Our Perspectives:
Commentary on the economy & regulatory policies affecting financial companies

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The Longbrake Letter*

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February, 2013

I. In Spite of Substantial Cutbacks in Federal Government Stimulus, Optimism Is Building That Recovery Is Sustainable and Momentum Will Build Later This Year

We are now six and a half years past the bursting of the housing bubble, five years past the start of the Great Recession and 3 and a half years into recovery.

During the 14 quarters of recovery GDP has grown at an annual rate of 2.1% compared to 5.4% following the recession of the early 1980s, which had been the worst recession of the post-World War II era prior to the Great Recession. The GDP output gap remains at an elevated 5.9% in the current recovery compared to 0.5% after 14 quarters of recovery in the 1980s. And the unemployment rate has fallen from 10.0% to 7.9% in the current recovery compared to a decline from 10.8% to 7.2% in the 1980s.

Clearly, all measures tell us that the recent recovery has been painfully slow compared to previous recoveries. As time has passed initial expectations of a "standard" strong recovery have given way to the reality spelled out by the data. This has forced economists to search for reasons to explain the differences.

Carmen Reinhart and Kenneth Rogoff published a book just after recovery from the Great Recession began entitled *This Time Is Different — Eight Centuries of Financial Folly*. Based on numerous country-specific case studies they concluded that economic recoveries following financial system

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collapses differ considerably from recoveries following recessions preceded by other kinds of economic excesses, such as overinvestment or excessive aggregate demand relative to supply.

Recoveries are lethargic following extreme financial system trauma because it takes time to unwind excessive debt leverage. Moreover, the credit creation mechanism, which is essential to financing economic growth, is deeply impaired, thus limiting the effectiveness of easy monetary policy in fostering recovery.

Reinhart and Rogoff found that when recessions occur as a consequence of excess debt leverage and financial system collapses, it typically takes 6 to 10 years for an economy to return to full employment. The U.S. appears to be following the pattern all too well. Five years have passed since the previous peak in economic activity. According to the Congressional Budget Office's (CBO) latest economic forecast, the GDP output gap will not close until 2017, fully nine years after the start of the Great Recession. So, the historical record suggests that ***recovery is at or just slightly past the halfway point***.

Although the current recovery remains fragile, as we were reminded by the "Advance" 2012 Q4 negative GDP growth estimate, and although the headwinds of reduced federal fiscal stimulus are gale force at the moment, there is ample evidence that private sector healing is progressing, albeit at a very slow rate. For example, housing construction and prices are finally improving, but housing starts remain substantially below the long-term level supported by demographic trends. Monthly payroll employment averaged a relatively strong 181,000 per month during 2012, but total employment remains 3.2 million below the pre-Great Recession peak. The contraction in state and local governments has largely run its course. And, consumer spending continues to edge up slowly. This pattern of slow recovery is consistent with Reinhart and Rogoff's historical analysis.

Barring an unexpected substantial negative shock, there is every reason to expect the recovery process to continue and to gain momentum gradually, once the near-term fiscal policy contractionary forces of higher taxes and spending cuts play themselves out. Fiscal policy tightening will depress real GDP growth in 2013 by 1.5% to 2.0%. The upper end of the range depends upon automatic spending cuts going into effect on March 1, which seems increasingly likely. That is the bad news. The good news is that the brunt of fiscal tightening will occur during the first half of 2013 and by 2014 fiscal policy is likely to have no material impact on real GDP growth for better or worse.

But, the reader might ask whether this benign view of fiscal policy is valid when the Congress and the Administration remain locked in battle over mandatory spending cuts, raising the federal debt ceiling and adopting a federal budget resolution. It is reasonable to expect that all three issues will be resolved ultimately, but the hardline positions of the two political parties promise a nasty fight and calendar deadlines could well pass without timely resolution. At worst an atmosphere of uncertainty will continue and there is evidence that uncertainty delays economic decision making and weighs against more rapid recovery. However, assuming that the government does not shut down and the debt ceiling is raised, beyond the mandatory spending cuts required by the Budget Control Act, further tax increases and spending cuts that impact the economy over the next few years are unlikely. The predominant fiscal issue yet to be resolved involves entitlement spending. While this is an important issue in the long run, policy changes are unlikely to have much impact on economic activity for several years. Unfortunately, the absence of immediate urgency to address entitlements may result in deferral of action — “kick the can down the road”.

Global economic prospects appear likely to be relatively stable to slightly stronger during 2013 and are not likely collectively to pose either upside or downside risks to the U.S. economy.

Europe remains mired in recession but financial markets have stabilized. Europe has made little headway in addressing fundamental issues that are undermining the foundation of European integration; however, “kick the can down the road” policies are working for the time being.

China is in a cyclical upswing and growth will strengthen a little during 2013. However, over the longer run China remains faced with the daunting task of restructuring its economy from an unsustainable trade-infrastructure focus to a more sustainable consumption-based orientation. The outcome of this transition is far from certain but its consequences will not have a material impact during 2013.

In the absence of significant new negative forces, other global economies collectively should experience a slight improvement in growth during 2013.

What all of this means is that 2013 is likely to be a year of slow growth in the U.S. with improving momentum as the year progresses and the near-term negative impact of higher federal taxes and reduced spending unwinds. The trend in global economic activity should be moderately supportive of growth.

In the longer run, significant challenges remain but whether and how they are resolved will have little impact on the economy in 2013.

Perhaps the single greatest challenge facing the U.S. economy is the ***trend in potential structural real GDP growth, which has plummeted in recent years, largely due to a decline in productivity, but also partially due to slowing population growth***. While most economists expect productivity to be near the long-term historical average in coming years, this expectation seems to be more one of simplistic extrapolation of past experience than one of critical analysis. A sustained decline in productivity growth, should it occur, is important because it means slower growth in potential GDP. ***Slower growth in potential GDP means it will be harder and take longer to reduce the burden of federal debt, it will make it harder to finance social programs and it could exacerbate the problem of growing income inequality***.

Better focused government fiscal policies, which target investment in infrastructure, research and education, have the potential to lift productivity significantly over time. Such policies generally have much higher fiscal multipliers than the kinds of transfer payments that have predominantly comprised fiscal policy in recent years. But such policies also take longer to produce results.

My point is that government fiscal policy should not be focused solely on increasing consumption spending and reducing unemployment. It also needs to focus on lifting the structural potential real rate of GDP growth. Effective fiscal policy would have the dual benefits of raising the rate of growth, thus reducing the debt burden more rapidly, but very importantly it would raise the standard of living for Americans to a greater extent.

In this month's letter, Section II includes a summary of the 2013 economic outlook for the U.S. and discusses risks (residential housing, business investment, employment and consumer spending, Europe, and China) to the outlook. This is followed by a discussion of U.S. employment trends and personal income and consumption in Sections III and IV. Monetary and fiscal policies are the subject matter of Sections V and VI. This month's letter concludes with a brief update on developments in Europe, China and Japan.

In the appendix, which summarizes prospects for key issues for 2013 and beyond, which I outlined in the ***December Longbrake Letter***, I have begun to append comments. As the year unfolds I will add additional comments which will enable the reader of this letter to follow how actual events are tracking or diverging from what I expected at the beginning of the year.

II. U.S. Economic Outlook — Real GDP Growth

Over the long run slower population growth and reduced productivity gains have combined to reduce the inflation-adjusted growth rate in potential aggregate demand. But in the short run weak GDP growth and the large gap between actual and potential GDP is a direct consequence of a very weak labor market.

To date monetary and fiscal stimulus have resulted is a relatively feeble and still fragile economic recovery. Over the last two years fiscal stimulus has reversed and has been a negative force. The negative effects of fiscal policy will peak during the first half of 2013 and then diminish. Currently, it appears that recovery in the private sector has sufficient momentum to absorb the latest negative fiscal shock. However, overall growth is likely to be weak during 2013, little progress will occur in reducing the GDP output gap, and the unemployment rate will remain high.

However, the good news is that the odds of recession, barring an unexpected and significant economic shock, appear to be low.

1. 2012 Q4 GDP — Advance Estimate

As can be seen in **Table 1**, real GDP growth was -0.14% in the "Advance Estimate" for the fourth quarter of 2012. This negative result was unexpected and unwelcome. However, it was due to special factors that masked a better, although hardly stellar, underlying trend.

Table 1
2012 Quarterly GDP Growth

	Fourth Quarter Advance Estimate	Fourth Quarter Preliminary Estimate	Fourth Quarter Final Estimate	Third Quarter	Second Quarter	First Quarter
Personal Consumption	1.52%			1.12%	1.06%	1.72%
Private Investment						
Nonresidential	.83%			-.19%	.36%	.74%
Residential	.36%			.31%	.19%	.43%
Inventories	-1.27%			.73%	-.46%	-.39%
Net Exports	-.25%			.38%	.23%	.06%
Government	-1.33%			.75%	-.14%	-.60%
Total	**-.14%**			**3.07%**	**1.25%**	**1.96%**
Final Dom. Sales	**1.13%**			**2.34%**	**1.71%**	**2.35%**

Results for four categories — nonresidential private investment, inventories, net exports and government — were unusual. Nonresidential private investment was far more positive than expected while the other three were substantial negative contributors. There is a reasonable chance as actual data replaces initial estimates that many of these seeming anomalies will be revised away. Already the December trade report assures a substantial upward revision in net exports and the construction report indicates a probable upward revision in the structures component of nonresidential private investment. Together these updates are likely to raise fourth quarter real GDP growth to 0.5%. Further data revisions, particularly for inventories, could result in an even higher estimate of fourth quarter real GDP growth.

Personal consumption expenditures, which account for 71% of real GDP, grew at a respectable annual rate of 1.52%. By historical standards this figure was nothing to get excited about, but it was consistent with an underlying real GDP growth rate of about 2.14%. slightly above CBO's current estimated potential growth rate of 1.75%, and it was a marked improvement over the weak growth in personal consumer expenditures in the second and third quarters of 2012.

Nonresidential Private Investment. This category contributed an out-sized 83 basis points to fourth quarter real GDP growth. Assuming a 2.0% real rate of growth, nonresidential private investment's share of 11.0%

of real GDP implies a contribution of 22 basis points to growth. Thus, the contribution in the fourth quarter was nearly four times as large as its "normal" contribution.

Nonresidential private investment consists of structures (23%), information processing equipment and software (42%) and other types of equipment (35%). The contribution of structures to real GDP growth was slightly negative. As mentioned above, the latest construction report suggests this number may be revised to show a positive contribution.

Information processing and other equipment account for the remaining 77% of nonresidential private investment and contributed 86 basis points to real GDP growth in the fourth quarter. Both grew extremely strongly. The reasons for this growth are not readily apparent to me and are contrary to the theory that the fiscal cliff would lead businesses to defer capital expenditure decisions. A possible explanation is that the potential expiration of a series of tax breaks led business to accelerate investment expenditures during the fourth quarter. Because Congress extended all of these tax breaks on January 1, 2013, it is possible that business investment growth could slow somewhat in early 2013. Alternatively, perhaps the removal of tax uncertainty and the slow improvement in business optimism will help continue growth in business investment at an above trend level.

Inventories. Inventories grew only $20 billion in the fourth quarter after growing $60 billion in third quarter. Real GDP growth accounting annualized this substantial slowing in inventory growth as a negative contribution to real GDP growth of 127 basis points in the fourth quarter. This reversed an unusual gain of 73 basis points in the third quarter. Merely shifting $20 billion in inventory accumulation from the third to the fourth quarter, thus evening out growth at $40 billion in each quarter, would have reduced third quarter real GDP growth from 3.1% to approximately 2.4% and increased fourth quarter growth from -0.1% to about 1.2%.

Gyrations in inventory growth frequently skew the information content of quarterly real GDP growth rate. For that reason many prefer to focus on real final sales growth, which excludes the impact of inventory changes from GDP. Real final sales growth declined from 2.34% in the third quarter to 1.13% in the fourth quarter. While this is a very weak number it certainly is not as dismal as the plunge in real GDP growth from 3.07% in the third quarter to -.14% in the fourth quarter.

Net Exports. Real net exports subtracted 25 basis points from real GDP growth in the fourth quarter after adding 38 basis points in the third quarter. The "Advance" GDP growth estimate only includes two months of trade data and an estimate of the third month. Exports were much stronger and imports were much weaker than expected when the December trade report was released. This means that when the "Preliminary" GDP growth estimate is released in late February net exports probably will be revised from a negative to a positive contribution to real GDP growth in the fourth quarter.

Government. Timing of national defense consumption expenditures appears to account for much of the anomaly in this category's contribution to real GDP growth in both the third and fourth quarters. Defense consumption expenditures rose by $20 billion from the second to third quarter, adding 64 basis points to growth, and fell $40 billion in the fourth quarter, subtracting 128 basis points from growth. This is a pure timing issue. Take away the $20 billion increase in the third quarter and add it to expenditures in the fourth quarter and the result is that defense consumption expenditures would be almost exactly the same amount in each of the second, third and fourth quarters. This would have reduced reported third quarter real GDP growth from 3.1% to 2.4% and increased reported fourth quarter real GDP growth from -0.1% to 1.2%.

