



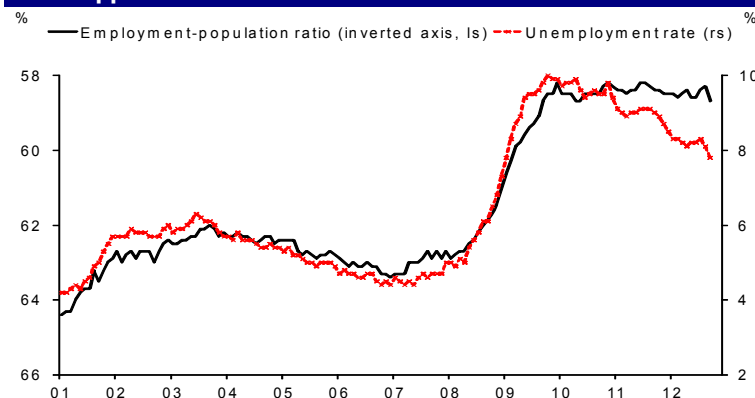
18 October 2012

Global Economic Perspectives

What the Fed didn't say: Payrolls at 160k

- Last month the Fed pushed out the frontiers of monetary easing, both quantitatively and verbally, with a policy that will be conditioned on progress made in improving the labor market. But it provided little or no guidance on how it will be gauging and reacting to labor market developments in the period ahead. The purpose of this piece is to fill in some blanks that the Fed left in its policy announcements.
- In terms of what the Fed will be looking at, we reckon that employment growth will be first among equals – in particular, nonfarm payrolls. We estimate that the FOMC's economic and policy projections are consistent with payrolls averaging gains of around 160,000 per month through mid-2015, when they have told us they expect the exit process to begin to get under way. There is a range of uncertainty around this estimate. But if the numbers are coming in well below that rate for a number of months (100k or less), look for the Committee to extend the mid-2015 date and possibly step up its QE purchases, and expect just the opposite if they are coming in well above that rate (200k or more).
- The employment-to-population ratio (E/POP) will be a more important guide than the unemployment rate with respect to assessing progress that is being made in removing slack and moving the labor market back to more normal levels. This is because swings in labor force participation, which directly affect unemployment but not E/POP, are likely to continue to be unpredictable. Indeed, further declines in participation rates are possible in the near term, and we look for a significant reversal of recent substantial declines at some point further out.
- We find that E/POP does a significantly better job than the unemployment rate in tracking the recent and projected course of policy interest rates in standard policy rules. When E/POP is substituted for unemployment in the Taylor Rule, the apparent recent increase in the FOMC's sensitivity to labor market developments is much reduced.

Employment/population has changed little as unemployment rate has dropped



Sources: BLS, Haver Analytics and DB Global Market Research

Economics

Table of Contents

Key Economic Forecasts	Page 02
What the Fed didn't say: Payrolls at 160k.....	Page 03
Is China <i>really</i> growing 7.4%?	Page 11
Central Bank Watch	Page 15
Global Data Monitor	Page 19
Charts of the Week	Page 20
Global Week Ahead.....	Page 21
Financial Forecasts	Page 23
Main Deutsche Bank	
Global Economics Publications	Page 24

Research Team

Peter Hooper
(+1) 212 250-7352
peter.hooper@db.com

Thomas Mayer
(+49) 69910 30800
tom.mayer@db.com

Michael Spencer, Ph.D
(+852) 2203 8303
michael.spencer@db.com

Torsten Slok
(+1) 212 250-2155
torsten.slok@db.com

Deutsche Bank Securities Inc.

All prices are those current at the end of the previous trading session unless otherwise indicated. Prices are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is sourced from Deutsche Bank and subject companies. Deutsche Bank does and seeks to do business with companies covered in its research reports. Thus, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. DISCLOSURES AND ANALYST CERTIFICATIONS ARE LOCATED IN APPENDIX 1. MICA(P) 072/04/2012.

Key Economic Forecasts

	Real GDP % growth ^b			Consumer Prices % growth ^c			Current Account % of GDP ^d			Fiscal Balance % of GDP		
	2012F	2013F	2014F	2012F	2013F	2014F	2012F	2013F	2014F	2012F	2013F	2014F
US	2.1	2.0	3.1	2.1	2.4	2.6	-3.2	-3.5	-3.6	-7.2	-6.3	-5.3
Japan	1.9	0.6	0.5	0.1	-0.5	1.7	1.3	1.8	2.1	-10.0	-9.5	-7.8
Euroland	-0.5	0.0	1.0	2.5	1.8	1.7	0.4	0.5	0.7	-3.2	-2.6	-2.0
Germany	0.8	0.8	1.5	2.0	1.7	1.9	6.1	5.3	5.0	-0.1	-0.4	-0.1
France	-0.1	-0.2	1.2	2.3	1.7	1.6	-2.5	-2.9	-2.7	-4.8	-3.6	-2.8
Italy	-2.4	-0.7	0.5	3.4	2.1	1.7	-0.5	0.3	0.2	-2.7	-2.1	-2.1
Spain	-1.5	-1.1	0.9	3.4	2.1	1.7	-2.9	-2.1	-1.2	-6.4	-5.0	-3.7
UK	-0.3	1.0	1.8	2.8	2.3	1.9	-2.3	-2.1	-1.8	-7.1	-7.2	-5.4
Sweden	1.0	1.5	2.2	1.4	1.7	2.0	6.2	5.4	5.2	-0.5	0.5	1.0
Denmark	-0.2	1.2	1.6	2.3	2.0	2.0	5.5	5.0	5.0	-4.5	-3.0	-2.0
Norway	3.5	2.0	2.5	1.0	2.0	2.0	15.0	14.0	13.0	11.0	10.5	10.0
Poland	2.4	1.9	2.5	3.9	2.7	2.3	-4.0	-3.6	-3.9	-3.6	-3.3	-2.9
Hungary	-1.3	1.0	2.8	5.6	3.8	3.4	1.6	1.5	0.8	-3.0	-2.9	-2.5
Czech Republic	-0.8	1.0	3.4	3.2	2.4	2.1	-1.9	-2.0	-2.4	-3.5	-3.2	-2.7
Australia	3.6	2.4	3.4	1.8	3.0	2.8	-3.5	-4.5	-4.1	-3.0	0.1	0.1
Canada	2.1	2.5	2.9	1.8	2.4	2.1	-2.6	-1.9	-1.3	-1.7	-1.5	-0.9
Asia (ex Japan)	6.1	6.7	6.9	3.9	4.1	4.0	1.5	1.1	0.7	-2.9	-2.7	-2.6
India	5.6	6.7	7.0	7.4	6.8	6.4	-3.2	-3.0	-3.0	-8.0	-7.5	-7.3
China	7.7	8.2	8.0	2.8	3.2	3.0	2.7	2.0	1.3	-1.5	-1.5	-1.5
Latin America	2.9	3.9	4.0	7.9	7.9	8.3	-1.2	-1.3	-1.4	-2.0	-1.8	-2.0
Brazil	1.5	4.2	4.5	5.3	5.1	5.8	-2.3	-2.6	-2.7	-1.9	-1.4	-2.0
EMEA	3.0	3.6	4.0	5.2	5.6	5.2	1.8	1.4	0.4	-0.6	-0.6	-0.7
Russia	4.0	4.3	4.2	5.2	7.4	6.1	4.3	3.4	1.5	0.1	0.0	0.2
G7	1.3	1.3	2.2	1.9	1.8	2.2						
World	2.9	3.2	3.8	3.3	3.4	3.5						

(a) Euroland forecasts as at the last forecast round on 27/09/12. Bold figures signal upward revisions, bold, underlined figures signal downward revisions. (b) GDP figures refer to working day adjusted data. (c) HICP figures for euro-zone countries and the UK (d) Current account figures for Euro area countries include intra regional transactions.

Forecasts: G7 quarterly GDP growth

% qoq saar/annual: % yoy	Q1 12	Q2 12	Q3 12F	Q4 12F	2012	Q1 13F	Q2 13F	Q3 13F	Q4 13F	2013F	2014F
US	2.0	1.3	1.7	1.8	2.1	1.5	2.0	3.2	3.6	2.0	3.1
Japan	5.3	0.7	-2.9	0.1	1.9	0.9	1.6	1.6	2.3	0.6	0.5
Euroland	0.0	-0.7	-1.1	-0.9	-0.5	0.0	0.9	1.1	0.8	0.0	1.0
Germany	2.0	1.1	0.4	0.4	0.8	0.8	1.2	1.6	0.8	0.8	1.5
France	0.1	-0.1	-1.3	-1.5	-0.1	-0.1	0.5	0.8	1.1	-0.2	1.2
Italy	-3.6	-3.0	-2.2	-1.2	-2.4	-0.6	0.0	0.8	0.5	-0.7	0.5
UK	-1.2	-1.5	2.2	0.6	-0.3	0.8	1.2	1.6	1.8	1.0	1.8
Canada	1.8	1.9	1.7	3.1	2.1	2.1	2.4	3.4	3.3	2.5	2.9
G7	1.7	0.6	0.4	0.9	1.3	1.0	1.6	2.3	2.6	1.3	2.2

Sources: National authorities, Deutsche Bank

What the Fed didn't say: Payrolls at 160k

- **Last month the Fed pushed out the frontiers of monetary easing, both quantitatively and verbally, with a policy that will be conditioned on progress made in improving the labor market. But it provided little or no guidance on how it will be gauging and reacting to labor market developments in the period ahead. The purpose of this piece is to fill in some blanks that the Fed left in its policy announcements.**
- **In terms of what the Fed will be looking at, we reckon that employment growth will be first among equals – in particular nonfarm payrolls. We estimate that the FOMC's economic and policy projections are consistent with payrolls averaging gains of around 160,000 per month through mid-2015, when they have told us they expect the exit process to begin to get under way. There is a range of uncertainty around this estimate. But if the numbers are coming in well below that rate for a number of months (100k or less), look for the Committee to extend the mid-2015 date and possibly step up its QE purchases, and expect just the opposite if they are coming in well above that rate (200k or more).**
- **The employment-to-population ratio (E/POP) will be a more important guide than the unemployment rate with respect to assessing progress that is being made in removing slack and moving the labor market back to more normal levels. This is because swings in labor force participation, which directly affect unemployment but not E/POP, are likely to continue to be unpredictable. Indeed, further declines in participation rates are possible in the near term, and we look for a significant reversal of recent substantial declines at some point further out.**
- **We find that E/POP does a significantly better job than the unemployment rate in tracking the recent and projected course of policy interest rates in standard policy rules. When E/POP is substituted for unemployment in the Taylor Rule, the apparent recent increase in the FOMC's sensitivity to labor market developments is much reduced.**

Introduction¹

In its September FOMC statement and press conference, the Fed made it clear that, going forward, US monetary policy will be driven by developments in

the US labor market. It told us that QE3 will continue until the labor market has shown “substantial” improvement, and the exit from near zero interest rates will not begin until recovery of the economy (read, most importantly, the labor market) is well under way. But while the Fed adopted an outcome-based monetary policy, it did not provide specific guidance about how it would be gauging improvements in the labor market and calibrating policy to those improvements. The absence of such specific guidance certainly provides the FOMC with greater flexibility, but it leaves uncertain just how the market should interpret and react to specific developments in the labor market. September's mixed employment report is a case in point. Does the sudden drop in the unemployment rate from 8.1% to 7.8% mean that the Fed will be less likely to extend QE3 well into 2013 or begin to raise rates sooner than mid-2015? Or, does the continuation of relatively weak payroll employment gains in the neighborhood of 100k per month mean the Fed will expand QE3 and eventually extend its forward guidance beyond mid-2015? The purpose of this week's GEP is to try to fill in where the Fed left off. In particular, we outline some specific numbers for key labor market indicators that are likely to be consistent with the Fed's current policy expectations, and we provide some estimates of what could induce either a faster or a slower exit.

We begin by considering the pros and cons of alternative key indicators of labor market activity, focusing in particular on the unemployment rate and the employment-population ratio, and how they perform in policy rules designed to anticipate or explain Fed policy moves. We then estimate the average growth in payroll employment that is likely to be consistent with the Fed's latest economic and policy forecasts. Our analysis points to the employment-population ratio as a preferred indicator—not perfect, but better than the unemployment rate at this juncture because of its relative insensitivity to likely large cyclical variation in labor force participation and because of the better job it does in yielding a relatively stable policy rule that captures the Fed's reactions to economic developments. We also find that the midpoint of the FOMC's forecast for unemployment is consistent with payroll gains averaging around 160k per month over the next several years. We infer that gains averaging in the neighborhood of 100k would be consistent with the Fed pushing its exit out to well beyond mid-2015, while gains averaging more than 200k would beget a quicker exit, moving it up to as soon as late 2013. These findings are consistent with the limited guidance that Fed folks have provided. For example, in response to a question about how much

¹ We would like to thank Rumki Majumdar, Sourav Dasgupta and Avik Chattopadhyay for their contributions to this research piece.

job growth is consistent with the FOMC's unemployment forecasts following its policy announcement on April 25, 2012, Chairman Bernanke explained, "I don't have an exact answer, but broadly speaking, 150–200,000 jobs or so. But that's a very rough estimate, and, of course, individual participants may have different views."² That was before the Fed extended its verbal guidance on rates from late 2014 to mid-2015. More recently on October 1, Chicago Fed President Evans said in an interview that he would need to observe 200k jobs per month for at least six months before he would consider exiting accommodative policies.³

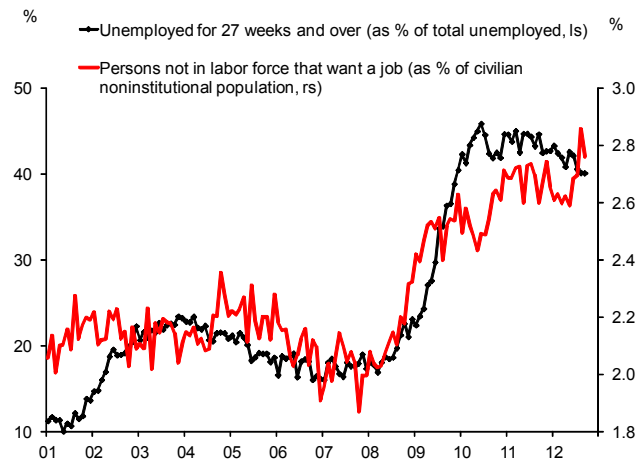
Which labor indicator to focus on

The most commonly cited measure of the current state of the labor market is the unemployment rate (UR). This is the summary measure that the FOMC presents in its forecasts. Since the Fed's dual mandate specifies that it must strive to attain "maximum sustainable employment," it makes sense that it would be monitoring the current level of employment relative to some maximum sustainable level. The UR in effect gauges this maximum as the labor force, which is defined as those members of the working age population that are either employed or unemployed and looking for a job. Absent frictions in the labor market, the Fed would strive to reduce unemployment to zero or to ensure that everyone in the labor force was employed. But because of frictions present in the labor market, the Fed is unable to drive unemployment below a certain level significantly above zero without raising inflation. This so-called non-accelerating inflation rate of unemployment (or NAIRU) is currently estimated by the FOMC to be a bit above 5-1/2%.

