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Amid Stronger Growth, State and Local Drag Persists

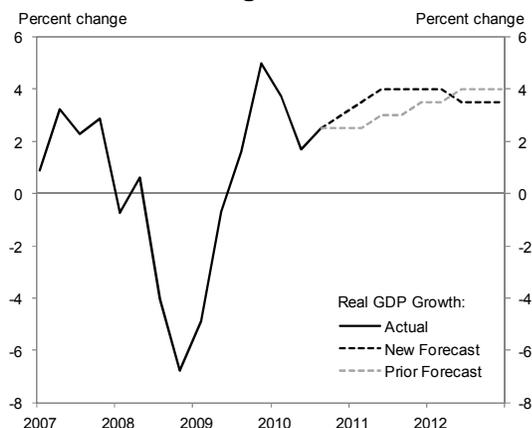
■ The US economic outlook for 2011 has improved further with enactment of the fiscal compromise, as well as a stronger trend in recent data. As we forewarned, we are revising up our forecasts to incorporate this news and now expect real GDP to rise 3.4% in 2011 and 3.8% in 2012 (up from 2.7% and 3.6%), but we have not changed our views on core inflation (settling at ½%) or Fed rate hikes (none before 2013). We think Fed officials are unlikely to extend LSAPs beyond the \$600bn already committed. See pp. 6-7.

■ Despite the better national outlook, state and local governments will continue to face substantial budget pressures for the time being. Income and sales tax revenues have just begun to recover, and even as they accelerate with the economy, other factors—including but not limited to the lagged effect of lower house prices—will limit the growth of spending going forward. We therefore expect modest fiscal drag from the tightening of state and local budgets to persist through 2012.

■ Weak state and local spending growth will also weigh on employment in this sector, which has shrunk by a quarter-million over the past year. Job losses are likely to continue at least through early 2011; however, rather than an acceleration in job cuts, we expect a stabilization by late 2011 or early 2012, followed by a much slower rate of job growth than the private sector for several years.

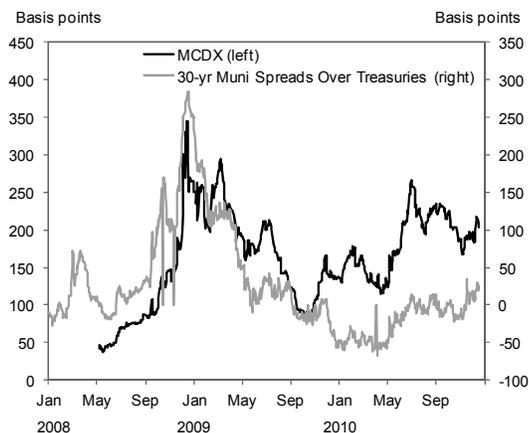
■ Some media and investor reports have suggested the possibility that significant municipal defaults could have severe repercussions for the rest of the economy. Without taking a position on the likelihood (or lack thereof) of defaults, we see the potential for broader “contagion” to be limited because of the heterogeneity of fiscal jurisdictions, the likelihood of federal support, and the fact that municipal debt is held predominately by unlevered domestic investors and individuals.

A Stronger Outlook



Source: Department of Commerce. Our calculations.

Measures of Muni Stress



Source: Markit. Goldman Sachs.

Important disclosures appear at the back of this document.

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I. Amid Stronger US Growth, State and Local Drag Persists

Despite accumulating signs of recovery in the US economy, many states and municipalities remain under severe budgetary pressure. We examine the likely impact of state and local budget stress on GDP, employment, and financial markets, and find that the impact of state and local pressures on the overall US economic outlook is more likely to be felt through weak spending and employment than via severe financial stress.

Sources of Pressure

In an environment of low inflation, the immediate budget pressures on states and localities come from the revenue side of the ledger. States suffered a plunge in personal and sales tax revenue during the financial crisis (Exhibit 1). Now that revenues are beginning to grow again, however, federal aid provided during the crisis is dwindling, so state “budget gaps”—differences between projected expenditure and revenue—persist. By statute, very few states can borrow to fund current spending, so budget gaps need to be closed via legislated tax increases, spending cuts, or other measures that allow the state to shift cash outlays into the future.

