



Date
24 January 2014

Joseph LaVorgna
Chief US Economist
(+1) 212 250-7329
joseph.lavorgna@db.com

Carl Riccadonna
Senior US economist
(+1) 212 250-0186
carl.riccadonna@db.com

Brett Ryan
Economist
(+1) 212 250-6294
brett.ryan@db.com

US Economics Weekly

Private and public balance sheets on the mend

Overview: Since last month's release of the Federal Reserve's Flow of Funds data, we have taken an extensive look at the financial health of US households. The latest readings on household buying power and the ratio of household liquid assets to liabilities both show tremendous improvement in the underlying financial health of US consumers. This week we complete our analysis of the household sector by looking at the ratio of total household debt to disposable income. This series has declined dramatically over the past six years, providing us with further evidence of a dramatic improvement in consumer finances that should be supportive of above-trend growth in the quarters ahead. Indeed, we are projecting the fastest annual growth in real GDP this year since 2003.

Budget outlook 2014: Despite dilution of sequester, deficit still on track to shrink Due to both stronger revenues and spending restrictions, the fiscal year 2013 budget deficit was markedly smaller than that of previous years. This improvement in the national fiscal position is poised to carry over into 2014, as well—even despite the recent bipartisan congressional agreement to reduce the severity of the sequester-mandated spending cuts. In fact, the 2014 budget deficit is on track to be even smaller than that of 2013—our current estimate is -\$530 billion. This has implications for net Treasury issuance and in turn the level of interest rates, because less issuance should help to mitigate the potential for a damaging backup in rates as the Fed continues to curtail the pace of asset purchases. While we do anticipate higher rates this year, reduced issuance should help to moderate the pace of the backup.

Table of Contents

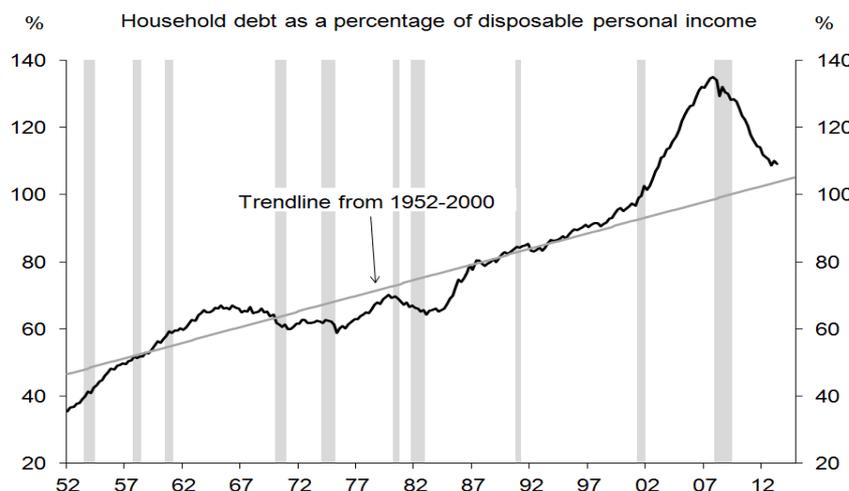
Overview Page 2
Budget outlook 2014 Page 4
Calendar Page 7

Forecasts

	2013		2014			
	Q3	Q4F	Q1F	Q2F	Q3F	Q4F
Real GDP (% q/q)	4.1	4.0	3.1	3.2	3.5	3.7
Core CPI (% y/y)	1.7	1.8	1.9	2.0	2.1	2.2
Unemployment rate	7.3	7.0	6.5	6.4	6.3	6.1
Fed funds	0.09	0.07	0.06	0.10	0.10	0.10
10 Yr Treasury*	2.61	3.03	3.25	3.50	3.75	4.00

*Compiled by DB US Economics team; may differ from official 10Yr yield forecasts from DB Fixed Income Strategy team