Thus, adjusting for both the inventory accumulation and defense consumption expenditures timing anomalies would result in a revised third quarter real GDP growth estimate of 1.7% and a revised fourth quarter real GDP growth estimate of 2.4%. Thus, growth in the fourth quarter probably was actually stronger than the third quarter thanks to the surge in nonresidential private investment.

2. 2012 GDP Growth Compared to 2010 and 2011

When all is said and done, it is better to look at GDP growth over several quarters to obtain a sense of the underlying growth trend. Real GDP growth is shown for 2010, 2011 and 2012 in **Table 2** using two different measurement approaches. The first compares the rate of change in average GDP for the year from one year to the next; the second calculates the change in GDP from the fourth quarter of one year to the fourth quarter of the next year. The fourth quarter to fourth quarter changes tend to be somewhat more

Table 2
2010, 2011 and 2012 GDP Growth

	Annual Change			Pot.	Change Q4 to Q4		
	2012	2011	2010	GDP	2012	2011	2010
Personal Cons.	1.34%	1.79%	1.28%	**1.56%**	1.31%	1.33%	1.99%
Private Investment							
Nonresidential	.75%	.80%	.07%	**.23%**	.45%	.98%	.71%
Residential	.27%	-.03%	-.09%	**.06%**	.35%	.09%	-.15%
Inventories	.16%	-.14%	1.52%	**.01%**	-.36%	.19%	.63%
Net Exports	.00%	.07%	-.52%	**-.08%**	.10%	.00%	-.54%
Government	-.34%	-.67%	.14%	**.42%**	-.30%	-.62%	-.26%
Total	**2.18%**	**1.81%**	**2.39%**	**2.20%**	**1.54%**	**1.97%**	**2.39%**
Final Domestic Sales	**2.02%**	**1.95%**	**.87%**	**2.19%**	**1.90%**	**1.78%**	**1.76%**
Final Sales — Govt.	**2.36%**	**2.62%**	**.73%**	**1.77%**	**2.20%**	**2.40%**	**2.02%**

volatile as they can be influenced by temporary reporting anomalies in the fourth quarter such as those that occurred in the fourth quarter of 2012.

For benchmarking purposes, the composition of real GDP growth, assuming a 2.2% trend potential growth rate, is shown in the middle column labeled “Pot. GDP”, which stands for potential real GDP growth. According to CBO, potential real GDP growth will average 2.2% over the next ten years: 2013-2023.

Personal Consumption Expenditures (Expected Contribution = 1.56%). Real personal consumption growth was 1.82% (1.28%/70.4%) for 2010, 2.52% (1.79%/70.9%) for 2011 and 1.90% (1.34%/70.7%) for 2012. Since the end of the Great Recession, real personal consumption has grown 1.95% annually. This compares very unfavorably with the 5.23% growth rate in real consumption that occurred over a comparable period of time following the early 1980s' severe recession.

Most of the recent decline in real consumption growth has to do with a parallel sharp decline in real income growth from 4.80% in the 1980s to 2.62% recently. The remainder has to do with slower population growth.

There are two positives, however, to recent trends. First, income growth has been stronger than consumption growth which means that consumers are rebuilding savings. But, some of this has been driven by government fiscal policy which is now in the process of reversing course. Thus, going forward, the saving rate seems likely to decline and consumption growth could outpace income growth.

Second, real consumption has been growing faster than potential GDP growth — 1.82% compared to potential GDP growth of 1.49% in 2010; 2.52% compared to 1.55% in 2011; and 1.90% compared to 1.72% in 2012. This is a necessary phenomenon as part of reducing unemployment and closing the GDP output gap. But, as the recovery progresses, growth in real consumer expenditures needs to accelerate to at least 2.2% annually. According to CBO, over the longer run growth in real consumption expenditures will need to contribute 1.56%, which means growing at a 2.2% annual rate, to support a trend 2.2% real GDP growth rate.

Nonresidential Private Investment (Expected Contribution = 0.23%). In the early stages of economic recovery business capital investment customarily grows very rapidly. This definitely was the case in 2011 and 2012 when business investment grew more than 3 times faster than its trend contribution to real GDP growth. However, as a recovery matures, investment spending growth usually slows. That seems likely to occur in 2013, although growth should still exceed the long-term trend level in 2013. In addition, the burst in spending in the fourth quarter of 2012 probably was influenced by tax planning considerations and probably accelerated some expenditures into 2012 that otherwise would have occurred in 2013.

Residential Investment (Expected Contribution = 0.06%). Typically residential investment also contributes to an economic recovery. However, because of the extremely large excess inventory created during the housing bubble and much tighter credit underwriting criteria, residential construction continued to decline well into the current recovery. Residential construction finally became a positive contributor to growth beginning in late 2011 and this has continued during 2012. Growth should be stronger yet in 2013.

Notice, however, that in a steady trend state, residential investment should contribute only 0.06% to GDP growth. Stronger growth in residential construction will certainly help in 2013 but the optimism that has built in the last few months about the housing market extends well beyond any realistic scenario that housing can be a significant game changer in driving GDP growth.

Net Exports (Expected Contribution = -0.08%). The contribution of net exports is negative because Americans import more than they export. Given GDP accounting mechanics, a decline in the real trade deficit would result in a favorable contribution of net exports to GDP growth. The ratio of the nominal value of exports of goods and services to nominal GDP was relatively stable during 2012 at 9.8%. Imports have edged down slightly from 14.6% of nominal GDP at the beginning of 2012 to 14.5% at the end of the year. These relatively small changes are consistent with the negligible contribution of net exports to real GDP growth during 2012.

Government (Expected Contribution = 0.42%). Note that the contribution of government expenditures to real GDP growth should be 42 basis points in a steady trend-state. Such a result would mean that government is neither growing nor shrinking as a portion of GDP. The fact that government has been a significant negative contributor to GDP growth for the last three years is noteworthy.

Remember that government transfer payments to individuals are not included in GDP — only direct purchases of goods and services are included. During 2012 the federal government spent \$1.0 trillion on goods and services, which is the amount included in the GDP accounts. However, overall federal government expenditures were \$3.6 trillion, which means that \$2.6 trillion were transfer payments.

Nearly half of the negative contribution in 2012 came from state and local governments. Because state and local governments are generally on a "pay-as-you-go" basis, revenue shortfalls have forced expenditure cuts. This negative factor is diminishing. Indeed, it is possible that state and local governments may become a modest contributor to real GDP growth in 2013. However, given the impending implementation of mandatory federal spending cuts, it seems likely that government in the aggregate will continue to a negative contributor to real GDP growth in 2013.

Government spending as a portion of GDP has been declining in fits and starts for 65 years. Since 1947 real private sector output has grown 3.2% annual, but government output has grown a smaller 2.8%. Part of the difference may have to do with the Bureau of Economic Analysis' (BEA) policy of assigning zero productivity growth to government output. While many might say this is appropriate, given the street wisdom that government bureaucracy is inefficient and wasteful, this assumption seems to be unduly arbitrary and pessimistic. To the extent this criticism of BEA's measurement methodology is merited, real GDP growth is understated as is the shrinking government share of real GDP growth.

What this means is that government's contribution to GDP growth is unlikely to be as high as 42 basis points in coming years, which means that the private sector will have to make up the difference to attain the level of potential real GDP growth forecast by CBO.

Final Domestic Sales (Contribution = 2.19%). Final domestic sales — real GDP growth less the impact of inventory accumulation — have not yet climbed to CBO's long-run potential growth rate of 2.19%. However, real growth in final domestic sales did modestly exceed CBO's somewhat lower potential growth rates for 2011 and 2012.

Final Domestic Sales Less Government (Contribution = 1.77%). By deducting government expenditures from final domestic sales one can derive an estimate of the contribution of the private sector to real GDP growth. The steady-state trend value for this measure is 1.77%. This benchmark was exceeded by a substantial amount in both 2011 and 2012 suggesting that recovery in the private sector is relatively healthy.

Summary. Overall details of real GDP paint a picture of an economy that while not overly strong is improving gradually. Moreover, the rate of improvement appears to be picking up slowly. One can express frustration at the slow pace of improvement and about the persistence of entrenched problems such as income inequality. However, given the close call with economic collapse during the 2008 financial panic, it is fair to say that we have come a long way and prospects, while not exactly rosy, are promising.

3. GDP Forecast for 2013 Q1

Because of the inventory and government spending anomalies in the fourth quarter real GDP data it is reasonable to expect both components to reverse sign and contribute to real GDP growth in the first quarter. Offsetting this will be the effect of significant tax increases on consumer spending. Also, mandatory federal spending cuts will reduce federal government expenditures, but most of the impact probably won't be felt until the second quarter. There should also be some modest benefit from rebuilding activities stemming from Hurricane Sandy.

Consumer spending will be a key determinant. It is too early in the quarter to have much of a sense of how this will turn out. We know that disposable income will plummet during the first quarter due to higher tax rates and particularly due to the elimination of the 2% payroll tax holiday. Disposable income should decline at least 1.0% in the first quarter. Goldman Sachs (GS) expects consumer spending to grow 1.0% in the first quarter and 1.5% in the second quarter. GS's forecast implies, at least in the first quarter, a sharp contraction in the consumer saving rate.

What we don't know for sure is how consumers will respond to in the short run to higher taxes. Consumer sentiment polls are sending conflicting signals. The Rasmussen daily poll recently reached a new post-Great Recession high. However, the Conference Board January survey of consumer confidence fell to its lowest level since October 2011. Pessimists in the Conference Board poll outnumber optimists with 14% expecting their incomes to rise while 23% expect them to fall. This is the largest negative gap since Spring 2009 when the Great Recession was still underway.

Some believe that buoyant stock prices and rising housing prices offer hope that a resurgent wealth effect will bolster consumer spending and that this will help mitigate or even entirely offset the negative drag of higher taxes. While there may be some merit in this theory for wealthier households, lower income households don't have stock portfolios and frequently rent. These lower-income households are also the ones that will experience the largest declines in disposable income from the increase in payroll taxes. According to the University of Michigan consumer confidence survey, income expectations for the year ahead have been dropping steadily since last October, but the decline has been much greater for those households earning less than $75,000 annually.

Improvement in the manufacturing purchasing managers' index in January provided an additional reason for guarded optimism.

Bank of America/Merrill Lynch (B of A) expects first quarter growth to be approximately 2.0%. GS estimates growth will be 2.8%. These estimates may be scaled back a little if revisions to fourth quarter 2012 real GDP push the initial estimate of -0.1% higher.

4. GDP Forecasts for 2013

Most forecasters expect growth in 2013 to begin slowly and then pick up in the second half. A slow start to 2013 is virtually assured by restrictive fiscal policy including the Health Care Act tax rate increases, the tax rate increases on those earning over $400,000/$450,000 and the end of the 2% payroll tax cut. The elimination of the payroll tax cut will have the most immediate effect and predominately impacts lower and middle income households which have limited flexibility to dip into savings to maintain expenditure levels.

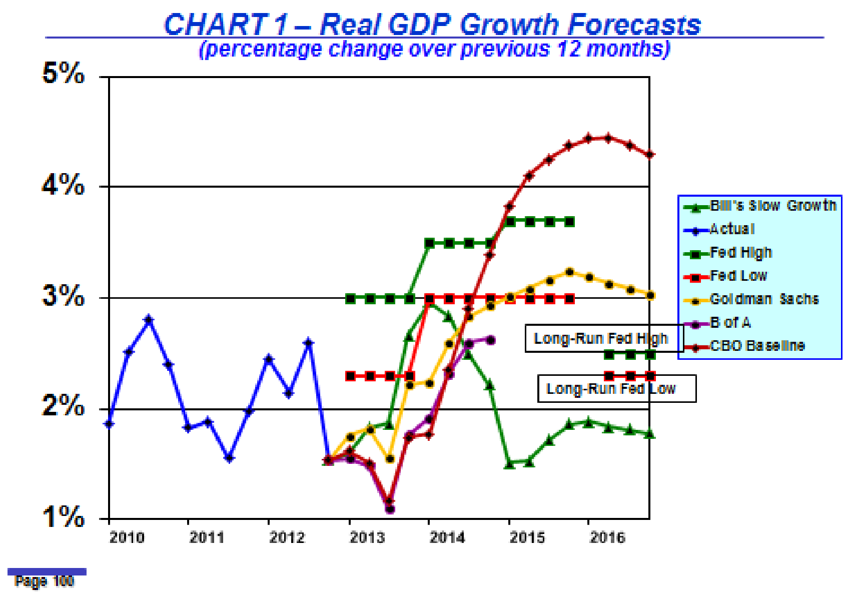
B of A's forecast of 1.8% GDP growth in 2013 has not changed over the last month. GS is slightly more optimistic and expects 2.2% growth. The Bloomberg consensus expects 1.8% growth. The Fed, which has consistently been too optimistic and probably still is, projects 2013 growth to fall within a range of 2.3% to 3.0%. Bill's "Slow Growth" forecast projects 2013 GDP growth of 2.7%, but is skewed upwards by the negative estimate for fourth quarter 2012 real GDP. Assuming that fourth quarter 2012 real GDP is revised upwards, Bill's forecast for 2013 is likely to be closer to GS's forecast and the lower end of the Federal Reserve's projection range.

