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The Fed's Unemployment Conundrum

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- We expect continued Fed tapering next week from $75 billion to $65 billion along with continued emphasis that rate hikes are unlikely until unemployment is well below 6½% and especially as long as inflation forecasts remain below 2%. Stronger growth has likely bolstered confidence in officials' forecasts, while guidance has successfully anchored forward rates in the face of initial tapering.

- With unemployment declining rapidly amid moderate job growth, officials cannot credibly judge where full employment is. The most recent plunge in participation despite stronger growth and solid job gains highlights the role that demographic, structural and other non-cyclical forces are likely playing in labor supply. Officials could eventually lower estimates of sustainable unemployment but may sharpen their focus on wage trends as a dual signal of labor market health and price stability.

- We think that GDP expanded at a 3½% annual rate in Q4 and would have been stronger if not for slowing government spending and the partial federal shutdown. The severe start to winter could take a bite out of our 2½% Q1 growth forecast and may delay a timely bounce back in job growth for January.

Unemployment Rate (Year-to-Year Change) and Real GDP (Yr.-to-Yr. Pct. Chg.), 1998-4Q 13F

Sources: Bureau of Labor Statistics, Bureau of Economic Analysis and Citi Research.

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

The Fed's Unemployment Conundrum

We expect continued modest tapering and no change in rate guidance at next week's FOMC meeting.

Although recent economic developments have raised some important questions for Federal Reserve officials, the outcome of next week's FOMC meeting seems unlikely to break new ground. All indications are that the bar is high for either pausing the tapering process or accelerating it, at least at this early stage. Forward rate guidance has become a real challenge as unemployment continues to fall faster than the labor market or the broader economy seem to be improving **(front page chart)**, while inflation remains well below most officials' comfort zone. With the acceleration in economic growth in the second half of last year, and interest rates steadying somewhat, policymakers are likely to be a little more content that conditions are moving in line with their goals. Resolving some key questions may be left at least until Janet Yellen's first meeting as Chair in March.

Disappointing payroll data are unlikely to deter another round of cuts in the pace of QE.

Despite the disappointing December payroll numbers, there isn't much debate in markets about continued tapering of QE at this meeting. Public statements from both skeptics and sympathizers among officials have telegraphed another $10 billion reduction in the monthly pace of purchases next week to $65 billion. On the data itself, bad weather provided advance warning that employment could undershoot last month. Several times earlier in this jobs recovery, monthly gains had fallen short only to be followed by upward revisions and/or stronger gains that on balance revealed that job growth has been remarkably steady for at least three years, running at a pace strong enough to bring unemployment down even under previously normal labor force growth.

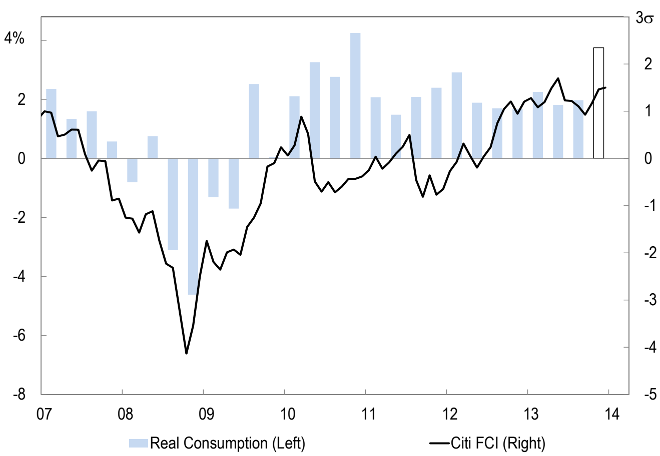
Most incoming data indicate the economy ended the year on a relatively solid track.

In the wake of the December employment letdown, many other reports for the month and Q4 have reaffirmed that expansion continued on a faster track into yearend. Industrial production data showed that factory output rose by 0.5% in December, the third straight month of gains at least that large, while retail sales similarly jumped 0.7% among "control" categories that feed directly into the spending side of GDP. Between them, factory output and core retail sales expanded at annual rates in the fourth quarter of 6.3% and 6.6% respectively, pretty good indications that the overall economy weathered the government shutdown and was successfully shaking off any lingering drags from earlier fiscal restraints.