The household debt-to-income ratio has declined sharply from its 2007 peak



Source: FRB, Haver Analytics & DB Global Markets Research

Follow @LaVorgnanomics



For the latest from Deutsche Bank's Chief US Economist Joseph LaVorgna and team



Overview

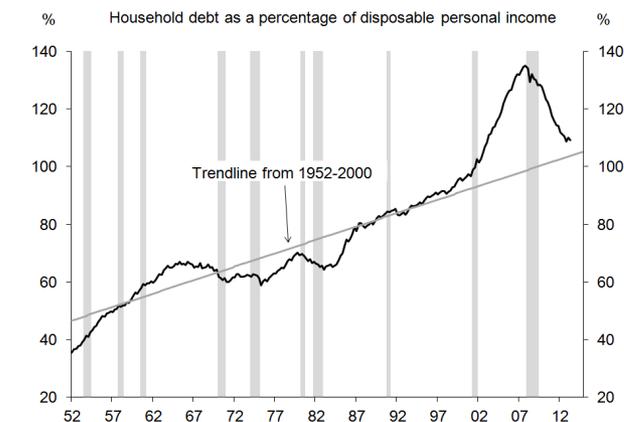
Summary: Since last month's release of the Federal Reserve's Flow of Funds data, we have taken an extensive look at the financial health of US households. The latest readings on household buying power and the ratio of household liquid assets to liabilities both show tremendous improvement in the underlying financial health of US consumers. This week we complete our analysis of the household sector by looking at the ratio of total household debt to disposable income. This series has declined dramatically over the past six years, providing us with further evidence of a dramatic improvement in consumer finances that should be supportive of above-trend growth in the quarters ahead. Indeed, we are projecting the fastest annual growth in real GDP this year since 2003.

Debt to income has tended to rise over time. As shown in the nearby chart, the ratio of household debt to disposable income rose consistently from 1952, the first year for which the Flow of Funds data exist, until 1962. It was then essentially flat until 1983 at which point the ratio steadily rose until 2000. This is evident in the chart in the next column from the stable upward slope of the trend line. However, following the 2001 recession, the level of debt to income accelerated sharply from 2002 to 2007. We can see the slope of the ratio is much steeper than it had been prior to 2000. This is also apparent from the underlying trend line of the series, which we discuss in more detail below. It is clear that the ratio of household debt to disposable income went well above this line from 2000 to 2007. After topping out at an all-time high of 135% in Q4 2007, the ratio has declined markedly, down to 109% as of Q3 2013, which is where it had been over the previous few quarters. The last time this ratio was below 109% was in Q1 2003 (108%). Conceivably, the ratio of household debt to disposable income is in the midst of bottoming as our analysis suggests that the ratio is close to its longer-term equilibrium value.

How do we define equilibrium debt-to-income? Since the ratio of household debt-to-disposable income has had a long-term, upward-sloping trajectory, reflecting financial deregulation, innovation, and a shift in households' attitudes toward debt, we assume the optimal level of debt-to-income is higher than where it was in 2000—albeit much lower than where it peaked in 2007 at the height of the credit bubble. Therefore, we fit a trend line from 1952 to 2000 and then extrapolate that trend forward as a way to proxy the equilibrium level of debt-to-income in the absence of the credit boom. Importantly, this assumes that debt-to-income has a natural upward slope. In practice, there is an upper limit of debt relative to income growth. In the last business cycle, a ratio of 135% debt

to income proved to be the tipping point. What about the floor? Since the ratio of debt to disposable income has exceeded 90% for every quarter since Q3 1996, we do not see any reason why we would breach that level. Consequently, we are comfortable that a linear extrapolation of the 1952 to 2000 trend is a good underlying proxy for the present day equilibrium. The current 109% reading on household debt to income compares to a trend-based equilibrium estimate of 104%. When will we get there? Given the trend over the past few years, we could be at the 104% threshold by Q4 of this year. Based on this simple approach, the household deleveraging cycle then is almost complete. Consequently, to the extent that deleveraging has been a headwind to growth, the improvement in consumer balance sheets is a meaningful positive development for the medium-term economic outlook.

The household debt-to-income ratio has declined sharply from its 2007 peak



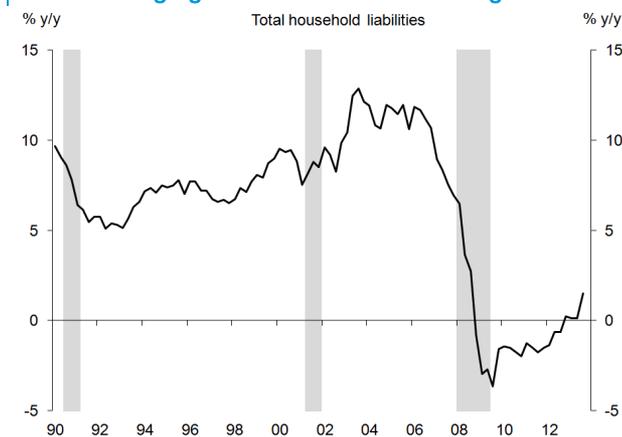
Source: FRB, Haver Analytics & DB Global Markets Research