Municipalities are also under pressure. Although property tax revenue held up during the recession, local governments can count on less help from cash-strapped states, and still need to reckon with the fallout from the large drop in US home prices. Even if assessments and property taxes do not decline outright, revenue growth will be constrained for years.

Both states and municipalities face substantial and rising costs for pension and health care liabilities. A

recent Pew Foundation study put the present value of unfunded liabilities at more than \$1 trillion, and other estimates have come in even higher.¹ However, in the short run states and local governments have considerable flexibility in how much cash they set aside for this purpose. Retiree liabilities represent a major source of budgetary imbalance—one that will probably restrain spending on other priorities for years to come—but not necessarily a near-term crisis.

States Still a Drag on Growth in 2011

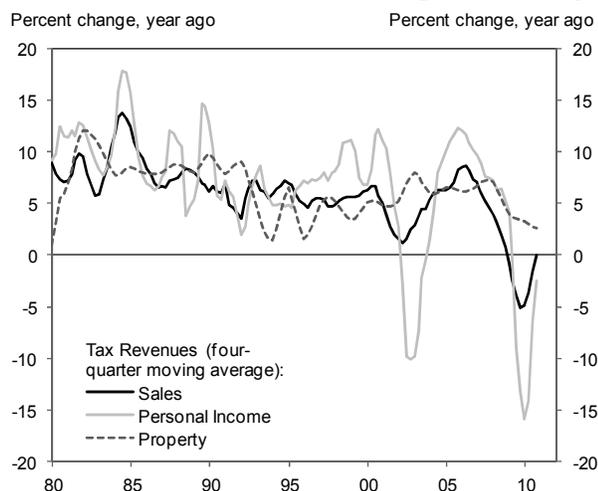
How much do the state and local pressures matter for GDP? If private demand accelerates as we expect—lifting tax revenues with it—the drag from state and local governments should be only modest next year.

When we refer to “drag” from state and local governments, we mean the combination of 1) tax increases that result from legislation rather than underlying growth in the economy and 2) real spending growth that falls below the longer-term trend. In practice, legislated tax changes have tended to be fairly small, at least at the state level. The increase in fiscal year 2010 was the biggest in the last 30 years, but still amounted to less than 0.2% of US GDP.² Legislated state tax increases for fiscal year 2011 (which began in July for most states) are only about one-quarter of this amount so far. Competition between state and local tax jurisdictions appears to be a constraint here, as the share of state and local revenues in GDP has been fairly steady for the last four decades. In addition, politicians in a number of states have made “no new tax” pledges.

This leaves spending to bear the brunt of the budget adjustment. We believe spending growth is likely to remain relatively weak in 2011, well below the pre-financial crisis average of 2½% annual real growth. We come to this conclusion in two ways:

1. Analyzing projected budget gaps. States’ projected revenue shortfalls are highly correlated with growth in current spending, at least in the aggregate (Exhibit 2). This is not a tautology—baseline assumptions for spending growth could differ from year to year, states could raise taxes or plug gaps

Exhibit 1: Revenues Recovering, But Slowly

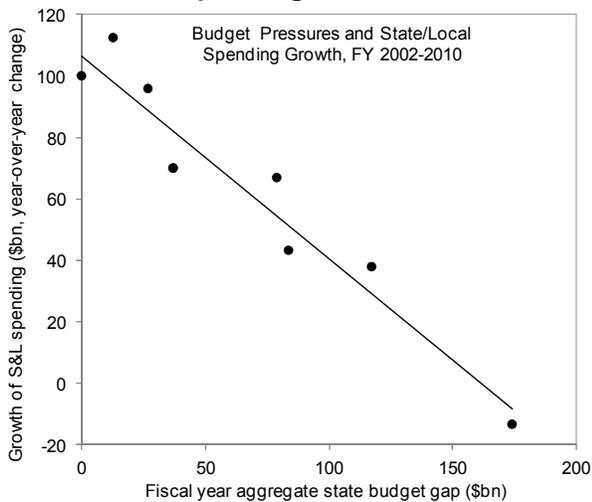


Source: Department of Commerce.

