U.S. Unemployment May Dip Below 7% Before End of 2013

The US economy is on firmer ground going into 2013 than it has been since the sub-prime crisis began in 2007 and spiraled into the financial panic of 2008. Real Gross Domestic Product could post a 2.5% to 3% rise in the coming year, with the unemployment rate falling through 7% by the fourth quarter. Automobile sales are healthy, and the housing market is on the mend.

For sure, there are still some important fiscal policy concerns. The New Year’s Day tax deal removed 80% of the fiscal cliff, but taxes are rising. The temporary 2% cut in payroll social security taxes has been restored and has already dented consumer confidence a little. The highest earners will face a rise in their marginal taxes, and there are new health care taxes to pay. While the debt ceiling debate has been kicked down the road to May 19, the bruising and bitter Congressional battle over where to make long-term spending cuts has the potential to disrupt markets.

Outside the US, the news is looking decidedly better. Fears of a Euro break-up have dissipated. Europe remains in an economic slump, but there are now signs of progress on the debt front. China seems poised for an improved economic performance in 2013, and a number of other emerging market countries are likely to see their growth rates accelerate again. The Federal Reserve has set a 6.5% unemployment rate as the trigger to commence raising its federal funds rate target. Given our optimism that the 6.5% unemployment rate trigger may be hit in 2014, we want to take a closer look at the possible path to that trigger rate and highlight how bumpy a ride it could be.

A. US Labor Market Has Made Excellent Progress

One can easily make the case that the US labor market is still struggling. There are over 12 million unemployed workers, while millions more are only partially employed. 3.2 million workers are still receiving long-term (over 26 weeks) unemployment benefits. At 7.9%, the unemployment rate is well above reasonable estimates of its equilibrium rate, which is thought to be closer to 6%. This is the case made by the Fed when justifying its various quantitative easing programs since 2010. The significant number of unemployed and under-employed workers convinced the Fed to try unconventional means - that is, balance sheet expansion and maturity extension programs, to encourage more rapid recovery in the US jobs markets despite doubts by many as to how well the programs would work in the short-term and concerns by many more over the possibility of unintended negative consequences in the long-term. From the Fed’s perspective the glass has been half-empty.
From a more positive perspective, US labor markets have done remarkably well given the nature and depth of the recent recession. The Great Recession of 2008-09 was financially induced and not a typical cyclical recession. As Carmen Reinhart and Kenneth Rogoff documented in their book “This Time Is Different: Eight Centuries of Financial Folly” (Princeton University Press, 2009), financially-induced recessions are much worse than cyclical ones and take longer from which to recover due to the deleveraging process that is required. This time around, the reported unemployment rate peaked at 10% in October 2009, and had declined to 7.9% by January 2012. This has been a relatively rapid rate of decline for the unemployment rate. Despite the deleveraging process in the first years after the recession, and once the economy gained some momentum, there were 2,103,000 net new jobs created in 2011 and 2,170,000 in 2012.

The US lost 8,128,000 net jobs between the pre-recession peak in January 2008 and the recession trough in September 2009. Between the trough in September 2009 and January 2013, the US economy recovered 4,897,000 net jobs, which includes a net loss of 392,000 government jobs. That is, the private sector recovered extremely well from the worst recession since the 1930s even though state and local government entities were struggling and cutting back jobs, not to mention severe headwinds from the sovereign debt crisis in Europe and the economic deceleration in China and other emerging market countries.
B. The Path and Time Line to 6.5% Unemployment

Where does the labor market go from here? The trend or momentum in the economy appears quite robust.

The factors on the positive side are impressive. Housing, the sector at the epicenter of the disaster, started its rebound in 2012, albeit from a low base. Automobiles are in a multi-year recovery and have reached a healthy and sustainable pace of sales. US corporations are flush with cash and the financial sector is profitable as well. Confidence, an elusive concept, but clearly in short supply in the post-recession years, seems to be returning. The settlement of the tax debate and avoidance of the worst of the fiscal cliff clearly gave a lift to equities and other “risk-on” exposures. Improved news from Europe and China has helped as well.

On the negative side, modest tax hikes dampen our optimism a little. There is the reality of the 2% higher social security tax rate, new health care taxes, and an increased marginal tax rate on the nation’s highest earners. There are also considerable uncertainties over when, where, and how deep spending cuts will be made by the federal government.