If we are wrong, the deleveraging cycle could already be over. From its Q4 2007 peak, the ratio of debt-to-income has fallen 26% through a combination of rising disposable income and declining household debt. Over this timeframe, disposable income has grown 2.9% at an annualized rate while household debt has declined at a -0.9% annualized rate. While the growth in income has been remarkably soft compared to history, the decline in debt is equally unusual, as we had never seen an annual decline in household debt before the last recession. This is shown in the chart on the following page. Recently, however, the downtrend in household liabilities has reversed, as they rose 1.5% over the four quarters ending Q3 2013. This represents the largest increase since Q3 2008 and suggests to us that households are becoming more confident in the economic and financial outlook, as they are no longer paying down debt. The slight rise in household debt is



also consistent with a loosening in commercial bank lending standards. Anecdotally, the fact that liabilities are rising provides further evidence that deleveraging has largely run its course. The upshot is that an eventual re-leveraging of household balance sheets will be constructive for aggregate demand.

Households are starting to take on more debt, a sign that re-leveraging of balance sheets has begun



Source: FRB, Haver Analytics & DB Global Markets Research

What if we are wrong and further household deleveraging is necessary? For argument's sake, what if the equilibrium is closer to 90%, which is basically what the ratio averaged during the 1990s? Based on our estimate of disposable income and an assumption that liabilities revert back to roughly their -1% annualized decline that has persisted to this point in the business cycle, we would arrive at a 90% debt-to-income ratio sometime in 2018. In this case, we are only slightly more than halfway through the deleveraging process. Of course, we believe this scenario is much too extreme, because as we highlighted above, household debt is no longer shrinking. Furthermore, an improving housing market should lead to more access to mortgage credit. Mortgages account for approximately 70% of total household liabilities. A continuation of robust

residential construction activity and sturdy home price appreciation should add to builders', lenders', and prospective buyers' confidence that the housing recovery is gaining further traction. In point of fact, the latest Federal Reserve Senior Loan Officer Survey showed a further easing of commercial bank lending standards across the board, especially for prime mortgage borrowers. Therefore, we expect household debt, led by an expansion of mortgage credit, to rise modestly over time. A healthier job market should also eventually lead to an even faster pace of disposable income growth.

What is the bottom line? The debt-to-income ratio has declined dramatically from a peak of 135% in 2007 to 109% at present, which is a 10-year low. Clearly, households have made great strides in repairing their balance sheets. Based on a simple linear extrapolation from history, we believe that a reasonable proxy for equilibrium debt to income is around 104%, which we could see by the end of this year. However, the lack of any meaningful further reduction in debt to income over the past several quarters points to an impending end to the household credit deleveraging cycle. To the extent that deleveraging has been a factor weighing on the economy to this point in the business cycle, a conclusion of this process should be constructive for economic growth prospects—all else being equal. The next step of the broad financial recovery is a further thawing in mortgage finance. Double-digit gains in home prices should spur lenders to further ease credit standards for mortgages, thus allowing for larger gains in home construction and a faster pace of home sales. In conclusion, a re-leveraging of household balance sheets will be reflected in a rising debt-to-income ratio—and the prevailing evidence suggests we are much closer to that point than at any other time in recent history.

Joseph A. LaVorgna (212) 250-7329



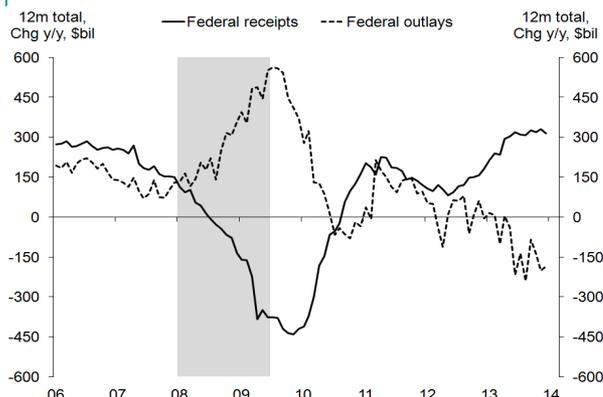
Budget outlook 2014: Despite dilution of sequester, deficit still on track to shrink

