual sectors are recovering more quickly than in the past, there may not be much slack in these sectors. From a macroeconomic perspective, a natural way of measuring slack in this type of exercise is to use total hours of nonfarm payroll as reported by the Bureau of Labor Statistics. This statistic is very informative because it measures total labor input without needing to differentiate between the number of people working and how many hours they work.

The Great Recession took a sizable toll on total payroll employment, which decreased by more than 7 million jobs. However, private payroll employment recovered to its pre-recession level by June 2014. Similarly, the number of aggregate hours worked in the private sector has also recovered to its pre-recession level. Whether measured by payroll employment or hours worked, some sectors stand out as underperformers. The two largest underperforming sectors in the economy are manufacturing and construction. Both sectors had the largest declines in employment levels and the weakest recoveries. Manufacturing lost more than 2 million jobs (14.7 percent of the sector), and construction lost almost 1.5 million jobs (19.8 percent). Even though manufacturing employment has improved since the recession ended, it remains 11.8 percent below its December 2007 peak level (as of June 2014). Construction employment remains essentially unchanged since the end of the recession.

The slow recovery of total private employment and hours worked conjures up the ghosts of past jobless recoveries. An apparent finding in the data is that the features of employment recoveries have substantially changed since the 1990-91 recession. To determine the severity of current joblessness, it is useful to compare and measure (i) the differences in recovery rates and (ii) the impact on the aggregate labor market of these two sectors in terms of total hours since 1990. As the left panel of the first figure shows, there has been a declining secular trend in the manufacturing sector in terms of total hours since the 1990s. The decline is particularly pronounced at the beginning of the millennium. By contrast, there has been a large positive trend in the construction sector since the 1980s. The detrended data at the bottom of the figure can be used for a straightforward calculation of the recovery rate of total hours for each sector following a recession. These numbers can then be used to construct a counterfactual path of total hours in manufacturing and construction to compare the alternative performance under different scenarios.

Secular and Cyclical Behavior of Manufacturing and Construction
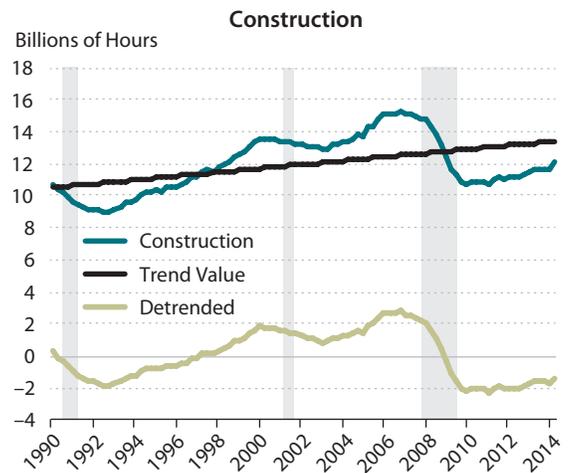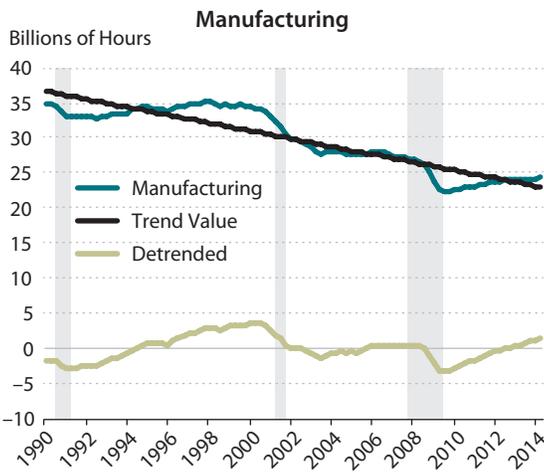
SOURCE: Bureau of Labor Statistics, author's calculations. The gray bars indicate recessions as determined by the National Bureau of Economic Research.