Chart 1 shows GDP forecasts/projections for 2013 through 2016.

With the exception of "Bill's Slow Growth" forecast, others expect GDP growth to accelerate in 2014 and 2015. GS and B of A track below the lower end of the Fed's projected range. Following a consistent historical pattern, the Fed remains on the optimistic end of the spectrum. Bill's less optimistic outlook in 2015 and 2016 depends to a large extent on sharply lower productivity growth than others expect. CBO's 2013 forecast mirrors B of A's pessimistic forecast. However, by late 2014 and continuing through 2015 and 2016 CBO's forecast is much more optimistic than any of the others including the Federal Reserve's.

5. GDP Output Gap

Because of substantial fiscal policy contraction during the first half of 2013 no improvement in the already sizeable GDP output gap is likely. The CBO's current law forecast, which was released on February 5, 2013, indicates that the GDP gap will remain relatively high during 2013 and then will begin

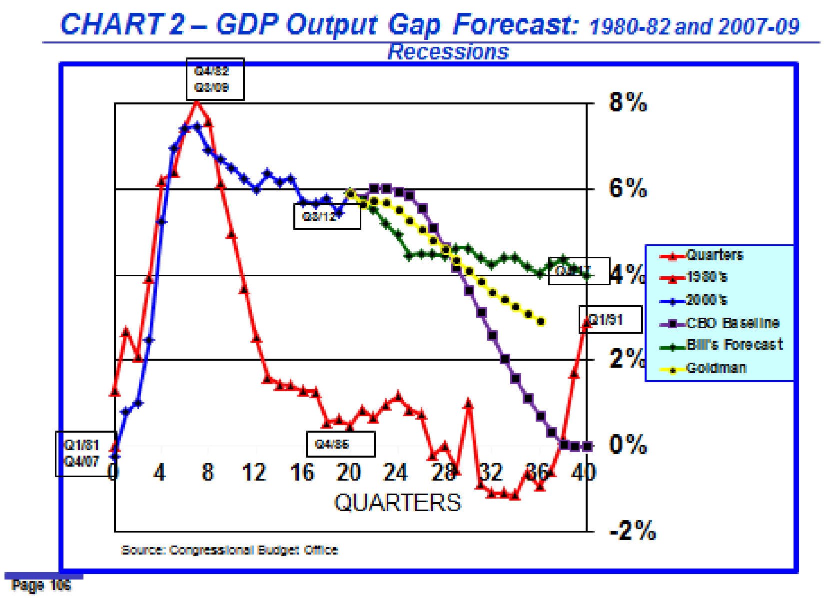


declining in 2014.

Forecasts for the GDP output gap are shown in **Chart 2**, which compares the output gaps during and after the recession of 1981-82 and the Great Recession of 2007-09. The output gaps peaked during the seventh quarter of each recession — 8.1% in the 1981-82 recession and 7.5% in the Great Recession. Twenty quarters have passed since the start of the Great Recession and the output gap is still 5.9% compared to 0.5% twenty quarters following the onset of the 1981-82 recession.

The purple line (black squares) in **Chart 2** shows the ***Congressional Budget Office's "current law" scenario*** which CBO released on February 5, 2013. The output gap in CBO's forecast does not fully close until early 2017.

Using CBO's estimates of potential GDP and GS's GDP forecasts results is a slow but steady decline in the output gap (yellow line, black circles). By the end of 2016, GS expects the output gap to be a still large 3.0% compared to CBO's estimate of 0.7%.



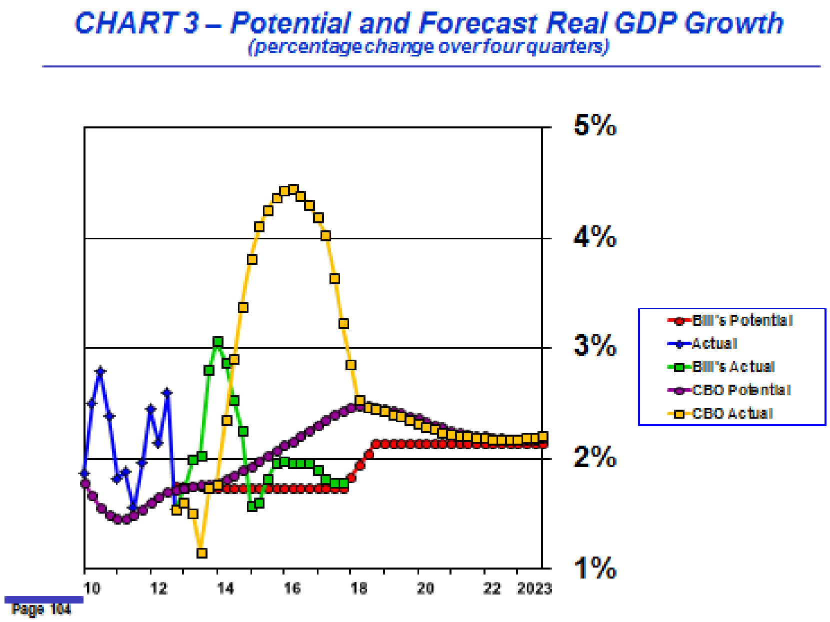
My scenario (***Bill's Forecast*** the green line — black diamonds) shows an even more gradual decline in the GDP output gap over the next several years. Again, as I explained above, this more pessimistic projection depends importantly on my expectation for much slower productivity growth over the next several years. In my scenario the output gap closes only to 4.0% by the end of 2016 compared to 3.0% for GS. However, when I assume a faster rate of employment growth (***Bill's Strong Growth*** scenario — not shown in **Chart 2**), the GDP output gap falls to 3.1% by the end of 2017.[1]

[1] I calculate estimates for both potential GDP and actual GDP which differ from those calculated by CBO. Thus, my estimate of the output gap is based upon my estimate of potential GDP and not on CBO's estimate. For comparison purposes, my estimates for potential GDP versus those calculated by CBO are: \$15.54 versus \$15.74 trillion in 2016, \$15.81 versus \$16.13 trillion in 2017, and \$17.96 versus \$18.46 trillion in 2023. Thus, over the next ten years I expect potential GDP to grow 2.7% less in aggregate or 0.27% less annually.

6. Potential Structural GDP Real Rate of Growth

In the ***January Longbrake Letter*** I discussed in detail the determinants of long-run potential structural GDP real growth. Potential structural GDP real growth depends on growth in the ***labor supply*** and ***productivity*** (the efficiency of the utilization of labor and capital).

Chart 3 shows potential real GDP growth according to CBO (purple



circles) and Bill (red circles). **Chart 3** also shows CBO's real GDP forecast (gold squares) for 2013-23 and Bill's "Slow Growth" scenario forecast (green squares) for 2013-17.

Potential growth currently is weak. According to CBO, potential growth strengthens gradually from 1.7% currently to 2.5% by 2018 and then slows to 2.2% by 2023. Like CBO, my analysis indicates that the current very large output gap is depressing productivity growth and therefore potential real GDP growth. Because I expect the output gap to close more slowly than CBO does, I also expect potential GDP growth to be slower. Both CBO's and my potential GDP growth estimates converge by 2023.

My principal conclusion is that the potential structural GDP real rate of growth is likely to be lower over the next several years than most expect. To the extent that occurs, there are several implications — all negative. For example, to name a few of the more important ones, employment will recover more slowly, inflation will be lower for longer, wage gains will be more limited, interest rates will remain at the zero bound for longer, the budget deficit will remain higher and the public-debt-to-GDP ratio will be a more intractable problem.

7. Risks to the Outlook

Although there are several negative risks to the 2013 outlook, financial market participants are quite optimistic. The same cannot be said about the American consumer. According to the University of Michigan consumer confidence survey, 41% believe the economy has improved, but only 28% expect the economy to get better in the next year.

Following the year-end resolution of the fiscal cliff — specifically locking in tax rates, a general sense of optimism has developed in financial markets. Slow GDP growth during the first half of 2013 is expected and has already been discounted. Optimism is focused on expected increases in growth later in the year as the negative impacts of fiscal policy abate. The expectation is that stronger growth will come from a steady increase in residential construction and home prices, continued growth in business investment, steady improvements in unemployment and consumer spending, emergence of Europe from recession, and somewhat stronger growth in China and the rest of Asia. When the collective impacts of all of these are considered it is not difficult to envision a 3% rate of growth in GDP or better by the end of 2013, which would be consistent with the Fed's expected 3.0% to 3.6% GDP growth range for 2014.

When optimism is relatively high, as it is currently, the risks of disappointment are also relatively high.

Residential Housing. For now ***optimism about residential housing appears well-grounded***. Inventories of new and existing homes have tightened and large amounts of investor money are pouring into the home rental market which will assure inventories tighten further. This will contribute to rising prices. Rising prices once underway tend to be persistent and have the further benefit of raising consumer optimism, which typically translates into increased consumer spending. But, rising prices, to the extent they stem mostly from investor demand rather than individuals will be self-limiting because the return on investment will decline as prices rise. Also, the Consumer Financial Protection Bureau (CFPB) recently issued several mortgage regulations which are likely to reinforce the tighter mortgage underwriting standards that have evolved in recent years. The risk is that as the year progresses the recovery in the housing market, while relatively strong, will lose momentum.

B of A put the housing market into its proper perspective with the following comment on February 5, 2013: "While progress has been made, it is important to remember that the housing market is far from normal. There are still considerable distortions that need to be worked through, owing to distressed properties. The key to a normal recovery will be the return of primary homebuyers and the exit of institutional investors. A crucial ingredient is credit availability. We anticipate some easing of lending standards this year, but it likely will take time for credit to flow freely again. Another important component of a healthy market is positive home price expectations. Homebuyers need to believe that it has yet again become an opportune time to buy a home and that the outlook for home prices is positive."

Business Investment. Given the mood of optimism and declining fiscal policy uncertainty ***business investment spending should remain relatively strong***. However, mandatory federal spending cuts will probably take effect on March 1. Mandatory spending reductions will cut defense spending at an annual rate of 9% and much of this would fall on defense investment spending. Most believe that Congress will not allow the mandatory spending cuts to continue for very long. But, the hardline positions of both parties on spending cuts and revenue increases make a potentially extended impasse likely. This would not be good for business investment spending.

Employment and Consumer Spending. ***Improvements in employment and spending will depend upon improvements in housing, business investment and exports***. What we know for sure is that the elimination of the 2% payroll tax cut will depress consumer disposable income. The key will be the extent to which this translates into reduced consumer spending. If consumers dip into savings, the impact will be moderated to a certain extent. The extension of unemployment benefits for another year will also serve to offset a portion of the impact. As the year progresses the impact of the payroll tax cut elimination will abate and momentum in housing, business investment and exports will help boost employment, income and spending and contribute to a modest favorable feedback loop. The risk is that many things could go wrong or momentum could be less than is currently anticipated.

<u>**Europe**</u>. ***Optimism about Europe's ability to emerge from recession in the second half of 2013 has pretty much become the consensus view***. Were this to occur it would help boost U.S. manufacturing and exports. Europe's recession is a home-grown affair based upon its response to banking and sovereign debt crises. Europe's recession is not feeding off of global problems. This is helpful as it limits the potential for Europe's recession to get a lot worse. However, it is still a stretch to expect an end to Europe's current recession during 2013.

Optimism about Europe's ability to emerge from recession is based on two considerations. First, slowly improving global growth will be positive for European exports. There is merit to this argument. However, because of aggressively easy monetary policy in the U.S. and now in Japan, the value of the euro is appreciating. If this appreciation is not contained or reversed it will negatively impact European exports. Germany's manufacturing-export-based economy is particularly vulnerable to an extended strengthening of the euro. The European Central Bank (ECB) does not appear inclined to engage in policies, specifically quantitative easing, aimed at decreasing the value of the euro. At best this development will delay Europe's emergence from recession; at worst it will contribute to deepening the recession. If there is a clear deterioration in European economic fundamentals due to the strength of the euro, based on previous responses to significant policy issues, it seems quite possible that Mario Draghi, president of the ECB, will find a way to weaken the value of the euro.

Second, there is a presumption that the banking and sovereign debt crises are slowly being resolved. This presumption is not soundly based. Abatement of turmoil in financial markets is not an indicator that the underlying problems have been addressed and resolved. Provision of unlimited amounts of liquidity, which is what the principal remedy has been, can treat the symptoms but cannot cure the disease. The disease is deeply rooted in balance of payments mismatches among members of the European Union

(EU) and the Eurozone (EZ), differences in competitiveness among countries and the absence of effective economic and political governance mechanisms. Can Europe emerge from recession when these fundamental problems remain unresolved? Perhaps, but a return to normal growth seems to be a real stretch of the imagination. The European financial system remains deeply dysfunctional and like the Japanese financial system of the 1990's will not be in a position anytime soon to facilitate the kind of credit creation essential to promote economic growth. Stay tuned — Europe remains a large downside risk that is significantly underappreciated.