Summary: Due to both stronger revenues and spending restrictions, the fiscal year 2013 budget deficit was markedly smaller than that of previous years. This improvement in the national fiscal position is poised to carry over into 2014, as well—even despite the recent bipartisan congressional agreement to reduce the severity of the sequester-mandated spending cuts. In fact, the 2014 budget deficit is on track to be even smaller than that of 2013—our current estimate is $-\$530$ billion. This has implications for net Treasury issuance and in turn the level of interest rates, because less issuance should help to mitigate the potential for a damaging backup in rates as the Fed continues to curtail the pace of asset purchases. While we do anticipate higher rates this year, reduced issuance should help to moderate the pace of the backup.

Plenty more deficit reduction is in store. Following four years of budget deficits in excess of $-\$1$ trillion, in 2013 the annual deficit shrank to $-\$680$ billion (compared to $-\$1.1$ trillion in 2012). There is little doubt that fiscal austerity helped to drive the narrowing of the gap between receipts and outlays—however, the contributions are not equally weighted. Federal outlays, which were restricted by sequester-mandated spending caps, declined by -2.4% in fiscal year 2013; whereas federal receipts, which are dominated by tax revenue, increased by $+13.3\%$. As such, of the $\$409$ billion reduction in the deficit last year, approximately $\$325$ billion (or roughly 79%) was due to stronger revenues, while $\$84$ billion was due to reduced expenditures. The revenue increase is attributable to two factors—higher tax rates and sturdier income growth in a stronger economy. We estimate that a little over half (55%) of the revenue gain was the result of higher taxes, while the rest was due to a more robust economy. Therefore, fiscal austerity made a meaningful contribution to deficit reduction, but the contribution was significantly skewed toward higher taxes rather than spending cuts. For this reason, we expect the recent, moderate relaxing of sequester spending levels to only modestly alter the deficit outlook in either 2014 or 2015.¹ As of last May (prior to the recent bipartisan agreement), the CBO was projecting the 2014 budget deficit at $-\$560$ billion and the 2015 deficit at $-\$378$ billion. The CBO is scheduled to release updated projections on February 4.

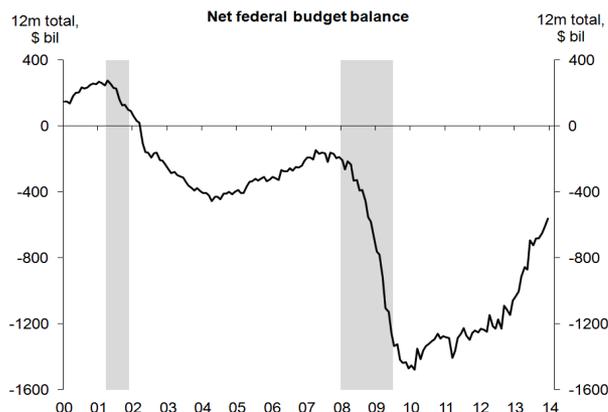
¹ The Bipartisan Budget Act of 2013 increases the cap on discretionary spending in fiscal year 2014 by $\$45$ B and in 2015 by $\$18$ B. The increases are split evenly between defense and non-defense categories.

Spending cuts have helped, but most of the deficit reduction has come from stronger revenues



Source: Treasury, Haver Analytics & DB Global Markets Research

The deficit is on track to shrink further in 2014



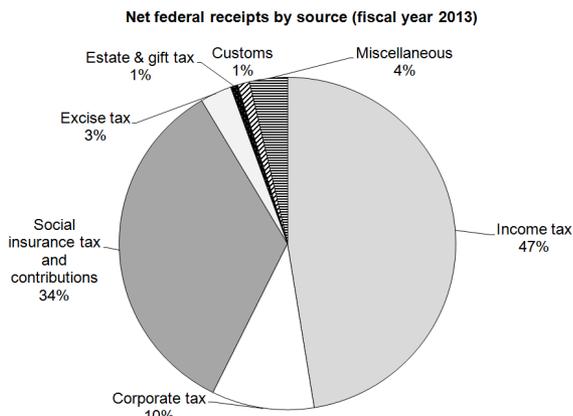
Source: Treasury, Haver Analytics & DB Global Markets Research

