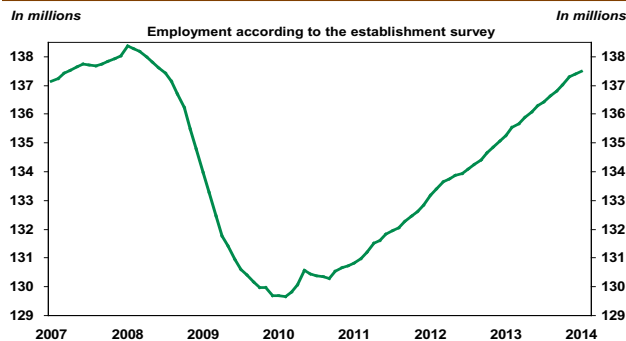


## Where are the participation and unemployment rates heading in the United States?

The unemployment rate has come down considerably from October 2009's peak of 10%. While the labour market has improved, much of the drop in the unemployment rate can be chalked up to fact that fewer Americans are participating in the labour force, one more symptom of the U.S. economy's atypical recovery since the Great Recession. This *Economic Viewpoint* focuses on coming to grips with the movement by the participation rate and its influence on the unemployment rate. What does a lower participation rate mean for the U.S. economy's potential, and what are its consequences for the Federal Reserve's monetary policy?

Aside from the disappointment created by December 2013's and January 2014's weak hiring, the U.S. labour market is doing better. According to the establishment survey, an average of 182,000 jobs have been created each month over the last two years. Soon, likely in spring 2014, job creation will beat the previous peak set in January 2008 (graph 1). Note that 8,736,000 jobs were lost between that historic peak and the bottom of the cycle in February 2010, a plunge of 6.3% that stands as the worst decline in employment recorded since the Great Depression.

**Graph 1 – Employment is still below its pre-recession peak**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

The other labour market survey—the household survey—also indicates solid improvement, as shown in the unemployment rate's drop from its October 2009 peak of 10% (graph 2). The household survey is, of course, much more volatile than the establishment survey, as its big monthly swings in employment attest. However, over a longer period, the trend for the two surveys is similar (graph 3 on page 2). As the fluctuations in employment according to the household survey are often echoed by similar movements in the labour force, the unemployment rate remains fairly stable, in general. This is why the markets, political class, economy watchers and central banks usually appreciate this indicator.

**Graph 2 – The unemployment rate is clearly declining**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

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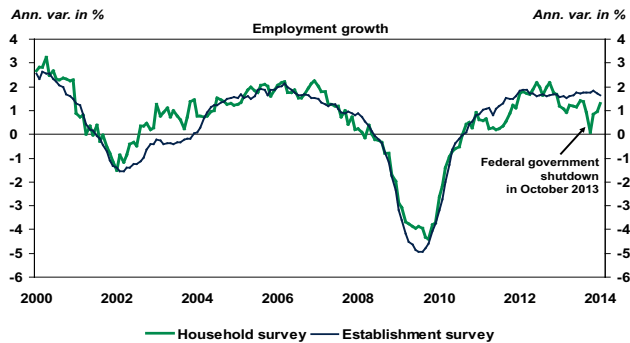
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**NOTE TO READERS:** The letters **k**, **M** and **B** are used in texts and tables to refer to thousands, millions and billions respectively.

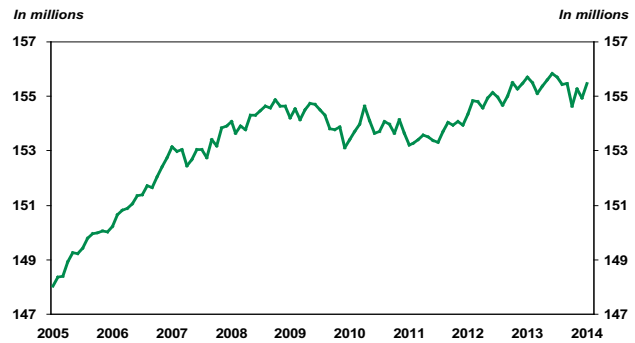
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**Graph 3 – The two surveys' fluctuations in employment are similar over an extended period**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