Counterfactual Sector Recoveries
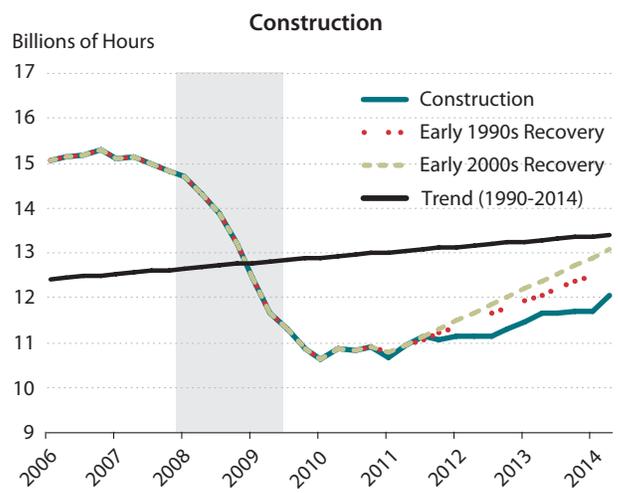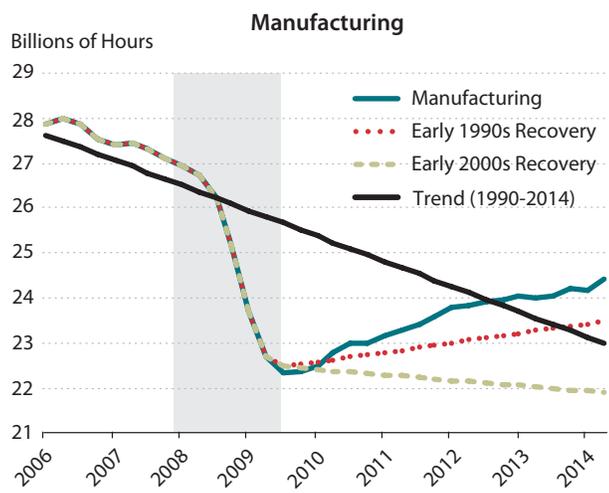
SOURCE: Bureau of Labor Statistics, author's calculations. The gray bar indicates the 2007-09 recession as determined by the National Bureau of Economic Research.

As the second figure shows, the current recovery in manufacturing has been stronger than after the previous two recoveries. If manufacturing had recovered at the same rate as it did after the 1990-91 recession, it would have taken a full year longer to return to its trend. The current number of hours worked in manufacturing is 6 percent above trend, whereas the counterfactual using the 1990s growth rate is only 2 percent above trend. The situation is very different for the 2002 recovery rate. In this case, the recovery rate was so weak that hours worked would still

be below trend and in fact declining in absolute terms. In this scenario, hours would be 5 percent below trend. In contrast, the recovery for the construction sector is very weak: Accounting for the trend total hours, this sector is 11 percent below the historical trend. Using the recovery rates from the previous two recessions, the construction sector would be only 3 to 6 percent below trend.

What happens to the direct aggregate effect on total private hours when these two measures are combined? When the trend is accounted for, the manufacturing

recovery from the Great Recession is stronger than after the previous two recoveries. As a result, actual hours are well above what they would be had both construction and manufacturing grown at the 2000 rates. If both sectors had grown at 1990s rates, total hours would be close to the actual data; the stronger-than-actual recovery in construction and weaker-than-actual recovery in manufacturing offset each other such that actual hours never deviate more than 0.4 percent from the counterfactual. Compared with previous recessions, the manufacturing sector does not show much slack. The construction sector, on the other hand, is below potential. Using the most optimistic scenario for the recovery in construction, total private sector hours are about 0.7 percent below potential. Ignoring the positive trend in construction would double the numbers by making the previous recoveries appear stronger.[3] In either case, the numbers suggest that the economy is not too far from the historical trend in either direction. ■

NOTES

[1] See Yellen, Janet L. "Labor Market Dynamics and Monetary Policy." Presented at the Federal Reserve Bank of Kansas City Economic Symposium, Jackson Hole, Wyoming, August 22, 2014; http://www.federalreserve.gov/newsevents/speech/yellen20140822a.htm.

[2] The key labor market variables in the dashboard are the different measures of the unemployment rate, the U-6 underemployment rate, the long-term unemployed share, labor force participation, the hires rate, the job openings rate, the layoffs/discharge rate, and the quits rate.

[3] The baseline exercise calculates deviations from the 1990-2014 trend. An alternative to eliminate the size of the Great Recession is to compute the trend using 1990-2007 and then extrapolate. This option makes the current recovery in construction appear significantly weaker. However, by increasing the slope of the trend line, it also makes the previous recoveries appear weaker. The percent deviation from the counterfactuals is essentially the same.