Deutsche Bank

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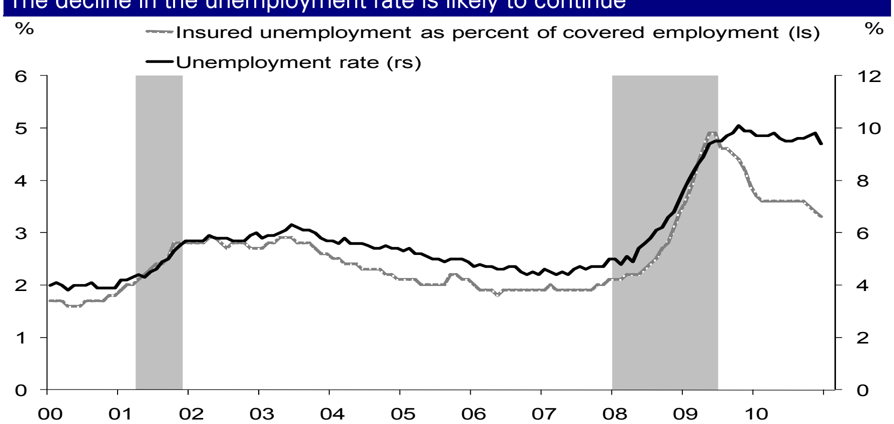
US Economics Weekly

On the periphery of good

- Overview: The December employment report was decent in the sense that it points to continued improvement in the labor market, albeit at an uneven pace. To be sure, the economy is healing and the economic outlook remains constructive for 2011. Going forward, we will pay keen attention to weekly jobless claims, which have made a noticeable break below 450k over the past month. Significantly lower claims should signal a step-up in job growth. Lastly, we could not ascertain whether inclement weather played a factor on December hiring, as the number of workers not at work because of bad weather was only modestly above its historical average.
- Quarterly update on household finances: Following last month's release of the Fed's Flow of Funds report, we again provide a quarterly update on the state of US consumer finances, as measured by the change in household buying power and by the ratio of household liquid assets to liabilities. The latest figures show that households' financial position continues to gradually improve. This is modestly positive for consumption, which should continue to power the economy going forward.
- Three key economic trends to watch in 2011: The economic profile of 2011 is likely to be considerably different than that of 2010. In the following commentary we highlight three major macroeconomic trends which we expect to be dominant themes of the year ahead—output expansion, a firming labor market and a recovery of pricing power. Today's report on December payrolls did not deviate significantly from the trend over most of H2 2010, however, we believe that accelerating employment income growth will bolster economic activity and lead to larger job gains in the relatively near term.

The decline in the unemployment rate is likely to continue



Source: DoL, BLS & DB Global Markets Research

Economics

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Forecasts

	2010		2011			
	Q3	Q4F	Q1F	Q2F	Q3F	Q4F
Real GDP (% q/q)	2.6	3.5	3.5	3.3	3.3	3.2
Final sales (% q/q)	0.9	4.9	3.7	3.4	3.5	3.3
Private consumption (% q/q)	2.4	4.5	3.5	3.3	3.3	3.3
Core PCE (%y/y)	1.3	1.0	1.0	1.1	1.2	1.3
Unemployment rate	9.6	9.6	9.5	9.3	9.1	8.8
Fed funds	0.20	0.20	0.20	0.20	0.20	0.50

Overview

Summary: The December employment report was decent in the sense that it points to continued improvement in the labor market, albeit at an uneven pace. To be sure, the economy is healing and the economic outlook remains constructive for 2011. Going forward, we will pay keen attention to weekly jobless claims, which have made a noticeable break below 450k over the past month. Significantly lower claims should signal a step-up in job growth. Lastly, we could not ascertain whether inclement weather played a factor on December hiring, as the number of workers not at work because of bad weather was only modestly above its historical average.

Payrolls have tended to be revised higher. The monthly nonfarm payroll figures have shown a recent pattern of upward revisions. December payrolls were reported at +103k, less than expectations of a +150k increase. Private payrolls fared slightly better, rising 113k, but this too was below market expectations of a 175k increase. We believe there is a good chance these figures get revised higher, as this has been the trend recently. For example, October and November payrolls were each revised higher by 38K and 32k to +210k and 71k, respectively. In the details, the disappointments largely came from lower than expected increases in manufacturing (+10k) and retail trade (+12k), where the gains were much smaller than what either the strength in retail sales or the ISM surveys implied. These are two areas of the economy where a pickup in hiring is most likely.