**Graph 4 – The number of labour force participants is almost stagnant**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

**THE CURRENT PROBLEMS WITH THE UNEMPLOYMENT RATE**

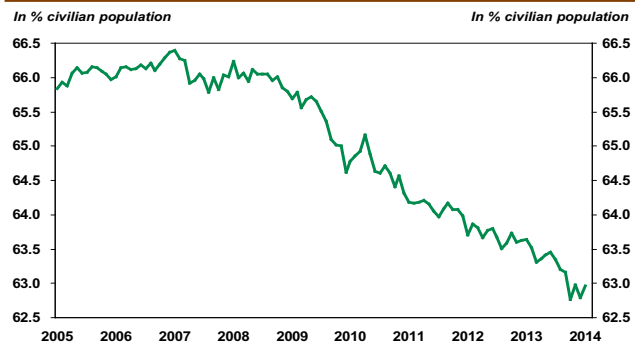
The unemployment rate is one of the most widely used and referenced indicators. However, it has a few flaws, which are currently being magnified. Note that the unemployment rate is the ratio between the number of unemployed and the labour force, expressed as a percentage. It is therefore affected by the fluctuations in both components. Above, we stressed how volatile the household survey of employment is. Its other major flaw has to do with labour force movements, which can muddy the picture that the unemployment rate gives of the actual employment situation. For example, if there were no new hires but a growing number of workers who have become discouraged and who have stopped looking for work, the unemployment rate would go down, even if the overall situation had deteriorated.

**DROP IN THE PARTICIPATION RATE**

The U.S. economic situation is, of course, not that bad right now, but much of the unemployment rate's decline over the last few years results from that type of labour force movement. Although economic conditions have shown substantial improvement, the labour force is almost stagnant (graph 4). In fact, if we compare the labour force with the population aged 16 and over, the participation rate continues to slide (graph 5). The box on page 3 shows the differences between the total population, civilian population and the labour force.

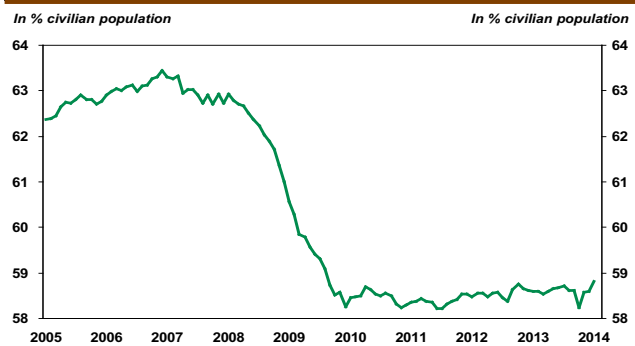
The participation rate's decline masks the actual employment situation. If we compare the employment level directly with the total civilian population to calculate an employment ratio, we can see that it has barely budged since the recession ended (graph 6). The labour market situation thus seems much grimmer than suggested by the unemployment rate, which has declined almost constantly.

