



The Job-Filled Nonrecovery

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The recovery from the recent Great Recession in the United States (and many other places) has been nonexistent. The US per capita growth rate for 2009–15 was 1.3 percent per year, below the long-run rate of 2.1 percent per year (see 1869–2015 and 1949–2015 in Table 1). The growth rate during a recovery has to exceed its average to restore at least part of the cumulative loss in the level of GDP during the downturn. Table 1 also shows that the per capita growth rate of 0.8 percent per year for 1999–2009 (1.0 percent per year 1999–2015) was worse than any decade except the 1930s (0.6 percent per year).

Empirically, the growth rate during a recovery is positively related to the magnitude of cumulative decline during the prior downturn. The best evidence on this relation comes from major depressions. My research in this area, particularly with Jose Ursua, has used the history of rare macroeconomic disasters for 40 countries as far back as 1870 (sample of countries with annual data back at least to 1913).¹ We isolated 185 contractions in per capita GDP of size 10 percent or more. The average size is 21 percent, with a fat tail. This historical experience was dominated by wartime destructions (especially the two world wars) and financial crises such as the Great Depression of the 1930s. Many are global events; some are for individual or a few countries. My research with Emi Nakamura and Jon Steinsson and recently with Tao Jin has used the underlying long-term data on GDP and consumption to study recoveries.²

On average, an economy eventually recovers about half of the per capita GDP lost during a prior downturn. Once a disaster event is over, the recovery is typically quick; the average duration is about two years. For example, a cumulative fall of 10 percent in per capita GDP during a contraction implies subsequent recovery (toward the trend for per capita GDP) of 5 percent, implying about 2.5 percent per year higher growth during the recovery. Analogously, a more typical recession of 4 percent implies an extra 1 percent per year in the growth rate during two years of recovery. This pattern should have applied, for example, in the United States for 2009–11, but it is not in the data. However, the absence of a recovery is not that surprising because there is a lot of observed variation in the extent of recovery, including cases that exceed 100 percent (such as the post-WWII periods in Western Europe and Japan and the post-reform period in Chile) and some that are close to zero. Recovery effects are particularly hard to isolate in samples such as post-WWII United States, which encompass only comparatively mild recessions.

A Job-Filled Nonrecovery

It is incorrect to assert that the US economy did not experience an economic recovery after 2009 because the downturn was so severe or featured a major financial crisis. That assessment gets the sign wrong: empirically, a larger decline predicts a stronger recovery, and many of the biggest contractions featured financial crises. For example, the US average per capita GDP growth rate for 1933–40 was 6.5 percent per

Table 1. US Growth Experience

Period	Annual per Capita GDP Growth Rate
1869–2015	2.06%
1949–2015	2.01%
1869–1879	2.30%
1879–1889	1.70%
1889–1899	1.89%
1899–1909	2.13%
1909–1919	1.54%
1919–1929	2.04%
1929–1939	0.59%
1939–1949	4.61%
1949–1959	2.41%
1959–1969	3.12%
1969–1979	2.20%
1979–1989	2.14%
1989–1999	1.87%
1999–2009	0.75%
2009–2015	1.32%
1999–2015	0.96%

Note: Underlying data are annual.

Sources: Barro-Ursua Macroeconomic Data, <http://rbarro.com/data-sets/>; and US Bureau of Economic Analysis, “U.S. Economic Accounts,” <http://www.bea.gov/>.

year, the highest of any peacetime interval of several years despite the 1937 recession. This outcome was not driven by a buildup for World War II—this buildup was minor through 1940, and the results on growth are similar if one goes up to 1938 or 1939. This strong recovery followed the cumulative decline of around 29 percent during the Great Depression (1929–33).

Given the weak US recovery gauged by real GDP, a surprising aspect of the post-2009 period, starting at least by October 2010, is that employment growth was strong. The growth rate of employment (total nonfarm payrolls) averaged 1.7 percent per year from the trough of employment in February 2010 to July 2016, despite a drop in the labor-force participation rate. The decline in the unemployment rate was correspondingly sharp, from 10.0 percent in October 2009 to 4.9 percent in July 2016. This rapid recovery of the labor market contrasts with the weak growth rate of real GDP—2.1 percent per year from 2009 to 2015 versus 3.3 percent from 1949 to 2009. Thus, the post-2009 period in the United States should not be characterized as a *jobless recovery*. In fact, it is more of a *job-filled nonrecovery*.