In recent years, however, movements in the UR have become a much less accurate indicator of the extent to which the labor market has been tightening or improving. To be counted as unemployed, one has to be actively seeking employment. Since the trough of the Great Recession, the duration of unemployment has increased significantly. As a result, rising numbers of people that might still like to be working have become discouraged and stopped looking for work, thereby dropping out of the labor force (Chart 1). Much of the decline in unemployment has therefore reflected negative

developments in the labor market (i.e., a contraction of the labor force), not positive developments (such as above-trend gains in employment).

Chart 1. More people who want to work leaving labor force as duration of unemployment has risen



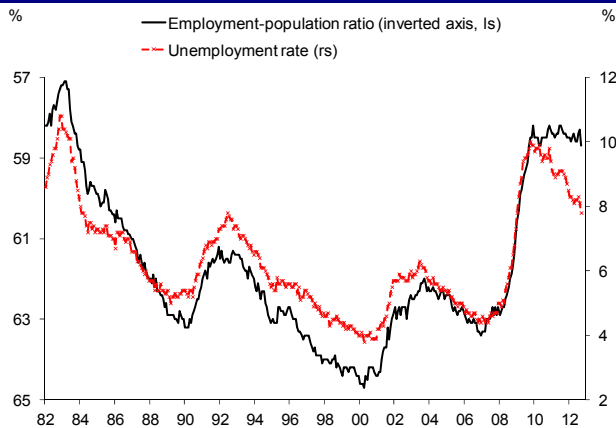
Sources: BLS, Haver Analytics and DB Global Market Research

An alternative measure that has been getting increasing attention is the employment/population ratio (E/POP). This measure differs from the UR in that it assumes that everyone in the working age population (age 16 and over) is potentially employable. As indicated in Chart 2, in the past, this ratio (with scale inverted) has tended to move roughly in line with the UR. But during the current cyclical recovery period, an unusually large gap has emerged between the two series. While the UR has dropped by more than two percentage points from the peak level reached during the great recession, E/POP has moved relatively little. Almost the entire drop in the UR from its peak level three years ago reflects a decline in the labor force participation rate; the growth of employment has done only a little better than keep pace with the growth of the population. Given that many discouraged workers are likely eventually to return to the work force, E/POP may well be a better indicator of the relatively slow progress that is being made in returning the labor market to a more normal level. Uncertainty about the timing of this reversal of the drop in labor force participation makes it more difficult to forecast the UR, which in turn reduces its reliability as an indicator for monetary policy.

² See the transcript from Chairman Bernanke's April 25, 2012 press conference here: <http://www.federalreserve.gov/mediacenter/files/FOMCpresconf20120425.pdf>

³ CNBC's interview with Charles Evans can be found here: <http://video.cnbc.com/gallery/?video=3000118604&play=1>

Chart 2. Employment/Population ratio little changed as unemployment has dropped in recent years



Sources: BLS, Haver Analytics and DB Global Market Research

However, E/POP is not perfect either. Some of the decline in the labor force participation rate in recent years reflects demographic and other factors that will not be reversed anytime soon—the retirement of the baby boom generation is likely removing many older people from the workforce more or less permanently even though participation rates among the elderly have been rising. Likewise, rates of enrollment for higher education have been rising among the young, and that trend may not reverse quickly. The implication is that E/POP may understate the progress that is being made in normalizing the labor market. As we will document below, recent empirical research has suggested that most of the unusual drop in labor force participation in recent years is likely to be reversed in the years ahead. This means that E/POP is, for the time being, likely to be a better gauge of progress in the labor market and therefore a better indicator for Fed policy than the unemployment rate.

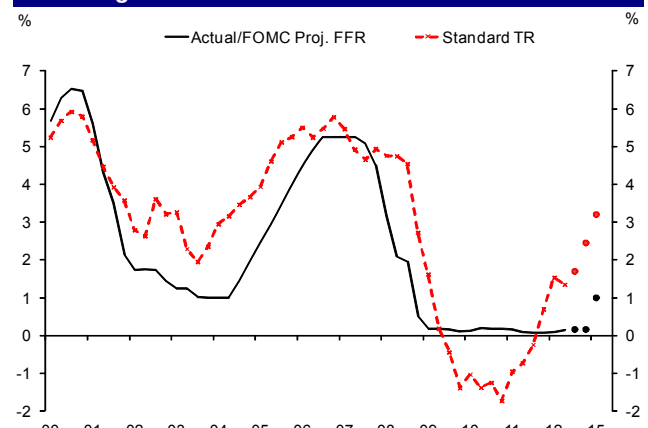
The Fed has not officially sanctioned E/POP as the preferred indicator, but the disconnect between employment growth and the unemployment rate in recent years has led it to advocate publicly taking a broader view of the labor market than is provided by the unemployment rate. In his press conference after the September FOMC meeting Chairman Bernanke observed this disconnect and stressed that the Fed prefers to look at a range of indicators, not just the unemployment rate, in judging progress.⁴ Empirical support for the view that the Fed has reason to place more weight on E/POP for now can be seen in its better performance in standard policy rules.

⁴ See the transcript for Bernanke’s September 13, 2012 press conference here: <http://www.federalreserve.gov/mediacenter/files/FOMCpresconf20120913.pdf>

E/POP provides a better understanding of future Fed policy through a modified Taylor Rule

In response to the FOMC’s more explicit and enhanced conditioning of monetary policy on labor market improvements, there has been significant discussion about whether the FOMC has altered the weight it places on the labor market (relative to inflation) in its reaction function.⁵ To understand where this debate is coming from, consider the standard Taylor Rule depicted in Chart 3.⁶ While the standard Taylor Rule tracks the actual federal funds rate relatively well historically, using the midpoint of the FOMC’s economic forecasts, it predicts a much more aggressive path of rate hikes (shown by the red dots) than the Committee expects (black dots).⁷ The Taylor Rule predicts that the federal funds rate should be well above 2% by the end of 2014; clearly, this is at odds with the FOMC’s midpoint rate forecasts and forward guidance.

Chart 3. Standard Taylor Rule inconsistent with forward guidance



Sources: FRB, Haver Analytics and DB Global Market Research

In light of this discrepancy, FOMC members and Fed watchers alike have indicated that the Fed has significantly increased the relative weight it places on the UR in its reaction function. By increasing its focus on the stubbornly high UR, a more dovish Taylor Rule implies a

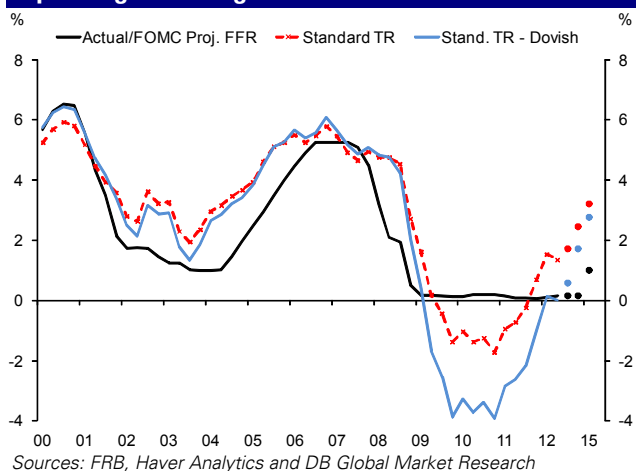
⁵ For example, see “The FOMC’s New Rate Guidance: An Unconventional Reaction Function?” *Monetary Policy Insights: Policy Focus*, Macroeconomic Advisers, October 4, 2012.

⁶ For a more thorough discussion of the Taylor Rule, see our GEP from earlier this year: “US Economic Outlook and Fed Policy Reactions,” *Global Economic Perspectives*, January 27, 2012.

⁷ In making these Taylor Rule projections, we used the median response from the September 2012 FOMC forecast for the actual federal funds rate series from 2013 through 2015. See <http://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20120913.pdf>

lower path for the federal funds rate during the recent crisis and more closely tracks its expected path that is consistent with the FOMC's forward guidance. Chart 4 depicts the predictions from both the standard Taylor rule and a more dovish specification that increases the weight on the unemployment gap by 50% relative to the standard rule. This does move the Taylor Rule's projection closer to the Fed's, but it still leaves the forecasted fed funds rate well above the Fed's expected path. We estimate that it would take a 3.5-fold increase in the coefficient on the unemployment gap to move the rule in line with the Fed's forecast for rates in 2015.

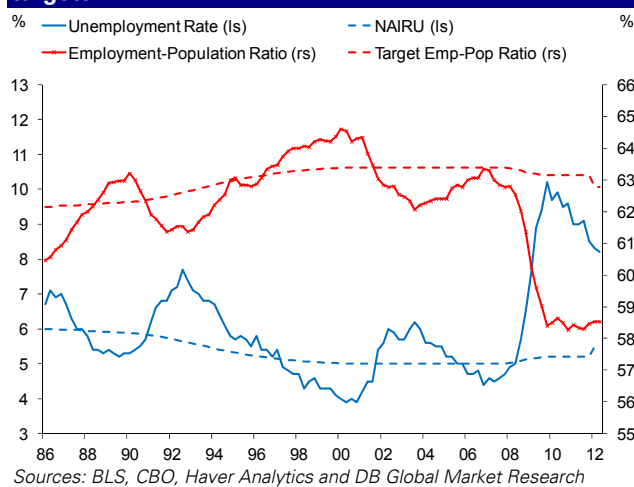
Chart 4. More dovish Taylor Rule also has difficulty explaining forward guidance



As an alternative to drastically increasing the coefficient on unemployment, we have considered a modified Taylor Rule in which an E/POP gap is substituted for the UR gap. The forecasted values of E/POP and the full-employment level of E/POP were derived from (1) regression analysis that determined the best-fit linear historical relationship between E/POP and UR, using (2) FOMC forecasts for unemployment, and (3) CBO forecasts for NAIRU.⁸ Chart 5 shows CBO's estimate for NAIRU and our estimated target value for E/POP, along with the actual values for these statistics. The target E/POP increased sharply from 1986 until 2000, in line with the substantial decline in NAIRU over this period. From 2000 through 2006, the target value for E/POP held steady just below 63.4%, and it declined dramatically in response to the recent crisis, as CBO's estimate for NAIRU jumped. Given the current values for UR and E/POP – 7.8% and 58.7%, respectively – it is clear that the labor market has a significant way to go before it returns to these target values.

⁸ We estimated this equation using monthly data for both variables from 1982 through 2006.

Chart 5. Unemployment and employment-population targets



With an estimate for the target E/POP in hand, we constructed the modified Taylor Rule by replacing the UR and NAIRU with the E/POP and its time-varying target. The predictions of this modification are depicted in Chart 6. The modified Taylor Rule performs as well as the standard Taylor Rule in tracking historical Fed behavior since 2000. More importantly, because E/POP is expected to remain low over the next few years, the modified Taylor Rule points to a federal funds rate that is substantially below the standard Taylor Rule. For example, using the mid-points of the FOMC's central tendency forecast for core PCE inflation and the UR, the standard Taylor Rule recommends that the federal funds rate should be 3.2% at the end of 2015, while the modified Taylor Rule recommends 2.2% (see Table 1). We also considered a more dovish version of the modified rule, in which the coefficient on the unemployment rate gap was increased by 50%. This version comes out very close to the FOMC's projection, with the fed funds rate at 1.2% at the end of 2015.

Chart 6. Modified Taylor Rule matches forward guidance

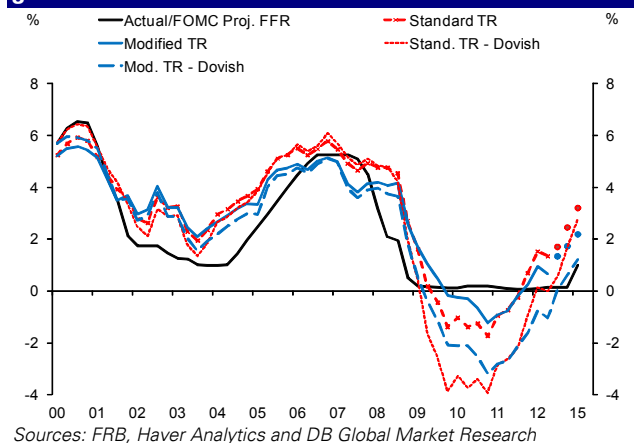


Table 1. Taylor Rule predictions for federal funds rate

Year	Actual /FOM C Proj. FFR	Standard Taylor Rule	Modified Taylor Rule	Standard Taylor Rule - Dovish	Modified Taylor Rule - Dovish
2013	0.2	1.7	1.3	0.6	0.0
2014	0.2	2.5	1.7	1.7	0.6
2015	1.0	3.2	2.2	2.8	1.2

Sources: FRB, Haver Analytics and DB Global Market Research

In sum, because the unemployment rate is being driven by unusual swings in labor force participation that seem likely to be reversed to a significant extent at some point in the future, the employment-population ratio does a better job of tracking the Fed's policy expectations with a more stable policy rule. Even with the E/POP gap substituted for the UR gap, there has been some shift in the rule in a dovish direction, but that shift is substantially smaller than needed if the UR gap is used. Of course, E/POP is not without its drawbacks, including an insensitivity to structural shifts in labor force participation and uncertainty about where the full-employment level of E/POP lies.

Implications for monetary policy

This section discusses how we can use E/POP as a guide to when the Fed will begin to hike rates. We begin by discussing a historical perspective on when the Fed has tightened monetary policy in previous cyclical recovery periods. Because this type of analysis ignores the many longer-term, structural labor market changes that will influence how the Fed conducts monetary policy going forward, we also derive a forecast for nonfarm payrolls directly from the FOMC's forecasts under what we consider plausible assumptions about movements in labor force participation.

When has the Fed tightened historically?