China. ***Optimism about China's soft landing appears to be sound***. There seems to be little reason to doubt official projections of a small increase in the growth rate during 2013. Enormous challenges remain ahead but there appears to be time for the new leadership to formulate and implement reform policies. Their ability to do this successfully will have a significant impact on the health of China's economy over the longer run but this risk is not likely to unfold during 2013. If there is a risk that occurs in 2013 it would be the reemergence of inflationary pressures that would prompt more restrictive policy measures. Housing in recent years has involved speculative elements. Policy had some impact in dampening speculation during 2012 but prices are now beginning to edge up again. Food prices are rising and if they continue rising this could become a problem. However, the industrial and commodity inventory correction cycle seems to have run its course. In summary, no dramatic developments appear likely during 2013. However, over the longer run, the necessary transformation to a consumer-based economy will be challenging and fraught with risk.

In summary, there is much to be optimistic about. However, one should not lose sight of the significant problems and imbalances that still permeate the U.S. and global economies. Progress is occurring slowly. ***However, economies still remain fragile and subject to the vicissitudes of policy errors and unexpected shocks***.

III. Employment

As expected, January's employment report contained significant upward revisions to historical payroll data.

1. Payroll Data Revisions

There were three sets of revisions. In total the revisions added 647,000 jobs, raising the original December total from 134,021,000 to 134,668,000.

Monthly payroll figures are based on data supplied by large employers and estimates of employment in small companies. The first revision involves the annual benchmarking of payroll data to detailed reports compiled by state employment offices. There is a distinct cyclical pattern to jobs in small firms. When the economy is strong more companies are created and fewer fail. The opposite occurs when the economy is weak or in recession. This phenomenon results in a systematic overstatement of payroll employment during a recession and a systematic understatement during recovery. Benchmarking corrects these errors. This year's revision added 422,000 of the 647,000 jobs and covered the period from April 2011 through March 2012.

Because there are distinct seasonal patterns to employment, the Bureau of Labor Statistics (BLS) applies a sophisticated statistical methodology to smooth seasonal fluctuations. As the economy evolves and the mix of jobs changes, seasonal patterns change. Thus, the second revision involves updating seasonal adjustment factors. Seasonal revisions covered the period from 1990 through the end of 2012.

Typically revisions to seasonal adjustment factors should not result in the net addition of jobs. However, BLS also revised its factors for estimating jobs created and destroyed through the birth and death of firms. This revision added a monthly average of 60,000 jobs between 1990 and 2010.

Most of the remaining increase in jobs occurred as part of the normal monthly update process. For example, jobs gained in November were revised up 86,000 to 247,000 and December job gains were revised up 41,000 to 196,000.

These revisions raised the average number of jobs gained per month to 175,000 in 2011 and 181,000 in 2012. Nonetheless, even after the addition of 157,000 jobs in January payroll employment was still 3.2 million below the pre-Great Recession peak.

2. Household Jobs Report

While there was much to cheer in the payroll report and revisions, the household employment report was a huge disappointment. Household employment rose a minuscule 17,000 in January. The labor force grew a paltry 143,000 and the number of unemployed workers rose 126,000. As a consequence the unemployment rate edged up from 7.85% to 7.92%.

Growth rates in the household and payroll surveys generally track each other fairly closely over time. Household jobs increased 201,000 monthly during 2012 and payroll jobs increased 181,000 monthly. However, because payroll jobs currently cover only 93.5% as many jobs as the household survey, adjusting for this would result in a monthly increase in payroll jobs of 194,000, leaving little real difference between the two surveys in 2012.

3. Growth in Wages

If the labor market really is tightening, wage rates should begin to rise and that development would threaten subsequent increases in inflation. However, increases in both hourly and weekly wage rates are stuck at a very low level.

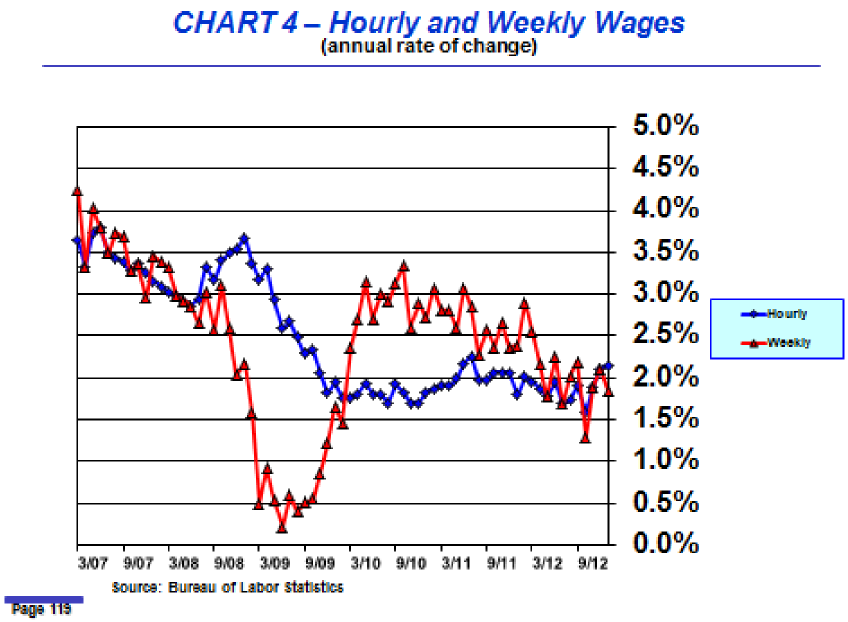
Chart 4 shows that hourly wage growth edged above a 2% annual rate of increase In January for the first time in over a year. However, because the work week has stabilized at 34.4 hours growth in take home pay has stalled at around 2%.

As long as the unemployment rate remains unusually high, labor will have very little bargaining power and this is likely to limit increases in hourly wages for the foreseeable future.

Real hourly and weekly wages are not increasing, which means that the standard of living for wage earners is not improving. This is not the stuff of a robust labor market.

4. Unemployment Rate

Because the Federal Open Market Committee (FOMC) has now linked monetary policy explicitly to the unemployment rate, it will be important to

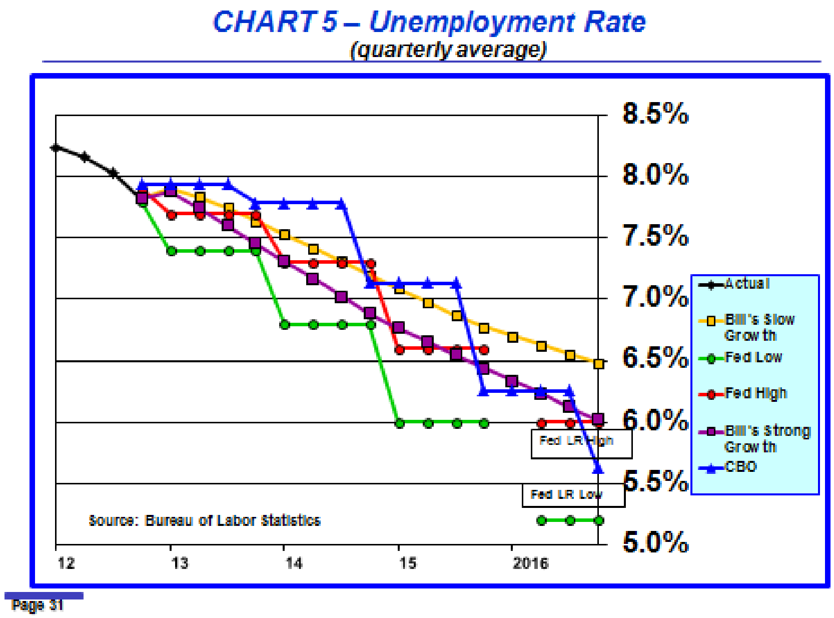


track this data point and various forecasts of when the unemployment rate is expected to cross below 6.5%, which is the FOMC's threshold for raising the federal funds rate.

According to the BLS, the number of unemployed workers increased 126,000 in January after rising 164,000 in December. The unemployment rate has now risen for two consecutive months from 7.75% in November to 7.92% in January. Since January 2012 unemployment has decreased 416,000 and the unemployment rate has decreased from 8.26% to 7.92%.

Chart 5 shows the FOMC's high (red line and circles) and low (green line and circles) unemployment rate projections for 2013, 2014 and 2015. The FOMC's long-run noninflationary rate of unemployment (structural unemployment rate), achieved sometime after 2015, falls between 5.2% and 6.0% (shown on the right hand side of **Chart 5**.

I have included unemployment rate forecasts for both "Bill's Slow Growth" (yellow line and squares) and "Bill's Strong Growth" (purple line and squares) scenarios. During 2013 "Bill's Slow Growth" unemployment rate projection tracks slightly above the upper end of the FOMC's range



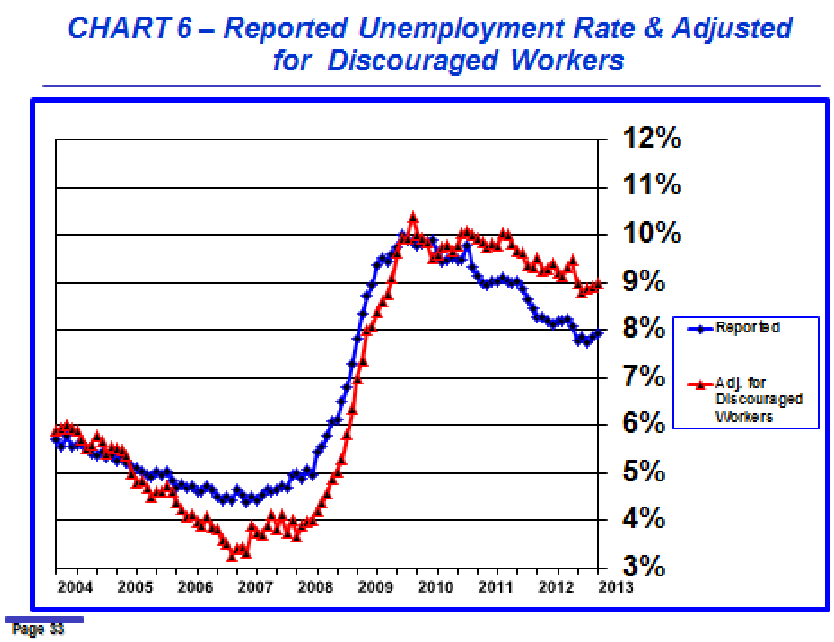
and "Bill's Strong Growth" unemployment rate tracks slightly below the upper end of the FOMC's range. "Bill's Strong Growth" unemployment rate forecast projects reaching the 6.5% threshold in early 2016, which is slightly longer than the FOMC's prior date-driven guidance and its projection range for mid-2015. However, in "Bill's Slow Growth" scenario, the unemployment rate does not fall below the 6.5% threshold until the end of 2016.

CBO's unemployment rate forecast is also shown in **Chart 5** (blue line and triangles). The unemployment rate barely budges in 2013 and 2014 but then falls quickly and hits 6.5% by mid-2015. GS expects the unemployment rate to reach 6.5% at the end of 2015 and expects that the FOMC will not raise the federal funds rate until early 2016.

5. Discouraged Workers and Labor Force Participation

There is reason to expect the rate of improvement in the unemployment rate to slow as the economy and the labor market strengthen. As is shown in

Chart 6, over the business cycle there is a systematic pattern in labor force



participation. When times are good some marginal workers join the labor force and when times are difficult some marginal workers drop out.

In January 2013, there were approximately 1.6 million discouraged workers who were not counted as unemployed. If they had been counted, the unemployment rate would have been 8.98% rather than 7.92%. A recent Federal Reserve Bank of San Francisco Economic Letter suggested that as many as 2.1 million discouraged workers could re-enter the labor force as the labor market strengthens.[2]

As the labor market strengthens discouraged workers will re-enter the labor force and the rate of improvement in the unemployment rate will slow. To some extent this effect is probably factored into the FOMC unemployment rate projections, but my sense is that the full extent of the potential discouraged worker effect is probably not factored in. If this is the case, then there is a good chance that the unemployment rate will not reach the 6.5%

[2]Mary Daly, Early Elias, Bart Hobijn, and Oscar Jorda. "Will the Jobless Rate Drop Take a Break?", FRBSF Economic Letter 2012-37, December 17, 2012.

threshold until sometime during 2016, as suggested by "Bill's Slow Growth" unemployment rate forecast.