We are one quarter into the fiscal year and our rolling estimate of the deficit is already approaching the CBO's 2014 target. As of December, the Monthly Treasury Statement (MTS) showed ongoing improvement in the federal fiscal position. We tabulate a rolling estimate of the deficit (shown in the above figure) by taking the difference between a 12-month rolling sum of receipts versus a similar tally of outlays. Currently, this rolling estimate is running at $-\$561$ billion—which is effectively in line with the CBO's 2014 estimate. However, as the figure above illustrates, the rolling estimate is not exhibiting a stable trajectory; rather, it is shrinking at a pace of about $-\$22$ billion per month (six month average). Case in point, the rolling deficit was $-\$615$ billion in November and $-\$652$ billion in October. Clearly, if this pace continues, the deficit in the current fiscal year will be much smaller.



However, we expect the pace to moderate in the coming months for a number of reasons, including the following: One, as previously highlighted, the caps on 2014 discretionary spending have been moderately lifted; two, special payments from Fannie Mae and Freddie Mac to the Treasury, if repeated in 2014 are not likely to be as large; and three, income tax rates are more stable between 2013 and 2014, which was not the case between 2012 and 2013 when higher tax rates significantly lifted revenue. For fiscal year 2013, the CBO projected outlays at -2.3% year-on-year, and the MTS showed actual outlays at -2.4%. The corresponding revenue projection anticipated an increase of +14.8%, while the MTS showed total receipts up +13.3% over the same period. For 2014, the CBO anticipates receipt growth to decelerate to +8.1% and outlays to rise +4.3%—although the net effect of the recent sequester ease/expiration of extended unemployment benefits will probably boost outlays slightly above +5.0%. We expect the budget deficit to shrink to -\$530 billion in 2014.

Households account for the majority of federal receipts



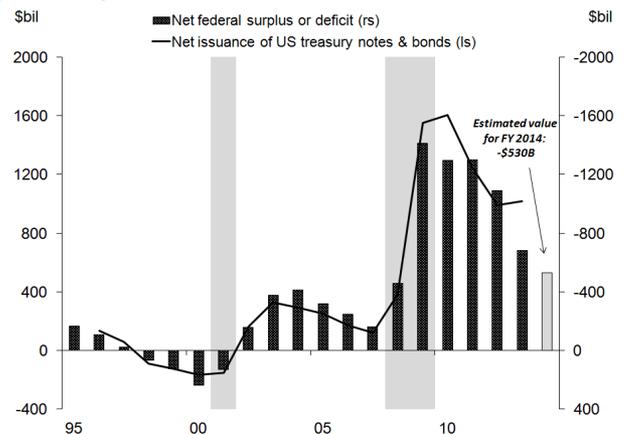
Source: Treasury, Haver Analytics & DB Global Markets Research

How will economic performance impact budget projections? Barring an official mandate to alter outlays, such as a fiscal stimulus package or unexpected spending related to defense or natural disaster relief, federal spending should hew closely to the CBO’s projections for the remaining fiscal year. This is because much of the budget is predetermined at the start of the period, and so it is not economically sensitive. In other words, most budget provisions are immune to deviations in economic output. (Obviously, some components, such as nutrition assistance and jobless benefits, are highly sensitive to economic conditions.) On the other hand, revenue trends will be far more responsive to changing economic trends. The preceding figure shows the composition of federal receipts in fiscal year 2013. (The ten-year average shows similar results.) The top three contributors—

individual income taxes, corporate income taxes and contributions to social insurance programs, such as social security and unemployment benefits—account for a combined 91% of revenue; and all of these categories are highly sensitive to economic activity. Since 2000, the respective correlations between nominal GDP growth and the aforementioned revenue streams have been 72%, 80% and 55%. As a result, the overall receipt trend is also closely correlated with GDP—the correlation has been 87% over the past two decades.