Following previous post-war recessions, the Fed has begun to raise the federal funds rate once the E/POP has risen to about 3% below its pre-recession level on average. Currently, the E/POP at 58.7% is almost 7% below its pre-recession level of 62.9%, and historical experience suggests it would have to rise to about 61% before the Fed began to raise rates. For this to happen by mid-2015 per the Fed's guidance on rates, the economy would have to add approximately 230k jobs per month between now and the middle of 2015.^{9 10} This

⁹ Although the employment-to-population ratio and nonfarm payroll employment are computed from two separate surveys that at times may

value is well above the 150k jobs the labor market has averaged over the past two years.

This estimate is high because it does not allow for structural changes that may have occurred over time in E/POP. As we noted earlier, sustained declines in labor force participation may have reduced both the equilibrium level of E/POP and the monthly employment gains needed to achieve that level. Bernanke addressed this issue in the September FOMC press conference stating, "Some decline in (labor force) participation is anticipated... We're an aging society. We have more people retiring... We're seeing less participation among younger people, fewer college students taking part-time jobs and the like. So part of this decline in participation was something that we anticipated quite a long time ago."¹¹ We will return to this issue below and consider how much the equilibrium level of E/POP may have declined and the extent to which this reduces the employment gains needed to sustain the Fed's expectation of a mid-2015 exit.

What do the FOMC forecasts tell us about the pace of payroll employment gains that will be needed?

We can also estimate an average pace of employment gains that is consistent with the FOMC's forecasts for the UR. To do so though, we also need to construct a forecast for the labor force participation rate. The recent downward trend in the labor force participation rate has been driven by both demographic and economic factors. Demographically, the aging of the baby boomers has led to a declining aggregate labor force participation rate because labor force participation is typically lower for older age groups. Economically, the severe recession

produce divergent results, we use the former to derive implications about nonfarm payrolls in this section because the nonfarm payroll number is both more closely watched and less volatile. The employment numbers from the household survey tend to be more volatile month to month than the payroll numbers from the establishment survey, but over the longer haul the two series generally move together. As a case in point, employment from the HH survey jumped by more than 800k in September (more than fully accounting for the surprising drop in unemployment rate) after having dropped by more than 300k over the previous two months; in comparison, payrolls have fluctuated in a much narrower range between about 50k and 175k per month this year. Both series have averaged gains of about 120k per month from the lows they reached around the end of 2009.

¹⁰ We reach this conclusion by the following calculation: Using the UN forecasts for population growth, the U.S. non-institutional population is predicted to be 246 million in 2015. Since the employment-to-population ratio must rise to 61% under this historical calculation, this implies that total employment will be approximately 150.5 million. Current employment is 143 million in the household survey, so the economy must add almost 7.5 million jobs over the next 33 months, which is about 230,000 jobs per month.

¹¹ See the transcript for this press conference here: <http://www.federalreserve.gov/mediacenter/files/FOMCpresconf20120913.pdf>

produced a significant reduction in the labor force participation rate for people ages 16 to 54 while the participation rate for individuals 55 years or older has actually risen.¹² The question is, how will these factors shaping labor force participation evolve over time?

To address this question, we decompose the labor force participation rate into the labor force participation rate and population shares for different age groups.¹³ This allows us to address the demographic issues in a rather rigorous way by directly using the Census Bureau’s forecasts for the population for each of these age groups through 2015.

To forecast the labor force participation rate for each group, it is important to consider trends within each age group that prevailed prior to the crisis. Chart 7 depicts the aggregate labor force participation rate, as well as the participation rates for individuals aged 16-24, 25-54, and 55 years and older. From 2003 to 2008, the aggregate labor force participation rate consistently fluctuated around 66%. This resulted from a rising participation rate for individuals 55 years and over, and a slight decline in the participation rate for individuals aged 16 through 24. During this time the participation rate for those aged 25-54 was consistently around 83%. For the most part, the trends from the younger and older populations continued into and through the crisis (see Chart 8). However, the participation rate for individuals aged 25 through 54 declined during the crisis, driving the decline in the aggregate participation rate.

Chart 7. LFPR prior to crisis

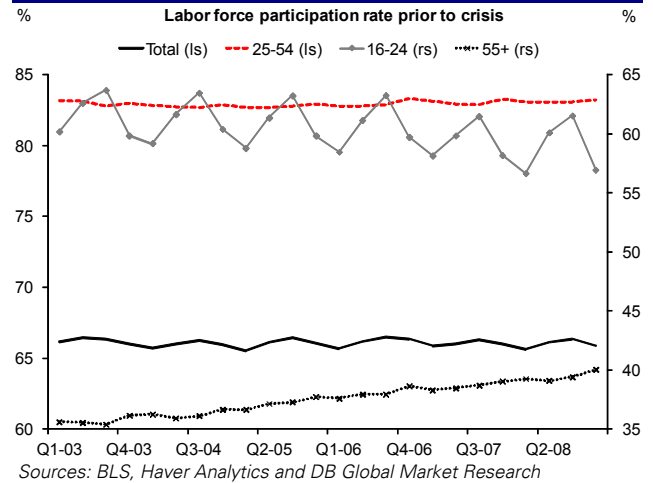
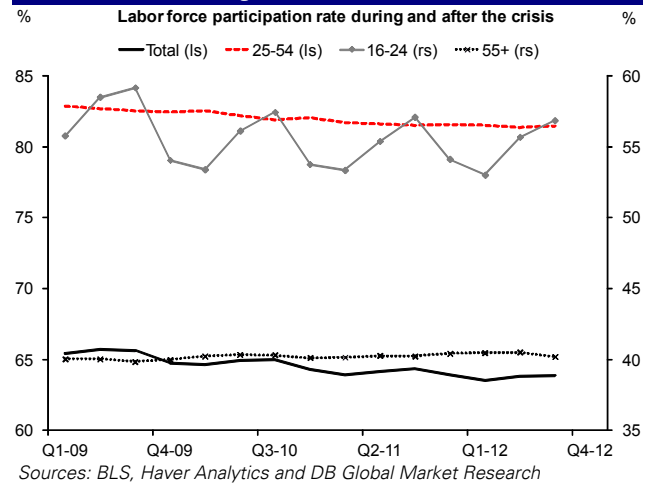


Chart 8. LFPR during and after the crisis



To derive a forecast for the labor force participation rate in 2015, we assume that the participation rate for individuals aged 55 and older remains constant at its recent value of about 40%. For the youngest and middle age groups, we assume that their participation rates return 75% of the way to their 2003-2008 average levels. These assumptions are motivated by the Fed analysis in Aaronson, Davis, and Hu (2012), who find that nearly 75% of the decline in the participation rate for these groups between 2008 and 2011 cannot be captured by demographic or schooling factors.¹⁴ These authors suggest that this decline over this period was driven by cyclical weakness in labor market demand. These assumptions are also consistent with Bernanke’s observation that, “...part of this decline...is cyclical. Part of it reflects the fact that some people—because they

¹² In particular, younger individuals aged 16-24 have reduced their participation rate substantially and have increased their participation in schooling.

¹³ Specifically, we used the following decomposition:
 Labor force / population = (labor force(16-24)/population(16-24))
 *(population(16-24)/population) + (labor force(25-54)/population(25-54))
 *(population(25-54)/population) + (labor force(55+)/population(55+))
 *(population(55+)/population)

¹⁴ Aaronson, Daniel, Jonathan Davis, and Luojia Hu (2012), “Explaining the decline in the U.S. labor force participation rate,” *Chicago Fed Letter*, Federal Reserve Bank of Chicago, issue Mar.

have essentially given up or at least are very discouraged—have decided to leave the labor force. And the anticipation is that if the economy really were to strengthen, and labor markets were to strengthen, at least some of those people would come back into the labor force.”¹⁵ Conditional on these assumptions, we forecast that the aggregate labor force participation rate will be approximately 64.5% in 2015.¹⁶ This prediction is right in line with an earlier study by the BLS, which forecasted the participation rate to be 64.6% in 2015.¹⁷

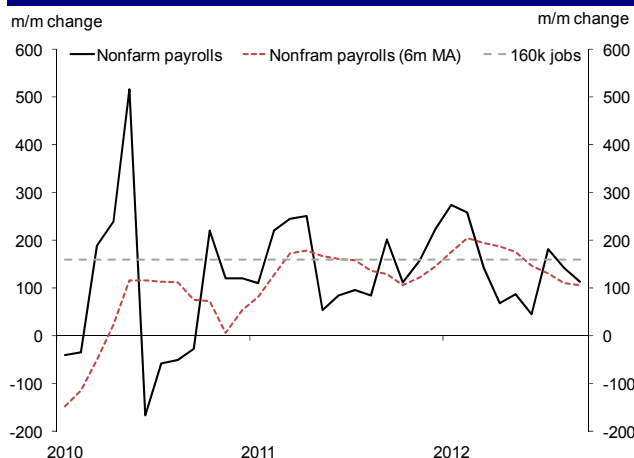
We use our forecast for the labor force participation rate to infer how many nonfarm payroll jobs the economy must add between now and June 2015 to be consistent with the FOMC’s UR forecasts.¹⁸ Table 2 shows these results. Interpolating the FOMC’s midpoint UR forecasts for 2014 and 2015, they expect the UR to be 6.7% by mid-2015. To be consistent with this forecast, the economy must add 160k nonfarm payroll jobs per month on average (see Chart 9 for a graphical representation of this conclusion). Table 2 also presents alternative scenarios that have been discussed by Presidents Kocherlakota and Evans. Under Kocherlakota’s proposal, the Fed should not start to tighten until the UR declines to 5.5%. For this to occur by mid-2015, the economy would have to add about 210k jobs per month. Evans’ proposal is less aggressive, suggesting that the Fed should not begin to tighten until the UR hits 7%. For this to be achieved by mid-2015, the economy would have to add 140k jobs per month on average – a bit less than what is implied by the midpoint of the FOMC’s central tendency forecast. These values are remarkably consistent with Bernanke’s “rough estimate” of how many jobs the economy needs to add per month to be consistent with forecasts.

Table 2 Economy must add 160k jobs per month

<u>Scenario</u>	<u>NF Payroll Jobs per Month (1,000s)</u>
FOMC's midpoint Forecast	160
Kocherlakota (5.5% UE / 2.2% Infl.)	210
Evans (7% UE / 3% Infl.)	140
Historical Fed Practice based on employment to population ratio	230
Historical Fed Practice (allowing for reduction in equilibrium E/POP)	160

Sources: FRB and DB Global Market Research

Chart 9. Nonfarm payrolls running significantly below 160k threshold



Sources: BLS, Haver Analytics and DB Global Market Research

The first three estimates in Table 2 are below (some significantly below) what we noted earlier can be drawn from a historical perspective. If the Fed’s E/POP reaction policy follows the same pattern as it has historically (i.e., requiring E/POP to rise to within 3% of its pre-recession peak before they begin to raise rates) the labor market would need to add 230k jobs per month on average between now and mid-2015. However, this estimate assumes that the equilibrium level of E/POP is constant over time. In fact, the equilibrium level of E/POP varies directly with the NAIRU and with secular changes in the labor force participation rate.¹⁹ An

¹⁵ See the transcript for the September 13, 2012 press conference here: <http://www.federalreserve.gov/mediacenter/files/FOMCpresconf20120913.pdf>

¹⁶ An alternative, and in our view equally reasonable, way to arrive at this number is to assume that the participation rate for 25-54 returns to its 2003-2008 average and the other two age groups continue at current levels into 2015.

¹⁷ Szafran, Robert F. (2002), “Age-adjusted labor force participation rates, 1960-2045”, *Monthly Labor Review*. <http://www.bls.gov/opub/mlr/2002/09/art3full.pdf>

¹⁸ An example of this type of calculation was provided in footnote 10.

¹⁹ We derive this result by noting that the unemployment rate is defined as:

$$UR = 100 \times (1 - E/LFPR \times POP) \quad (1)$$

average of estimates implies that NAIRU has risen to approximately 6%, about ½% higher than FOMC and CBO estimates. At the same time, it is plausible to think that because of population aging and other structural factors, the labor force participation rate will eventually recover to a noticeably lower level than the 66% average during the 25 years leading up to the great recession. The projections we discussed above had it returning to 64.5% by mid-2015, and due to the continued aging of the labor force, its average level will likely decline a bit further. When accounting for the rise in the NAIRU, this yields a net decline in the equilibrium E/POP level of about 2.5 percentage points. Interestingly, if the economy generates approximately 160k jobs on average from now until mid-2015, the E/POP will hit its equilibrium value at that time. However, if the FOMC's projections for NAIRU are correct, it would require more than 160k jobs per month to reach the equilibrium E/POP value by mid-2015. The estimates in Table 2 apply equally to average monthly changes in payroll employment and monthly changes in employment reported in the household survey, with the caveat that the household numbers will most likely continue to be much more volatile month to month.

Conclusion

The Fed's recent shift to conditioning monetary policy on a qualitative improvement in the labor market has raised many questions about how to predict future policy changes and how to determine if the economy is on track for an initial rate hike in mid-2015. The complexities in trying to gauge possible modifications to the Fed's expected policy path are increased by uncertainty about which labor market indicators the Fed will focus on, and about just what constitutes a significant and sustained improvement in these indicators. Our intent has been to try to fill in some of the blanks the Fed left in its September FOMC statement and press conference.

Our analysis offers two simple guidelines to help identify the labor market outcomes the Fed will be looking for to drive policy going forward. First, for at least the next several years, the employment-population ratio is likely to give a better signal than the unemployment rate of how the Fed sees progress in labor market unfolding. This measure has been and will continue to be buffeted far less by unpredictable swings in labor force participation than the unemployment rate and therefore provides a more reliable gauge of the degree of

underlying weakness in the labor market. It also has proven to yield a more stable version of the Taylor rule than the unemployment gap, and therefore a better indication of where the Fed may be headed.

Second, to put some specific numbers on the table, we estimate that the economy will have to add an average of around 160k nonfarm payroll jobs per month until mid-2015 to be consistent with the FOMC's economic and policy forecasts. If the economy is able to maintain this pace, we expect the FOMC to begin raising rates in line with its mid-2015 guidance. However, if the labor market is consistently below this pace, as it has been recently, we expect the FOMC will engage in further easing by extending both its low-for-long guidance beyond-mid-2015 and possibly by expanding its QE3 program beyond the \$600 bn to \$800 bn purchases of MBS and Treasuries that we currently anticipate. Alternatively, if conditions improve significantly more, with payroll gains pushing toward 200k on average, we could expect the Fed to revise its verbal guidance and begin the exit process sooner than now anticipated; it could also scale back and terminate QE3 considerably sooner than the one-year horizon we now expect.