¹ “The Trillion-Dollar Gap,” Pew Center on the States, February 2010; see also various papers by Robert Novy-Marx and Joshua Rauh.

² “The Fiscal Survey of States,” Fall 2010, from the National Association of State Budget Officers. Local taxes, most importantly property tax rates, have also likely increased to some extent, although comprehensive figures are not available.

Exhibit 2: Budget Gaps Correlate Well With Spending Growth



Source: National Conference of State Legislatures. Dept of Commerce.

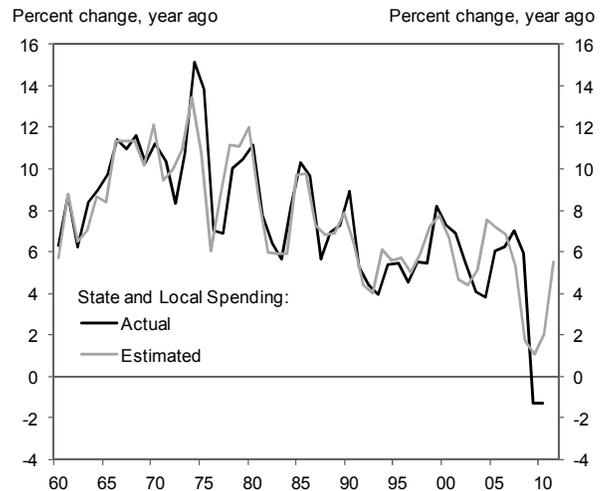
through accounting measures, or local budget trends might diverge to some degree those at the state level.

The size of near-term budget gaps suggests that state and local spending growth will be quite low over the coming year. The National Conference of State Legislatures projects a \$111bn budget gap across all states for fiscal year 2011, and an \$82bn gap for FY2012. Exhibit 2 implies these would be consistent with spending growth of \$33bn and \$52bn, or roughly 2% and 3% respectively in fiscal years 2011 and 2012. These are nominal figures, so real growth would probably be one to two points lower after adjusting for inflation in this sector. Of course, revenue growth could surprise positively, loosening constraints on spending, but states' assumptions of circa 5% revenue growth in FY 2011 do not seem especially conservative given that revenue typically grows in line with nominal GDP.

2. Estimating state and local spending directly from past revenue and GDP growth. Another approach is simply to estimate an equation where spending is explained by growth in current and lagged state and local tax revenues as well as past real GDP growth. The results suggest that it can take as long as three years for growth in the overall economy and state revenues to have their full impact on state and local spending.

Exhibit 3 illustrates these estimates of spending growth. The model fits reasonably well historically, and the explanatory power is dominated by variables with lags of one to two years—i.e. most of the important information for 2011 spending is already known. It suggests nominal growth of just over 2% in calendar year 2011 and nearly 5% in 2012.

Exhibit 3: Spending Has Disappointed



Source: Our calculations.

Our two approaches thus yield reasonably consistent estimates for state and local spending. The numbers from the second approach are a little higher in 2011, and significantly stronger in 2012, but these are for calendar years, which lag the fiscal year by six months.

Several other factors—not included directly in either approach discussed above—suggest that the risk lies to the weak side of these estimates:

1. The ability of states to defer adjustment is waning, based on public comments from state officials and budget analyst reports. Most states have tapped rainy day funds, privatized assets, decreased pension fund contributions, delayed wage or contractor payments, and so on. While there are many possible tactics, the hardest-hit jurisdictions have already exhausted the most practical and politically attractive options, and so further budget adjustments are more likely to be made through spending cuts.

2. The collapse in housing prices points to relatively weaker local spending growth. Property tax revenues have grown (albeit more slowly) in recent years despite the housing crash (Exhibit 4), likely due to both a substantial lag in property reassessments and rate increases in some areas. Home prices do not provide much explanatory power in our regression, but clearly much lower housing prices—and a renewed downturn in recent months—will constrain revenue growth in some jurisdictions to a degree not captured by state budget gaps or our regression approach.