Some of the recovery in manufacturing employment could be getting captured in temporary hiring (temps), because many producers outsource their initial demand for labor in the early stages of the business cycle. Temps increased 16k after rising 31k previously. This marks the fifth increase in a row and the 14th increase in the last 15 months. In our view, this signals ongoing improvement in labor demand. If consumer spending continues to accelerate and productivity gains further dissipate, temp positions will turn into permanent positions. This should help lift wage growth, which remains negligible at the moment—average hourly earnings advanced just 0.1% in December and +1.8% over the past 12 months. The nonfarm workweek was unchanged at 34.3 hours. Conceivably, wages, hours and payrolls are being understated. This is because employee tax withholding receipts, which are a direct function of wages, hours and workers, improved dramatically beyond what the aforementioned aggregate employment income statistics implied in December, growing 7.7% on a year over year basis. The upshot is that while the official labor market numbers are getting incrementally better, tax receipts tell a story of more appreciable gains in wages and salaries than what has been seen to this point. As such, it is not surprising to see consumer spending as sturdy at it has been—the level of November inflation-adjusted consumption is already up 4.4% at an annualized rate versus its Q3 average. This development supports our forecast of a 3.5% gain in Q4 2010 real GDP. This is also corroborated by the quarterly gain in the index of aggregate hours; based on the rise in private payrolls along with the revisions and the steady workweek, aggregate hours rose 2.3% at an annualized rate last quarter, enough to support 3%-plus GDP assuming further deceleration in productivity growth.

The drop in the unemployment rate was welcome. Perhaps the best news in the December employment report was the 0.4% decline in the unemployment rate from 9.8% to 9.4%. The drop came about because of a combination of higher household employment (+297k) and a lower level of unemployment (-556k). Remember the unemployment rate is constructed from a different survey than the payroll data. This combination of factors meant the labor force participation rate fell 0.3% to 64.3%, and we expect it to continue to edge lower. We see no reason at this point to change our yearend forecast of an 8.8% unemployment rate, although if the economy surprises to the upside, which is the risk, the rate could end 2011 closer to 8% than 9%.

Added focus on jobless claims is warranted. In hindsight, claims are the one series that was not foreshadowing big payroll gains last year while other usually reliable series were, such as the employment components of the ISM surveys, tax receipts, capital spending, corporate profits and temp hiring. However, it is clear that claims are moving lower, weather considerations aside—the "weather workers" series in December was reported at 175k, not meaningfully different than the long term December average of 135k. Over the past four weeks, claims averaged 411k, down sharply from where they were three months earlier (457k). Claims had tested the 450k level numerous times, but failed to break downward. The latest readings are encouraging in this regard, but we would need to see a sustained break now below 400k before our confidence increases that relatively large 200k payroll gains are coming.

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Quarterly update on household finances

Summary: Following last month's release of the Fed's Flow of Funds report, we again provide a quarterly update on the state of US consumer finances, as measured by the change in household buying power and by the ratio of household liquid assets to liabilities. The latest figures show that households' financial position continues to gradually improve. This is modestly positive for consumption, which should continue to power the economy going forward.

How do we construct household buying power? Household buying power is a quantitative tool we developed to help assess the health of the consumer. The primary concept behind buying power is that households can fuel consumption via either one of two ways: households can consume through existing cash flow or they can borrow. The latter can consist of tapping existing lines of credit, such as credit cards, or by borrowing against the value of their home through home equity lines of credit or cash-out refinancing. There is little evidence that people borrow against their financial portfolios, so this does not enter into our calculation of what constitutes household buying power. Specifically, we calculate buying power by examining households' cash flow and their ability to borrow. We then estimate cash flow by taking the change in personal income less interest payments—both mortgage and non-mortgage payments—and then subtract personal taxes, as well. We add the change in consumer credit and homeowners' equity back into household cash flow in order to derive what we call household buying power. The calculations, which are shown in the table below, are annual and measured on a Q4 over Q4 basis from 1998 to 2009. The latest values cover Q3 2010 so we compare them to Q3 2009. Our metric shows that consumers' ability to spend has strengthened because of stronger income and higher homeowners' equity. We expect these trends to accelerate this year.