Herein lies the main risk to the 2014 budget deficit estimates, because a deviation from projected economic output will significantly alter the revenue trend. For example, in February of last year, the CBO assumed full year real GDP growth of 1.4% in 2013 and 2.6% in 2014 when they constructed their revenue projections. Both of these estimates are likely to be too conservative. We will not have an official read on 2013 until next week, but if our Q4 forecast of 4.0% is correct, then full year growth should be closer to 2.0%; and we are projecting 2014 at 3.5%. Hence, stronger growth than what the CBO anticipated should result in larger-than-expected revenues, and therefore a smaller deficit is possible. In a similar vein, the CBO projected payroll gains of +182k per month in 2014; if the pace of hiring is faster, this will directly translate into stronger income tax revenue. As such, if the CBO incorporates more bullish economic forecasts into their upcoming budget update, their 2014 (and possibly 2015) deficit estimates could be smaller. Based on recent economic performance, our preliminary estimate is that the CBO’s 2014 budget deficit projection, previously pegged at -\$560 billion last May, could be reduced by about \$10-\$20 billion.

Shrinking deficits require less issuance



Source: Treasury, Haver Analytics & DB Global Markets Research

In conclusion, the upcoming budget projections from the CBO bear watching. Given that the economy is on a somewhat stronger footing than



the CBO previously assumed, their revenue projections may prove to be too conservative. While stronger revenues point to a smaller deficit, some of the improvement will be mitigated by less restrictive sequester-mandated spending caps. However, whether the 2014 budget deficit estimate remains near previously projected levels or marginally shrinks is less important than the fact that the broader trajectory of the deficit is dramatically improved relative to the experience from 2009 to 2012. Effectively, the budget deficit has been cut in half; and as the preceding figure illustrates, this should have significant implications for net treasury issuance—although we will refrain from making a more formal assessment until the official budget projections are released on February 4. Even so, one fact is clear—the government’s fiscal position is dramatically improving as the economy continues to mend.

Carl J. Riccadonna (212) 250-0186



Data and Events Calendar

Calendar (Jan 20 – Feb 14)

Jan-20	Jan-21	Jan-22	Jan-23	Jan-24
Martin Luther King Jr Holiday All markets closed			Initial Claims (wk-end) 8:30 AM Jan 4: 330k -15k Jan 11: 325 -5 Jan 18: 326 +1 Existing Home Sales 10:00 AM Oct: 5.12M Nov: 4.90 Dec: 4.95 Leading Economic Indicators 10:00AM Oct: +0.1% Nov: +1.0 Dec: +0.1	2 Yr FRN Announcement \$15B 2 Yr Note Announcement \$32B 5 Yr Note Announcement \$35B 7Yr Note Announcement \$29B 10Yr TIPS Auction \$15B
FORECASTS				
Jan-27 New Home Sales 10:00 AM Oct: 474k Nov: 464 Dec: 465	Jan-28 Durable Goods Orders 8:30 AM Oct: -0.7% +0.7% Nov: +3.4 +1.2 Dec: +6.0 -1.0 Consumer Confidence 10:00 AM Nov: 72.0 Dec: 78.1 Jan: 75.0 2 Yr Note Auction \$32B FOMC Meeting 1st day	Jan-29 FOMC Meeting 2nd day 2 Yr FRN Auction \$15B	Jan-30 Real GDP 8:30 AM Q213: +2.5% +0.6% Q313: +4.1 +2.0 Adv: Q413: +4.0 +1.3 Pending Home Sales Index 10:00 AM Oct: -1.2% Nov: +0.2 Dec: +0.5 5 Yr Note Auction \$35B 7 Yr Note Auction \$29B	Jan-31 Personal Income 8:30 AM Oct: Nov: Dec: Income -0.1% +0.2 Unch Consump. +0.4% +0.5 +0.3 Core PCE +0.1% +0.1 +0.1 Employment Cost Index 8:30AM Q213: +0.5% Q313: +0.4 Q413: +0.5 Chicago PMI 9:45 AM Nov: 62.5 Dec: 60.8 Jan: 61.0 Consumer Sentiment 9:55 AM Nov: 75.1 Dec: 82.5 Final Jan: 80.4
Feb-03 ISM Index 10:00 AM Nov: 57.3 Dec: 57.0 Jan: 57.0 Construction Spending 10:00 AM Oct: +0.9% Nov: +1.0 Dec: -0.5 Unit motor vehicle sales Sales: Cars Trucks Total Nov: 5.6 7.0 16.3M Dec: 5.1 6.5 15.3 Jan: 5.3 6.7 15.5	Feb-04 Factory Orders 10:00 AM Oct: -0.5% Nov: +1.8 Dec: +3.5	Feb-05 ADP Employment Report 8:15 AM Nov: +229k Dec: +238 Jan: +200 Nonmfg. ISM 10:00 AM Nov: 53.9 Dec: 53.0 Jan: 53.5 3 Yr Note Announcement \$30B 10 Yr Note Announcement \$24B 30 Yr Bond Announcement \$16B	Feb-06 International Trade Balance 8:30 AM Oct: -\$39.3B Nov: -34.3 Dec: -37.0 Productivity 8:30AM 2Q13 +1.8% +2.0% 3Q13 +3.0 -1.4 Prelim: 4Q13 +2.5 +1.5 Unit Labor Costs	Feb-07 Employment 8:30 AM Nov: Dec: Jan: Payrolls +241k +74 +200 Private +226k +87 +200 UnRate 7.0% 6.7 6.5 Hrly Erngs +0.2% +0.1 +0.2 Workwk 34.5hrs 34.4 34.5 Consumer Credit 3:00 PM Oct: +\$17.9B Nov: +12.3 Dec: +10.0
Feb-10	Feb-11 Wholesale Inventories 10:00 AM Oct: +1.3% Nov: +0.5 Dec: +0.3 3 Yr Note Auction \$30B	Feb-12 10 Yr Note Auction \$24B	Feb-13 Retail Sales 8:30AM Nov: +0.4% +0.1% Dec: +0.2 +0.7 Jan: -0.2 -0.3 Ex Autos 10:00 AM Oct: +0.8% Nov: +0.4 Dec: +0.3 Business Inventories 10:00 AM Oct: +0.8% Nov: +0.4 Dec: +0.3 30 Yr TIPS Announcement \$9B 30 Yr Note Auction \$16B	Feb-14 Industrial Production 9:15AM Nov: +1.0% 79.1% Dec: +0.3 79.2 Jan: +0.5 79.4 Cap. Util. 9:55 AM Dec: 82.5 Jan: 80.4 Prelim Feb: 82.0 Consumer Sentiment 9:55 AM Dec: 82.5 Jan: 80.4 Prelim Feb: 82.0