Peter Hooper +1 (212) 250 7352

Torsten Slok +1 (212) 250 2155

Matthew Luzzetti +1 (212) 250 6161

Where LFPR is the labor force participation rate. Equation (1) can be rearranged to express E/POP in terms of UR and LFPR:

$$E/POP = LFPR \times (1 - UR/100) \quad (2)$$

Thus, the equilibrium level of E/POP will vary with secular changes in LFPR and with the equilibrium unemployment rate or NAIRU.

Is China *really* growing 7.4%?

- **Investors appear to have grown increasingly wary of GDP data in China, noting that “bottom-up” data suggest growth may be much weaker than is being reported.**
- **If GDP growth is systematically over- or under-reported, it matters little – except to bruised egos. Potential growth would likewise be over- or underestimated and policy implications would be the same, based on essentially unchanged conclusions regarding growth relative to potential.**
- **But it would matter if growth in recent quarters were being overstated to avoid revealing ‘true’ weakness in the economy. So for that reason, this debate is of interest.**
- **We use electricity consumption, rail freight traffic, petroleum consumption, the official PMI index and bank loan growth as “bottom-up” indicators of GDP growth.**
- **In each case, we find that these indicators’ recent values are consistent with higher GDP growth than what has been reported this year. If anything, therefore, officials appear to be shading growth figures downward to be consistent with the official target of 7.5% growth rather than offering an overly rosy view of the economy.**

Introduction

China reported Q3 GDP growth of 7.4%, in line with consensus expectations. YoY growth has slowed almost uninterrupted since peaking at the post-GFC high of 12.1% in 2010Q1. Aside from 2009Q1’s 6.6% growth, this is the slowest reported rate of growth since 2001. We construct a quarterly real GDP series using official YoY growth rates and an estimated quarterly profile for 2005 real GDP. That yields an estimated QoQ(saar) growth rate of 7.6% in Q3, up from 7.1% in Q2 and 6.6% in Q1. The economy appears to have been strengthening in recent months after a very weak start to the year. And yet we find the majority of investors think the economy is likely growing more slowly than this.

Investors have plenty of cause for caution on Chinese economic data. For such an important economy, the way data are often presented – for example, there are no quarterly real or nominal national expenditure accounts and many data are still reported only as YoY growth rates or as ytd values – adds what we regard as an

unnecessary level of obfuscation that breeds distrust. Years ago, when quarterly GDP reports were published even before the end of the quarter – as they are still in Vietnam today – it was certainly appropriate to wonder whether the data meant anything at all.

But since Wikileaks published in 2010 a report in which it was alleged that now premier-designate Li Keqiang told a US diplomat in 2007 that Chinese data were “man made” and thus not to be trusted, the cottage industry of analysts trying to find out how fast China is *really* growing has gained momentum.

We’ve not often commented on this issue because it really doesn’t matter. Since what matters for policy is whether the economy is overheating or growing so slowly that unemployment is rising, the relevant assessment is growth relative to potential rather than the rate of growth itself. If the government is systematically overestimating or underestimating growth, then estimates of potential growth would similarly be systematically over- or underestimated. The only implication of systematic overstatement would be that China’s economic size compared with other countries would be exaggerated – the only consequence being bruised egos, we think.

But this year we’ve found hardly a meeting has gone by without an investor offering his or her own favourite bottom-up indicator of GDP growth to “prove” that the government is dressing up the numbers and the economy is much weaker than China says it is.

Since it is being alleged that growth has slowed much more than the government’s GDP estimates indicate, this is a question we can shed light on – unlike the possibility that growth has always been exaggerated or under-reported.

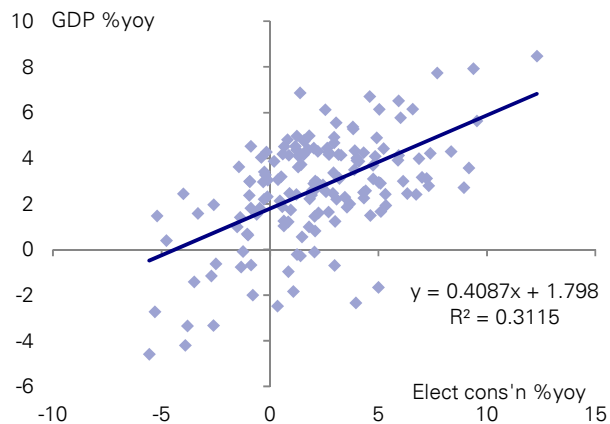
So, in this short note we will examine the indicators most commonly offered to us – including the same ones, in fact, that Mr. Li reportedly uses – for what they have to say about GDP growth today relative to quarters and years past. Most readers will be surprised to discover, we think, that electricity consumption, rail freight traffic, petroleum consumption, the PMI survey and credit data all suggest that, if anything, the authorities may be underestimating growth today.

Electricity consumption and GDP growth

The most commonly cited indicator we’ve been offered is the growth in electricity consumption. Very frequently we have been told that since electricity consumption growth was only 5.5% in the first half of the year, GDP growth couldn’t have been as strong as 7.8%. But there’s no reason that there should be a 1:1 relationship

between electricity consumption and GDP. Even in the US, the relationship between these two variables is a loose one – an R² of only 0.31 – and electricity consumption rises and falls about twice as fast as GDP growth.

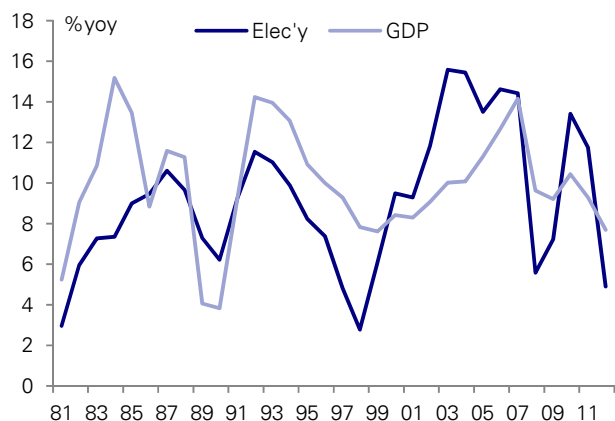
Electricity consumption and GDP in the US



Sources: CEIC and Deutsche Bank. Quarterly data from 1974.

For China, we have annual data on electricity consumption since 1982 and clearly electricity consumption growth is more volatile than GDP growth.

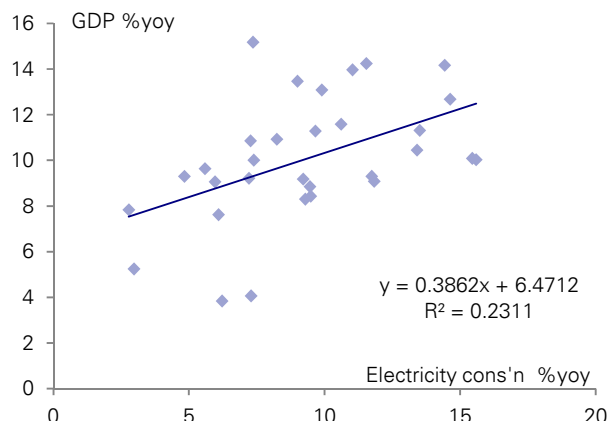
Electricity consumption and GDP growth in China



Sources: CEIC and Deutsche Bank. 2012 observation is ytd as of September.

Indeed, the statistical relationship between electricity consumption and GDP growth is not too dissimilar from that for the US. Year-to-date electricity consumption growth of 4.9% would imply GDP growth of 8.4%ytd. The government reported ytd GDP growth of 7.7%. We also have quarterly data since 2004, which give a similar result: an implied GDP growth rate in Q3 of 8.8% versus the official growth rate of 7.4%.

Electricity consumption and GDP in China



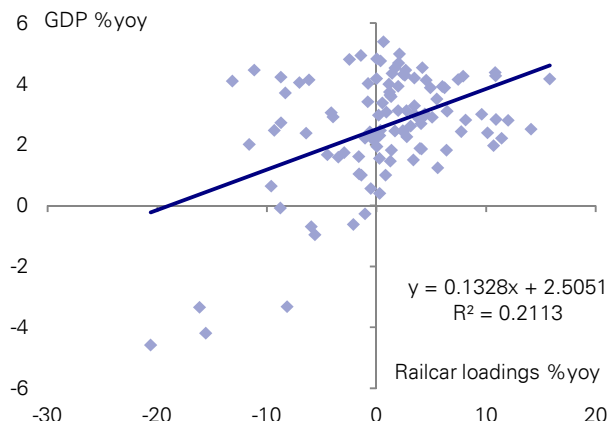
Sources: CEIC and Deutsche Bank. Annual data from 1982 to 2011.

So, if all you had to go on was analysis of electricity consumption growth, you would likely conclude that officials are underestimating GDP growth this year.

Rail freight traffic

We consider next the relationship between rail freight traffic and GDP. In the US, railcar loadings are not a particularly good indicator of current quarter GDP growth. They are a useful part of the picture but by themselves have weak explanatory power.

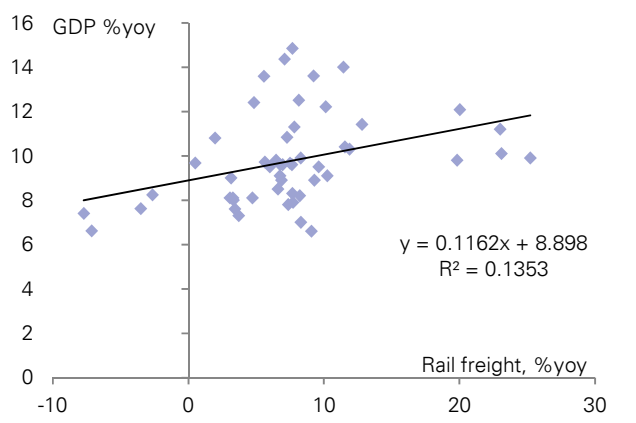
Railcar loadings and GDP in the US



Sources: CEIC, Haver and Deutsche Bank. Quarterly data since 1974.

We would not expect rail freight to be much better as an indicator of GDP growth in China, and indeed that's what we find. We have 12 years of quarterly data, with an R² of only 0.13. It's marginally lower using annual data since 1982. But as with electricity consumption, the relationship between rail freight and GDP growth suggests that if anything GDP is being underestimated. Rail freight volume growth has been 1.3%ytd as of August but -7.7% in July/Aug. The former measure would indicate ytd GDP growth is actually about 9%, the Q3 figure alone would imply Q3 GDP growth of about 8%. Again, both are higher than the official ytd or yoy growth rates in Q3.

Rail freight carried and GDP growth in China

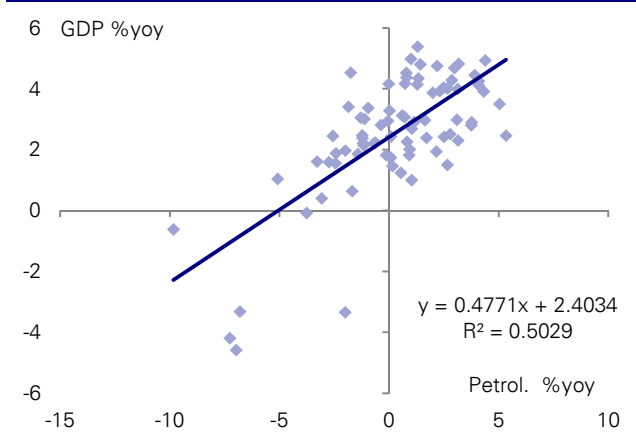


Sources: CEIC and Deutsche Bank

Diesel and gasoline consumption and GDP in China

Some investors recently have proposed that fuel consumption is a good bottom-up indicator. Here again, recent growth rates have been much weaker than GDP growth. But in fact combined diesel and gasoline consumption growth has been consistently slower than GDP growth since 2005. Interestingly, in the US, petroleum consumption is a good indicator for GDP growth – better than electricity consumption.

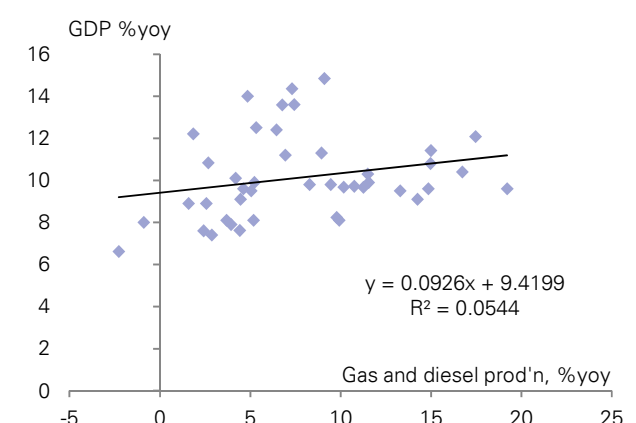
Petroleum product consumption and GDP in the US



Sources: CEIC and Deutsche Bank. Quarterly data from 1993.

But when we look at the data in China – and granted we only have data since 2002 – we find almost no relationship at all. This isn't too surprising. There are only about 75mn passenger cars in China and long-distance travel is mostly by rail. So the fact that gas and diesel consumption growth is only 2.9% in Q3 tells us almost nothing about GDP. But for the record, the regression line would suggest that GDP growth would be expected to be about 9.7% in Q3.

Diesel and gasoline consumption and GDP in China

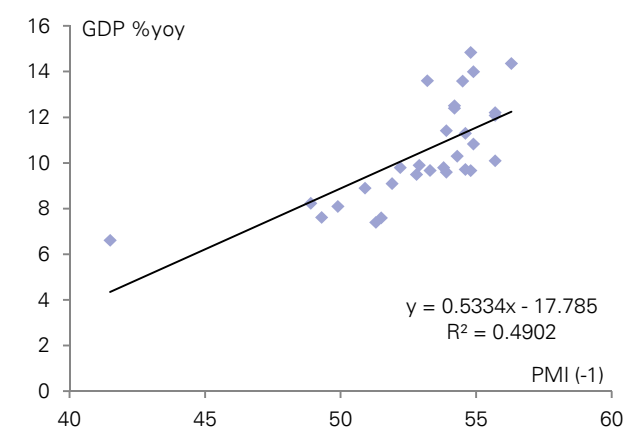


Sources: CEIC and Deutsche Bank. Quarterly data from 2002.

The market favourite: PMI

Li Keqiang didn't mention the official PMI survey as a useful bottom-up indicator but for investors of course it is one of the most important. And while its relationship to IP growth at the monthly level is weak, the quarterly average PMI does correlate very well with GDP. Since the PMI survey really asks about sequential growth, we prefer to plot it against our estimate of QoQ(saar) growth. But to avoid charges of bias against our constructed QoQ series, we show instead the relationship between YoY GDP growth and the previous quarter's average PMI. The fit is a good one and the PMI has the added advantage of being a leading indicator rather than a coincident indicator. But again, when we plug the Q2 average PMI into the regression, we find a fitted value for Q3 GDP growth of 9.6%. For interest, if we exclude the 2008Q3 "outlier" the implied 2012Q3 real GDP growth rate is still 9%, well above the reported growth rate of 7.4%.