**Graph 5 – The participation rate is down**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

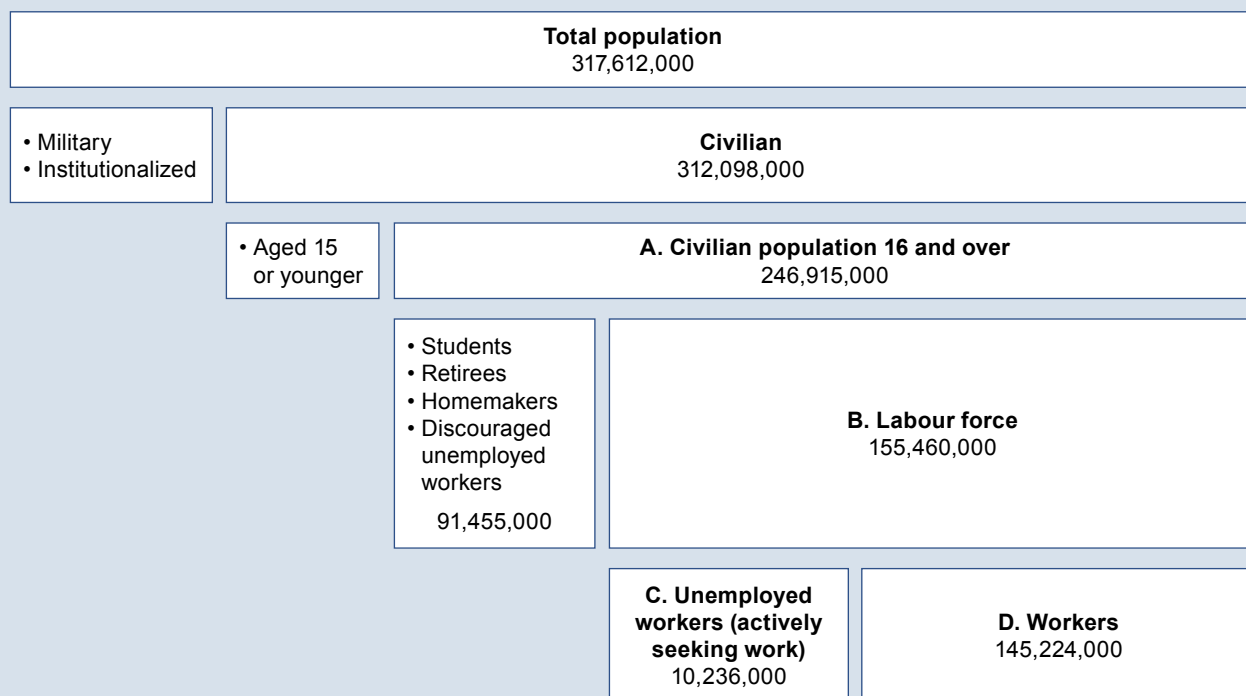
**Graph 6 – The employment ratio is stable**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

Another way to see how recent labour force movements impact the unemployment rate is to use the movement by employment but keep the participation rate constant. If we do this exercise from where the unemployment rate peaked in October 2009 and retain that month's participation rate (65.0%), the unemployment rate remains much higher throughout the recovery and only dips to 9.5% in January 2014. From there to the current 6.6%, nearly all of

### Estimate of the U.S. population in January 2014



Unemployment rate =  $C/B * 100 = 10,236,000 / 155,460,000 = 6.6\%$

Participation rate =  $B/A * 100 = 155,460,000 / 246,915,000 = 63.0\%$

Employment ratio =  $D/A * 100 = 145,224,000 / 246,915,000 = 58.8\%$

Sources: Bureau of Labor Statistics, U.S. Census Bureau and Desjardins, Economic Studies

the decline by the unemployment rate comes from the drop in the participation rate. Note, however, that the drop in the participation rate in the final months of 2013 was magnified by the federal government's shutdown in October and harsh weather conditions in December.

#### HOW WILL THE PARTICIPATION RATE MOVE?

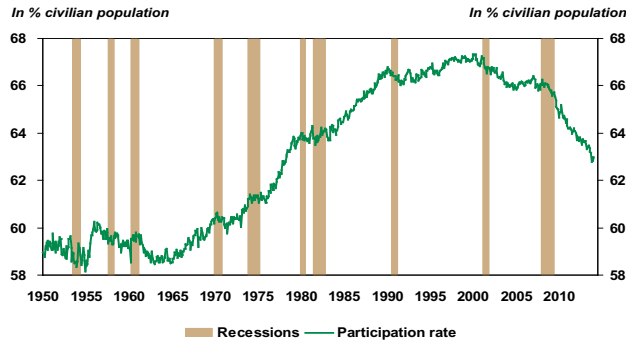
There is reason to wonder whether American workers' participation in the labour force is atypical and whether, sooner or later, it will get onto the track that is usual during economic recoveries and growth cycles. It is normal for the participation rate to fall during recessions, when a lack of job openings discourages job seeking. Major demographic shifts, or shifts prompted by changing habits (change in the baby-boomer cohort, huge influx of women into the job market in the 1970s and 1980s), may make it difficult to