3. Tighter funding conditions may slow capital expenditures. States and municipalities will issue over \$100bn in Build America Bonds (BABs) this year, whereby they issue via taxable debt and receive

a 35% refund on interest costs from the federal government. This opened up opportunities to sell municipal debt to investors focused on taxable issuance, and until very recently was widely anticipated to be extended into 2011. While some jurisdictions that would have issued BABs in 2011 may simply offer tax-free municipal debt instead, the reduction in the pool of potential buyers is likely to raise funding costs and could restrain total issuance.

The bottom line is that spending growth in the 1%-2% nominal range—perhaps 0%-1% in real terms—seems like a reasonable estimate for calendar year 2011, with modest acceleration over the course of 2012. Relative to trend growth in real state and local spending near 2½%, this would represent a shortfall of two percentage points in 2011 and perhaps one point in 2012. With the state and local sector just over 12% of the economy, this in turn implies a drag of roughly 25 basis points on real GDP growth in 2011. Including the (small) effect of legislated state tax changes, and adjusting for multiplier effects, suggests a drag of roughly ½ percentage point of GDP in 2011 and somewhat less in 2012.

Government Job Outlook Remains Dim

One in seven US workers is employed by a state or municipal government—nearly 20 million people in all. Employment in this sector has been falling since late 2008, but the decline has been relatively gradual—about 350,000 jobs, less than 2% of the total. This compares to a drop of more than 5% in private sector employment over the last two years.

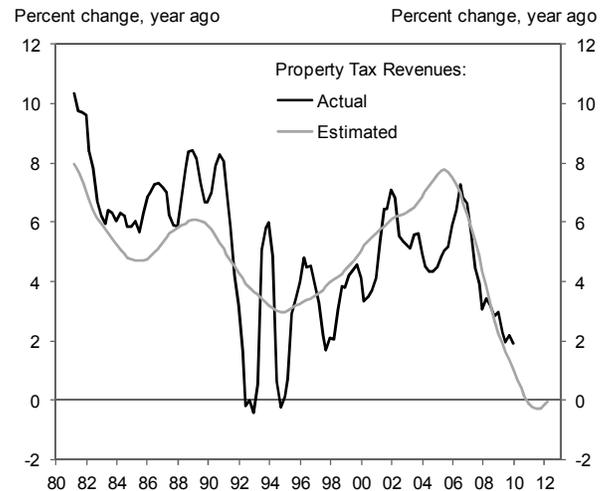
The link between state and local revenues and employment is quite strong, as illustrated in Exhibit 5. Estimates based on current and lagged revenue growth suggest state and local employment is apt to fall a bit further before stabilizing later in 2011.

The conventional wisdom seems to be that state and local job losses will accelerate in 2011. But if state tax revenues rise modestly, we could see a little growth in this area in fiscal year 2012 (Exhibit 5). Likewise, local authorities may resist pressure to reassess property values downward and/or offset those declines with increases in mill rates. If so, they may be able to avoid large layoffs, though tax increases would obviously still result in fiscal drag. After all, state and local employment is already about one million jobs short of what it would be had the pre-crisis growth of roughly 1½% per year continued, and this gap will only increase in 2011 and 2012.

Maybe a Morass, But Not a Meltdown

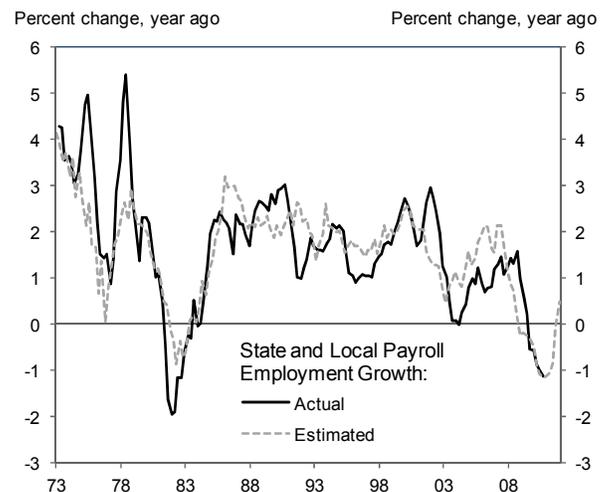
Beyond the effects on the real economy, investors are nervous that budget stress will precipitate significant defaults—at the city and even perhaps at the state

Exhibit 4: Housing Decline to Limit Tax Take



Source: Our calculations.