Cash flow continues to improve. Over the four quarters ending Q3 2010, personal income increased a healthy $429 billion. This represents a noticeable improvement from 2009 when income fell $117 billion and from 2008 when income went up just $215 billion. Note that income gains are set to accelerate as the average level of October and November personal income is already $441 billion above its Q4 2009 average. Continued low interest rates have reduced non-mortgage and mortgage interest payments which were down $24 billion and $25 billion, respectively over the past year. There was some offset though from higher personal taxes, which rose $61 billion. After subtracting non-mortgage and mortgage interest payments as well as personal taxes from personal income, we are left with a $417 billion increase in household cash flow for the four quarters ending Q3 2010. This is a noticeable improvement from $248 billion in positive cash flow in 2009, and based on where the aforementioned personal income figures are tracking for Q4 2010, we are likely to see cash flow come in commensurate with 2007 levels.

Consumer credit continues to shrink. In determining household buying power, we next factor in consumer credit. Normally, consumer credit adds to buying power because it almost always grows. However, this has not been the case recently, as the ongoing deleveraging of household balance sheets continued into 2010 after a sharp pullback in 2009. The good news, though, is that the rate of deleveraging is slowing: consumer credit is down -$88 billion thus far compared to -$115 billion in 2009. A slower rate of deleveraging going forward means the drag from declining consumer credit is lessening, a small positive for consumer spending.

Household buying power is gradually recovering as the rate of decline in homeowners' equity is slowing

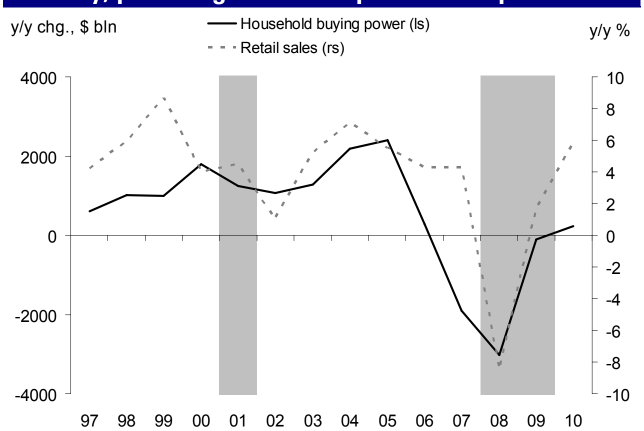
(Q4 over Q4 nominal dollar change in billions of dollars except for 2010 which is Q3 over Q3)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Personal Income	508	431	593	205	215	452	645	518	764	637	215	-117	429
less Interest Payments (-)	7	11	26	-11	-13	-2	17	13	26	26	-40	-17	-24
Mortgage Interest (-)	11	29	38	16	27	14	49	74	84	36	-7	-22	-25
Personal Taxes (-)	100	88	105	-27	-186	-25	74	163	140	125	-75	-326	61
Cash Flow (=)	390	303	423	227	386	465	505	268	515	451	337	248	417
Consumer Credit (+)	97	112	188	151	105	106	117	100	95	139	39	-115	-88
Owners' Equity in Real Estate (+)	528	575	1176	867	568	712	1562	2038	-324	-2488	-3391	-247	-99
Household Buying Power	1015	991	1787	1245	1059	1283	2184	2406	286	-1898	-3015	-114	230
Consumption	380	447	456	286	286	410	532	515	474	504	-21	164	326
Leverage Ratio: Consumption / Household Buying Power	37%	45%	26%	23%	27%	32%	24%	21%	166%	—	—	—	141%

Source: BEA, FRB & DB Global Markets Research

Homeowners' equity has declined modestly. The last component used to estimate buying power is the change in homeowners' equity. This series is added to the change in cash flow and the change in consumer credit to arrive at buying power. Homeowners' equity is the dominant subcomponent of buying power because changes in the former have swamped changes in either cash flow or consumer credit, which is apparent from the table on the previous page. Over the past four quarters, homeowners' equity is down \$99 billion, no doubt reflecting the recent modest weakness in home prices. While down, the latest decline in homeowners' equity is the smallest since 2005, the last year that homeowners' equity posted a gain. In terms of overall buying power, it is up \$230 billion over the last four quarters, the first increase since 2006 when it increased \$286 billion. Provided that home prices do not weaken substantially further from here, buying power should remain in positive territory, thereby providing a modest tailwind to US consumption.