There is another reason why the decline in the unemployment rate may slow as the economy and the labor market improve, which was proposed by Federal Reserve Chairman Ben Bernanke a few months ago. He suggested that during the Great Recession employers cut employment to a greater extent than warranted. This notion is supported by the more rapid improvement in employment during the initial phase of recovery than in GDP, reflecting the need for employers to "catch up". There is a long standing relatively stable relationship between employment and GDP which is referred to as Okun's law. During the recession employment fell more than implied by Okun's law with the consequence that employers were forced to "catch up" when the economy began to recover. GS estimates that payroll employment growth has grown 100,000 per month more than implied by GDP growth. However, because the historical relationship between GDP and employment has now largely been restored limited further "catch up" is likely to occur.

6. Structural Unemployment

In the early days of the recovery there was a vigorous debate about structural unemployment. At issue was whether the non-accelerating inflation rate of unemployment (NAIRU) had risen significantly. If NAIRU had risen substantially that would mean that potential inflationary consequences of easy monetary policy would kick in at a much higher rate of unemployment.

Prior to the Great Recession CBO estimated that NAIRU was 5.0%. The unemployment rate was below that level from January 2006 to April 2008. During the Great Recession the unemployment rate rose to 10.0% in October 2010 and has since fallen to 7.9%. If NAIRU is still 5.0%, there is little risk of inflationary consequences. But, some have argued that NAIRU is substantially higher today because of the pervasiveness of long-term unemployment which leads to loss of job skills and reduced employability.

There have been a number of studies which generally conclude that there has been a small increase in NAIRU but that NAIRU will probably decline over time as the labor market strengthens. CBO estimates short-term and long-term values for NAIRU. The short-term rate currently is 6.0% and the long-term rate is 5.5%. The FOMC includes in its projections a range for the long-term unemployment rate, which presumably is equivalent to NAIRU. That range is currently 5.2% to 6.0%. Importantly, CBO's estimate of short-term NAIRU converges to the long-term rate of 5.5% by the time that CBO expects the output gap to be eliminated in 2017. Furthermore, CBO estimates that long-term NAIRU continues edging down thereafter reaching 5.25% by the end of 2023.

CBO's view is validated by a recent San Francisco Federal Reserve Bank study authored by Rob Valetta.[3] He concludes that "... a closer look at the data indicates that the incidence of long-term unemployment has declined over the past few years, and that job prospects for the long-term unemployed are not as downbeat as the average duration data suggest." Historically high unemployment is due more to persistent weakness in the economy than to structural factors. Thus, although there has been some increase in structural unemployment, that effect should gradually dissipate as the labor market improves. This is exactly the view that is embedded in CBO's projections.

IV. Consumer Income and Spending

Policy gyrations are wreaking havoc with personal income, consumption expenditures and saving data. The data during 2012 were especially volatile with frequent large revisions. Unfortunately, more volatility is in store as higher-income households adjust to higher income tax rates and wage earners adjust to the elimination of the 2% payroll tax holiday. These developments make it harder than usual to assess trends in household income and spending and their implications for broader economic activity.

1. 2012 Personal Income, Disposable Income and Spending

Data for 2012 can be divided into three distinct periods: January and February; March through October; and November and December. The middle period appears to be "normal", while data for the first two months and the last two months of the year were heavily impacted by special factors.

[3]Rob Valetta. "Long-term Unemployment: What Do We Know?". FRBSF Economic Letter #2013-03, February 4, 2013.

Table 3 shows the annual results for 2011 and 2012. What immediately

Table 3
Change in 2011 and 2012 Personal Income and Its Disposition
(in billions of dollars)

	Nominal 2011	Annual Pct. Change	Nominal 2012	Annual Pct. Change	Pct. Change Jan-Feb	Pct. Change Mar-Oct	Pct. Change Nov-Dec
Personal Income	**$458.1**	**3.64%**	**$903.9**	**6.94%**	**9.32%**	**2.45%**	**22.48%**
Compensation	269.2	3.34%	365.9	4.39%	11.89%	1.45%	8.63%
Proprietors' Inc.	21.0	1.83%	67.9	3.61%	9.64%	3.54%	11.03%
Rental Income	70.7	19.50%	54.2	12.51%	16.62%	12.64%	7.89%
Asset Income	25.9	1.56%	374.9	22.21%	2.84%	2..53%	120.3%
Government Transfers	4.3	0.19%	81.4	3.50%	5.18%	2.93%	4.07%
Less: ***Personal Taxes***	-112.7	5.05%	-130.9	5.58%	12.92%	2.30%	11.39%
Disposable Income	**278.5**	**2.46%**	**813.3**	**7.01%**	**8.97%**	**2.36%**	**23.61%**
Less: ***Consumption***	**435.8**	**4.04%**	**400.4**	**3.57%**	**8.05%**	**2.52%**	**3.27%**
Personal Saving	**-157.4**	**-28.63%**	**412.9**	**105.3%**	**35.33%**	**-2.14%**	**604.7%**
Personal Saving Rate	**4.24%**		**3.95%**		**3.60%**	**3.68%**	**5.30%**

stands out is the near doubling in nominal personal income growth from 3.64% in 2011 to 6.96% in 2012. The contrast between 2011 and 2012 was even more dramatic for disposable income which increased 7.01% in 2012 compared to 2.46% in 2011. The last three columns in **Table 3** show annual growth rates for each of the three periods during 2012. Examination of the data provides clues as to what happened.

January — February 2012. During the first two months of the year the compensation and proprietors' income components of personal income grew at very high rates. These two categories comprise about 73% of personal income. The outsized growth was due to large one-time bonus and incentive payments, a phenomenon which apparently did not occur early in 2011.

March — October 2012. There are no usual quirks in the data for this eight-month period. What is distinctive is just how weak personal income and disposable income growth were during this period when no special factors were in play. Note also that growth in consumption expenditures was depressed during this period and tracked growth in disposable income closely.

November — December. The impact of policy is vividly evident in the data for November and December. Asset income, which barely grew during 2011 and which rose just a bit faster during the first ten months of 2012, exploded in November and December. Very clearly wealthier households intentionally realized capital gains during this two-month period to take advantage of lower tax rates before the Bush tax rate cuts expired and the Health Care Act surcharge took effect. It appears that nearly all of this asset monetization went right back into various types of assets and little went toward current consumption. Because it didn't go into consumption by default it was counted as an increase in saving.

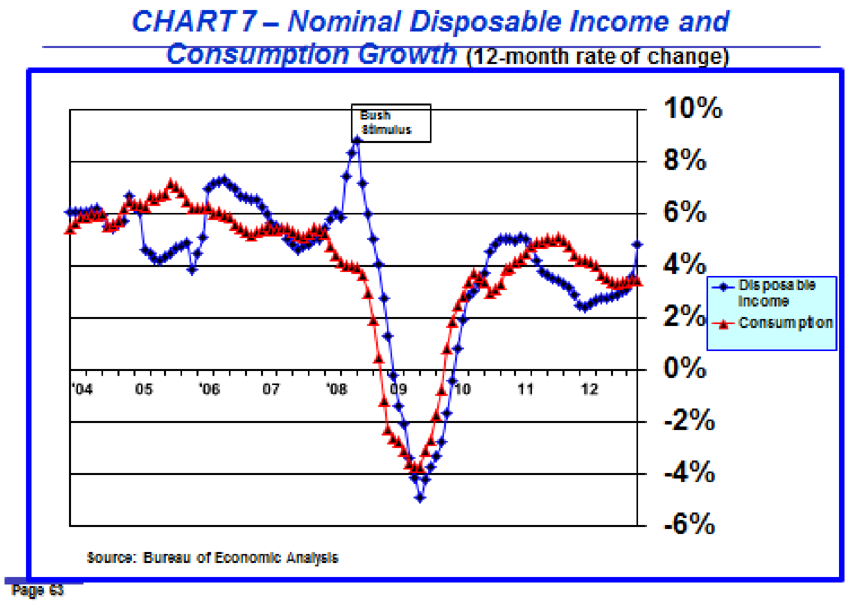
Compensation and proprietors' income both rose sharply in November and December at rates that approximated those in January and February. These income categories were boosted by acceleration of dividend payments, bonuses and social security payments to avoid the impact of higher tax rates in 2013. Redemption of deferred income accounts also probably was a factor. At least some of the increases would have occurred in early 2013. To the extent this is the case, there should be a negative boomerang effect in January and February. Income increases in these categories also appear to have gone mostly into savings.

2. Consumption

Surprisingly, the surge in personal and disposable income did not translate into higher consumption growth during 2012. In fact, nominal consumption growth slowed from 4.04% in 2011 to 3.57% in 2012. Revisions may change this result but it remains likely that weak consumption growth tells the real story. Without special factors, income growth is weak and consumers are not confident enough to be willing to spend a large portion of one-time extra income.

3. Disposable Income and Spending

Chart 7 shows the nominal rate of growth in disposable income and consumer spending from 2006 to the present. The annual rate of growth in disposable income began slowing in late 2010 and declined from 5.1% in February 2011 to 2.4% in February 2012, but then rose to 3.1% in October 2012 and surged to 4.8% in December. The question now is whether this



surge will follow the 2008 or the 2009-10 patterns. In 2008 during the early months of the Great Recession disposable income was boosted by a one-time substantial tax rebate. **Chart 7** shows clearly that consumer spending continued to slow during that period. In that sense the tax rebate has to be judged as an unsuccessful policy.

Acceleration in the growth of disposable income in 2010 was followed relatively quickly by increased spending. Increased spending held for a while even as income growth slowed before eventually slowing as well.

Intuitively it seems more likely that consumption growth will follow the 2008 decelerating pattern in 2013. That is because consumers know that their incomes will be squeezed in 2013 by higher taxes. Also, much of the burst in income growth was intentional to avoid having to pay higher taxes and likely was concentrated in higher income households whose marginal propensity to spend is low.

4. Outlook — Effect of Increases in Tax Rates

Over the next few months consumer disposable income growth will slow sharply because of increases in federal taxes. This trend is not in doubt. However, there is less certainty about how higher taxes will affect consumer spending since consumers have the choice to try to maintain spending by dipping into savings or simply to maintain savings by cutting spending. The result is likely to lie somewhere in the middle, but the question is where. The extent of any pullback in consumer spending will affect real GDP growth and improvement in labor market conditions.

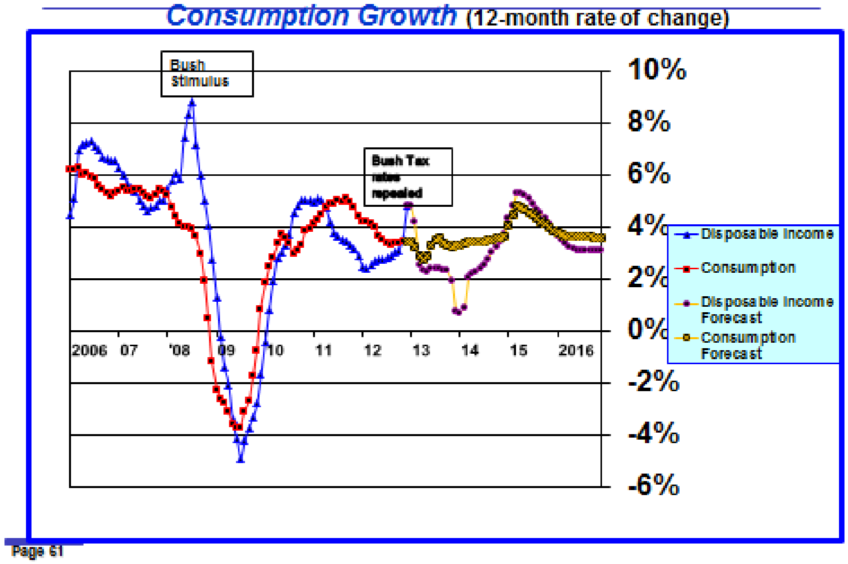
Increases in federal personal taxes during 2013 will amount to approximately $200 billion or about 1.66% of nominal consumer disposable income. The increases include $126 billion in payroll taxes, which predominately impact middle and lower-income households; $50 billion in income taxes from tax rate increases for those earning more than $400,000/$450,000 annually; and $24 billion from higher taxes on dividends and capital gains mandated by the Health Care Act, which predominately affect wealthier households.

If all of the disposable income shortfall is made up by dipping into savings, the saving rate would drop to about 2.00% in 2013 from 3.95% in 2012. If nothing else changed, nominal spending growth would continue at the 2012 level of 3.6% and real spending growth would be 2.1%, if the PCE deflator were 1.5%. This involves a lot of assumptions, but the point of this exercise is to provide a basis for understanding B of A's and GS's estimates of tax increases on **real** consumer spending in 2013.

B of A expects real consumer spending to grow at annual rates of 0.5% in the first quarter, 1.2% in the second quarter and 1.75% during the second half of 2013. GS expects real consumer spending to grow at an annual rate of 1.2% in the first quarter, 1.5% in the second quarter and 2.0% in the second half. It appears that GS's higher estimates may not include the impact of mandatory spending cuts, which are scheduled to take effect on March 1, 2013.

Chart 8 shows my forecast for growth in nominal consumer disposable income and consumption through 2016. While the forecast picks up some of the impact of the tax increase shock on income and spending, it does not pick up all of the short-run effects.