Weak Growth of Labor Productivity

The key element is weak growth of labor productivity. The growth rate of real GDP per worker from 2010 to 2015 was 0.5 percent per year, compared with 1.5 percent for 1949–2009 and 1.7 percent for 1999–2009. (The growth rate of GDP per worker-hour was 0.2 percent per year for 2010–15 and 2.1 percent for 1999–2009.) The recent productivity slowdown is clear since 2011 but may have started as early as 2004. Baily and Montalbano provide details on productivity trends back to 1948 and relate changes in labor productivity to variations in capital per worker and multifactor productivity.³

As an aside, given the growth rate of real per capita GDP and consumption, is it a good thing if employment (or worker-hours) grows faster? Abstracting from income distribution or a possible signaling value of employment growth for future GDP growth, economic reasoning suggests that stronger employment growth is bad—because it implies less growth in leisure. That is, a job-filled nonrecovery seems worse than a jobless recovery. However, at a retirement ceremony for Mervyn King in 2014, Ben Bernanke said that the main thing he learned from the US Congress while serving as Fed chair was that this conclusion was wrong. Given the growth of per capita GDP and consumption, more employment growth is viewed at least by politicians as a plus, not a minus. Economists need to explain this. One reason is income distribution: the unemployment rate is, itself, an indicator of employment inequality. Another idea is that, for given income and consumption, people like the idea of having a job. A further consideration is that payroll employment (reported monthly) is likely measured better than real GDP (provided quarterly) and may, therefore, provide a superior picture of short-term economic strength. However, it seems unlikely that the key matter is the signaling value of employment expansion for future economic growth, given the observed path of per capita GDP. There are better leading indicators than employment growth or the unemployment rate.

What Policies Promote Faster Recovery?

Returning to the job-filled nonrecovery, we would like to know which policies could have been implemented to promote faster recovery by enhancing productivity growth. My view is that we learn more about this issue from the determinants-of-growth literature than from business-cycle analyses, which stress aggregate demand. Elements that have been found empirically to encourage economic growth (over periods of 5 or 10 years) include strong rule of law and property rights, free trade, lack of inefficient regulation and other constraints on market activity, some forms of public infrastructure, strong education and health institutions, fiscal discipline (including a moderate ratio of public debt to GDP), efficient taxation, and sound monetary policy as reflected in low and stable inflation. These kinds of variables appear, for example, in conditional-convergence frameworks associated with cross-country growth regressions. Although precisely estimating

effects for individual policies is difficult, there is clear overall evidence that economic growth is fostered by pro-market policies, including well-functioning institutions.

Note that, for infrastructure, what matters for levels of productivity are service flows from stocks (e.g., highways, bridges, and the Keystone pipeline), not flows of investment. The latter variables are stressed in stabilization analyses that emphasize aggregate demand. A similar perspective applies to research and development outlays, education, health, and so forth. Stocks of innovations/technology (not the flow of research) and stocks of human capital (not school enrollment or health spending) are what matter for levels of productivity. Notably, productivity-enhancing stocks are not fast moving, not amenable to sharp changes in the context of “stimulus packages.” In any event, the Bureau of Economic Analysis measure of US federal government gross investment as a ratio to GDP was 0.019 in 2008, remained roughly flat through 2011, and then fell to 0.014 in 2015. Hence, expanded federal public investment was not a part of the stimulus package enacted in response to the Great Recession.

The main US policy instruments used to counter the Great Recession were increases in federal transfers to persons and monetary expansion. US federal social benefits to persons as a ratio to GDP went from 8.7 percent in 2007 to a peak of 11.7 percent in 2010, then fell to 10.9 percent in 2015.⁴ From 2007 to 2010 (encompassing the Great Recession and the immediate policy responses) the main increases in transfers relative to GDP were in unemployment insurance (0.7 percentage points, including payments by state governments); Social Security, including disability (0.6); Medicaid (0.5); Medicare (0.4); and food stamps or SNAP (0.2). Since 2010, most of these transfer components have remained reasonably stable relative to GDP, except unemployment insurance fell 0.7 percentage points (driven especially by the ending of federal extended benefits), and Medicaid went up another 0.3 percentage points. The broad pattern is a recession-induced upward shift in transfer payments, which have remained at a permanently elevated ratio to GDP. Cross-country growth regressions are often criticized for having too many explanatory variables. However, increased transfer payments to persons do not even appear on usual lists of policies that may promote productivity growth.