We think GDP expanded at a 3 ½% rate in Q4…

The data set the stage for next week's much anticipated first official pass at Q4 GDP, which will not be out until the day after the Fed's decision. We expect the initial estimate to show GDP expanded at a 3½% annual rate, well above earlier

Figure 1. Real Personal Consumption Expenditures (Annualized Percent Change) and Citi Financial Conditions Index, 2007-4Q 13F



Sources: Bureau of Economic Analysis and Citi Research.

Figure 2. GDP Growth (Percent Change at Annual Rate Unless Noted), 4Q 12-4Q 13A E

	2013				2012
	4Q A E	3Q F	2Q	1Q	4Q
Real GDP	**3.5** %	4.1 %	2.5 %	1.1 %	0.1 %
GDP Price Index	**1.8**	2.0	0.6	1.3	1.1
Final Domestic Demand	**2.6**	2.3	2.1	0.5	1.4
Composition of Final Sales:					
Consumer Spending	**3.7**	2.0	1.8	2.3	1.7
Housing	**2.7**	10.3	14.2	12.5	19.8
Business Investment	**7.3**	4.8	4.7	-4.6	9.8
Government	**-4.4**	0.4	-0.4	-4.2	-6.5
Exports	**9.0**	3.9	8.0	-1.3	1.1
Imports	**3.7**	2.4	6.9	0.6	-3.1
Contributions to GDP:					
Inventory Change	**0.3**	1.7	0.4	0.9	-2.0
Net Exports	**0.6**	0.1	-0.1	-0.3	0.7

Sources: Bureau of Economic Analysis and Citi Research.

projections that anticipated that firms might hold back inventory investment after a catch-up in Q3. As we have discussed in previous weeks, some of the unusual strength in inventories reflects the impact of a strong harvest but also pent-up activity from earlier business uncertainties. Private demand, led by consumers, has been especially strong through this period, confirming the financial tailwind that intensified toward the end of the year **(Figure 1)** as well as the more solid employment trend prior to December.

… and would have been stronger if not for the slower government purchases and the partial federal shutdown.

Moreover, overall economic growth would have been an estimated ¾ point higher in Q4 were it not for the partial government shutdown and slowing federal spending **(Figure 2)**. The public sector's contribution is a significant wild card next week, particularly in light of the ongoing wind down of war-related defense spending. The first quarter will get a small statistical boost from the end to federal worker furloughs and the restraints on overall spending may be slightly less visible, but business surveys have cautioned that the stretch of inventory-fueled growth has run its course. We think growth will drop back to about 2½% this quarter, with some downside to that if the severe start to winter does not let up. Seasonal adjustment factors are very generous in this period but they anticipate normal winter, not the extreme cold and erratic conditions that have prevailed through the southern and eastern states for most of two months now.

The severe start to winter could take a bite out of Q1 growth.

The abnormal weather could hold back a timely bounceback in the pace of job gains in the January employment report. Jobless claims have been low in this period and the survey week provided a brief spell of dry and relatively warm weather. However, rising numbers of unemployment beneficiaries this month suggest that hiring and job searches may have been delayed **(Figure 3)** and if that influence dominates, it could complicate judgments about the expansion's momentum after an impressive run. Along with the end of emergency unemployment compensation that cut off support for 1.35 million beneficiaries over yearend, the household survey and the unemployment rate will be especially hard to read.

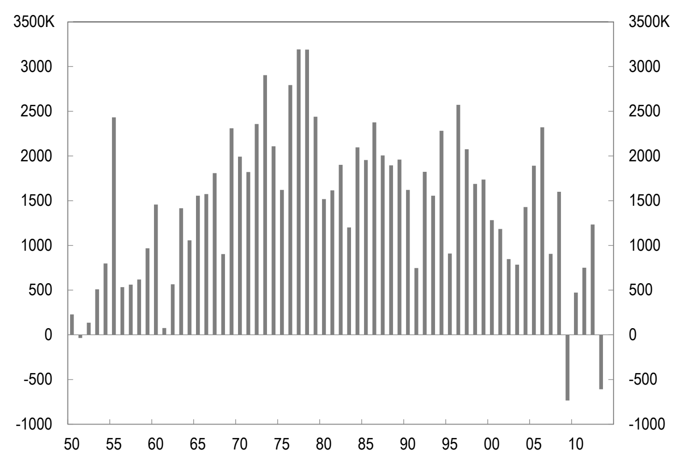
Officials have sought to clarify forward guidance in order to anchor low rates.