Exhibit 5: A Slide in State Employment



Source: Our calculations.

level, with potential ramifications for the broader economy. Exhibit 6 shows two measures of the market's concern, an index of municipal credit default swap spreads, and the average spread on 30-year tax-free securities over Treasuries.

We will not attempt a comprehensive review of state finances or an assessment of risks here (for more on that subject, see our May 14 *US Economics Analyst*). Instead, we confine ourselves to three narrower questions. First, would a default threaten a loss of market access for muni issuers, and if so what would that mean for their spending? Second, how might a muni default affect spending by the private sector? Third, if a state default or series of large municipal defaults occurred—we emphasize this is by no means a statement that such a scenario is likely—would it cause a meltdown in financial markets?

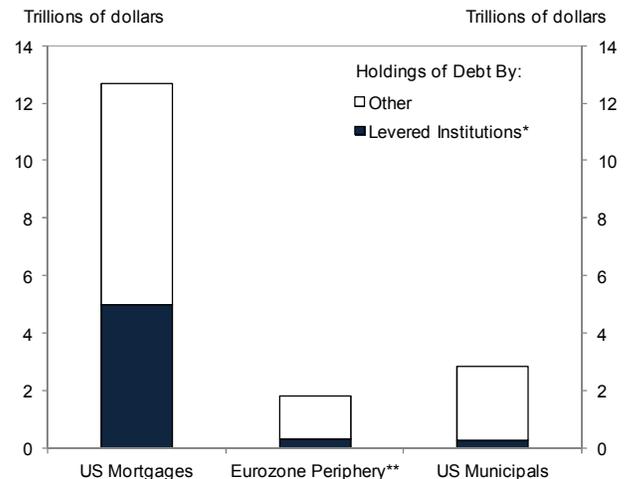
Exhibit 6: Measures of Muni Stress

Source: Markit. Goldman Sachs.

1. Moderate potential impact but low probability of a “sudden stop” of financing. A large default could cause investors to reassess the risk of municipal debt, leading to a sharp rise in interest rates and/or a sharp reduction in the volume of financing. This in turn would prompt rapid spending cutbacks by governments unable to fund themselves. In theory, the impact could be large—more than \$400bn of municipal debt was issued in 2009, including refunding of existing debt. Supposing one-third of this were suddenly cut off would mean a spending cut of nearly 1% of GDP.

But in practice, an impact this large seems implausible, for at least two reasons. First, there is likely to be at least some differentiation between issuers that are highly distressed and others that are in better shape. Because of the tax-exempt status of municipal debt, the investor base is domestic, which means it is more likely to discriminate between jurisdictions, and that investors who are scared out of one borrower are more likely to seek out another to preserve the tax protection. Second, a substantial cutoff of funding that lasted more than a few days would surely prompt intervention by fiscal authorities or the Fed.

2. Miniscule impact on private sector spending. Any direct “wealth effects” from municipal debt losses would be very small relative to the size of the US economy. As a simple though implausible thought experiment, a 20% loss on all muni debt would result in wealth destruction of roughly \$0.5 trillion; applying typical relationships between household net worth and spending would suggest an impact of perhaps \$15-20 billion on household spending, or around 0.1% of GDP. It would take a significant equity market decline (more than 10%) to create a meaningful impact on private sector spending growth.

Exhibit 7: Muni Debt Smaller, and in Stronger Hands

* Includes banks, broker-dealers, credit unions and savings institutions.

** General government debt of Greece, Ireland, Portugal, and Spain.

3. Low likelihood of a “levered losses” cycle. The Lehman default and subsequent asset price crash epitomized what we have called the “levered losses” cycle (see our *US Daily* of November 15, 2007). This occurs when a reduction in value of assets at leveraged institutions—banks and broker-dealers in particular—causes capital losses, forcing them to reduce the size of their balance sheets quickly to maintain acceptable leverage ratios. Forced sales push asset prices down further, resulting in another wave of deleveraging. This vicious cycle continues until asset values fall so low that demand from outside the financial sector offsets the deleveraging cycle, or the public sector is forced to intervene.

