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Taking advantage of innovation

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1. Introduction

US productivity growth has been slow in recent years. Looking at the nonfarm business sector indicates that since 2000 output per hour has risen strongly in years when labor input has been declining or growing slowly (such as 2002, 2003, 2009 and 2010), but has slowed during years of employment recovery (output per hour growth averaged under one percent a year over the three years 2011–2013). This pattern suggests that productivity growth has come largely from firms moving aggressively to cut costs. Employment growth in recovery has come in large part through workers accepting jobs in the low productivity (and low wage) sector of the economy.

This productivity weakness has led to concern that innovation has slowed, but in this paper I argue that this hypothesis is not correct. Instead, the problem is that we are not taking advantage of innovation to provide broad economic growth and widespread increase in wages and standards of living. There are two reasons for this failure. First is the problem that changing technology and globalization has created a dual economy and a dual labor market. Innovation and productivity growth are proceeding at a normal, or even a rapid pace in the "modern" sector, but low and moderate-skill workers are pushed into low-productivity, low-wage jobs so that average wages are low and average productivity growth is weak. While recognizing important differences between

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Table 1
CBO's projections of potential growth and productivity.

	1950–2013	2002–2013	2014–2024
Nonfarm business sector			
Potential GDP	3.5	2.5	2.5
Potential hours worked	1.3	0.5	0.6
Potential labor productivity	2.2	2.1	2.0
Overall economy			
Potential GDP	3.3	2.2	2.1
Potential labor force	1.5	0.8	0.5
Potential labor force productivity	1.8	1.5	1.6

the two countries, I draw a parallel between Mexico and the United States. Mexico, especially post-NAFTA Mexico, has a very successful modern sector where productivity is rising strongly. But around 40 percent of employment is in the informal sector[2] where productivity is falling quite rapidly and there is excess labor. The W. Arthur Lewis model of economic development is no longer working, or is even working in reverse.

The second reason we are not taking advantage of innovation is because there remains a persistent lack of demand and consequent excess capacity. The 2008–2009 recession was by a wide margin the deepest economic downturn since the depression of the 1930s, but it has been made even worse by the failure to generate a strong recovery. Unemployment shot up during the recession from 4 1/2 to 10 percent of the labor force, and four years into the recovery, it remains at 7 1/2 percent, far above the historical norm. This outcome has been a surprise because past US recessions, especially severe recessions, have shown a pronounced V-shaped pattern: a sharp decline followed by an equally quick recovery. The deep recessions in 1974–1975 and in the early 1980s were followed by strong recoveries, with annual GDP growth around five percent in 1976–1978 and even higher 1983–1985. Why has the recovery in aggregate demand in this recession been so different?

2. Productivity, employment and potential growth

Table 1 shows projections for potential output, labor input and productivity for the nonfarm business sector and for GDP issued recently by the Congressional Budget Office. The first column shows the period from 1950 to 2013, where potential output grew at 3.5 percent a year in nonfarm business and at 3.3 percent a year for the whole economy. For the last part of this period, 2002–2013, CBO reports much slower growth of 2.5 and 2.2 percent a year, respectively. And their projections for the future period, 2014–2024, are for potential output growth to remain at almost the same slower rates 2.5 percent in nonfarm business and 2.1 percent for GDP. The US economy has undergone a dramatic decline in its potential economic growth and in the expected growth that will be used to project budget deficits and other key policy variables.

Table 1 also gives a simple accounting of the reason for the decline by looking at the breakdown into labor productivity (output per hour or per person) and labor input (hours or labor force). CBO finds that most of the slowdown in recent growth and in projected future growth stems from the labor input side and not productivity. Comparing projected future labor productivity to actual

[2] I define the informal sector in Mexico and how I apply it to the United States in Section 3.