Following the Great Recession, the Federal Reserve and other central banks have greatly expanded the money supply in the sense of increases in their balance sheets. The Fed’s expansion featured a dramatic rise in excess reserves (and currency) used to fund increased holdings of Treasury bonds (including Treasury bills) and mortgage-backed securities. The cross-country growth research gives some indication that inflation is adverse for economic growth. However, the recent global experience involved vast monetary growth without inflation. These monetary events are symptomatic of an environment with extremely low or even negative real rates of return on comparatively safe assets. In this setting, possibly induced by a rise in perceived disaster risk, depository institutions exhibit a great willingness to hold the Fed’s obligations (excess reserves) despite the negative real interest rates on these claims. The dramatic rise in high-powered money was good for the Fed’s profits (most of which went to the US Treasury). However, none of this was likely to contribute to productivity growth. Instead, the monetary changes seem mostly symptomatic of weak opportunities for private investment and growth.

Explaining Low Productivity Growth

We want to think about which policies—immediately post-recession or at earlier times—might explain the low productivity growth. Enlargement of inefficient government regulation is promising. Maybe deteriorating infrastructure. Maybe a decline in the rate of technological progress. Maybe fiscal recklessness with great uncertainty about future taxes and entitlement benefits. With respect to lack of fiscal discipline, an odd implication of negative real interest rates on government securities is that the vast run-up in public debt since the Great Recession does not appear to cost much in terms of the interest payments that enter into the federal budget. In particular, the United States is able to have privately held public debt around 75

percent of GDP (gross public debt above 100 percent) without much consequence for current federal spending. Japanese gross public debt in the neighborhood of 200 percent of GDP is even more impressive.

It is sad that prominent recent policy suggestions in the United States include restrictions on trade and immigration and higher minimum wages. More restrictive trade and immigration policies are equivalent to constraining technological progress. (Expanded trade in goods and people is like better technology.) Higher minimum wages are a form of inefficient regulation of the labor market; in effect, persons with productivity below a designated level are not allowed to hold formal-sector jobs. I have never understood why the minimum wage is viewed as an attractive form of welfare program when compared with the earned-income tax credit or even food stamps. However, from the standpoint of limiting competition, it is not surprising that higher-wage, often unionized workers would support higher minimum wages.

This low quality of recent US commentary on economic policies contrasts with that in some countries, notably in parts of Latin America. Peru, for example, has done well for 25 years in macroeconomic liberalizations that have contributed to strong economic growth. Now the Peruvian focus is on an array of microeconomic policies that could enhance productivity growth, an issue that should feature prominently in US policy discussions.

Similarly, I was recently at a financial conference in Colombia at which a key issue was the composition and scope of a major tax reform. There were a lot of controversies, but I was struck by the serious nature of the discussion when considering issues such as whether to tax income or consumption, the distinction between marginal and average tax rates, and so on. It is hard to imagine US policymakers participating in a discussion at this level about fiscal or other economic issues. But maybe I am being too pessimistic; after all, the report on the US fiscal situation from the Simpson-Bowles Commission in 2010 was very good—although it was subsequently ignored.

About the Author

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Notes

1. Robert J. Barro and José F. Ursua, “Rare Macroeconomic Disasters,” *Annual Review of Economics* 4 (2012): 83–109.
2. Emi Nakamura et al., “Crises and Recoveries in an Empirical Model of Consumption Disasters,” *American Economic Journal: Macroeconomics* 5, no. 3 (July 2013): 35–74; and Robert J. Barro and Tao Jin, “Rare Events and Long-Run Risks” (working paper, National Bureau of Economic Research, January 2016), <http://www.nber.org/papers/w21871>.
3. Martin Neil Baily and Nicholas Montalbano, “Why Is U.S. Productivity Growth So Slow? Possible Explanations and Policy Responses,” Brookings Institution, September 2016, <https://www.brookings.edu/research/why-is-us-productivity-growth-so-slow-possible-explanations-and-policy-responses/>.
4. These data are from the Federal Reserve Bank of St. Louis, FRED Economic Data, and US Bureau of Economic Analysis, “U.S. Economic Accounts,” <http://www.bea.gov/>.