While a significant default would certainly be taken badly by investors, we think writedowns on municipal debt are quite unlikely to cause a Lehman-like spiral. The main reason is summarized in Exhibit 7. The potential damage from a levered losses cycle is proportional to a) the initial unanticipated losses on the financial instrument, b) the proportion of these losses borne by levered institutions as opposed to “long-only” investors or households, c) the degree of leverage at those institutions. Relative to the US residential mortgage sector, or even to debt of European periphery countries, the amount of municipal debt outstanding is much smaller and only a tiny fraction of it is held by banks or brokers, reducing the likelihood of contagion effects.

Andrew Tilton

II. Forecast Highlights

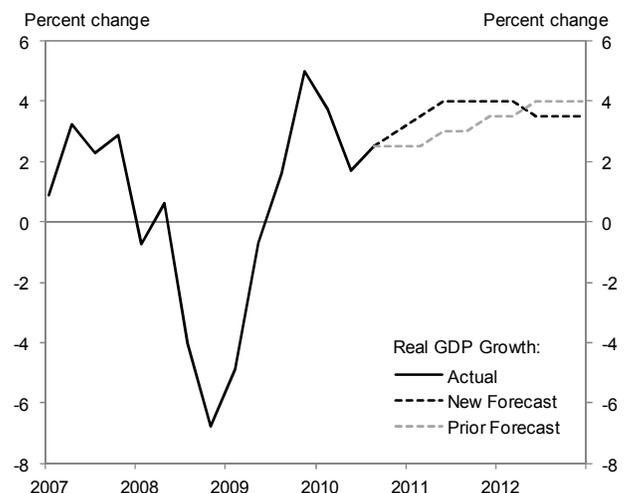
With the fiscal compromise now signed into law, we have revised our outlook for the US economy and financial markets. This revision also takes on board surprises in recent economic indicators that suggest a firmer trend in underlying growth than was evident when we made our last change. The key changes are:

- 1. Stronger real GDP growth, ranging between 3% and 4% over the next two years.** We now estimate that real GDP is growing at a 3% annual rate in the current quarter, and we think it will accelerate to a 4% rate by the second quarter of 2011, as shown in the exhibit nearby. In 2012 we expect a modest slowing, to 3½% during the final three quarters of the year, as the payroll tax cut is allowed to expire. (We assume that the extended/emergency jobless insurance programs will be renewed yet again.) As a result of these changes, we now look for real GDP to rise 3.4% in 2011 and 3.8% in 2012 on an annual average basis, as compared to 2.7% and 3.6% previously. The fiscal package accounts for roughly two-thirds of the 2011 increase and all of the 2012 increase.
- 2. A slightly larger, but still very gradual, drop in the jobless rate, to 8¼% by year-end 2012.** The new profile for unemployment is about ¼ point below our previous forecast over most of the forecast period. The boost to growth from the fiscal package is worth a bit more than this, but partial offsets come from the uptick in unemployment reported for November and a greater likelihood that workers who have given up actively looking for jobs reenter the labor force.
- 3. Stabilization in core inflation, at ½% per year.** This part of our forecast remains unchanged, as the upgrade to our growth outlook puts only a trivial dent in spare capacity over the next couple of years. In this regard, most measures of resource availability (the official jobless rate and its many cousins, capacity utilization in the factory sector, and residential and nonresidential vacancy rates, to name a few) show an unusually large amount of excess productive capacity in the US economy at the present time. As long as the jobless rate exceeds 8%, we see little, if any, prospect of a sustained pickup in core inflation over the succeeding two years. At the same time, well-anchored inflation expectations should keep core inflation from falling further.
- 4. No Fed rate hikes before 2013.** This is a closer call than before, mainly because the brighter economic outlook results from a delay in fiscal restraint at the federal level. However, with the

jobless rate far above the Federal Open Market Committee's "mandate-consistent" 5%-6% range and core inflation well below the comparable "2% or a bit less" standard and showing no signs of rising, we think most FOMC members will think it premature to start raising interest rates.