Household buying power has edged into positive territory, providing a small fillip to consumption

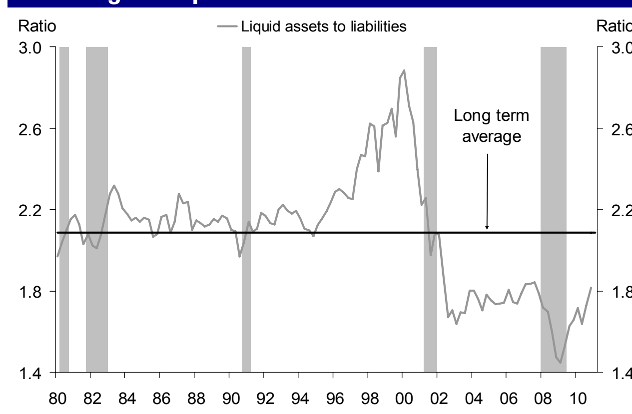


Source: FRB & DB Global Markets Research

Another key metric is also showing improvement. A complementary series used to determine the financial health of consumers is to compare the ratio of liquid financial assets to total liabilities. Essentially, this measure analyzes the health of consumers by looking at their aggregate balance sheet with liquid assets defined as the sum of bank deposits, credit market instruments, mutual fund shares and corporate equities; all of these instruments are considered to be liquid, since they can easily and quickly be converted to cash in the event that households have to sell assets to meet their financial obligations. Liabilities, meanwhile, include all forms of household debt, with mortgages representing the largest component at roughly 75%.

Similar to the trend in buying power, we are seeing a modest improvement in the health of household balance sheets. This is shown in the chart below, which shows the ratio of liquid assets to liabilities. The ratio increased from 1.64 in Q2 2010 to 1.73 in Q3 2010. This is up sharply from its record low of 1.45 set in Q1 2009 and represents the highest reading since Q4 2007 (1.79). Importantly, the ratio should be up substantially in Q4 2010 when the official data are released this March. The reason is that changes in equity prices are the primary driver of liquid assets. Stock prices advanced 10% last quarter. If we apply this gain to the equity portion of liquid assets and then hold all of the other components in both the numerator and denominator unchanged at their Q3 levels, the ratio rises to 1.82, the highest level since Q3 2007 when it stood at 1.84. If our official year end equity target for the S&P 500 is realized, the ratio of liquid assets to liabilities would rise to 2.04, which would be only marginally below the long-term average of 2.08 or what we would consider equilibrium. Higher equity prices, which will aid in household balance sheet repair, will also provide a counterweight to sluggish home prices.

Household liquid assets are rising relative to liabilities, reflecting an improvement in consumer health



Source: FRB & DB Global Markets Research

Our analysis of household buying power and household liquid assets to liabilities provides more evidence that the worst of the financial crisis is behind us: US households have already undertaken substantial deleveraging. A small improvement in buying power coupled with a rising liquid assets to liabilities ratio mean consumer spending should strengthen from its previous sub-par trend. Therefore, we can expect to see stronger economic activity in the months ahead, led by the consumer.

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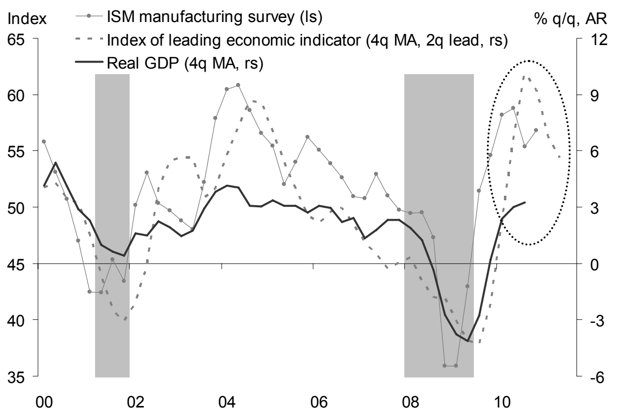
Key Economic Themes:

Three key economic trends to watch in 2011

Figure 1: Concurrent and leading indicators of output point to accelerating growth through mid-year