see the impact of such discouragement (graph 7 on page 4); it is clearer when we compare the participation rate to its own trend (graph 8 on page 4). Once a recovery is well entrenched, participation tends to advance more quickly, slowing the drop by the unemployment rate as discouraged unemployed workers return to join the ranks of active job seekers. After that, the participation rate (still compared with its trend) rises throughout the growth cycle.

Four and a half years after the recession's official end, with more than 7.8 million jobs created since the bottom of the cycle, the participation rate continues to trend down. Several factors are behind this movement:

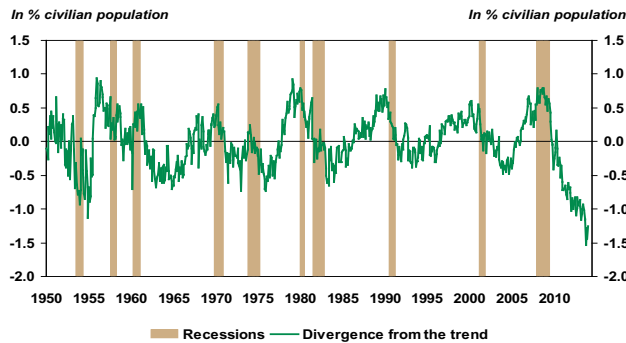
- A weak economic recovery that is inspiring some scepticism among discouraged unemployed workers.

**Graph 7 – The participation rate declines during recessions**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

**Graph 8 – Economic cycles have a major impact on the participation rate**



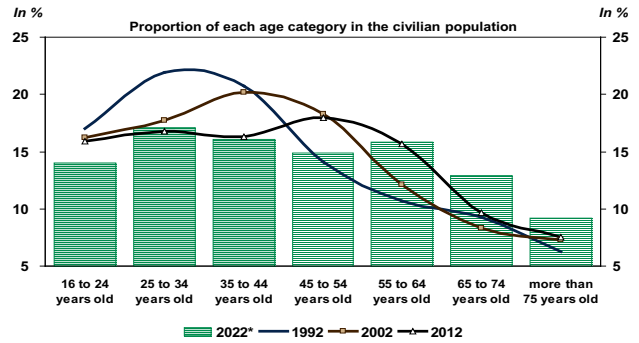
Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

- An ageing population with more and more workers and jobless people no longer wanting to be active labour market participants.
- A decline in youth participation in the labour market, with the young generation staying in school longer, among other things.
- Technological changes that are creating a divergence between the kinds of employees being sought and job seekers' qualifications.
- Housing market problems that may have limited worker mobility.

Aside from the first point, and the last two, which should lessen as the economy's growth improves and surplus production capacity declines, the other factors should continue to limit labour force growth over the coming years.

The main effect will come from population ageing. Graph 9 depicts the shift in the distribution of the civilian population aged 16 and over in 1992, 2002 and 2012, alongside the Bureau of Labor Statistics' (BLS) projection for 2022. Over 30 years, the proportion of workers aged 55 and up will have gone from 26.3% to 37.9%. In the last several years,