- 5. But extension of the \$600bn in large-scale asset purchases (LSAPs) is also unlikely.** This, too, is a close call. However, with growth rising to a rate more clearly above its 2½%-3% potential than we previously anticipated, we think the FOMC will complete but not extend the current program, especially given the backlash that has greeted it.
- 6. Persistent upward pressure on market interest rates, with yields on 10-year Treasury notes reaching 3¾% by year-end 2011 and 4¼% by year-end 2012.** Both year-end benchmarks are 50 basis points (bp) above the levels we had before. As strong growth in global economic activity keeps commodity prices under upward pressure, many participants in the financial markets will anticipate an earlier pickup in US (core) inflation that is consistent with either our outlook or that of most Fed officials. This is especially likely if the dollar also depreciates, as we expect it will, or if bank loans start to grow. In turn, these inflation fears will feed expectations that tightening in US monetary policy is just around the corner. While we disagree with that view, we expect market rates to rise in response, with increases tilted toward the short end of the curve, where changes in market expectations of monetary policy matter more.

A Stronger Outlook



Source: Department of Commerce. Our calculations.

THE US ECONOMIC AND FINANCIAL OUTLOOK

(% change on previous period, annualized, except where noted)

| | 2009 | 2010 | 2011 | | | 2011 | | | | 2012 | |
|---------------------------------|--------|--------|--------|-------|------|------|------|------|------|------|------|
| | | (f) | (f) | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 |
| OUTPUT AND SPENDING | | | | | | | | | | | |
| Real GDP | | | | 2.5 | 3.0 | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 3.5 |
| Year-to-year change | -2.6 | 2.8 | 3.4 | 3.2 | 2.7 | 2.7 | 3.3 | 3.6 | 3.9 | 4.0 | 3.9 |
| Consumer Expenditure | -1.2 | 1.8 | 3.6 | 2.8 | 4.0 | 3.5 | 4.0 | 4.0 | 3.5 | 3.5 | 3.5 |
| Residential Fixed Investment | -22.9 | -3.5 | 3.1 | -27.5 | -5.0 | 7.5 | 12.5 | 15.0 | 15.0 | 15.0 | 15.0 |
| Business Fixed Investment | -17.1 | 5.6 | 7.1 | 10.3 | 5.0 | 5.0 | 5.0 | 7.5 | 12.5 | 7.5 | 10.0 |
| Industrial Production, Mfg | 5.9 | 5.9 | 4.5 | 4.1 | 2.5 | 4.0 | 5.0 | 5.5 | 5.5 | 5.5 | 4.5 |
| INFLATION | | | | | | | | | | | |
| Consumer Price Index | | | | 1.5 | 2.2 | 1.5 | 1.1 | 1.1 | 1.0 | 1.1 | 1.0 |
| Year-to-year change | -0.3 | 1.6 | 1.3 | 1.2 | 1.1 | 1.1 | 1.6 | 1.5 | 1.2 | 1.1 | 1.1 |
| Core Indexes (% chg, yr/yr) | | | | | | | | | | | |
| CPI | 1.7 | 0.9 | 0.6 | 0.9 | 0.6 | 0.8 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 |
| PCE* | 1.5 | 1.3 | 0.6 | 1.3 | 0.8 | 0.7 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 |
| Unit Labor Costs (% chg, yr/yr) | -1.6 | -1.4 | 0.2 | -1.1 | 0.5 | 1.5 | 0.1 | -0.1 | -0.7 | -0.6 | -0.2 |
| LABOR MARKET | | | | | | | | | | | |
| Unemployment Rate (%) | 9.3 | 9.7 | 9.3 | 9.6 | 9.7 | 9.6 | 9.4 | 9.2 | 9.0 | 8.8 | 8.6 |
| FINANCIAL SECTOR | | | | | | | | | | | |
| Federal Funds** (%) | 0.12 | 0.15 | 0.15 | 0.19 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| 3-Month LIBOR (%) | 0.25 | 0.30 | 0.45 | 0.29 | 0.30 | 0.30 | 0.35 | 0.35 | 0.45 | 0.45 | 0.50 |
| Treasury Yield Curve** (%) | | | | | | | | | | | |
| 2-Year Note | 0.87 | 0.65 | 1.00 | 0.48 | 0.65 | 0.60 | 0.60 | 0.75 | 1.00 | 1.25 | 1.50 |
| 5-Year Note | 2.34 | 2.00 | 2.25 | 1.41 | 2.00 | 1.75 | 1.75 | 2.00 | 2.25 | 2.50 | 2.75 |
| 10-Year Note | 3.59 | 3.40 | 3.75 | 2.65 | 3.40 | 3.25 | 3.50 | 3.75 | 3.75 | 4.00 | 4.00 |
| Profits*** (% chg, yr/yr) | 5.1 | 20.8 | 15.5 | 17.2 | 14.0 | 15.0 | 15.5 | 16.0 | 15.5 | 11.0 | 10.5 |
| Federal Budget (FY, \$ bn) | -1,416 | -1,294 | -1,250 | - | - | - | - | - | - | - | - |
| FOREIGN SECTOR | | | | | | | | | | | |
| Current Account (% of GDP) | -2.7 | -3.3 | -3.2 | -3.5 | -3.2 | -3.0 | -3.1 | -3.2 | -3.4 | -3.6 | -3.8 |
| Exchange Rates | | | | | | | | | | | |
| Euro (\$/€)** | 1.46 | 1.30 | 1.50 | 1.31 | 1.30 | 1.40 | 1.45 | 1.48 | 1.50 | 1.50 | 1.50 |
| Yen (¥/\$)** | 90 | 84 | 90 | 84 | 84 | 84 | 84 | 87 | 90 | 90 | 90 |