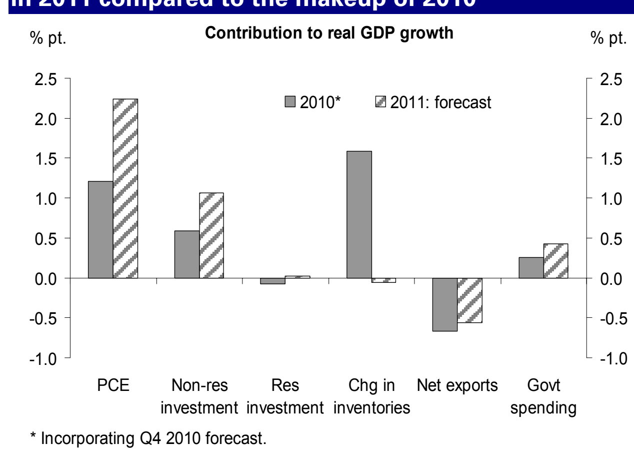
Source: ISM, Conference Board, BEA & DB Global Markets Research

The economic profile of 2011 is likely to be considerably different than that of 2010. In the following commentary we highlight three major macroeconomic trends which we expect to be dominant themes of the year ahead—output expansion, a firming labor market and a recovery of pricing power. Today's report on December payrolls did not deviate significantly from the trend over most of H2 2010, however, we believe that accelerating employment income growth will bolster economic activity and lead to larger job gains in the relatively near term.

Past the peak According to our economic projections, real output—as measured by GDP—exceeded its pre-recession peak sometime in the final quarter of last year. This is relevant to the outlook for a number of economic metrics, ranging from employment to industrial capacity and construction. While output remained below its prior peak, businesses in general could easily meet demand with their existing infrastructure and workforce levels. However, now that the economy has passed from recovery into expansion, producers are more likely to encounter capacity constraints which will require investment in either capital or labor. In other words, a similar GDP growth rate in 2011 compared to 2010 will require more investment spending and a faster pace of job growth—particularly as productivity growth continues to slow. However, we think that GDP growth will be even faster this year (+3.3% Q4/Q4) compared to 2010 (2.9%); hence, we are even more constructive on the outlook for labor and investment. As the preceding figure illustrates, two useful metrics of output growth—the index of leading economic indicators and the manufacturing ISM—corroborate our expectations of continued, above-trend growth through midyear. In fact, those metrics suggest that the growth should move a touch higher. As of Q3 2010, the sequential annualized change in the four quarter moving average of real GDP was 3.2%—we expect a similar pace throughout the coming year.

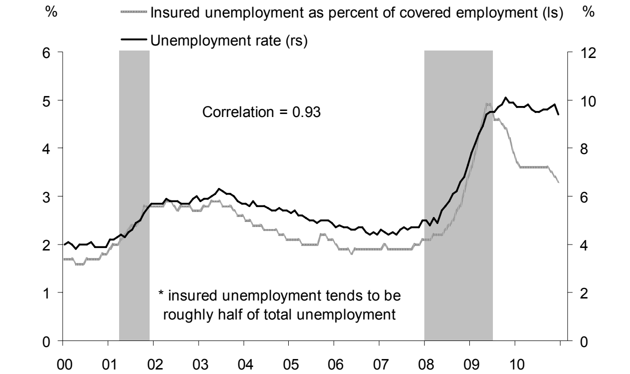
The composition of growth is due to shift in 2011. While the pace of growth is due to be moderately faster this year, we think that the economic tone will feel markedly stronger due to a more durable composition of activity. As the following chart demonstrates, we are projecting a reordering of the dominant drivers of growth in the year ahead. The largest contributors to GDP growth over the past year were inventories, gross exports and household consumption. The key highlights of our forecast for 2011 include a considerable acceleration of consumer spending, a significantly smaller contribution from inventory restocking, and a reduced drag from non-residential structures amid still-robust capex growth. The net effect is a moderately higher pace of overall growth. However, the economic tone will be measurably more upbeat due to the fact that producers will have greater confidence in the outlook if demand is stemming from household consumption and business spending, rather than highly cyclical inventory replenishment. Of course, to support our estimation regarding household consumption we will need to see larger employment income gains as a result of a stronger labor market. Hence, job creation remains the crux of our broader 2011 economic view.