Official PMI and GDP growth in China

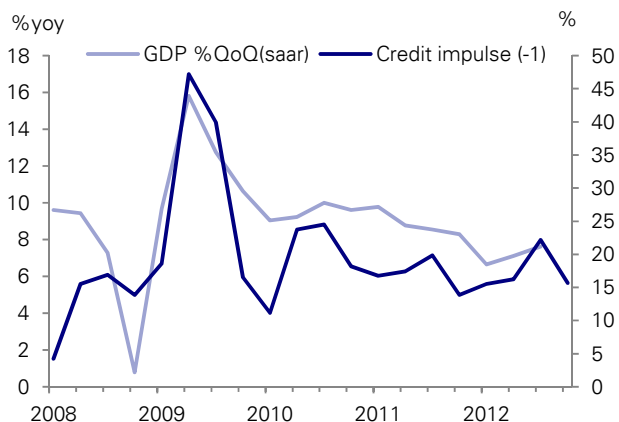


Sources: CEIC and Deutsche Bank. Quarterly data from 2005.

Our favourite: credit

Our preferred bottom-up measure of activity in China – and one that Li Keqiang did reportedly point to – is credit growth. But as our colleague Michael Biggs has taught us over the years, the credit impulse has a better track record than credit growth in explaining GDP growth. So in the chart below we plot a measure of the credit impulse – the quarterly flow of net new bank lending divided by previous quarter nominal GDP – against our estimate of QoQ(saar) GDP growth. There’s really only a relationship at all for the past few years, where we’ve had such pronounced volatility in credit and GDP growth.

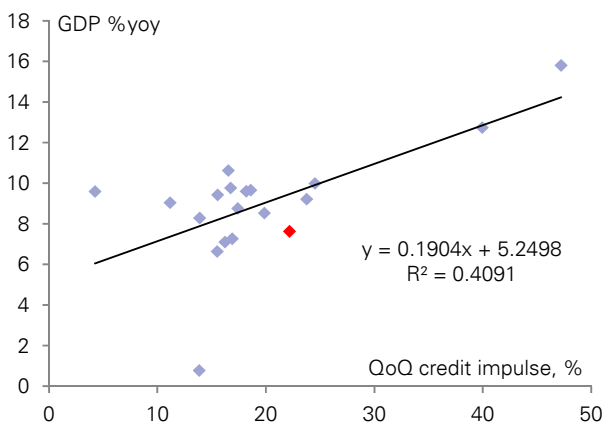
Credit impulse and GDP in China



Sources: CEIC and Deutsche Bank. Quarterly data from 2002.

When we use the credit impulse to forecast next-quarter QoQ GDP growth, there is a good fit and as with all of the indicators considered so far, the implied GDP growth rate is much higher than the actual – in this case our estimated – QoQ(saar) GDP growth rate. Indeed, credit growth in Q2 would have been consistent with QoQ(saar) GDP growth of 9.6% or about 8%yoy growth.

Credit impulse and GDP in China



Sources: CEIC and Deutsche Bank. Quarterly data from 2008.

Summary

The idea that the official GDP data in China are biased is widely held in the investment community. It’s true that years ago there was reason to doubt the reliability of a figure that came out before the quarter-end. But we think the government has put considerable effort into improving the quality of the national GDP data – which are compiled separately from the provincial data. We would prefer they adopt the convention of offering quarterly data other than just GDP growth broken down into primary, secondary and tertiary sectors. No real expenditure data are provided at all, which complicates analysis and comparison with other economies.

If there is a constant bias in the GDP data, it would be of little consequence except in the “league tables” of GDP levels, which interests us not the least. If GDP growth *really* was 7% through the 1990s and 2000s not 10%, it would not likely have changed policymakers’ assessments of whether the economy was growing too quickly or not quickly enough. That is, a shift up or down in the growth figures would affect estimates of potential output, leaving measures of the output gap qualitatively unchanged.

But it would matter if statisticians were concealing from the public – and even more so if they were concealing from policymakers – evidence that the economy in recent quarters has been growing substantially more slowly than they are willing to admit.

We have seen some rudimentary attempts to argue that this deception has been practiced. Some commentators seem to assume a 1:1 relationship between their preferred indicator and GDP growth, though we see no reason to believe that would be appropriate. Some commentators rely on exceptionally short samples for ‘evidence’.

In this note we have examined five pieces of data: electricity consumption, rail freight carried, petroleum product output, the PMI survey and bank loan growth and asked the following question: if this piece of data were all you had to go on, would you think GDP growth is higher or lower than what the government reports? In each case, it would appear that growth is understated, not overstated. So, if anything, the economy may be growing faster than the government says it is.

Michael Spencer, +852 2203 8303

Central Bank Watch

US

The Fed gave us both a very strong verbal easing and a new quantitative expansion policy. It said that it expects to extend its holding of policy rates near zero to at least mid-2015 and that it will not begin to exit until well after the economic recovery has strengthened. It also implemented an adjustable and open-ended new program of security purchases while retaining its existing maturity program and its reinvestment of principal payments on its security holdings. Its QE3 purchases focus for the time being on MBS (USD40bn per month). This program is to continue until the outlook for the labor market has improved substantially and could well be expanded before it ends. We expect the Fed to make an additional USD500-750bn purchase of MBS and Treasuries over the year ahead before winding the program down in the second half of 2013. These purchases could reduce real long-term yields and boost asset prices (most importantly the stock market) by enough to add ½% to ¾% or more to the level of real GDP over the year ahead.

	Current	Dec-12	Mar-13	Dec-13
Fed funds rate	0 – 0.25	0 – 0.25	0 – 0.25	0 – 0.25

Japan

The BoJ kept its policy stance – rates and the size of the Asset Purchase Program – unchanged last month. With growth slowing, further increases in the APP are likely. But by our reckoning the current pace of asset purchases – about JPY5tn per quarter – is insufficient to propel Japan out of deflation.

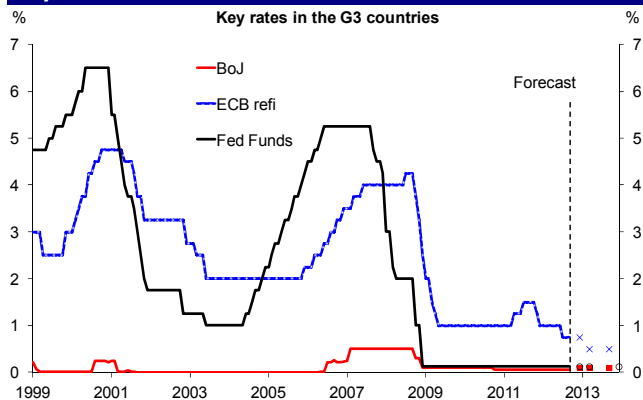
	Current	Dec-12	Mar-13	Sep-13
ON rate	0 – 0.1	0 – 0.1	0 – 0.1	0 – 0.1

Euroland

In September Draghi delivered as good a sovereign bond purchasing facility as might have been expected. There are no ex ante limits being placed on OMT purchases, and the design had the support of all the Governing Council members except for Bundesbank President Jens Weidmann. At the same time the ECB neither cut rates nor eased general collateral rules at the September meeting. In October Draghi basically re-affirmed these messages. We continue to think that a pre-emptive refi cut would be a hard sell to the Governing Council due to concerns in Germany about rising inflation expectations, following likely OMT purchases. We see the ECB waiting until Q1 2013 before delivering one 25 bps refi cut and only cutting the deposit rate into negative territory in the event of a further material economic deterioration.

	Current	Dec-12	Mar-13	Sep-13
Refi rate	0.75	0.75	0.50	0.50

Key rates in the G3 countries



UK

The Bank of England announced a further GBP50bn of QE at its July meeting, with gilt purchases to be conducted over the coming four months (until 31 October). The run rate is GBP3bn per week, equally split in the three maturity buckets – 3-7Y, 7-15Y and 15Y plus – as outlined at the February meeting. In the meetings since July there has been little risk of further QE, not only because inflation has been stickier than expected, but also because the Bank needed to allow time for QE and the FLS to take effect. There is a greater risk of more QE being announced at the November meeting as the current programme will have ended by then and it is also an *Inflation Report* meeting. However, our current view is that the Bank of England will stay at GBP375bn.

	Current	Dec-12	Mar-13	Sep-13
Bank rate	0.50	0.50	0.50	0.50

Sweden

The Riksbank surprised by cutting rates in September. The risks are building for further action though we currently do not expect a move on 25 October.

	Current	Dec-12	Mar-13	Sep-13
Repo rate	1.25	1.25	1.25	1.25

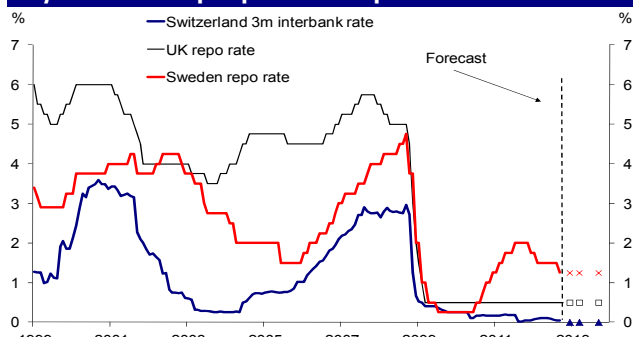
Switzerland

The SNB opted to keep its EUR/CHF floor at 1.20 at its September meeting, but downgraded the outlook for growth and inflation. Next meeting: 13 Dec.

	Current	Dec-12	Mar-13	Sep-13
3M Libor tgt	0.00	0.00	0.00	0.00

Central Bank Watch

Key rates in the peripheral European countries



Source: SRB, SNB, BoE, Haver Analytics, DB Global Markets Research

Canada

Despite a slight pickup in home sales, Governor Carney's observation that uncertainty about Europe and the United States appears to have abated somewhat and the recent better-than-expected US data flow, it is unlikely that the Bank will adopt a less stimulative policy stance in the near term given the scaled-back investment and sales outlook and the muted outlook for inflation in the Business Outlook Survey and the neutral tone of Governor Carney's speech. This assumes that the US does not hit the "fiscal cliff" at the end of the year and that uncertainty on both sides of the border moderates in the wake of the US election.

	Current	Dec-12	Jun-13	Dec-13
ON rate	1.00	1.00	1.50	2.00

Australia

A strong rally in the early days of August 2011 left the market pricing in more than 100bp of rate cuts over the next 12 months and somewhat more than this to the end of 2012. At the time this pricing looked to be well in excess of what even the most bullish interest rate commentators thought possible, let alone likely. As it happens the market pretty much got the 12M outlook right in the latter part of last year, though it was too aggressive in its near-term expectations. History suggests the rally doesn't conclusively come to an end until the RBA has finished easing. This means we must use our thinking about the duration of the cycle to make a judgment about when to go short. Since we are looking for several more rate cuts, we believe it is premature to do so.

	Current	Dec-12	Jun-13	Dec-13
OC rate	3.25	3.00	2.50	2.50

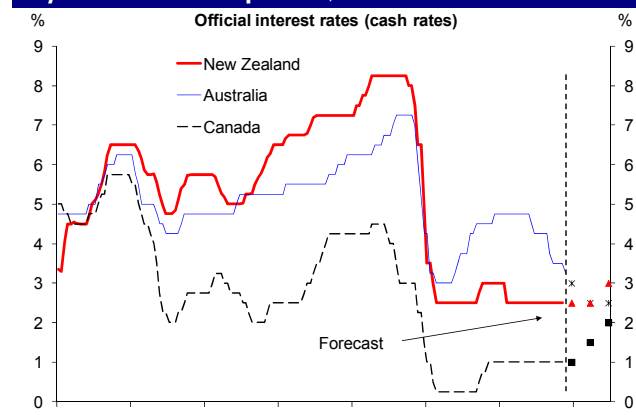
New Zealand

The OCR has been at 2.5% since it was reduced in March last year in the aftermath of the Christchurch earthquake. The RBNZ's September Monetary Policy Statement – prepared under former Governor Alan Bollard – projected

only a modest pick-up in inflation. As a result, the RBNZ said that it expects the OCR to remain at 2.5% until late next year, rising only gradually thereafter.

	Current	Dec-12	Jun-13	Dec-13
OC rate	2.50	2.50	2.50	3.00

Key rates in the Peripheral \$-bloc



Source: RBNZ, BoC, RBA, Haver Analytics, DB Global Markets Research

China

September PPI fell 0.1% mom and 3.6% yoy, due to weaker prices of processed goods and the base effect. However, given the weekly trend of a few major raw material prices, we believe a modest raw material price recovery is taking place and will continue through October, and PPI deflation will likely narrow to 1.4% in December. CPI inflation came in at 1.9% yoy in September, marginally below August's 2%. The decline in CPI inflation is mainly due to very weak food prices in the past few weeks. The food price index rose only 2.5% yoy, which is significantly lower than the historical average of about 5%. In particular, pork prices fell 18% yoy in September, but this trend is not sustainable as the ratio of pork price to grain price declined to only 5.8 times, vs. the long-term average of 7 times. With the gradual recovery of the economy, we expect CPI inflation to move towards 3% next year. In short, despite the short-term weakness of PPI and CPI inflation, we believe the trough is behind us and the scope for PBOC's rate cuts is getting limited.

	Current	Dec-12	Mar-13	Sep-13
1-year rate	3.00	3.00	3.00	3.00

India

The Reserve Bank of India left its key policy rates unchanged during the September 17 policy meeting, although it cut the cash reserve ratio by 25bps to 4.50%,

Central Bank Watch

in a nod to supporting liquidity and perhaps to be seen as seconding the government's reform agenda. The RBI is keen to support growth but is clearly constrained by the inflation situation. CPI and WPI trends are worrisome, with a likely poor harvest, global liquidity-led spike in commodity prices, and lagged impact of a sharp rupee depreciation posing as pipeline risks. WPI inflation moved up to 7.8% in September (7.6% in August), driven primarily by the administrative fuel price hikes implemented last month. While the increase in fuel and electricity prices (+4% mom, 11.9% yoy) was not surprising, there wasn't much room for comfort in other data either. Primary articles (+0.5% mom, 8.8% yoy) and food (+0.6% mom, 7.9% yoy) firmed up, with worrisome trends seen with cereals, rice, wheat, egg, meat, and fish. Non-food manufactured goods prices, a proxy for core inflation, were up 5.6% yoy, the highest level since February.