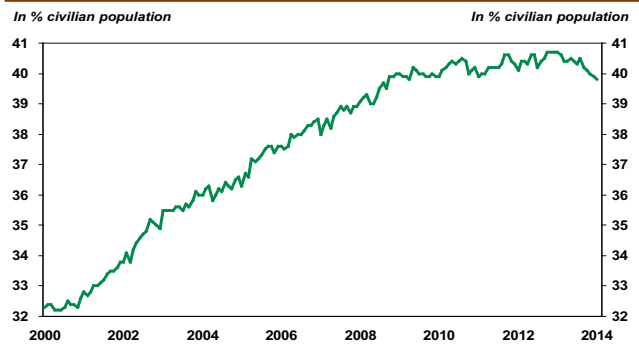
**Graph 9 – The oldest workers already constitute a bigger proportion**



\* Bureau of Labor Statistics forecasts.  
Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

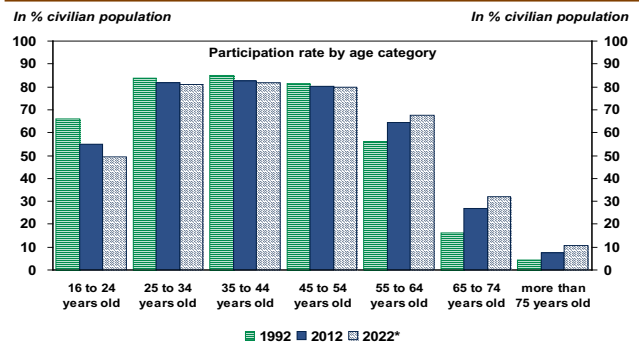
this cohort's participation rate has gone up substantially, even during the recession (graph 10); however, it has not increased enough to offset the fact that, even in 2012, its participation rate will be much lower than that of the most active cohort, those aged 25 to 54. Graph 11 depicts the participation rate by age in 1992, 2012 and 2022.

**Graph 10 – Among those 55 and over, the participation rate has risen over the last 10 years**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

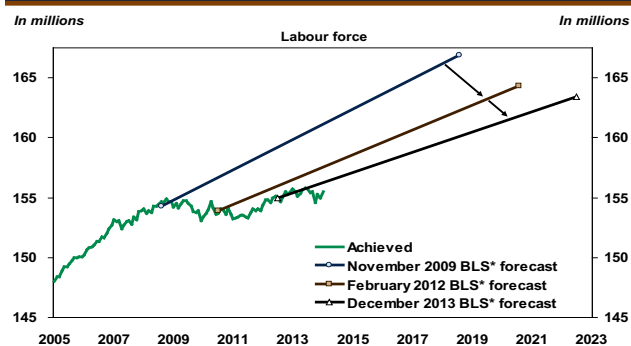
**Graph 11 – Although it is increasing, participation by the oldest workers remains low**



\* Bureau of Labor Statistics forecasts.  
Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

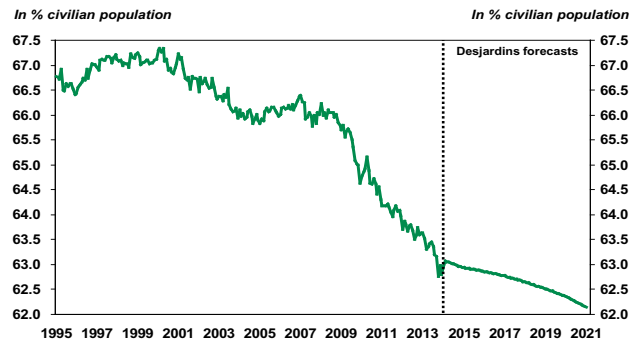
We can therefore expect the labour force to show very limited growth over the rest of the decade. Note, however, that forecasts in this area have been fairly unstable (graph 12); in addition to erroneous predictions about demographic shifts in the U.S. population, these “errors” also arise from the situational and structural effects created by the recession. As the labour force will grow more slowly than the civilian population, we can expect the participation rate to decline gradually, continuing the trend that started over 10 years ago (graph 13).