Figure 2: The engines of growth are more broad-based in 2011 compared to the makeup of 2010



Source: BEA & DB Global Markets Research

Figure 3: The onset of a meaningful decline in the unemployment rate is overdue



Source: BLS, DoL & DB Global Markets Research

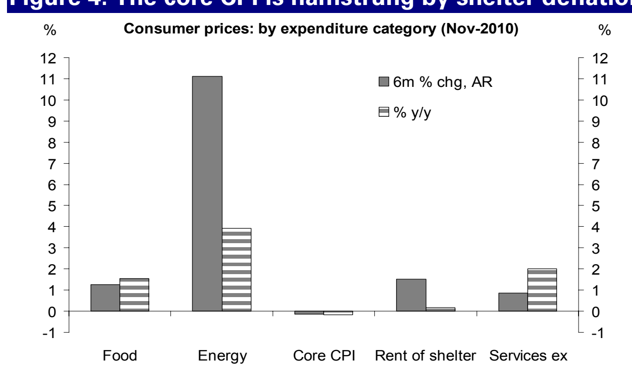
The unemployment rate downtrend begins The two-tenths uptick in the unemployment rate in November of last year increasingly appears to be signal noise—particularly in light of the four-tenths decline in December. We are projecting a steady downtrend in the unemployment rate over the course of this year to a level of 8.8% by yearend. Since the unemployment rate and nonfarm payroll statistics come from separate surveys, there is not a hard-and-fast linkage between the two statistics. However, we estimate that to reach our unemployment rate target nonfarm payroll gains will need to average approximately 200k per month. For our estimate, we assume the labor force participation rate moves slightly lower, consistent with the recent trend. If instead the participation rate moves back toward its 10-year trailing average of 66.0% (its average in the year preceding the recession), then the payroll hurdle will be significantly higher—closer to an average of 500k per month to reach 8.8%. Under either scenario, the current pace of hiring will clearly need to measurably improve to meet our target.

As the economy contracted during the recession, the backup in the unemployment rate significantly exceeded what the decline in GDP implied. Hence, we are mindful that a similar overshoot could occur in the other direction as the labor market mends. In light of the aforementioned issues surrounding the participation rate, we believe the pace of payroll gains will be more important than the level of the unemployment rate. For instance, if payroll gains are running near 300k, but the unemployment rate is only stubbornly declining due to rising labor force participation, we would still expect the Fed to begin removing policy accommodation before yearend. Regardless of the pace of decline in the unemployment rate, robust job growth will produce solid employment income gains which in turn will propel consumer spending—one of the keystones of our economic view.

Inflation returns…modestly Last year was the tamest on record for core inflation. While the December CPI data are not yet available, full year core CPI is likely to print below 1% for the first time ever. (The prior low was 1.2% in 1961.) In order to better understand the underlying drivers of the CPI, the following chart shows the 6 and 12 month rates of change among various index subcomponents. We divide the index into its major goods and services categories. Their respective shares of the overall index are approximately as follows: food (14%), energy (9%), goods excluding food and energy (21%), rent of shelter (32%) and services ex-energy/ex-rent of shelter (25%).

The key observation below is that deflationary pressures are emanating from a narrow range of sources, namely shelter costs and core goods prices. This is worth highlighting, because key leading indicators of shelter costs point to higher inflation in this subcomponent over the next twelve months. Those leading indicators are home prices, rental vacancy rates and employment income. A range of home price metrics, including median existing home sales and Case-Shiller, show prices virtually unchanged over the past year. The rental vacancy rate, while still high in historical context, has declined over the past four quarters from an all-time peak of 11.1% in Q3 2009 to 10.3% in Q3 2010. The third leading indicator of shelter inflation, employment income, has accelerated impressively of late. The official data on wage and salary income is up 3.2% over the past year. Withheld employment income taxes are up an even greater 8% y/y, thereby pointing to additional income growth acceleration. The other depressant on the core CPI, core goods prices, has a more mixed outlook. Prices in this subcategory should remain at least stable as household demand improves; however, a meaningful appreciation of the dollar (perhaps due to stronger economic fundamentals) could offset this. We expect the shelter cost increase to exceed any drag from core goods prices. As a result, the inflation outlook should firm appreciably as the year progresses.

Figure 4: The core CPI is hamstrung by shelter deflation



Source: BLS & DB Global Markets Research

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Data and Events Calendar

Calendar (January 3 – January 28)