The outlook for jobs and unemployment looms large in the Fed's interest rate guidance, which has been a high-maintenance problem and seems likely to continue so. At their December meeting, the Committee clarified their position, by saying that "it likely will be appropriate to maintain the current target range for the federal funds rate well past the time that the unemployment rate declines below 6½

Figure 3. Unemployment Insurance Beneficiaries and Unemployment Rate, 2009-11 Jan 14

Source: Department of Labor.

Figure 4. Civilian Labor Force (4Q/4Q Chg. in Thousands), 1950-4Q 13



Note: Figures prior to 1991 are not population adjusted.
Source: Bureau of Labor Statistics.

percent, especially if projected inflation continues to run below the Committee's 2 percent longer-run goal." This statement marked a slight turn back in the direction of date-based guidance but also elevated the role that inflation and inflation expectations could play in timing rate hikes as the expansion matures.

But use of an unemployment threshold as a rate guide has become increasingly problematic.

There has never been a very compelling rationale behind the use of the unemployment rate threshold for monetary policy. For a long time, officials have believed that the decline in labor force participation could be arrested and reversed if aggregate demand were stronger. But with the passage of time and accumulating evidence, the initial role of cyclical factors in slowing the labor force has diminished and now is less important than demographic, structural and other separate policy influences. The labor force declined outright last year, the only time outside of the recent recession that has happened in the post-World War II era **(Figure 4)**. The pronounced weakness toward yearend stands out because of stronger growth and hiring in the background. This drop may have reflected a spike in retirements that were delayed earlier by the effect of steep financial losses and falling home prices on near retirees. Both of these assets have rebounded significantly.

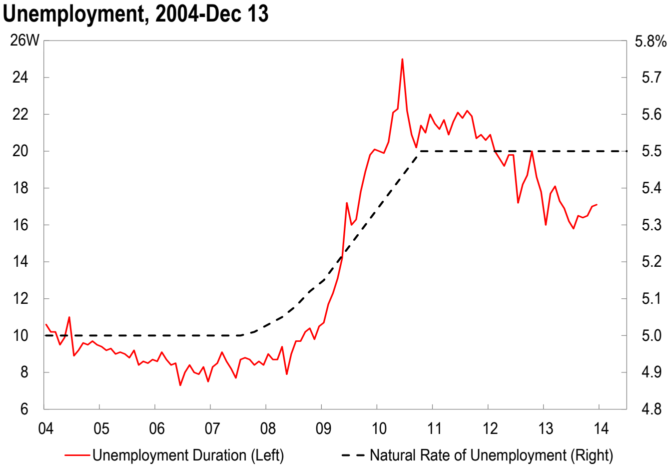
This problem shifts the focus to a wider set of developments and greater attention to inflation prospects.

In this situation where the cyclical information in any given jobless rate is very hard to assess in real time, policymakers could choose to abandon this tool altogether. Forward guidance is most useful when policymakers want to lower rates but are constrained by the zero boundary. This issue becomes less relevant as interest rates move higher with advancing recovery. However, the minutes suggest guidance in this context will continue in some form. Specifically, the options weighed include 1) lowering the unemployment threshold to 6%; 2) continue with qualitative guidance, emphasizing a wider set of information relevant to labor market developments and their link to overall growth; 3) reinforce the importance of inflation forecasts heading back to 2%; 4) utilize median projections for the funds rate from the quarterly SEP. Among these, the Committee seems already to be leaning toward the second and third options, but could eventually choose to guide rate expectations via the SEP if forwards become unanchored prematurely.

Policymakers cannot adequately judge where full employment is right now.

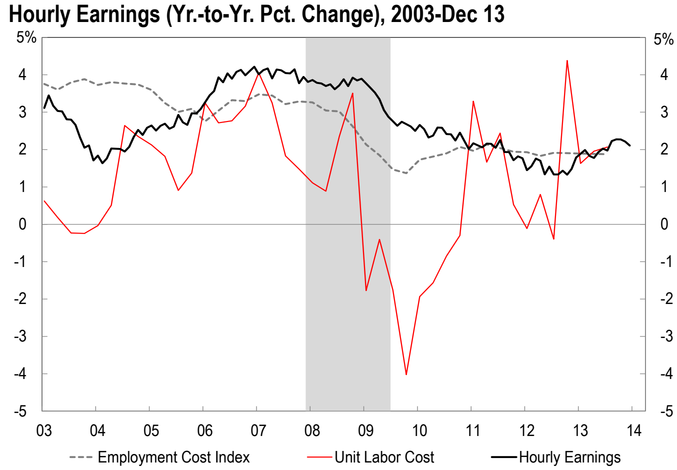
The first option, lowering the threshold unemployment rate, drew little support in December. Such a move begs the question: Given our experience, do we know enough about the nature of cyclical versus structural influences on labor markets that these guideposts can be credible? Policymakers have been repeatedly embarrassed on this score. With time, the Committee could judge that sustainable

Figure 5. Median Duration of Unemployment and Natural Rate of Unemployment, 2004-Dec 13



Sources: Bureau of Labor Statistics and Congressional Budget Office.