CHART 8 – Forecast Nominal Disposable Income and Consumption Growth (12-month rate of change)



All-in-all the story **Chart 8** tells is not a strong one. It is a story that is consistent with low labor supply growth, paltry productivity gains, low inflation and meager increases in wages and salaries.

V. Monetary Policy

There are two sets of monetary policy issues market participants are pondering. The first has to do with ***quantitative easing*** (large scale asset purchases) and how long and in what amounts the FOMC will continue to purchase U.S. Treasury and Government Sponsored Enterprise guaranteed mortgage backed securities. The second has to do with how long the FOMC will maintain a "***zero-interest-rate policy***" (ZIRP) for the federal funds rate.

Both of these monetary policy elements are designed to lower longer-term interest rates and stimulate aggregate demand in an economy still struggling to establish sustainable growth momentum. Quantitative easing works to stimulate the economy by changing the supply/demand dynamics of longer-term securities to reduce both their nominal and inflation-adjusted yields. ZIRP has the same impact but works through market participant expectations by extending the timeframe for future increases in interest rates.

Easy monetary policy is especially important at the moment because of the negative impact on the economy of higher taxes. As the impact of the tax increases abates later on in 2013 and, if the economy regains forward momentum, the need for an aggressively easy monetary policy should diminish.

1. Uncertainty Diminishes Monetary Policy Effectiveness

Although the Federal Reserve can impact financial market dynamics and economic decision making directly through interest rates by changing the federal funds rate and buying long-term securities to depress yields, much of the effectiveness of monetary policy occurs through changing expectations about the future course of interest rates and the future strength of economic activity.

Unfortunately, uncertainty about the future course of interest rates and economic activity can severely dilute the intended impact of monetary policy actions on expectations. This is why the FOMC, under Chairman Bernanke's guidance, has striven to increase the clarity of monetary policy through a variety of enhancements to its communications. These enhancements have included publishing economic projections for the key policy variables of the unemployment rate, inflation, real GDP growth and the federal funds rate; press conferences following release of updated projections; periodic interviews, speeches and op ed articles; and more explicit guidance in the FOMC meeting policy statement.

Research by Michael D. Bauer, an economist at the Federal Reserve Bank of San Francisco, indicates that " ... *uncertainty about the future path of the Fed's policy rate*" has fallen substantially.[4] Specifically, Bauer finds that the Fed's unconventional policy actions have "... *lowered the public's expectations for the path of the federal funds rate and reduced uncertainty surrounding these expectations.*"

[4] Michael D. Bauer. "Monetary Policy and Interest Rate Uncertainty", FRBSF Economic Letter #2012-38, December 24, 2012.

John C. Williams, president of the San Francisco Federal Reserve Bank, in a recent article stated that: "*... research shows that heightened uncertainty slows economic growth, raises unemployment, and reduces inflationary pressures.*"[5]

As the following discussion indicates, while the FOMC has made substantial strides in reducing market uncertainty about the future course of monetary policy, the FOMC's development of unconventional policy tools is still a work in progress.

2. Quantitative Easing — Large Scale Asset Purchases

When the minutes of the December FOMC meeting were released it became clear that a debate is underway among Committee members about how long the Fed should continue to buy $85 billion monthly in securities. It is clear that quantitative easing is likely to end well before the first increase in the federal funds rate takes place. But, it is not clear what the FOMC's guidelines are likely to be for determining how and when to scale back and eventually end purchases of securities.

FOMC members are clearly uneasy about the Fed's growing balance sheet and about the potential impacts of large scale asset purchases on the functioning and stability of financial markets over the longer run and about the complexities of shrinking the Fed's balance sheet when the time comes to do that.

Unlike the FOMC's explicit guidance on ZIRP, considerable uncertainty exists about the timing and pathway for exiting its large scale asset purchase policy. This issue is likely to be an ongoing matter of market uncertainty and FOMC policy debates. And, perhaps more explicit FOMC guidance will be provided at a future meeting.

Possible Guidelines for Limiting Purchases. One possible guideline might be real GDP growth relative to potential growth. If there is clear evidence that the output gap is closing, this could serve as a guide for scaling back and eventually ending large scale asset purchases.

[5] John C. Williams. "Monetary Policy in Uncertain Times", FRBSF Economic Letter #2013-02, January 21, 2013.

Another policy suggestion is to link purchases of securities to a nominal GDP (NGDP) target. This idea has some currency among academic economists (Michael Woodford and Frederick Mishkin) and has been mentioned by Vice Chairman Janet Yellen. It is also being discussed by policy makers in the U.K. The idea is that easy monetary policy would be pursued until a pre-established nominal GDP level is attained, while simultaneously anchoring inflationary expectations. Such a policy guideline would focus on closing the output gap. It would permit inflation to run temporarily above a short-term target, such as 2.5%, because the market would understand that as the output gap is closed, policy would be tightened and long-run inflation would be held in check. For inflationary expectations to remain anchored in the face of higher short-term inflation, market participants would have to believe in the credibility of the policy.

By targeting the nominal level of GDP, there is both an implicit embedded inflation target as well as a real rate of growth target. The risk in such a guideline is in not measuring the potential real rate of growth accurately. If the real growth rate target is set higher than underlying fundamentals will support in the longer run, the difference in a nominal GDP target will be made up through higher inflation. Such a measurement error contains within it the risk of unleashing inflationary expectations. Thus, it is my sense that before a nominal GDP target is adopted as an instrument of monetary policy it will be important to study carefully the economic variables that make up and drive the potential real rate of growth.

Because of uncertainties accompanying a NGDP target, it might be better to adopt guidelines that are linked to the already established guidelines for the unemployment and inflation rates. Boston Federal Reserve Bank president Eric Rosengren has suggested that the FOMC consider terminating purchases of securities when the unemployment rate reaches 7.25%. This suggestion begs the question of whether a phase down in purchases would begin prior to the unemployment rate reaching 7.25%. Chairman Bernanke has stated that the FOMC has decided "at this time" against establishing quantitative thresholds for securities purchases. This implies that the issue remains on the table and guidance may be forthcoming at a future FOMC meeting.

Obstacles to Greater Transparency. However, the record to date does not offer much hope that clear GDP growth-based guidelines can be established. The FOMC's real GDP projections have been consistently and substantially overoptimistic. For example, in November 2010, the FOMC's mid-point estimate for 2012 GDP growth was 4.05%. Based on preliminary data for 2012, real GDP grew just 1.55% year over year. Similarly, the FOMC's mid-point estimate for 2013 GDP growth was 4.15% in February 2011. This estimate was revised to 2.65% in December 2012. And, even with that reduction the FOMC's 2013 projection range of 2.3% to 3.0% is above that of many other forecasters. The FOMC's current real GDP growth forecast range for 2014 is 3.0% to 3.5% compared to 2.6% for B of A and 2.9% for GS.

While the Fed's own projections imply an earlier phasing down and cessation of quantitative easing, most market forecasts lead to a conclusion that the GDP output gap will close very slowly and quantitative easing will continue for an extended period of time.

This optimistic bias on the part of FOMC members stands in the way of reducing market uncertainty. And, there may be little that can be done about it. For one thing the FOMC is cognizant of the power of its projections to influence markets. This creates a natural tilt toward optimism because of fear that more pessimistic projections of real GDP growth would spur the kind of decision making that would result in a worse outcome. Or, FOMC members might have strong faith that their monetary policy actions will improve real GDP growth.

Market Response to Uncertainty. As a consequence of this uncertainty, the market's response to release of the December FOMC minutes was to price in a slightly earlier phasing out of quantitative easing. This resulted in boosting longer-term asset yields, probably not what the FOMC really wanted to happen.

According to the December New York Federal Reserve's primary dealer survey, market participants anticipate that large scale asset purchases will end by the first quarter of 2014. Embedded in this response is an implied tapering down in purchases beginning in the second half of 2013.

GS expects quantitative easing to continue through 2014.

In the absence of explicit guidance from the FOMC, the market will watch data reports and listen closely to the commentary of FOMC participants. Presumably weaker data reports will result in the timing of exit being pushed back while stronger reports would cause market participants to expect an acceleration in timing.

Potential Consequences of Large Scale Securities Purchases. There are five potential problems: (1) increasing the complexity of reversing securities purchases; (2) creating losses as interest rates rise and securities are sold; (3) igniting inflationary expectations; (4) impairing the normal functioning of financial markets; and (5) creating various kinds of financial imbalances.

First, the law of large numbers means that the bigger the Federal Reserve's balance sheet becomes, the harder and riskier it will be to unwind it. The Federal Reserve has tools available to help smooth the impacts. An important tool is the ability to pay interest on excess reserves. But, even though tools exist there is no precedent for handling the unwinding of a very large balance sheet. This means that real time learning will take place and that will amplify the possibility of mistakes.

Second, it is obvious that the Federal Reserve's balance sheet will grow as long as purchases continue. In the short run this will help reduce the federal deficit because the Federal Reserve will remit an ever-growing amount of income to the U.S. Treasury Department. However, the Federal Reserve's interest rate risk will increase in magnitude along with the size of its balance sheet. Not only will an ever growing balance sheet increase the complexity of unwinding when the time comes, it will also result in potentially large negative, rather than positive, transfers to the U.S. Treasury when interest rates rise. Note — **central banks cannot become insolvent** because of their power to print money. CBO expects the Federal Reserve's remittances to the Treasury Department to fall to zero between 2018 and 2020. The accuracy of this forecast depends both on the size of the Federal Reserve's balance sheet and the level of future interest rates, neither of which are knowable with any degree of precision.

Third, the market may come to the conclusion that asset purchases will be too large and will extend for too long. If such a belief takes hold, it would spawn inflationary expectations, which would negate the desired monetary policy impact of the large scale asset purchase program.

Fourth, purchases could also disrupt the normal functioning of markets. There is already some evidence of distortion in the mortgage backed securities market. Purchases have depressed secondary market mortgage rates more than primary rates. Thus, although home borrowers have benefited from lower rates, the full extent of the impact of securities purchases on rates has not been passed through entirely to borrowers. This has resulted in a profits boon for large mortgage originators, such as Wells Fargo. In addition, Federal Reserve purchases reduce private market liquidity. To date this has not been a serious problem but anecdotal commentary suggests that it could become so if purchases are increased or extended for a long period of time.

Fifth, there is the possibility that the abundant amounts of liquidity created by asset purchases will lead to asset price bubbles. Stock prices are an intentional target of quantitative easing. The risk is that prices ascend to levels that are unsustainable once the Federal Reserve begins to shrink its balance sheet. At the moment the equity risk premium is relatively high and the price/earnings ratio is moderate. If a bubble were forming the risk premium would be shrinking. It is not. There appears to be some further room for multiple expansion and for stock prices to rise further without risking creating a bubble. Some have pointed to farm land prices as a bubble in the making. However, higher food prices appear to have provided support for land prices.

While none of these risks appears to be troublesome at this time, they all bear close monitoring.

3. Zero-Interest-Rate Policy — FOMC Guidelines for Raising the Federal Funds Rate

In December the FOMC adopted explicit inflation and unemployment rate guidelines for ending its "zero-interest-rate policy".

There were no further substantive policy changes or nuances included in the FOMC's January meeting policy statement. The assessment of economic activity remained tilted toward ongoing weaknesses. Inflation remains well anchored. Finally, the current aggressive policy stance remains appropriate.

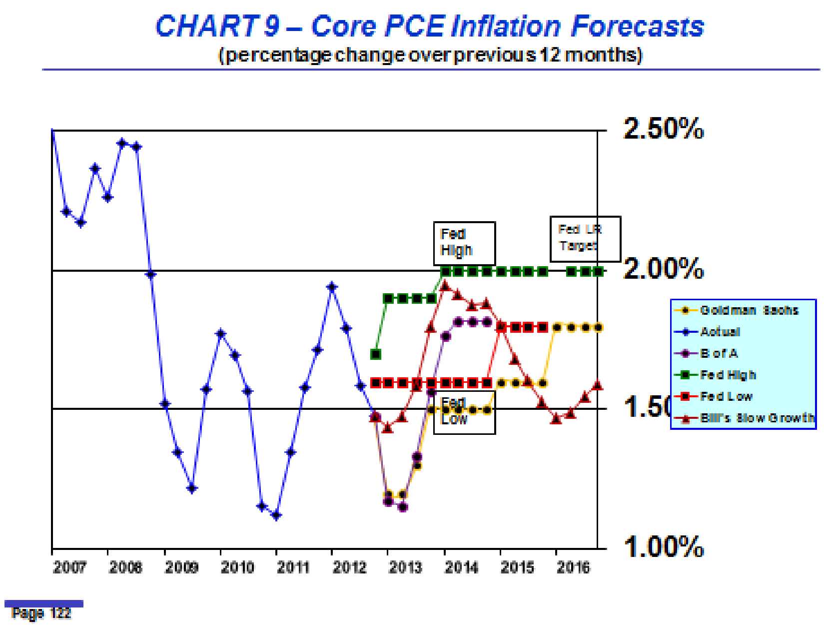
December Policy Guidance. "*In particular, the Committee decided to keep the target range for the federal funds rate at 0 to ¼ percent and currently anticipates that this exceptionally low range for the federal funds rate will be appropriate* ***at least as long as the unemployment rate***

remains above 6-1/2 percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal*, and longer-term inflation expectations continue to be well anchored.*" (The bolded language, which replaced the previous time-based language, set the unemployment rate guideline at 6.5% and the inflation guideline at 2.5%.)