One of the larger factors slowing the pace of net new job creation, however, is the psychological impact of the Great Recession on corporations as well as state and local governments. Laying off 8 million workers was traumatic for both workers and employers. Neither wants to repeat the experience. In the post-recession environment, corporations and local governments have both been trying to be exceeding cautious in adding to their payrolls. Even through most US large companies are cash rich, they have decided that the risks of expanding too rapidly overwhelm the risks associated with being a little slower out of the gate, if economic growth accelerates faster than expected. On the worker side, we have seen some declines in the measured labor force. While, this is a typical cyclical response to a recession, our projections are that the long-term trend in the growth rate of the permanent labor force has declined to below 1% per year. If this view is correct, then it now takes less monthly net new job creation than in the past when the long-term labor force was growing more rapidly to reduce the unemployment rate. So far, in the last few years, our perspective has been the correct one, and the unemployment rate has shown a stronger downward trend than old rules of thumb for net monthly job creation would have suggested.

All in all, none of these negatives is likely to throw the unemployment rate off its declining track, but they certainly suggest that it could take 18 months, more or less, to get from the current 7.9% to 6.5%, taking us into the middle of 2014. Our projection is that the US employment rate will finish 2013 somewhere just under 7%. This should be enough economic progress to get the juices of the Fed-watching community flowing and stimulate the debate about how and when the Fed will end quantitative easing and commence raising the federal funds rate.

C. Market Activity and Anticipation

Indeed, we have already seen interesting market behavior reflecting different opinions about future Fed activities and the possible direction and magnitude of yields on US Treasury securities along the maturity spectrum. Specifically, in January 2013, as market confidence rose in the after-glow of the New Year’s Day US tax deal and avoidance of the worst of the fiscal cliff, activity in options on US Treasury futures grew rapidly. An all-time record trading volume in Treasury options was hit February 1, associated with the release of the January non-farm payroll and unemployment data.

Even more interestingly, put option open interest began to eclipse call option open interest instead of being evenly divided. That is, open interest in options
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on US Treasury futures started January averaging a little less 2.5 million contracts in the first few days of January. Open interest picked up in the second half of the month and hit 3.7 million contracts on January 30. More importantly and as depicted in chart 2, the ratio of put to call option open interest was very close to 1 at the beginning of the month. But as open interest started rising the new activity was concentrated in put options, with the ratio of put open interest to call open interest exceeding 1.5 by the end of the month. This asymmetry in put-call open interest is reflective of an underlying asymmetry in how market participants are thinking about the possible evolution of Treasury yields.

Chart 2. Treasury Option Open Interest Ratio of Puts to Calls

While we do not know what was in the minds of traders and hedgers, one can construct a scenario where the same observations could bring two opposing put option strategies into play. Some market participants may have seen the rising market confidence as leading to a rotation out of Treasury bonds and into equities, putting upward pressures on yields (downward pressure on Treasury prices). At the same time, and known to all, the Fed is a big monthly buyer of both mortgage-backed securities at the rate of $40 billion per month and US Treasury securities at the rate of $45 billion per month. At least some market participants probably see the Fed’s buying programs as limiting any potential rise in yields (and a fall in prices), at least for 2013 while the buying programs are in place. Hence, under this scenario, those market participants impressed by the Fed’s buying program might be willing to sell put options and take in the premium, while those market participants focused on the equity-bond rotation might buy the put options and hope for a sustained rise in yields while limiting their downside risk given the Fed’s buying program.
When timing and volatility are both uncertain, options can be the favored vehicle for expressing these views. And in this case, the timing of any increases in yields and the related volatility of US Treasury prices will depend in part on market participants’ expectations of the future path of the unemployment rate, which in turn is related to how fast the US economy is expected to create new jobs. We see a bumpy ride, even if we are confident in the positive direction in which the economy is headed.

D. A Bumpy Ride

Labor market observers typically study both the unemployment rate, which comes from a survey of households, and the non-farm payroll data, which comes from a survey of establishments. The payroll data are considered more reliable, so even if the trigger for the Fed is the unemployment rate, many market participants will be analyzing the payroll data quite closely.

Our perspective is that the pace of jobs growth during the year as reported in the US non-farm payroll monthly data, however, may give a picture of a much bumpier ride than is actually occurring. The culprit in the data is the notoriously difficult process of seasonal adjustment. We commend the Bureau of Labor Statistics (BLS) for their considerable efforts in seasonally adjusting economic data so that we can compare one month to the previous one and gain some understanding of the underlying pattern, but we also note that the seasonal adjustment process has a multitude of challenges.

Our concern about seasonally adjusted payroll data is that for the past several years there has been a spring-summer slump in the seasonally adjusted data. Yes, you read that correctly. It appears that the seasonally adjusted data unexpectedly retains a strong seasonal pattern. More or less, what we observe is that in 2010-12 and to a lesser degree in the pre-recession 2004-06 period, the seasonally adjusted non-farm payroll data have tended to underestimate the net job creation in the four month May-August period, while overestimating jobs in the eight month September-April period. The periods of over and underestimation offset each other during the year, but since the spring-summer effect is more concentrated, it is also more obvious, and more likely to cause market participants to doubt the upward trend in job growth.