Source: Deutsche Bank



Appendix 1

Important Disclosures

Additional information available upon request

For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, 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. Joseph LaVorgna/Carl Riccadonna/Brett Ryan



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

Group Chief Economist

Member of the Group Executive Committee

Guy Ashton
Global Chief Operating Officer
Research

Marcel Cassard
Global Head
FICC Research & Global Macro
Economics

Richard Smith and Steve Pollard
Co-Global Heads
Equity Research

Michael Spencer
Regional Head
Asia Pacific Research

Ralf Hoffmann
Regional Head
Deutsche Bank Research, Germany

Andreas Neubauer
Regional Head
Equity Research, Germany

Steve Pollard
Regional Head
Americas Research

International Locations

Deutsche Bank AG

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

Deutsche Bank AG

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

Deutsche Bank AG

Filiale Hongkong
International Commerce Centre,
1 Austin Road West, Kowloon,
Hong Kong
Tel: (852) 2203 8888

Deutsche Securities Inc.

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

Deutsche Bank AG London

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

Deutsche Bank Securities Inc.

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

Global Disclaimer

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. 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.

Derivative transactions involve numerous risks including, among others, market, counterparty default and illiquidity risk. The appropriateness or otherwise of these products for use by investors is dependent on the investors' own circumstances including their tax position, their regulatory environment and the nature of their other assets and liabilities and as such investors should take expert legal and financial advice before entering into any transaction similar to or inspired by the contents of this publication. Trading in options involves risk and is not suitable for all investors. Prior to buying or selling an option investors must review the "Characteristics and Risks of Standardized Options," at <http://www.theocc.com/components/docs/riskstoc.pdf>. If you are unable to access the website please contact Deutsche Bank AG at +1 (212) 250-7994, for a copy of this important document.

The risk of loss in futures trading and options, foreign or domestic, can be substantial. As a result of the high degree of leverage obtainable in futures and options trading losses may be incurred that are greater than the amount of funds initially deposited.

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 Conduct 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 or Deutsche Securities Asia Limited, Singapore Branch (One Raffles Quay #18-00 South Tower Singapore 048583, +65 6423 8001), and recipients in Singapore of this report are to contact Deutsche Bank AG, Singapore Branch or Deutsche Securities Asia Limited, 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 or Deutsche Securities Asia Limited, 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 © 2014 Deutsche Bank AG