Needless to say this event-based guidance leaves open to interpretation the approximate date when the FOMC is likely to begin raising the federal funds rate. But guidance can be derived from the FOMC's own projections for the unemployment rate and inflation and from forecasts developed by others.

Inflation Guideline. FOMC projections for both the total and core measures of PCE inflation for 2013, 2014 and 2015 remain below its long-term target of 2.0% and are substantially below the ZIRP guideline of 2.5%.

Chart 9 shows the FOMC's core PCE inflation projection range. Also



shown are my core PCE inflation forecast and those prepared by B of A and GS.

My statistical model does not incorporate the impact of expectations. But it does incorporate the impact of both a linear and nonlinear term for the employment gap (CBO's structural unemployment rate minus my estimate of the unemployment rate). The nonlinear term is highly significant statistically and has the greatest impact when the employment gap is large. This captures the fact that inflation adjustments are sticky in the downward direction and prevents the forecast inflation rate from falling to extraordinarily low levels during periods of substantial labor market slack.

Both GS and B of A forecast core PCE inflation to decline in early 2013 well below the lower end of the FOMC's projection range. Thereafter both forecast core PCE inflation to rise, but GS's estimate never exceeds the bottom end of the FOMC's projection range, while B of A's estimate climbs to the mid-point of the FOMC's range in 2014.

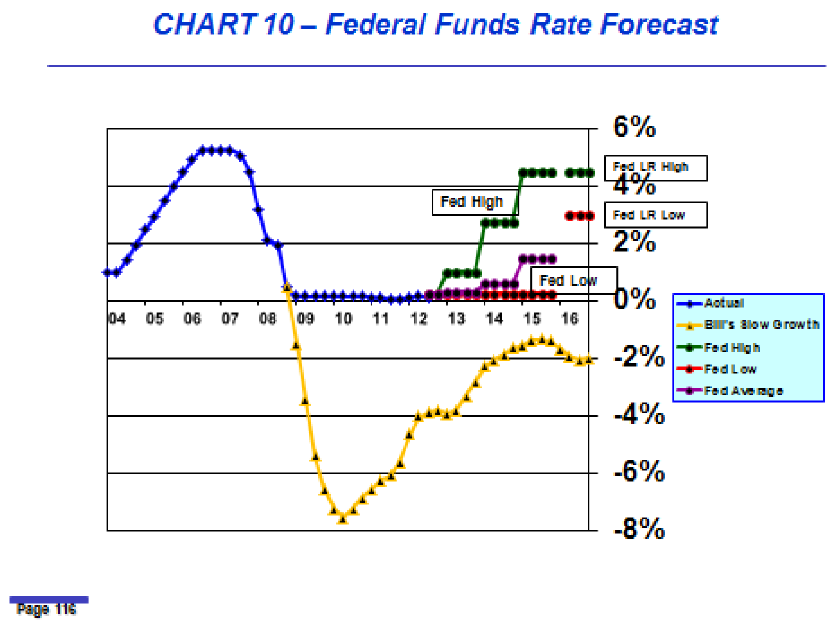
What is important is that none of these forecasts, including the FOMC's projections, results in PCE inflation rising above 2.0% for the next five years.

Unemployment Guideline. As was shown in **Chart 5** above, the FOMC's unemployment rate projections do not penetrate the 6.5% guideline until 2015. CBO has a similar expectation. However, GS and I expect the unemployment rate to fall more slowly and not reach the 6.5% threshold until at least 2016.

4. Federal Funds Rate

Chart 10 shows the FOMC's high and low projections for the federal funds rate for 2013, 2014 and 2015. The FOMC central tendency range is derived by excluding the three highest and the three lowest projections. The purple line (circles) is the average of projections for the 19 FOMC members (7 governors and 12 presidents).

"Bill's Slow Growth" forecast is shown by the yellow line (triangles). My forecast indicates that the federal funds rate is not likely to increase at all, which is inconsistent with FOMC guidance and my forecast that the unemployment rate should fall below 6.5% during 2016. However, I would note that my model indicates an implied federal funds rate currently of -3.8% which falls within a -3.5% to -5.0% range suggested by the work of



others.[6]

VI. Fiscal Policy

Although significant fiscal policy issues remain unresolved and Democrats and Republicans are poles apart on what constitute appropriate resolutions, the urgency of resolving the issues and the threat stalemate poses to the U.S. economy appear to have receded since Congress acted to make most of the Bush tax-rate cuts permanent at the beginning of the year.

1. Recent Developments

There are still three issues in play — potential modification of mandatory spending cuts (sequester) which go into effect on March 1, adoption of a

[6]Goldman Sachs Economics Research. "US Economics Analyst: Rebalancing Fed Policy", Issue No: 12/50, December 14, 2012.

budget resolution to fund the federal government (the current continuing resolution expires on March 27), and an increase in the debt ceiling.

Mandatory Spending Cuts (Sequester). $1.2 trillion in spending cuts over the next nine years were mandated by the Budget Control Act, which Congress passed in 2011. Entitlement programs are exempt, which means the sequester impacts only defense and domestic spending programs and reimbursements rates for Medicare providers. Implementation was deferred until January 1, 2013 and was further delayed for two months when Congress extended most of the Bush tax rate cuts permanently at the beginning of the year.

Practically no one likes the arbitrariness of the across-the-board cuts. That was an intentional strategy — make the cuts so mindless that Congress would be forced to put together a thoughtful replacement. Well, so much for altruism. Republicans and Democrats are so far apart in their views on what does and what does not merit cutting that the default scenario of blunt across-the-board mandatory cuts is about to occur. Hope remains that a deal can be cut later in 2013 in the context of broader-based tax reform or perhaps in conjunction with the adoption of an increase in the debt ceiling. However, Republicans, who are still smarting from Obama's "victory" in forcing extension of most of the Bush tax cuts except for wealthy households without including any spending cuts, are in no mood to negotiate.

President Obama recently sent a proposal to Congress to replace the sequester with a combination of spending cuts and tax increases. The president's proposal was immediately dismissed by Republicans as lacking in substance and smacking of political grandstanding. Republicans oppose any additional tax increases. House Republicans have passed a bill to replace the mandatory cuts with deep cuts in domestic spending programs, which, of course, is anathema to Democrats.

So, at least for the next few months we are about to find out how forced spending cuts will impact the economy. We know that the current year impact will be approximately equal to 0.5% of real GDP in the aggregate and that the impact will be greatest during the second quarter. We also know that defense spending will be cut by approximately 9% and this will impact defense contractors especially hard. What we do not know is how the cuts will ripple through the economy and what the secondary and tertiary impacts will be.

Budget Resolution. The Senate has not passed a budget resolution in four years. During that time period the federal government has continued to operate through a series of continuing resolutions. The latest continuing resolution expires on March 27. If a budget resolution or another continuing budget resolution does not pass Congress by the expiration date, nonessential government activities will shut down.

With little more than a month to go, there has been no substantive progress. It is unlikely that Congress will let the government shut down — the political consequences are simply too great for both parties. If a deal cannot be forged in time, the likely outcome will be the passage of another short-term continuing resolution but it will probably contain some spending cuts.

Republicans are demanding that tax reform, particularly for entitlement programs, be part of any permanent budget resolution. Democrats are equally adamant that entitlement programs are out of bounds.

Most informed observers believe that there is no longer any chance for a "Grand Bargain" involving reforms to taxes, spending and tax expenditures. May Bowles-Simpson rest in peace! This means that a budget resolution will most likely focus on a handful of specific issues which are predominantly short-term in scope.

A possible short-term resolution would be to pass a continuing resolution that extends to the end of the fiscal year in September, which would replace sequestion in the current fiscal year by reducing the authorized level of spending from $1.047 trillion to $974 billion. The overall reduction in spending would be similar to sequestration but government entities would have greater discretion over what to cut.

Debt Ceiling. Republicans wisely proposed a short-term increase in the debt ceiling so that debates on mandatory spending cuts and the budget resolution would come first. They correctly understood that using the debt ceiling as a blunt tool to force spending cuts would in all likelihood bring with it a heavy political cost, as well as unsettling financial markets and potentially adversely impacting economic activity.

Consideration of this issue has now been deferred until summer. The Treasury Department has advised that the debt ceiling is likely to become binding in August.

Budget Spending Authority versus Spending Outlays. Both the sequestration and the budget resolution establish limits on spending authority. Spending cannot exceed budget authority. But outlays, especially defense contracts, can come from previously authorized spending. This means that the full brunt of the sequester will not take effect immediately, but over time the full impact will come into play. For example, it is expected that the reduction in actual defense spending in the remainder of this fiscal year may be as little as half the amount of authorized spending cuts.

2. Congressional Budget Office's Ten-Year Economic Outlook

CBO released its annual ten-year economic and budget forecast based on current law on February 5, 2013. The forecast is very different from the last revision released in August 2012. This is because of the $620 billion in additional tax revenue agreed to by Congress at the beginning of the year and the permanent indexing of the alternative minimum tax.

Perhaps the most important feature of the new forecast is that the federal public-debt-to-GDP ratio stabilizes for several years before beginning to creep up toward the end of the ten-year forecast period. This outcome is driven principally be two factors. First, CBO assumes that $1.2 trillion in mandatory spending cuts will occur and that tax extenders will not be renewed when they expire. This includes expiration of the "Doc Fix", which provides, on a temporary basis, increased reimbursement rates to Medicare providers. Second, CBO assumes a sharp acceleration in economic growth beginning in 2015 which contributes to higher tax revenues. However, because CBO assumes that interest rates rise more than most forecasters expect much of the higher tax revenues is offset by higher interest expense on the public debt.

Because no reforms are assumed to be made in entitlement programs, the aging of the population pushes entitlement expense up at an accelerating rate and by 2019 the federal public-debt-to-GDP ratio begins to rise.

CBO's optimistic economic forecast and the stabilization of the federal public-debt-to-GDP ratio for most of the next 10 years collectively are likely to take pressure off Congress to reduce the deficit. CBO estimates that the 10-year deficit will be $4.6 trillion and that the federal public-debt-to-GDP ratio will be 77.0% in 2023 compared to 76.3% at the end of the current fiscal year.

CBO's Alternative Scenario. CBO did estimate an alternative scenario in which it assumed that Congress waives the $1.2 trillion sequester, extends expiring tax breaks, and extends the "Doc Fix". Under this scenario the federal-debt-to-GDP ratio rises an additional 10 percentage points to 87% by 2023. The 10-year cumulative deficit would be $7.4 trillion.

Additional Deficit Reduction. CBO estimates that cutting the 10-year deficit in half to $2.3 trillion would lower the federal public-debt-to-GDP ratio to 68% by 2023 and add one percentage point to real GDP by 2023. In other words, deficit reduction results over the 10-year period in better economic performance.

3. Critique of CBO's 10-Year Forecast

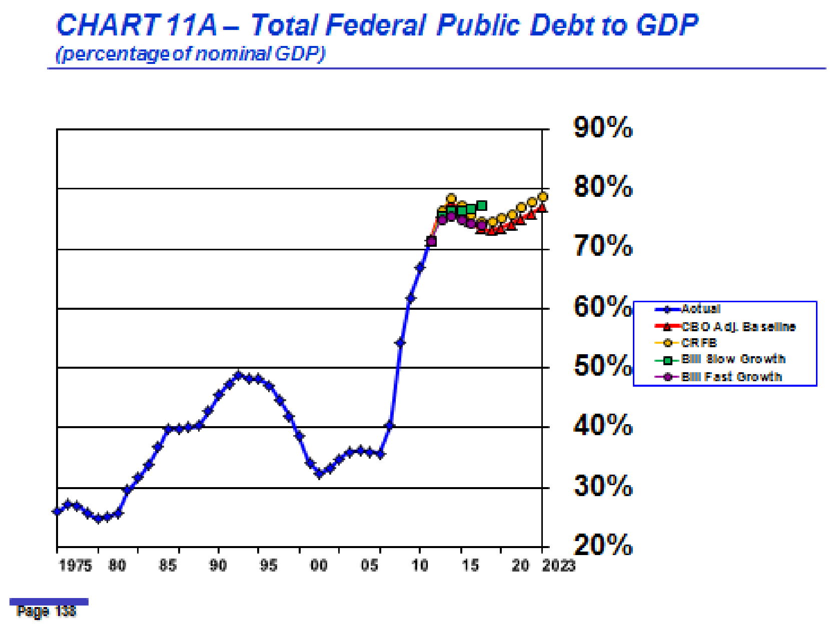
CBO is required to base its forecast on current law. It is not permitted to speculate about how Congress might change current law. Other forecasters are not subject to such a limitation and usually adjust their forecasts to reflect what they believe will be probable outcomes. Thus, it is somewhat surprising that current alternative forecasts, while often differing considerably in specific details, do not differ much in the 10-year forecast for economic growth and the federal public-debt-to-GDP ratio.