There has been a great deal of chatter in recent weeks about room being made for the Reserve Bank of India to cut interest rates on the back of a number of measures taken by the government in recent weeks toward fiscal consolidation and improving the investment environment. We think this is highly unlikely. Inflation is still high, as seen in today's data, and there are risks ahead from second-round effects of increased energy pricing and a likely pick-up in food prices if the autumn/winter harvest disappoints. Reforms have only begun and their durability and effectiveness are yet to be seen. We don't think the central bank will be in a position to touch the policy rate this year, although more measures to support liquidity could well be expected.

	Current	Dec12	Mar 13	Sep 13
Repo rate	8.00	8.00	7.75	7.00

Brazil

The Central Bank cut the SELIC overnight rate by 25bps to 7.25% in October, and signaled the end of the easing cycle. According to the COPOM statement, "considering the balance of risks to inflation, the Committee understands that stability of monetary conditions for a sufficiently long period is the most adequate strategy to ensure convergence of inflation to the target." Moreover, the decision was not unanimous, as five board members voted for a rate cut, and three voted for no cut. Thus, we now expect the SELIC rate to remain at 7.25% until the end of 2013. Nevertheless, given that the government's main priority is to boost GDP growth, and considering the Central Bank's dovish bias, we cannot completely rule out additional rate cuts in the near future, especially if global economic conditions deteriorate further.

	Current	Oct12	Dec12	Mar13
CBR refi rate	7.25	7.25	7.25	7.25

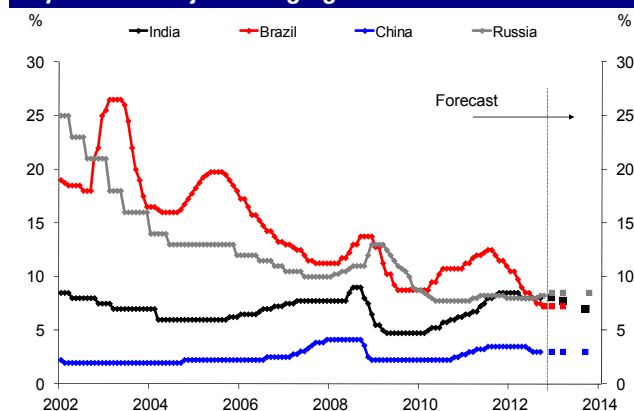
	Current	Dec12	Mar13	Oct13
CBR refi rate	8.25	8.50	8.50	8.50

Russia

The Board of Directors of the Central Bank of Russia (CBR) on 5 October announced its decision to keep key interest rates on hold: refinancing rate at 8.25%, auction repo at 5.50% and fixed depo at 4.25%. The CBR stated that this primarily reflects inflationary risks and economic growth prospects. The CBR stated that in September inflation continued to rise to 6.6% yoy, exceeding the inflation target of some 6% yoy due to food price dynamics and the increase in regulated prices and tariffs. Although core CPI continues to rise, implying that inflation is spreading to other consumer market segments, there is no excessive pressure from the demand side. CBR estimates suggest that GDP remains near its potential level, which does not put excessive pressure on prices from the demand side, despite a slowdown in the key macroeconomic indicators. The CBR notes that the credit market is stabilising; meanwhile, it does not see significant risk of economic slowdown due to the monetary policy tightening in September. Importantly, the CBR did not refer to the adequacy of interest rates for the near term in its announcement. We believe that a potential CPI acceleration may motivate the CBR to hike rates further.

	Current	Dec12	Mar13	Oct13
CBR refi rate	8.25	8.50	8.50	8.50

Key rates in major emerging markets



Source: PBoC, RBI, BCB, CBRF, Haver Analytics, DB Global Markets Research

Trough policy	Global central bank policy rate changes since August 2009																														net											
	2009	2010					2011										2012																									
rate	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Chan		
Israel	0.50	0.75		1.00	1.25		1.50				1.75	2.00					2.25	2.50	3.00						3.00			2.75	2.50						2.25					175		
Australia	3.00		3.25	3.50	3.75		4.00	4.25	4.50						4.75													4.50	4.25					3.75	3.50			3.25	25			
Norway	1.25		1.50	1.75			2.00																2.25					1.75		1.50										25		
Vietnam	7.00			8.00											9.00			11.00	12.00	13.00	14.00						15.00			14.00	13.00	12.00	11.00	10.00					300			
Malaysia	2.00					2.25	2.50	2.75															3.00																	100		
India	4.75					5.00	5.25		5.75	6.00	6.25		6.50	6.75	7.25	7.50	8.00		8.25	8.50										8.00									325			
Brazil	8.75					9.50		10.25	10.75							11.25	11.75	12.00									12.25	12.5	12.00	11.50	11.00	10.50	9.75	9.00	8.50		8.00	7.50	7.25	-150		
Peru	1.25			1.50	1.75	2.00	2.50	3.00							3.25	3.50	3.75	4.00	4.25																					300		
Canada	0.25					0.50	0.75	1.00																																75		
Chile	0.50					1.00	1.50	2.00	2.50	2.75	3.00	3.25		3.50	4.00	4.50	5.00	5.25											5.00											450		
New Zealand	2.50					2.75	3.00																2.50																	0		
Taiwan	1.25						1.38					1.50			1.63		1.75						1.88																	63		
Sweden	0.25					0.50	0.75	1.00		1.25		1.50	1.75															2.00		1.75	1.50							1.25		100		
S Korea	2.00					2.25		2.50		2.75	3.00																													2.75	75	
Thailand	1.25					1.50	1.75						2.00	2.25	2.50	2.75		3.00	3.25	3.50									3.25	3.00									2.75	150		
Serbia	8.00						8.50	9.00	9.50	10.50	11.50	12.00		12.25	12.50		12.00	11.75		11.25	10.75	10.00	9.75	9.50										10.00	10.25	10.50	10.75	275				
Uruguay	6.25	8.00			6.25											6.50	7.50																					9.00		275		
Nigeria	6.00														6.25		6.50	7.50																					600			
China	2.25														2.50	2.75	3.00	3.25																		3.25	3.00		75			
Hungary	5.25	8.0	7.5	7.0	6.5	6.25	6	5.75	5.5	5.25					5.50	5.75	6.00												6.50	7.00							6.75	6.50	125			
Poland	3.75															3.75		4.00	4.25	4.50																	4.75		100			
Indonesia	5.75																											6.50	6.00		5.75								0			
Colombia	3.00	4.5	4.0	3.5				3.0																					4.75	5.00	5.25						5.00	4.75	175			
Russia	7.75	10.75	11	10.0	9.0	8.75		8.5	8.25	8.0	7.75																											8.25	50			
Philippine	4.00																																						4.25	-25		
Kazakhstan	7.00	7.5	7.0																																				7.50	-150		
Euroland	1.00																																						1.25	-25		
Denmark	0.80	1.35	1.3			1.05																																	1.30	-60		
Iceland	4.25	12.00		11.00	10.0	9.50	9.00		8.50	8.00		7.00	6.25	5.50	4.50																								4.50	150		
Czech R	0.75	1.25	1.0																																				1.25	-50		
Romania	5.25	8.50	8.00			7.50	7.00	6.50	6.25																															6.00	0	
Sri Lanka	8.50	11.0	11	9.75								9.5	9.0																											8.5	125	
South Africa	5.50	7.0																																						6.0	-50	
Switzerland	0.00																																							5.5	0	
Egypt	8.25																																								0.00	0
Turkey	5.75																																								9.25	100

Source: Deutsche Bank, government data

Global data monitor: Recent developments and near-term forecasts

	B'bergcode	Q4-11	Q1-12	Q2-12	Q3-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12
OECD leading indicators											
(6M change, %, ann.)											
OECD		0.2	0.2	0.5		0.5	0.6				
US	OLEDUSA	0.8	0.9	1.1		1.1	1.2				
Euro area	OLEDEU12	-1.3	-1.7	-1.5		-1.5	-1.4				
Japan	OLEDJAPN	0.4	0.4	0.5		0.5	0.4				
China	OLEDCHIN	0.4	0.4	0.5		0.5	0.4				
India	OLEDINDI	4.9	5.3	5.7		5.8	5.8				
Russia	OLEDRUSS	1.8	1.2	0.2		0.2	-0.3				
Brazil	OLEDBRAZ	0.3	0.8	2.2		2.2	2.8				
Purchasing manager indices											
Global (manufacturing)		50.1	51.2	50.0	48.7	50.0	48.9	48.4	48.4	49.2	
US (manufacturing ISM)	NAPMPMI	52.4	53.3	52.7	50.3	53.5	49.7	49.8	49.6	51.5	52.0
Euro area (composite)		47.2	49.6	46.4	46.3	46.0	46.4	46.5	46.3	46.1	
Japan (manufacturing)	SEASPMI	50.0	50.8	50.4	47.9	50.7	49.9	47.9	47.7	48.0	
China (manufacturing)	EC11CHPM	49.2	48.9	48.6	48.3	48.4	48.2	49.3	47.6	47.9	
India (manufacturing)		52.4	56.3	54.9	52.8	54.8	55.0	52.9	52.8	52.8	
Russia (manufacturing)		51.6	50.8	52.3	51.8	53.2	51.0	52.0	51.0	52.4	
Other business surveys											
US dur. goods orders (%pop1)	DGNOCHNG	2.7	-2.2	0.9	2.1	1.5	1.6	3.3	-13.2	3.0	
Japanese Tankan (LI)	JNTSMFG	-4.0	-4.0	-1.0	-3.0						
Euro area EC sentiment	EUESEMU	93.8	94.1	91.1	86.3	90.5	89.9	87.9	86.1	85.0	
Industrial production (%pop1)											
US	IP CHNG	5.1	5.9	2.6	-0.4	0.1	0.0	0.7	-1.4	0.4	
Euro area	EUITEMUM	-7.4	-1.8	-1.5	4.0	1.0	-0.5	0.6	0.6		
Japan	JNIPMOM	1.7	5.1	-7.7	-10.1	-3.4	0.4	-1.0	-1.6		
Retail sales (%pop1)											
US	RSTAMOM	8.2	6.7	-1.0	5.5	-0.1	-0.7	0.7	1.2	1.1	
Euro area	RSSAEMUM	-4.3	0.8	-2.4	2.0	0.9	0.1	0.1	0.1		
Japan (household spending)		2.0	3.4	1.2	-2.3	1.5	-1.3	-1.3	2.2		
Labour market											
US non-farm payrolls ²	NFP TCH	164	226	67	104	87	45	181	142	114	100
Euro area unemployment (%)	UMRTEMU	10.6	10.9	11.3	11.4	11.3	11.4	11.4	11.4		
Japanese unemployment (%)	JNUE	4.4	4.5	4.4	4.3	4.4	4.3	4.3	4.2		
CP inflation (%yoy)											
US	CPICHNG	3.3	2.8	1.9	1.7	1.7	1.7	1.4	1.7	2.0	
Euro area	ECCPEMUY	2.9	2.7	2.5	2.5	2.4	2.4	2.4	2.6	2.6	2.4
Japan	JNCPIYOY	-0.3	0.3	0.2	-0.5	0.2	-0.1	-0.4	-0.5		
China	CNCPIYOY	4.6	3.8	2.8	1.8	3.0	2.1	1.7	2.0	1.8	
India		9.0	7.4	7.5	7.7	7.6	7.6	7.5	7.6	7.9	
Russia	RUCPIYOY	6.7	3.9	3.8	6.1	3.6	4.3	5.6	6.0	6.6	
Brazil		6.7	5.8	5.0	5.2	5.0	4.9	5.2	5.2	5.3	
Current account (USD bn)³											
US (trade balance, g+s)	USTBTOT	-48.8	-49.5	-46.4	-43.3	-47.6	-41.9	-42.5	-44.2		
Euro area		2.6	7.4	12.8		13.2	17.9	11.9			
Japan		7.2	6.2	6.3	6.7	5.1	9.6	4.2	9.2		
China (trade in goods)		8.0	8.8	25.9	20.8	20.0	29.4	14.4	22.5	25.6	
Russia (trade in goods)		19.1	18.0	16.0	13.3	17.3	13.7	11.8	14.9		
Other indicators											
Oil prices (Brent, USD/b)	EUCRBRDT	109.5	118.4	108.5	109.7	110.2	95.3	102.8	113.4	113.0	
FX reserves China (USD bn)	CNGFOREX	3181.1	3305.0	3240.0	3290.0	3206.1	3240.0	3240.0	3240.0	3290.0	

Quarterly data in shaded areas are quarter-to-date. Monthly data in the shaded areas are forecasts.

(1) % pop = % change this period over previous period. Quarter on quarter growth rates is annualised.

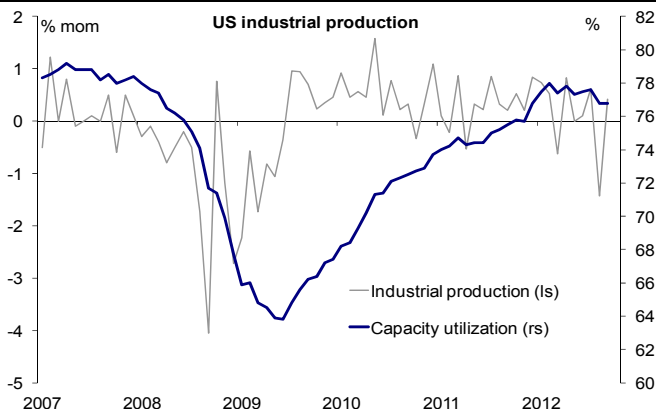
(2) pop change in '000, quarterly data are averages of monthly changes.

(3) Quarterly data are averages of monthly balances.

Sources: Bloomberg Finance LP, Reuters, Eurostat, European Commission, OECD, Bank of Japan, National statistical offices.

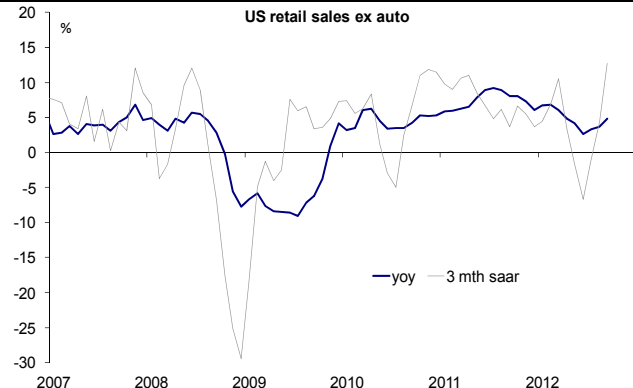
Charts of the Week

Chart 1. In the US, IP registered modest improvement in September...