* PCE = Personal consumption expenditures. ** Denotes end of period. *** Profits are after taxes as reported in the national income and product accounts (NIPA), adjusted to remove inventory profits and depreciation distortions.

NOTE: Published figures are in bold

We, Jan Hatzius, Ed McKelvey, Alec Phillips, Sven Jari Stehn and Andrew Tilton hereby certify that all of the views expressed in this report accurately reflect personal views, which have not been influenced by considerations of the firm's business or client relationships.

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US Calendar

Focus for the Week Ahead

- Durable goods orders should decline on the back of falling aircraft orders (December 23).
- The very strong retail sales report for November suggests personal spending probably posted a sturdy increase in the month, with data for September and October likely to be revised up as well (December 23).
- Following declines in October, both new and existing home sales should post modest gains in November (December 22, 23).

Economic Releases and Other Events

| Date | Time (EST) | Indicator | Estimate | | |
|------|--|---|----------|-----------|-------------|
| | | | GS | Consensus | Last Report |
| Wed | Dec 22 | 8:30 Real GDP—Q3 Annualized (Third) | +2.5% | +2.8% | +2.5% |
| | | 8:30 Chain-Weight Price Index—Q3 Annualized (Third) | +2.3% | +2.3% | +2.3% |
| | | 8:30 Core PCE Price Index—Q3 Annualized (Third) | +0.8% | +0.8% | +0.8% |
| | | 10:00 Existing Home Sales (Nov) | +1.0% | +7.2% | -2.2% |
| | | 10:00 FHFA House Price Index (Oct) | n.a. | -0.2% | -0.7% |
| Thu | Dec 23 | 8:30 Personal Income (Nov) | +0.2% | +0.2% | +0.5% |
| | | 8:30 Personal Spending (Nov) | +0.4% | +0.5% | +0.4% |
| | | 8:30 Core PCE Price Index (Nov) | +0.13% | +0.1% | Flat |
| | | 8:30 Durable Goods Orders (Nov) | -1.0% | -0.7% | -3.3% |
| | | 8:30 Initial Jobless Claims | n.a. | 420,000 | 420,000 |
| | | 8:30 Continuing Claims | n.a. | 4,106,000 | 4,135,000 |
| | | 9:55 Reuters/U. Mich Consumer Sentiment—Final (Dec) | n.a. | 74.5 | 74.2 |
| | | 10:00 New Home Sales (Nov) | +4.0% | +6.0% | -8.1% |
| | 11:00 Treasury 2, 5, 7-year Notes Announcement | | | | |