Chart 3 shows the evolution of the estimated seasonal disruptions in the reported seasonally adjusted data for non-farm payrolls. The May-August underestimate was occurring in years prior to the Great Recession. The recession and its timing disrupted the pattern for two years. Since 2010, the May-August underestimation problem appears to have returned.

Unlike the BLS, we have the luxury of analyzing the data after they have been reported. So with 20/20 vision afforded by hindsight, our quantitative research indicates that job growth may have been under-reported in the seasonally-adjusted data by 43,000 net new jobs per month in the May-August period in the three years since 2010. If this happens again in 2013, and we think there is a reasonable probability that it may occur again, then some market participants may have doubts about the pace of economic growth during the summer months. This may encourage some equity market participants who follow the adage from London to “sell in May and go away”. Equally, some market participants might anticipate lower US Treasury yields (higher prices) if the pace of job growth slows even temporarily.

As an aside for those interested in the technical details, we use a three-year rolling look-back period to analyze whether there were any residual seasonal patterns in the seasonally adjusted non-farm payroll data. Our technique removes any obvious one-off data spikes, such as the 2010 hiring and then laying-off of a half-million census workers. Then, using the STL (Seasonal
Decomposition of Time Series) method, we decompose the data into a trend, a seasonal component, and a residual. By contrast, the BLS has to develop its adjustments factors for seasonal effects before knowing the data. The BLS also removes any known one-off data spikes and then uses a five-year window and a statistical process known as autoregressive integrated moving average (ARIMA).

**Chart 3: Average Seasonal Under/Over Estimate of May-August Payroll Data.**

Since we think the seasonal adjustment challenges stems from at least two separate effects and both were disturbed in the 2007-08 years by the sub-prime mortgage crisis and then the full-fledged banking panic, the BLS may not catch-up with the new seasonal pattern until 2014 or 2015, and then it may be changing again.

The two challenges we perceive as most problematic for seasonally adjusting payroll jobs data are summer hiring, including state and local government, and at public and private educational institutions. This retrenchment more than likely has meant fewer temporary jobs in the summer. Or, put another way, the BLS seasonal adjustment process expects a considerable amount of summer jobs every year, and is therefore adjusted downward in the summer. The seasonal patterns may have been altered for the long-term, and the resulting seasonally adjusted data will look weaker than they should. In the retail sector, the issue revolves around how jobs are shifting due to the expansion of online and point and click sales. This has possibly disturbed the seasonal pattern of hiring, especially around holiday shopping at Christmas, Presidents’ Day, and Easter.
While a miscalculation of seasonal effects washes out in the full calendar year, it can affect perceptions of the trend in job growth during the year. And summer is when the reported data are most likely to indicate a slump that may not be real. Our advice is to be cautious of the May-August non-farm payroll data should they show a slump in net new jobs created.

E. New Unemployment Claims and Storm Damage

Changing seasonal patterns are not our only data challenge. Super-storm Sandy hit at the end of October 2012. The storm shut down much of the Northeast coast for several weeks and effects are lingering into 2013. As did Hurricane Katrina, Super-storm Sandy caused an up-tick in new unemployment claims, then a delayed reversal.

Chart 4. Impact of Storms Katrina and Sandy on New Unemployment Claims Data

![Chart showing initial unemployment claims](chart.png)

As we highlighted in our economic report last November 2012, “U.S. Economy Outlook: From Sandy to the Fiscal Cliff and Beyond,” we expected that Sandy might push fourth quarter real GDP into negative territory, which we now know it did in the initially reported data. And, we also suggested that Sandy would help lift first-half 2013 real GDP. This additional impact of post-Sandy rebuilding on economic data makes the interpretation of recent data all the more difficult as it adds noise and obscures the longer-term trend and signal.

F. Unemployment Rate Below 7% Before Year-End 2013

Our focus remains on when the unemployment rate will dip below 7%. Markets are forward-looking. The Fed has set a target of 6.5% as the trigger for commencing hikes in the federal funds rate. If the trend points toward 6.5%, well before we get there, the market will be on the move.

We show in chart 5 what our look-back method perceives as the net new monthly jobs creation rate since January 2010. Currently, we think we are a path to create 150,000 to 175,000 jobs per month in 2013. The actual seasonally adjusted data are shown in the chart as well, as they are inherently much more volatile.

Chart 5: Trend versus Actual Monthly Change in Non-Farm Payroll

The signal that our research sifts from the noise points to the creation of between 1.8 and 2.1 million net new jobs in 2013, with the unemployment rate dipping below 7% before year-end and touching 6.5% around the summer of 2014. For the pessimists, this means we will still not have reached the employment peak obtained before the financial panic of 2008. For the optimists, however, it is clear that the economy is on solid footing and progressing steadily toward more effective labor utilization.
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