**Graph 12 – Growth forecasts for the U.S. labour force have been trimmed**



\* Bureau of Labor Statistics.  
Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

**Graph 13 – The participation rate should continue to retreat**



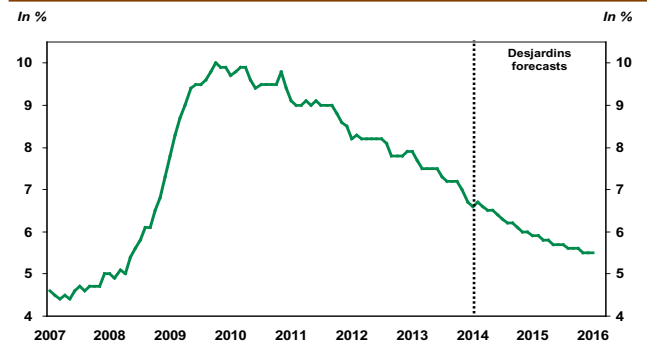
Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

The Congressional Budget Office (CBO) recently predicted that instituting President Obama’s health reform will have long-term repercussions for the participation rate. In their budget projections, CBO analysts estimated that the fact that worker could access to affordable health insurance other than from their employers will allow some Americans to work less, if they choose to. Subsidies that allow less fortunate Americans to buy health insurance, with the subsidy amount declining as household income rises, are also an incentive to supply fewer hours of work.

**IMPACTS ON THE UNEMPLOYMENT RATE**

A decline by the participation rate naturally has implications for the unemployment rate. A smaller rise in labour force participants also implies, over the long run, weaker growth in the number of workers. The unemployment rate will fluctuate according to the speed at which these two growth rates evolve. In the near term, the economy’s progress should foster fairly solid employment growth. With annualized real GDP growth of just 1.9% in 2013, the U.S. economy managed to create 2,322,000 jobs. Faster GDP growth, with federal budget policy much less of a hindrance to the economy (fiscal cliff, sequester, shutdown and risk of default created by the debt ceiling), should lead to solid employment gains. Despite the soft patches in December 2013 and January 2014, employment should quickly return to a pace of 200,000 hires or so a month. If the fluctuations in the household survey do not diverge too much from movements in the establishment survey, we can expect the number of jobs to rise constantly. As the labour force should, on average, expand by just under 100,000 people per month in 2014 and 2015, job holders will constitute a growing proportion thereof. Conversely, the proportion of unemployed will decline, as more and more of them find jobs. This means that the unemployment rate should continue to fall (graph 14). On the other hand, faster growth by the civilian population than the labour force should result in more modest growth by the employment ratio (graph 15 on page 6).

**Graph 14 – The unemployment rate should keep pulling back in the near term**

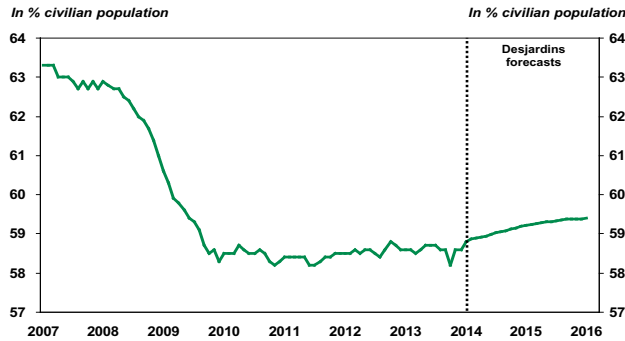


Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

Over the longer term, employment growth should be increasingly hampered by weak participation. As the BLS is predicting, the average for monthly hires should not be as big as we have become used to recently. From 2016 until the end of the decade, these gains should be closer to 100,000 new workers a month, a situation that should stabilize the trend unemployment rate at around 5%