Figure 6. Employment Cost Index, Unit Labor Cost and Average Private Hourly Earnings (Yr.-to-Yr. Pct. Change), 2003-Dec 13



Note: Shaded region denotes recession.
Sources: Bureau of Labor Statistics and Bureau of Economic Analysis.

unemployment is lower than the 5.2% to 5.8% range most officials expect should prevail under normal conditions. This view could gain traction if, for example, the duration of unemployment declines significantly **(Figure 5)**.

Fed officials are likely to sharpen the focus on signs of labor market tightening.

In the meantime, officials may look for other signs to confirm whether declining unemployment signals tightening labor markets. This would lean on business and consumer surveys of job availability and turnover and other anecdotal reports as well as hard data on wage growth and labor costs. Surveys have already hinted at modest labor market tightening but while unit labor costs are trending irregularly back toward 2%, wage patterns themselves continue to lag **(Figure 6)**. In particular, the more inclusive hourly earnings series has just barely edged up from a low of 1.7% to 2% recently.

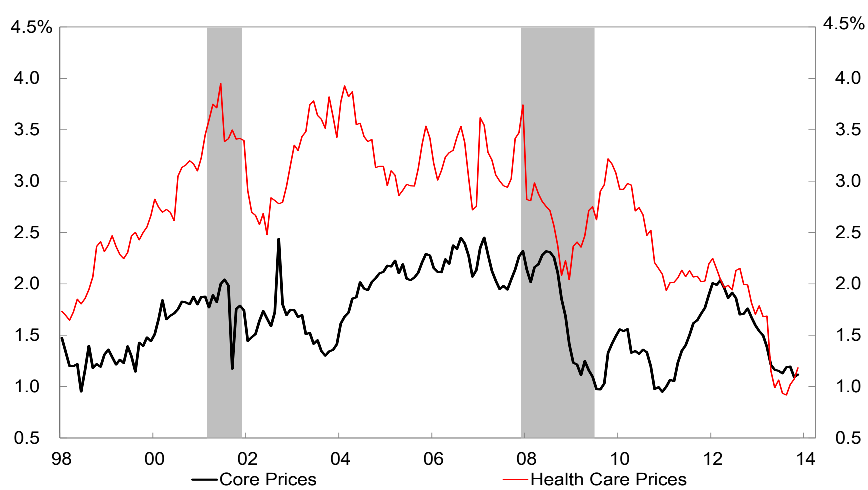
Improved wage trends would bolster officials' confidence in both the expansion and price stability.

Wage trends can play a dual role for policymakers to the extent that a pickup would not only signal a healthier job market and a key sustaining element for economic expansion but would also reassure officials who have expressed concern that too low inflation could pose a larger macro threat. We think income and demand have been adequate supports to pricing power and a backdrop of highly accommodative financial conditions remains a solid buffer for that. Nonetheless, slowing global growth has been a dampener on commodities and tradeable goods prices that have played a visible role in US disinflation. Recent EM turmoil has blunted optimism across more advanced countries that global growth could pick up this year.

With core PCE prices at 1.1%, the Fed has ample flexibility to wait out answers on key policy questions.

At the same time, health care costs have slowed sharply recently **(Figure 7)**, partly reflecting a flood of expiring prescription drug patents over a 17-month stretch as well as the impact of fiscal restraints on health care providers when sequestration hit last spring. These have been mostly one-off effects but there may be other restraining forces at work on health care costs that relate to a broader slowdown in overall health spending. For now, health care in PCE prices has reaccelerated in the past six months and there is no evidence that inflation expectations among consumers are in danger of falling. Nonetheless, with trailing 12-month core PCE running at just 1.1%, policymakers believe they have a considerable degree of freedom and more than likely are going to keep the emphasis on accommodation, patience and "low for longer."

Figure 7. Core PCE Inflation and Health Care Prices (Yr.-to-Yr. Pct. Change), 1998-Nov 13



Note: Shaded regions denote recessions. Source: Bureau of Economic Analysis.