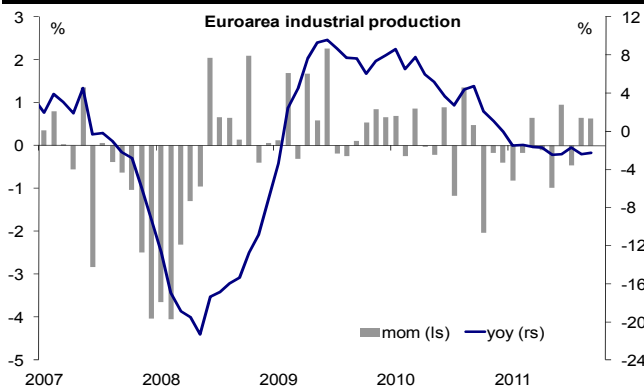
Source: FRB, DB Global Markets Research

Chart 2...and retail sales were much stronger than the market expected



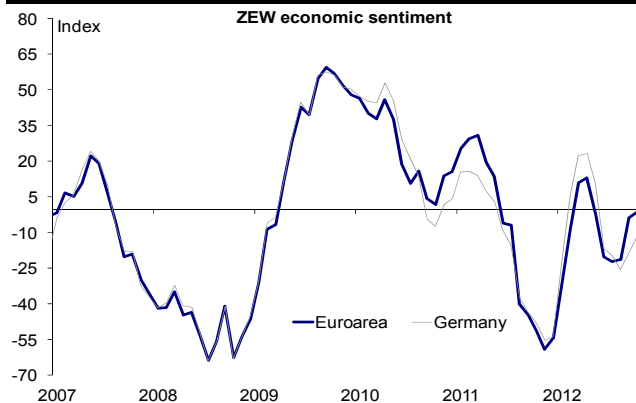
Source: FRB, DB Global Markets Research

Chart 3. In the Euro area, IP continued to surprise on the upside, led by durable consumer and capital goods...



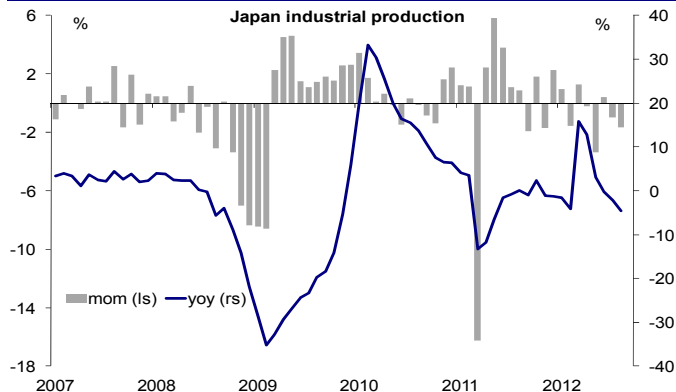
Source: Eurostat, DB Global Markets Research

Chart 4...and ZEW sentiment improved for a second month in a row in October



Source: ZEW, DB Global Markets Research

Chart 5. In Japan, the final print of the August IP fell 1.6% mom from the previously estimated 1.3% ...



Source: ESRI, DB Global Markets Research

Chart 6...while in India, IP data rose 2.7% yoy, suggesting some improvement in activity



Source: CSO, DB Global Markets Research

Global Week Ahead: Thursday, 18 October– Friday, 26 October

- **Dollar Bloc:** In the **US**, the advance estimate of Q3 GDP is expected to be 1.7% qoq, higher than the Q2 GDP. The FOMC rate announcement will also garner considerable market attention. Durable goods data for September is expected to improve considerably. In soft data, the Philly Fed survey is expected to improve. Housing market data are also due. In **Australia**, Q3 inflation is due. In **Canada & New Zealand**, the markets will focus on bank rate announcements.
- **Europe:** In **Euroland**, key surveys – IFO for Germany, INSEE for France, ISAE for Italy, BNB business confidence for Belgium, Italian & French consumer confidence and flash PMI from across the board – will provide valuable information on sentiment in the region. M3 money supply for the region is also due. In the **UK**, the flash estimate for Q3 GDP will be a crucial release. Also due next week are retail sales, CBI survey and public sector borrowing data. In **Scandi**, the Riksbank interest rate is due.
- **Asia incl. Japan:** In **Japan**, all industry activity index and trade balance are the main releases queued up for release. In **China**, Q3 real GDP is releasing this week. There are many other important data releases as well, including IP and retail sales.

Country	GMT	Release	DB Expected	Consensus	Previous
Thursday, 18 October					
SPAIN	-	Trade balance (Aug)		-EUR2.5bn	-EUR1.7bn
CHINA	02:00	GDP constant price (Q3)	7.4%	7.4%	7.6%
CHINA	05:30	Industrial production (Sep)	(9.2%)	(9.0%)	(8.9%)
CHINA	05:30	Retail sales (Sep)	(12.7%)	(13.2%)	(13.2%)
SWITZERLAND	06:00	Trade balance (Sep)			CHF1.7bn
UK	08:30	Retail sales (Sep)	0.2% (2.3%)	0.3% (2.4%)	-0.3% (3.1%)
TURKEY	11:00	MPC meeting (Nov)	5.75%	5.75%	5.75%
US	12:30	Initial jobless claims (Oct – 13))		365.0k	339.0k
US	14:00	Philly fed (Oct)	2.0	1.0	-1.9
CHILE	21:00	Nominal overnight rate target (Nov)	5.00%	5.00%	5.00%
Events and meetings: EUROLAND: EU's Almunia to hold speech in Trier. EUROLAND: EU's Rehn to hold speech in Brussels – 07:00 GMT. EUROLAND: EU's Rompuy & Barroso to hold speech in Brussels – 07:30 GMT. EUROLAND: ECB's Liikanen to hold speech in Frankfurt – 08:00 GMT. BRAZIL: COPOM to publish minutes of October MPC meeting – 10:30 GMT. TURKEY: Central Bank of Turkey to announce interest rate decision – 11:00 GMT. CHILE: Central Bank of Chile to announce nominal overnight rate target – 21:00 GMT.					
Friday, 19 October					
JAPAN	04:30	All industry activity index (Aug)	-0.5%	0.1%	-0.6%
EUROLAND	08:00	Current account (Aug)			EUR9.7bn
ITALY	08:00	Industrial orders (Aug)			2.9% (-4.9%)
ITALY	08:00	Industrial sales (Aug)			1.2% (-5.3%)
UK	08:30	PSNB (Sep)		GBP11.7bn	GBP12.4bn
UK	08:30	PSNCR (Sep)	GBP4.7bn	GBP4.7bn	-GBP9.6bn
CANADA	11:00	CPI (Sep)	0.3% (1.3%)	0.3% (1.3%)	0.2% (1.2%)
US	14:00	Existing home sales (Sep)	4.8m	4.8m	4.8m
Events and meetings: EUROLAND: EU's Barnier to hold speech in Amsterdam. JAPAN: BoJ's Shirakawa to hold speech in Tokyo – 06:35 GMT. PORTUGAL: Bank of Portugal's Costa to hold speech in Estoril – 09:00 GMT.					
Sunday, 21 October					
JAPAN	23:50	Merchandise trade balance (Sep)	-JPY700.0bn		-JPY472.8bn
Events and meetings: JAPAN: BoJ to publish minutes of its Oct4-5 MPC meeting – 23:50 GMT.					
Monday, 22 October					
MEXICO	13:00	Retail sales (INEGI) (Aug)			2.6%
Events and meetings: AUSTRALIA: RBA's DeBelle to hold speech in Sydney – 03:50 GMT. EUROLAND: ECB's Asmussen to hold speech in Hamburg– 08:30 GMT. EUROLAND: ECB's Nowotny to hold speech in Vienna– 16:00 GMT.					
Tuesday, 23 October					
FRANCE	06:45	INSEE business confidence (Oct)			90.0
CANADA	12:30	Retail sales (Aug)			0.4%
BELGIUM	13:00	BNB business confidence (Oct)			-11.6
CANADA	13:00	BoC rate announcement (Nov)			1.00%
US	14:00	Richmond fed (Oct)		4.0	4.0

Country	GMT	Release	DB Expected	Consensus	Previous
---------	-----	---------	-------------	-----------	----------

Tuesday, 23 October (continued)

Events and meetings: EUROLAND: EU's Barroso to hold speech in Strasbourg – 07:00 GMT. **CANADA:** BoC to announce interest rate decision – 13:00 GMT.

Wednesday, 24 October

AUSTRALIA	00:30	CPI (Q3)			0.5% (1.2%)
SWEDEN	07:15	Consumer confidence (Oct)			2.0
EUROLAND	08:00	PMI manufacturing, prelim (Oct)			46.1
EUROLAND	08:00	PMI services, prelim (Oct)			46.1
EUROLAND	08:00	PMI composite, prelim (Oct)			46.1
GERMANY	08:00	IFO - business climate (Oct)			101.4
ITALY	09:00	Consumer confidence (Oct)			86.2
UK	10:00	CBI industrial trends survey (Oct)			7.0
MEXICO	13:00	Bi-weekly core CPI (Oct)			0.1%
US	14:00	House price index (Aug)			0.20%
US	14:00	New home sales (Sep)	370.0k	381.0k	373.0k
US	18:15	FOMC rate (Nov)			0.25%
NEW ZEALAND	20:00	RBNZ official cash rate (Nov)			2.50%

Events and meetings: EUROLAND: ECB's Draghi to hold speech in Frankfurt – 12:00 GMT. **US:** Fed Reserve to announce interest rate decision – 18:15 GMT. **NEW ZEALAND:** RBNZ to announce official cash rate – 20:00 GMT.

Thursday, 25 October

SWEDEN	07:30	Riksbank interest rate (Nov)			1.25%
EUROLAND	08:00	M3 (Sep)			(2.9%)
EUROLAND	08:00	M3 3mmca (Sep)			(3.2%)
UK	08:30	GDP flash estimate (Q3)	0.6% (-0.4%)		-0.4% (-0.5%)
ITALY	09:00	Retail sales (Aug)			-0.2% (-3.2%)
US	12:30	Durable goods (Sep)	3.0%	6.8%	-13.2% (-6.7%)
US	12:30	Durable goods ex transport (Sep)	1.0%	0.5%	-1.6% (-1.1%)
MEXICO	13:00	Trade balance preliminary (Sep)			-USD979.2m
US	14:00	Pending home sales (Sep)	3.0%	2.0%	-2.6%
NEW ZEALAND	22:45	Overseas merchandise trade (Sep)			-NZD789.0m
JAPAN	23:30	National CPI (Sep)			-0.2% (-0.4%)

Events and meetings: SWEDEN: Riksbank to announce interest rate decision – 08:30 GMT.

Friday, 26 October

FRANCE	06:45	Consumer confidence (Oct)			85.0
FRANCE	06:45	Quarterly manufacturing survey (Q3)			-24.0
SWITZERLAND	07:00	KOF economic barometer (Oct)			1.7
SPAIN	07:00	Unemployment rate (Q3)			(24.6%)
ITALY	09:00	ISAE business confidence (Oct)			88.3
US	12:30	GDP advance (Q3)	1.7%	1.7%	1.3% (2.1%)
US	12:30	GDP deflator advance (Q3)	1.9%	2.0%	1.6% (1.7%)
US	13:55	Consumer sentiment (Oct)	76.0	82.6	78.3
MEXICO	14:00	Overnight rate (Oct)		4.50%	4.50%

Events and meetings: MEXICO: Central Bank of Mexico to announce overnight rate – 14:00 GMT.

Source: Australian Bureau of Statistics; Bank of Canada; Bank of Japan; BEA; BLS; Bundesbank; Bureau of Labor Statistics, U.S.

Department of Labor; Cabinet Office, Government of Japan; ECB; Eurostat; Indian Central Statistical Organization; INE; INSEE; ISTAT; ISTAT.IT; Ministry of Finance Japan; National Association of Realtors; National Bureau of Statistics; National Statistics Office; OECD - Composite Leading Indicator; People's Bank of China; Reserve Bank of Australia; Reserve Bank of New Zealand; Statistics Canada; Statistics Netherlands; Statistics of New Zealand; U.S. Census Bureau; U.S. Department of Labor, Employment & Training Administration; U.S. Department of the Treasury; U.S. Federal Reserve.

Note: Unless otherwise indicated, numbers without parenthesis are either % month-on-month or % quarter-on-quarter, depending on the frequency of release, while numbers in parenthesis are % year-on-year. * on the release time means indicative release time. * on indicator name means indicative/earliest release date.

Financial Forecasts

		US	Jpn	Euro	UK	Swe*	Swiss*	Can*	Aus*	NZ*
3M Interest	Actual	0.33	0.33	0.21	0.54	1.25	0.00	1.00	3.25	2.50
	Rates¹									
	Dec-12	0.35	0.30	0.25	0.65	1.25	0.00	1.00	3.00	2.50
DB forecasts & Futures	futures	(0.28)	(0.32)	(0.21)	(0.53)	—	—	—	—	—
	Mar-13	0.35	0.30	0.25	0.65	1.25	0.00	1.25	2.50	2.50
	futures	(0.29)	(0.30)	(0.22)	(0.53)	—	—	—	—	—
	Sep-13	0.35	0.30	0.25	0.65	1.25	0.00	2.00	2.50	2.75
	futures	(0.33)	(0.27)	(0.30)	(0.55)	—	—	—	—	—
10Y Gov't²	Actual	1.75	0.77	1.60	1.89	1.61	0.51	1.82	3.12	3.49
	Bond									
	Dec-12	2.00	0.80	1.75	2.20	1.80	0.85	2.00	3.25	4.00
	Yields/									
	futures	1.83	0.82	1.68	1.97	—	—	—	—	—
	Spreads³									
	Mar-13	2.50	0.90	2.00	2.40	2.10	1.00	2.40	3.50	4.00
DB forecasts	futures	1.91	0.85	1.74	2.04	—	—	—	—	—
& Forwards	Sep-13	2.50	1.00	2.50	2.80	2.70	1.40	3.10	3.50	4.25
	futures	2.07	0.94	1.89	2.19	—	—	—	—	—
Exchange Rates	Actual	EUR/USD	USD/JPY	EUR/GBP	GBP/USD	EUR/SEK	EUR/CHF	CAD/USD	AUD/USD	NZD/USD
		1.31	78.8	0.81	1.62	8.65	1.21	0.99	1.03	0.82
	3M	1.35	82.0	0.84	1.61	8.50	1.21	0.98	1.06	0.83
	6M	1.31	84.0	0.84	1.57	8.38	1.21	0.98	1.06	0.83
	12M	1.24	88.0	0.82	1.52	8.13	1.22	0.99	1.02	0.82

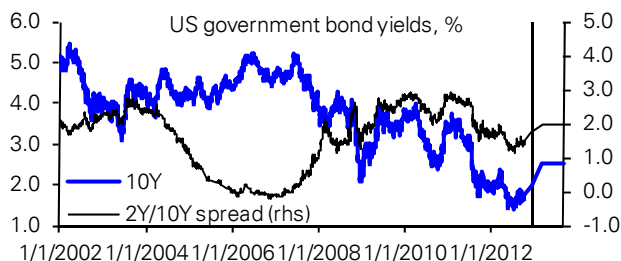
(1) Future rates calculated from the December, March and September 3M contracts.. Forecasts are for the same dates. * indicates policy interest rates.