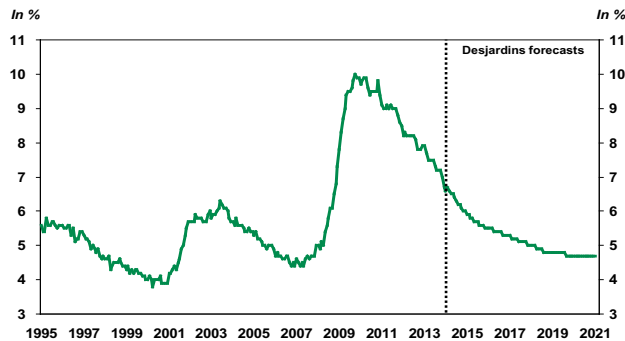


**Graph 15 – The employment ratio will notch up**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

**Graph 16 – Over the longer haul, the unemployment rate will likely stabilize at around 5%**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

(graph 16). Clearly, the economic situation prevailing then could cause the unemployment rate to diverge from this trend, which comes from demographic shifts.

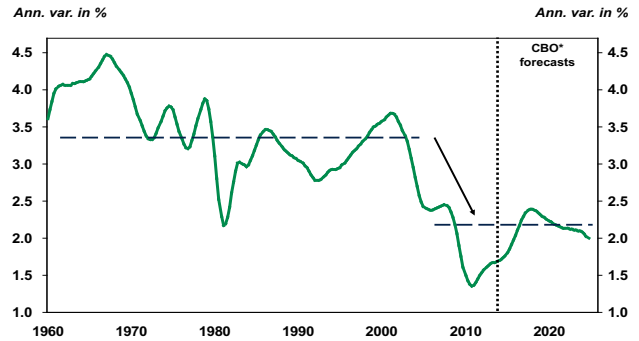
**WILL THE U.S. ECONOMY HAVE LESS GROWTH POTENTIAL IN THE FUTURE?**

An economy’s potential is primarily based on two factors: hours worked by the labour force, and labour productivity. Worker productivity has progressed by leaps and bounds in recent decades as a result of technological advances. High productivity even had a kind of perverse effect at the start of the recovery: the economy was able to accelerate with no real growth by employment. For example: real GDP reached its pre-crisis peak in spring 2011, while employment has still not regained all of the ground lost.

U.S. economic potential can be estimated in several ways. The CBO uses one of the most common methods. According to the CBO, in the final quarter of 2013, U.S. real GDP was 3.8% below real potential. The United States still has a lot of unused production capacity, even though growth by potential is much slower than it was before the recession. According to the CBO, growth was 3.2% from 1982 to 2001, boosted by strong labour force growth in the 1980s and solid

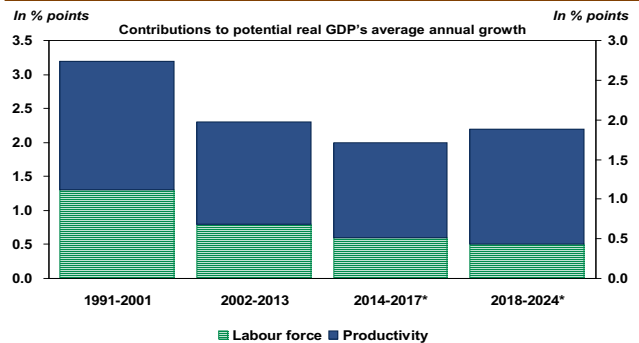
productivity in the 1990s. However, these two factors have since slowed, and the CBO thinks that potential growth will be 2.0% between 2014 and 2017, and 2.2% subsequently (graph 17). Soft future potential is primarily due to a weak labour force (graph 18).

**Graph 17 – Growth by potential real GDP has slowed**



\* Congressional Budget Office. Sources: Congressional Budget Office and Desjardins, Economic Studies

**Graph 18 – The labour force’s weakness prompts softer potential GDP growth**



\* Congressional Budget Office forecasts. Sources: Congressional Budget Office and Desjardins, Economic Studies

A lower potential growth rate means that we will have to get used to seeing economic indicators rise more slowly, along with a slower global supply, which in turn means slower global demand. As long as these remain in fairly good balance, they should not create too much pressure on prices and wages. In fact, the gap between real GDP and its potential is not expected to close until 2019. Weaker potential does not necessarily mean more inflation, as Japan’s extreme case attests.