Committee for a Responsible Federal Budget (CRFB). CRFB makes several adjustments to CBO's forecast. For example, CRFB assumes the sequester is repealed and the "Doc Fix" is extended. These add $1.13 trillion to the deficit. However, CRFB assumes war spending dwindles and disaster relief shrinks. After making several adjustments and recalculating interest expense on the federal public debt, CRFB adds only $554 billion to the 10-year deficit. The federal public-debt-to-GDP ratio is 78.9% at the end of ten years instead of 77.0%.

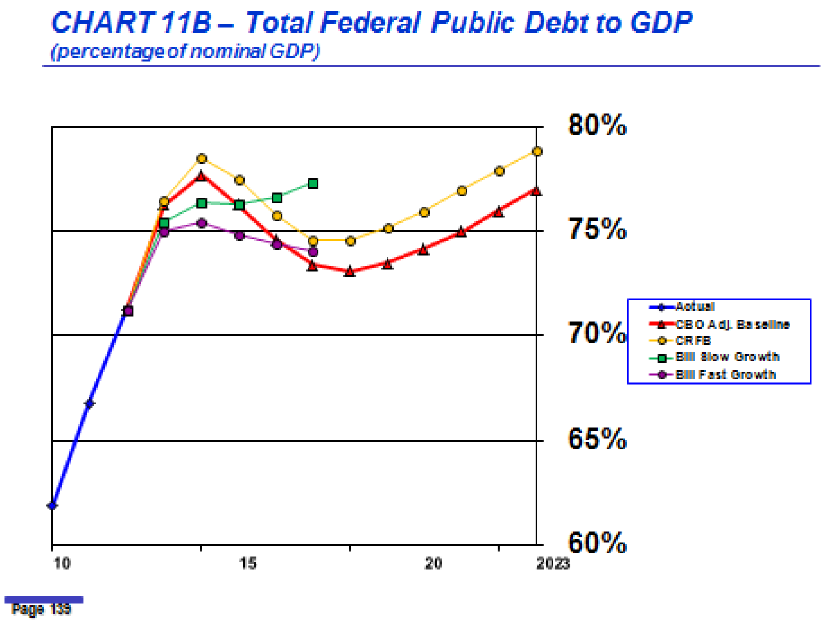
Goldman Sachs (GS). GS makes adjustments both to expenditures but also to CBO's economic projections. GS has a less optimistic forecast for GDP growth and therefore for tax revenue growth. However, GS forecasts lower interest rates and this decreases the cost of servicing the federal debt. These two factors are offsetting so that GS's 10-year deficit estimate increases by about $100 billion. GS assumes renewal of the "Doc Fix" but does not assume elimination of the sequester. GS also agrees with CRFB that disaster relief expenditures should be scaled down. When all of these adjustments are combined GS projects the 10-year cumulative deficit to be $300 billion greater than CBO's current law estimate.

4. Total Federal Public Debt to GDP Forecasts

Charts 11 A and **11B** show the historical and forecast federal public-



debt-to-GDP ratio. Two takeaways are visually apparent. First, the ratio stabilizes in the mid-70% range beginning in fiscal year 2014. Second, all forecasts, including CBO's, are tightly clustered. This clustering is more apparent in **Chart 11B**, which focuses on the forecast period and truncates the scale.



5. Rating Agencies

Lest we forget, the three rating agencies have a negative outlook on U.S. Treasury debt and all have telegraphed that a ratings downgrade is likely if Congress does not take substantive action to put the U.S.'s public-debt-to-GDP ratio on a more sustainable path.

CBO's, CRFB's and GS's 10-year forecasts indicate that the U.S. public-debt-to-GDP ratio stabilizes over the next ten years, but do begin to edge up at the end of the period. This result probably is sufficient to forestall a ratings downgrade. The rating agencies would prefer that the ratio declines over time. Since Congress has yet to act to make that a likely outcome, my sense is that the agencies will maintain a negative outlook but will not downgrade U.S. debt. However, if Congress backtracks on spending cuts or otherwise enacts legislation that increases the deficit, the probability of a ratings downgrade will rise.

VII. Europe, China and Global Economies

Europe's recession continues, although most forecasters expect a return to growth by the second half of 2013. I think this may well turn out to be optimistic. As I have mentioned repeatedly, European policy makers have been effective in stabilizing financial markets through a variety of initiatives, but none of these has addressed effectively fundamental political and economic reforms which are necessary in the long run to assure the viability of the European Union and the common currency.

Political risks are rising slowly. Scandals are weakening dominant parties in Italy and Spain. Euro-skeptic parties on the right, while still far distant from obtaining real political power, are growing. Reductions in the just approved seven-year EU budget will result in large wealthy members providing smaller subsidies to less well-off members. Thus, the budget marks a move away from integration as countries with stronger economies seek to limit transfer of resources to less well endowed countries. The slow unraveling of the European Project is continuing.

Recent data from ***China*** have reinforced the soft landing story. It is still much too early in the tenure of China's new leadership to know whether and how the necessary transformation of the Chinese economy and concomitant political reforms will occur. This will take time to unfold. Over the next several months China is likely to support somewhat improved global growth, but is unlikely to be the engine of global growth to the same extent as it has been in recent years. For the moment, downside risks also appear to be in check.

Japan's election returned Shinzo Abe to power as prime minister. He campaigned on a platform to end Japan's chronic deflation by pressuring the Bank of Japan to flood the economy with liquidity. As witnessed by the recent 10% depreciation of the yen against major global currencies, markets expect Abe's policies to have impact. The depreciation of the yen will benefit Japan's balance of trade relatively quickly. However, it is too soon to determine whether more aggressive monetary policy will stimulate domestic aggregate demand and result in a little price inflation instead of the persistent deflation of recent years.

Perhaps sensing this risk, Abe has suggested to employers that they raise employee wages. Wages have been deflating in Japan for several years.

If such an action were taken collectively, it would limit competitive consequences. Of course, it would hurt profit margins in the short run. But the theory is that an across-the-board- wage hike would lift spending and stimulate inflationary pressures. The object of policy is to defeat entrenched deflation. Aggressive monetary policy, a weakening of the yen, strengthening of exports and large wage hikes might just be the recipe of policy actions necessary to end Japan's persistent deflation.

There is a potential dark side to Japan's impending more aggressive yen currency policy. When one nation debases its currency, it can boost exports and improve its economic growth. However, when all nations follow suit, growth improvements in individual countries are snuffed out. All that remains is a rise in the global inflation rate. Of course, this is part of Japan's intended policy for itself. But, a currency war propelled by money creation is risky business. The U.S., U.K. and European Union are already pursuing aggressive monetary policies, so the currency war is already under way. Japan is a bit late to the party.

APPENDIX: Outlook — 2013 and Beyond — Summary and Highlights of Key Issues

Observations about the 2013 U.S. and global economic outlook and risks to the outlook were contained in the ***December Longbrake Letter*** and are included below without any changes. As events unfold during 2013, this will enable the reader to track my analytical prowess. Current assessments follow each item with the following identifiers: "+" tracking forecast; "-" not tracking forecast; "?" too soon to know.

1. **U.S.**

   - ***Q4 real GDP*** growth projections range from 0.5% to 1.8%; tracking estimates based on October and November data are consistent with growth of approximately 1.0%.

     ✓ ***? "Advance Estimate" was -0.14%, but is likely to be revised up to at least 0.5%.***

   - ***2013 real GDP*** growth projections range from 1.5% to 3.0% but with a preponderance of the forecasts falling in the lower end of the range. The drag from tighter fiscal policy will offset gradual improvement in the household and business sectors. Growth should improve gradually over the course of the year. The balance of risks, particularly U.S. fiscal policy but also global growth, is weighted toward slower GDP growth.

✓ ***?***

- ***Real GDP output gap*** will remain very high and close little, if at all, during 2013.

  ✓ ***+ According to the Congressional Budget Office, the GDP output gap is forecast to increase from 5.9% to 6.0% during 2013.***

- ***Employment*** should grow about 125,000 per month, somewhat more slowly than in 2012.

  ✓ ***- Data revisions indicate that employment grew 181,000 monthly in 2012; employment growth probably will be stronger than 125,000 monthly in 2013.***

- ***Unemployment rate*** should edge down to about 7.5%. A lower rate is not very likely unless more discouraged workers exit the labor force.

  ✓ ***?***

- ***Consumer disposable income and spending growth*** will remain weak and could decline from 2012 growth rates if employment growth slows and wage and salary increases remain under pressure. Growth will be a lot weaker if Congress permits the payroll tax cut and extended unemployment benefits to expire.

  ✓ ***?***

- ***Household personal saving rate*** will probably continue to decline gradually; however, it could rise if employment and income prospects worsen materially.

  ✓ ***? The saving rate rose at year end primarily because of acceleration go capital gains realization to avoid higher tax rates in 2013.***

- ***Export and import*** growth will probably continue to slow gradually due both to slower U.S. growth but also due to deepening recession in Europe.

  ✓ ***?***

- ***Manufacturing*** growth will be subdued reflecting recession in Europe and slower growth in the U.S. The order backlog index was a very low 41.0 in November.
  - ✓ ***? Purchasing managers index rose in January.***
- ***Business investment*** spending has slowed sharply because of fiscal cliff concerns and could rebound if there is a satisfactory resolution of major fiscal issues. Capital expenditure plans are cautious based both on concerns about growth and political uncertainty.
  - ✓ ***? Business investment growth was very strong in the fourth quarter.***
- ***Housing investment*** is one of the brighter prospects. However, increased activity is likely to be concentrated in multi-family rather than single family. Housing starts are likely to increase 25% in 2013 to approximately one million. Housing prices should rise between 2% and 3%.
  - ✓ ***?***
- ***Monetary policy*** — the Federal Reserve has committed to purchase $85 billion in securities every month including $40 billion in mortgage backed securities and $45 billion in U.S. Treasury securities.
  - ✓ ***? There is debate about whether the Fed will downsize the amount of monthly purchases during 2013.***
- ***Inflation*** will remain below the Federal Reserve's 2% objective at least through 2015. Concerns about increases in inflation in the long-term are misplaced.
  - ✓ ***? December inflation reports were weaker than expected.***
- ***Federal Funds rate*** is not likely to increase before mid-2015 and might not increase until late 2016 or early 2017.
  - ✓ ***?***
- ***Fiscal policy*** will be contractionary in 2013, but will become less of a factor in ensuing years.
  - ✓ ***+ Fiscal policy is likely to be more contractionary during the first half of 2013 than most had expected.***

- ***Potential structural rate of real GDP growth*** has declined significantly and could decline further in coming years unless a concerted public initiative is undertaken to invest in education, research and public infrastructure.

  ✓ ***?***

2. **Rest of the World**

- ***European financial markets*** are likely to remain relatively calm thanks to the activist role of the European Central Bank.

  ✓ ***? To date calm has prevailed but political uncertainty is rising in Italy and Spain.***

- ***European recession*** is spreading to stronger countries and worsening in peripheral countries.

  ✓ ***?***

- ***European banking union*** will do little to solve deep-seated European and Eurozone structural problems.

  ✓ ***?***

-

- European political dysfunction, populism and nationalism will continue to worsen gradually.

  ✓ ***?***

- ***China*** appears to have achieved a ***soft landing*** and economic activity will strengthen modestly.

  ✓ ***+ Cyclical improvement continues but rise in inflation is a concern.***

- ***China's new leadership*** understands the need to design and implement ***economic reforms*** and avoid repeating a massive infrastructure spending program.

  ✓ ***? Implementation of reforms not expected until second half of 2013.***

- ***Global growth*** is likely to be fairly steady in 2013 but will depend on developments in the U.S. and Europe.

  ✓ ***- Global growth has improved somewhat.***

3. **Risks** — stated in the negative, but each risk could go in a positive direction

- ***U.S. fiscal policy*** tightens more than expected.
  - ✓ ***+ Automatic spending cuts will kick in on March 1 and are not likely to be modified for several months.***
- ***Europe's recession*** deepens more than expected; financial market turmoil reemerges; political instability and social unrest rises more than expected threatening survival of the Eurozone.
  - ✓ ***?***
- ***Chinese*** leaders have difficulty implementing ***economic reforms***; growth slows more than expected.
  - ✓ ***?***
- ***Global growth*** slows more than expected.
  - ✓ ***- The trend in global growth has improved slightly.***
- Severe and, of course, unexpected ***natural disaster*** occurs.
  - ✓ ***?***
- ***Disruption of Middle East oil supply***, stemming from hostile actions involving Iran and Israel, occurs.
  - ✓ ***?***

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