Jan-03	Jan-04	Jan-05	Jan-06	Jan-07
ISM Index 10:00 AM Oct: 56.9 Nov: 56.6 Dec: 57.0 Construction Spending 10:00 AM Sep: +0.7% Oct: +0.7 Nov: +0.4	Factory Orders 10:00 AM Sep: +3.0% Oct: -0.7 Nov: +0.7 Unit motor vehicle sales Sales: Cars Trucks Total Oct : 3.7 5.6 12.3M Nov : 3.8 5.5 12.3 Dec : 3.9 5.6 12.5 FOMC Minutes 2:00 PM	Nonmfg. ISM 10:00 AM Oct: 54.3 Nov: 55.0. Dec: 57.1	Initial Claims (wk-end) 8:30AM Dec18: 420k -3k Dec25 391 -29 Jan01 409 18 3 Yr Note Announcement $32B 10 Yr Note Announcement $21B 30 Yr Bond Announcement $13B	Employment 8:30 AM Oct: Nov: Dec: Payrolls +210k +71 +103 UnRate 9.7% 9.8 9.4 Hrly Erngs +0.3% Unch. +0.1 Workwk 34.3 hrs 34.3 34.3 Consumer Credit 3:00 PM Sep: +$1.2B Oct: +3.4 *Nov: +4.0*

FORECASTS

Jan-10	Jan-11	Jan-12	Jan-13	Jan-14
	Wholesale Inventories 10:00 AM Sep: +2.1% Oct: +1.9 *Nov: +1.0* 3 Yr Note Auction *$32B*	Import Prices 8:30AM Oct: +1.0% Nov: +1.3 *Dec: +1.1* 10 Yr Note Auction *$21B*	PPI Total Core 8:30AM Oct: +0.4% -0.6% Nov: +0.8 +0.3 *Dec: +0.5 +0.2* International Trade Balance 8:30 AM Sep: -$44.6B Oct: -38.7 *Nov: -40.0* 30 Yr Bond Auction *$13B* 10 Yr Tips Announcement *$12B*	CPI Price Total Core 8:30AM Oct: +0.2% Unch. Nov: +0.1 +0.1 *Dec: +0.3 +0.1* Retail Sales Total Ex Autos 8:30AM Oct: +1.7% +0.8% Nov: +0.8 +1.2 *Dec: +1.0 +0.9* Industrial Production Cap. Util. 9:15AM Oct: -0.2% 74.9% Nov: +0.4 75.2 *Dec: +0.8 75.8* Consumer Sentiment 9:55 AM Nov: 71.6 Dec: 74.2 *Prelim: Jan: 76.0* Business Inventories 10:00AM Sep: +1.3% Oct: +0.7 *Nov: +0.8*

Jan-17	Jan-18	Jan-19	Jan-20	Jan-21
Martin Luther King Jr. Holiday All Markets Closed	NY Fed Empire State Survey 8:30AM Nov: -11.1 Dec: 10.6 *Jan: +5.0* NAHB Housing Market Index 10:00AM Nov: 16 Dec: 16 *Jan: 17*	Housing Starts Permits 8:30AM Oct: 0.534M 0.552M Nov: 0.555 0.544 *Dec: 0.575 0.575*	Existing Home Sales 10:00 AM Oct: 4.43M -2.2% Nov: 4.68 5.6 *Dec: 4.75 +1.5* Leading Economic Indicators 10:00AM Oct: +0.4% Nov: +1.1 *Dec: +0.5* Philadelphia Fed 10:00AM Nov: +22.5 Dec: +24.3 *Jan: +23.0*	2 Yr Note Announcement *$35B* 5 Yr Note Announcement *$35B* 7 Yr Note Announcement *$29B* 10 Yr Tips Auction *$12B*

Jan-24	Jan-25	Jan-26	Jan-27	Jan-28
	Consumer Confidence 10:00 AM Nov: 54.3 Dec: 52.5 *Jan: 55.0* 2 Yr Note Auction *$35B* FOMC Meeting 1st day	New Home Sales 10:00 AM Oct: 275K -10.7% Nov: 290 +5.5 *Dec: 285 -1.7* 5 Yr Note Auction *$35B* FOMC Meeting 2nd day	Durable Goods Orders ExTrans 8:30 AM Oct: -3.1% -2.0% Nov: -0.3 +3.6 *Dec: +2.0 +1.0* Pending Home Sales Index 10:00 AM Oct: +10.1% Nov: +3.5 *Dec: +4.0* 7 Yr Note Auction *$29B*	Real GDP Deflator 8:30 AM Q210: +1.7% +1.9% Q310: +2.6 +2.1 *Adv. Q410: +3.5 +2.0* Employment Cost Index 8:30AM Q210: +0.5% Q310: +0.4 *Q410: +0.5* Consumer Sentiment 9:55 AM Nov: 71.6 Dec: 74.5 *Final: Jan: 76.0*

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Appendix 1

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Additional information available upon request

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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.

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