(2) Forecasts in this table are produced by the regional fixed income strategists. Forwards estimated from the asset swap curve for 2Y and 10Y yields.

(3) Bond yield spreads are versus Euroland. US 10Y Govt. bond yield forecasts has been taken from US Fixed Income Weekly.

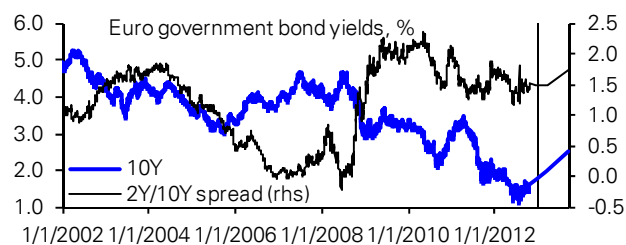
Sources: Bloomberg Finance LP, DB Global Markets Research. Revised forecasts in bold type. All current rates taken as at Tuesday at 11:00 GMT.

US 10Y rates



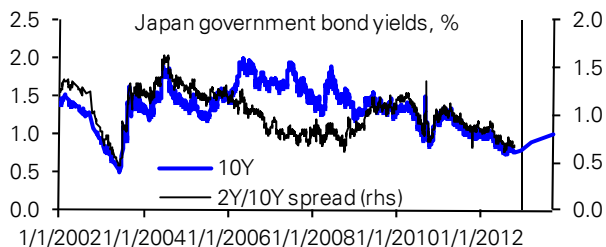
Source: DB Global Markets Research, Bloomberg Finance LP

Euroland 10Y rates



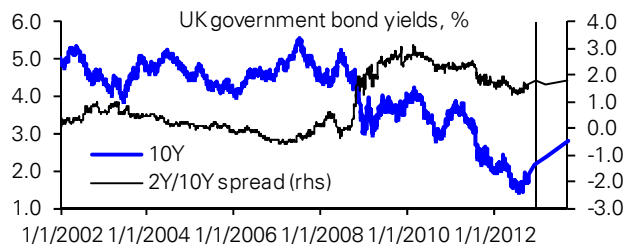
Source: DB Global Markets Research, Bloomberg Finance LP

Japan 10Y rates



Source: DB Global Markets Research, Bloomberg Finance LP

UK 10Y rates



Source: DB Global Markets Research, Bloomberg Finance LP

Main Deutsche Bank Global Economics Publications

Global	Dbdaily – European Edition (daily) Dbdaily – Asia-Pac Edition (daily) Global Economics Perspectives (weekly) The World Outlook (quarterly) Global Macro Issues (occasional paper series)
US	US Daily Economic Notes (daily) US Economics Weekly (weekly)
Europe	Focus Europe (weekly) Europe Inflation Report (weekly)
Japan	Japan Economics Weekly (weekly)
Dollar Bloc	Dollar Bloc Weekly (weekly) Australian Economics Monthly (monthly)
Emerging Markets	Emerging Markets Daily – European Edition (daily) Emerging Markets Daily – Asian Edition (daily) Emerging Markets Daily – US Edition (daily) EM Event Radar (weekly) EM Monetary Policy Rate Calls (monthly) EM Monthly (monthly) EM Special Publication (occasional series) Asia Economics Monthly (monthly) Asia Real Exchange Rates (monthly) EMEA Real Exchange Rates (monthly) Latam REER Monitor (monthly)

Appendix 1

Important Disclosures

Additional information available upon request

For disclosures pertaining to recommendations or estimates made on a security mentioned in this report, please see the most recently published company report or visit our global disclosure look-up page on our website at <http://gm.db.com/ger/disclosure/DisclosureDirectory.eqsr>.

Analyst Certification

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst(s). In addition, the undersigned lead analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report. Peter Hooper/Thomas Mayer/Michael Spencer/Torsten Slok

Deutsche Bank debt rating key

CreditBuy ("C-B"): The total return of the Reference Credit Instrument (bond or CDS) is expected to outperform the credit spread of bonds / CDS of other issuers operating in similar sectors or rating categories over the next six months.

CreditHold ("C-H"): The credit spread of the Reference Credit Instrument (bond or CDS) is expected to perform in line with the credit spread of bonds / CDS of other issuers operating in similar sectors or rating categories over the next six months.

CreditSell ("C-S"): The credit spread of the Reference Credit Instrument (bond or CDS) is expected to underperform the credit spread of bonds / CDS of other issuers operating in similar sectors or rating categories over the next six months.

CreditNoRec ("C-NR"): We have not assigned a recommendation to this issuer. Any references to valuation are based on an issuer's credit rating.

Reference Credit Instrument ("RCI"): The Reference Credit Instrument for each issuer is selected by the analyst as the most appropriate valuation benchmark (whether bonds or Credit Default Swaps) and is detailed in this report. Recommendations on other credit instruments of an issuer may differ from the recommendation on the Reference Credit Instrument based on an assessment of value relative to the Reference Credit Instrument which might take into account other factors such as differing covenant language, coupon steps, liquidity and maturity. The Reference Credit Instrument is subject to change, at the discretion of the analyst.

Regulatory Disclosures

1. Important Additional Conflict Disclosures

Aside from within this report, important conflict disclosures can also be found at <https://gm.db.com/equities> under the "Disclosures Lookup" and "Legal" tabs. Investors are strongly encouraged to review this information before investing.

2. Short-Term Trade Ideas

Deutsche Bank equity research analysts sometimes have shorter-term trade ideas (known as SOLAR ideas) that are consistent or inconsistent with Deutsche Bank's existing longer term ratings. These trade ideas can be found at the SOLAR link at <http://gm.db.com>.

3. Country-Specific Disclosures

Australia and New Zealand: This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act and New Zealand Financial Advisors Act respectively.

Brazil: The views expressed above accurately reflect personal views of the authors about the subject company(ies) and its(their) securities, including in relation to Deutsche Bank. The compensation of the equity research analyst(s) is indirectly affected by revenues deriving from the business and financial transactions of Deutsche Bank. In cases where at least one Brazil based analyst (identified by a phone number starting with +55 country code) has taken part in the preparation of this research report, the Brazil based analyst whose name appears first assumes primary responsibility for its content from a Brazilian regulatory perspective and for its compliance with CVM Instruction # 483.

EU countries: Disclosures relating to our obligations under MiFiD can be found at <http://www.globalmarkets.db.com/riskdisclosures>.

Japan: Disclosures under the Financial Instruments and Exchange Law: Company name - Deutsche Securities Inc. Registration number - Registered as a financial instruments dealer by the Head of the Kanto Local Finance Bureau (Kinsho) No. 117. Member of associations: JSDA, Type II Financial Instruments Firms Association, The Financial Futures Association of Japan, Japan Investment Advisers Association. This report is not meant to solicit the purchase of specific financial instruments or related services. We may charge commissions and fees for certain categories of investment advice, products and services. Recommended investment strategies, products and services carry the risk of losses to principal and other losses as a result of changes in market and/or economic trends, and/or fluctuations in market value. Before deciding on the purchase of financial products and/or services, customers should carefully read the relevant disclosures, prospectuses and other documentation. "Moody's", "Standard & Poor's", and "Fitch" mentioned in this report are not registered credit rating agencies in Japan unless "Japan" or "Nippon" is specifically designated in the name of the entity.

Malaysia: Deutsche Bank AG and/or its affiliate(s) may maintain positions in the securities referred to herein and may from time to time offer those securities for purchase or may have an interest to purchase such securities. Deutsche Bank may engage in transactions in a manner inconsistent with the views discussed herein.

Russia: This information, interpretation and opinions submitted herein are not in the context of, and do not constitute, any appraisal or evaluation activity requiring a license in the Russian Federation.

Risks to Fixed Income Positions

Macroeconomic fluctuations often account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor that is long fixed rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or the liquidation of positions), and settlement issues related to local clearing houses are also important risk factors to be considered. The sensitivity of fixed income instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates – these are common in emerging markets. It is important to note that the index fixings may – by construction – lag or mis-measure the actual move in the underlying variables they are intended to track. The choice of the proper fixing (or metric) is particularly important in swaps markets, where floating coupon rates (i.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. It is also important to acknowledge that funding in a currency that differs from the currency in which the coupons to be received are denominated carries FX risk. Naturally, options on swaps (swaptions) also bear the risks typical to options in addition to the risks related to rates movements.

David Folkerts-Landau

Managing Director
Global Head of Research

Marcel Cassard
Global Head
CB&S Research

Ralf Hoffmann & Bernhard Speyer
Co-Heads
DB Research

Stuart Parkinson
Chief Operating Officer
Research

Richard Smith
Associate Director
Equity Research

Asia-Pacific

Fergus Lynch
Regional Head

Germany

Andreas Neubauer
Regional Head

Americas

Steve Pollard
Regional Head

Principal Locations

Deutsche Bank AG London

1 Great Winchester Street
London EC2N 2EQ
Tel: (44) 20 7545 8000

Deutsche Bank AG New York

60 Wall Street
New York, NY 10005
United States of America
Tel: (1) 212 250-2500

Deutsche Bank AG Hong Kong

Filiale Hongkong
Intl. Commerce Centre
1 Austin Road West Kowloon,
Hong Kong
tel: (852) 2203 8888

Deutsche Securities Inc. Japan

2-11-1 Nagatacho
Sanno Park Tower
Chiyoda-ku, Tokyo 100-6171
Tel: (81) 3 5156 6770

Deutsche Bank AG Frankfurt

Große Gallusstraße 10-14
60272 Frankfurt am Main
Germany
Tel: (49) 69 910 00

Deutsche Bank Ltd.

Aurora business park
82 bld.2 Sadovnicheskaya street
Moscow, 115035
Russia
Tel: (7) 495 797-5000

Deutsche Bank AG Singapore

One Raffles Quay
South Tower
Singapore 048583
Tel: (65) 6423 8001

Deutsche Bank AG Australia

Deutsche Bank Place, Level 16
Corner of Hunter & Phillip Streets
Sydney NSW 2000
Tel: (61) 2 8258 1234

Deutsche Bank Dubai

Dubai International Financial Centre
The Gate, West Wing, Level 3
P.O. Box 504 902
Dubai City
Tel: (971) 4 3611 700

Global Disclaimer

Publication Address:

Deutsche Bank AG
London
1 Great Winchester Street
London EC2N 2EQ
Tel: (44) 20 7545 8000

Internet:

<http://gmr.db.com>
Ask your usual contact for a
username and password.

The information and opinions in this report were prepared by Deutsche Bank AG or one of its affiliates (collectively "Deutsche Bank"). The information herein is believed to be reliable and has been obtained from public sources believed to be reliable. Deutsche Bank makes no representation as to the accuracy or completeness of such information.

Deutsche Bank may engage in securities transactions, on a proprietary basis or otherwise, in a manner **inconsistent** with the view taken in this research report. In addition, others within Deutsche Bank, including strategists and sales staff, may take a view that is **inconsistent** with that taken in this research report.

Opinions, estimates and projections in this report constitute the current judgement of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank and are subject to change without notice. Deutsche Bank has no obligation to update, modify or amend this report or to otherwise notify a recipient thereof in the event that any opinion, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. Prices and availability of financial instruments are subject to change without notice. This report is provided for informational purposes only. It is not an offer or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Target prices are inherently imprecise and a product of the analyst judgement.

As a result of Deutsche Bank's March 2010 acquisition of BHF-Bank AG, a security may be covered by more than one analyst within the Deutsche Bank group. Each of these analysts may use differing methodologies to value the security; as a result, the recommendations may differ and the price targets and estimates of each may vary widely.

In August 2009, Deutsche Bank instituted a new policy whereby analysts may choose not to set or maintain a target price of certain issuers under coverage with a Hold rating. In particular, this will typically occur for "Hold" rated stocks having a market cap smaller than most other companies in its sector or region. We believe that such policy will allow us to make best use of our resources. Please visit our website at <http://gm.db.com> to determine the target price of any stock.

The financial instruments discussed in this report may not be suitable for all investors and investors must make their own informed investment decisions. Stock transactions can lead to losses as a result of price fluctuations and other factors. If a financial instrument is denominated in a currency other than an investor's currency, a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Deutsche Bank may with respect to securities covered by this report, sell to or buy from customers on a principal basis, and consider this report in deciding to trade on a proprietary basis.

Unless governing law provides otherwise, all transactions should be executed through the Deutsche Bank entity in the investor's home jurisdiction. In the U.S. this report is approved and/or distributed by Deutsche Bank Securities Inc., a member of the NYSE, the NASD, NFA and SIPC. In Germany this report is approved and/or communicated by Deutsche Bank AG Frankfurt authorized by the BaFin. In the United Kingdom this report is approved and/or communicated by Deutsche Bank AG London, a member of the London Stock Exchange and regulated by the Financial Services Authority for the conduct of investment business in the UK and authorized by the BaFin. This report is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. This report is distributed in Singapore by Deutsche Bank AG, Singapore Branch, and recipients in Singapore of this report are to contact Deutsche Bank AG, Singapore Branch in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), Deutsche Bank AG, Singapore Branch accepts legal responsibility to such person for the contents of this report. In Japan this report is approved and/or distributed by Deutsche Securities Inc. The information contained in this report does not constitute the provision of investment advice. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product. Deutsche Bank AG Johannesburg is incorporated in the Federal Republic of Germany (Branch Register Number in South Africa: 1998/003298/10). Additional information relative to securities, other financial products or issuers discussed in this report is available upon request. This report may not be reproduced, distributed or published by any person for any purpose without Deutsche Bank's prior written consent. Please cite source when quoting.

Copyright © 2012 Deutsche Bank AG