January-February 2014

Monday	Tuesday	Wednesday	Thursday	Friday
20 **Martin Luther King Day** **NYSE Holiday** **Federal Gov't Holiday**	**21** Auction 3 & 6 Mth. Bills: $53.0B	**22** Mortgage Applications Auction 1 Mth. Bill: $12.0B	**23** Jobless Claims 1/18 326 Thous Leading Indicators Nov 1.0% Dec 0.1% Existing Home Sales Nov 4.82M Dec 4.87M FHFA (Nov) Ann. 2-Yr. Note: $32.0B Ann. 5-Yr. Note: $35.0B Ann. 7-Yr. Note: $29.0B Ann. 2-Yr. FRN: $15.0B Auction 10-Yr. TIPS: $15.0B	**24**
27 New Home Sales Nov 464K Dec(E) 460K Auction 3 & 6 Mth. Bills: $53.0B(E)	**28** S&P/CaseShiller (Nov) Durable Goods Orders Total ExTrans Nov 3.4% 1.2% Dec(E) 1.3% 0.4% Consumer Confidence Dec 78.1 Jan(E) 80.0 **FOMC Meeting** Auction 2-Yr. Note: $32.0B(E) Auction 1 Mth. Bill: $12.0B(E)	**29** Mortgage Applications **FOMC Meeting** Auction 2-Yr. FRN: $15.0B(E)	**30** Jobless Claims 1/25 315 Thous(E) GDP & Chain Price Index 3Q 13F 4.1% 2.0% 4Q 13A(E) 3.5% 1.8% Pending Home Sales (Dec) Auction 5-Yr. Note: $35.0B(E) Auction 7-Yr. Note: $29.0B(E)	**31** Employment Cost Index Q/Q Y/Y 3Q13 0.4% 1.9% 4Q13(E) 0.4% 1.9% Personal Income & Consumption Nov 0.2% 0.5% Dec(E) 0.2% 0.3% Chicago Barometer PMI Prices Dec 60.8 61.6 Jan(E) 58.0 Reuters/Michigan Sentiment JanP 80.4 JanF(E) 82.5 Farm Prices (Dec)
Feb 3 Construction PIP Nov 1.0% Dec(E) ISM Manufacturing PMI Prices Dec 57.0 53.5 Jan(E) Total Vehicle Sales Dec 15.3M Jan(E) Auction 3 & 6 Mth. Bills: $53.0B(E)	**4** Factory Orders Ord. Inv. Nov 1.8% 0.0% Dec(E) Auction 1 Mth. Bill: $12.0B(E)	**5** Mortgage Applications ADP Employment Dec 238K Jan(E) ISM Non-Manufacturing PMI Prices Dec 53.0 55.1 Jan(E) Ann. 3-Yr. Note: $30.0B(E) Ann. 10-Yr. Note: $24.0B(E) Ann. 30-Yr. Bond: $16.0B(E)	**6** Jobless Claims 2/1 Nonfarm Productivity Prod ULC 3QF 3.0% -1.4% 4QP(E) International Trade Balance Nov -$34.3B Dec(E)	**7** Employment Dec Jan(E) Payrolls 74K Unemp. Rate 6.7% Avg. Hrly. Earn. 0.1% Priv. Wrkwk 34.4H Consumer Credit Nov $12.3B Dec(E)
10 Auction 3 & 6 Mth. Bills: $55.0B(E)	**11** Small Business (Jan) Wholesale Inventories Nov 0.5% Dec(E) Auction 3-Yr. Note: $30.0B(E) Auction 1 Mth. Bill: $15.0B(E)	**12** Mortgage Applications Federal Budget Balance Jan 13 $2.9B Jan 14(E) Auction 10-Yr. Note: $24.0B(E)	**13** Jobless Claims 2/8 Retail Sales Total ExAuto Dec 0.2% 0.7% Jan(E) Business Inventories Nov 0.4% Dec(E) Ann. 30-Yr. TIPS: $9.0B(E) Auction 30-Yr. Bond: $16.0B(E)	**14** Import Price Index Total ExPetro Dec 0.0% 0.0% Jan(E) Industrial Prod. & Cap. Util. Dec 0.3% 79.2% Jan(E) Reuters/Michigan Sentiment JanF(E) 82.5 FebP(E)

(E) Indicates Citigroup estimates. (A) Advance. (P) Preliminary. (F) Final. (UNCH) Unchanged. (R) Revised. Contributors: Martha Berasain and Cathy Gaeta.

Appendix A-1

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