**CONSEQUENCES FOR MONETARY POLICY**

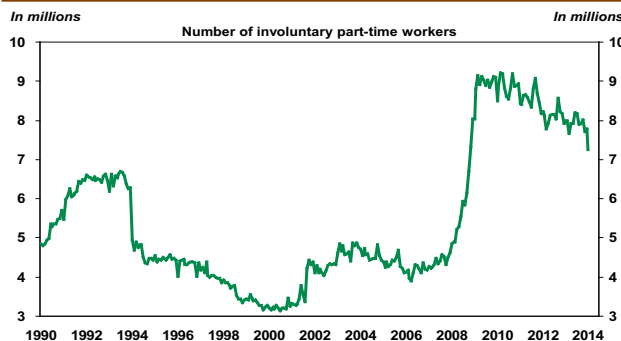
Since December 2012, the Federal Reserve (Fed) has been identifying three factors that prompt it to keep its key rates steady and very low. Two of the factors deal with inflation; the other involves the unemployment rate. According to the Fed, interest rates should remain where they are, between 0.00% and 0.25%, as long as the unemployment rate stays above

6.5%. The unemployment rate's drop in recent quarters has taken it much closer to that threshold, which could even be reached in the months to come. This development occurred much more quickly than the Fed anticipated when it set out its conditions: at the December 12, 2012 meeting, the members of the Fed's monetary policy committee judged that, in Q4 2013, the unemployment rate would on average be between 7.4% and 7.7%, but it posted 7.0% instead. As we have seen, much of the unemployment rate's bigger-than-anticipated retreat in the last year stems from the drop by the participation rate, and the fact that it has not moved as it usually does during a recovery.

The unemployment rate's rapid decline is making the Fed's job harder, and the Fed is clearly not ready to start raising its key rates, as it has just started tapering its securities purchases. For now, the Fed can argue that the other components of its forward guidance continue to argue for patience: inflation remains below the 2.0% threshold and inflation expectations remain well anchored.

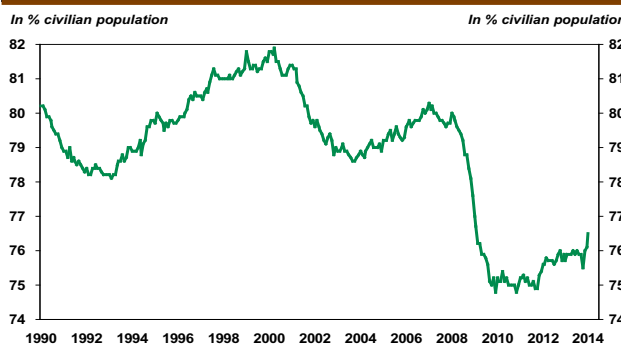
In the near term, the Fed could also decide to lower the unemployment rate threshold, now 6.5%, a scenario that would buy it some time. However, Janet Yellen and her colleagues instead seem to be trying to informally broaden the picture of the U.S. labour market. From now on, there will likely be less and less focus on the unemployment rate, and more emphasis on other indicators. Janet Yellen mentioned some of them in a recent speech, such as long-term unemployment (graph 19) and the number of people who are involuntarily working part time (graph 20). The employment ratio in the main worker age category (graph 21) or statistics showing the number of new job openings or involuntary layoffs are also indicators that help assess the labour market's health. Therefore, although the unemployment rate is very close to the Fed's threshold, the Fed still has arguments for waiting a long time before starting to normalize key rates. We do not expect an increase before September 2015.

**Graph 20 – Many people are working part time although they would prefer full-time jobs**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

**Graph 21 – Although it has improved recently, the employment ratio is still low among those aged 25 to 54**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies

**Francis Généreux**  
Senior Economist

**Graph 19 – Long-term unemployment is still a serious problem**



Sources: Bureau of Labor Statistics and Desjardins, Economic Studies