



The Longbrake Letter*
Bill Longbrake
January, 2014

I. With the Notable Exception of Employment, Recent Data Point to Faster Growth in 2014

As recently as two months ago many forecasters expected fourth quarter GDP to grow at a miniscule 1.5 percent annual rate after the surprisingly large inventory accumulation equaling 1.7 percentage points of the 4.1 percentage annualized increase in third quarter real GDP. The thinking was that this outsized inventory increase would reverse in the fourth quarter and drag down the rate of growth.

However, estimates of fourth quarter growth now range between 3.0 and 4.0 percent. What happened to cause this change? Unexpectedly, consumer spending, which has been depressed for several quarters by weak income growth and low confidence, appears to have surged in the fourth quarter. Consumer spending, which has contributed an average of 1.28 percent to real GDP growth over the last six quarters, is on track to contribute 2.65 percent to real GDP growth in the fourth quarter.

Optimism is building that consumer spending growth will be strong in 2014. There will be no further tax increases. Strong rises in stock and home prices have rebuilt consumer wealth. Consumer debt leverage ratios have declined to levels that prevailed in the 1990s. In other words, household balance sheet repair has largely been completed. Consumer confidence measures, although still low by historical standards, are rising.

But, just as confidence was building that 2014 would be the year that growth would finally and convincingly exceed potential and shake off fears

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of stagnation, the December employment report posted a paltry gain of just 74,000, below the level expected by even the most pessimistic forecasters.

Because employment data are revised many times, this anomalous figure, which is out of sync with other recent economic data, was quickly dismissed by many. Yet, details of the employment report were also weak and those weaknesses were consistent with trends that have been developing for many months.

Persistence in the decline in the labor force participation rate and the failure of the employment-to-population ratio to rise are troublesome. These are indicia of a very weak labor market. These trends have resulted in considerable debate as to whether people who have chosen to leave the labor force are discouraged and will return once the labor market strengthens or whether their exit is permanent, or “structural” in economist parlance.

While the cyclical versus structural employment debate is ongoing, until recently historical patterns and research primarily supported the cyclical interpretation. That is, the reported unemployment rate is being depressed by a large number of discouraged people who have exited the labor force but who will return once the labor market strengthens. But, what if a substantial number of these people are really not discouraged at all but will never re-enter the labor force?

There are several implications. First, the GDP output gap would be much smaller than estimated by the Congressional Budget Office (CBO). This implies that the level of potential real GDP would be lower than estimated. Second, the level of employment that would begin to trigger escalating increases in wages, and therefore put upward pressure on inflation, would be lower and would be reached sooner. This would have implications for monetary policy and would accelerate the timing of interest-rate increases. Forecasting models, including my own, which are based on the assumption that historical relationships are stable, project a slow closing in the output and employment gaps and an extended period of low inflation and interest rates.

If the output and employment gaps are actually much smaller because of a permanent increase in the number of structurally unemployed people, interest rates and inflation will rise sooner. When historical experience ceases to be reliable, policymakers are thrown into acute uncertainty. And, this un-

certainty appears to be characterizing the recent deliberations of the Federal Open Market Committee (FOMC).

There is yet another disturbing trend, which has not received much attention, but which could depress real GDP growth, limit increases in real consumer spending power, and accelerate the onset of higher inflation and interest rates. Productivity has increased only 0.3 percent over the last year. According to Bureau of Labor Statistics (BLS) November and December data, inflation-adjusted hourly wage rates are essentially unchanged over the last year. However, low-wage jobs (retail trade, administrative and waste services, and leisure and hospitality), which accounted for a greater proportion of 2013 job growth than their share of overall jobs (53.6 percent versus 32.8 percent), based on core CPI, which excludes food and energy prices, have experienced a -0.2 percent decline in inflation-adjusted purchasing power. Inflation-adjusted wages for high-wage jobs have increased 0.3 percent. They account for 46.4 percent of 2013 job growth but comprise 67.2 percent of total jobs.

So, while optimism about higher growth in 2014 appears warranted, this is a story about higher growth rates, it is not a story about the potential for a bigger economy or a better job mix in the future that boosts the standard of living. An outcome that achieves full employment at a much lower level of output and declining overall job quality is not an outcome to cheer about.

II. Cyclical Versus Structural Unemployment

In the *December Longbrake Letter*, I included an analysis that concluded that if full employment is characterized by a 5.0 percent unemployment rate, 5.22 to 7.44 million jobs need to be created. The lower end of the range consisted of 2.76 million unemployed workers (the difference between the current unemployment rate and 5.0 percent) and 2.46 million discouraged workers, who have exited the labor force, but would return as the labor market strengthens. The higher end of the range added 2.22 million structurally unemployed workers who are unlikely ever to return to the labor force. I also noted that if the full-employment unemployment rate is 5.5 percent, rather than 5.0 percent, the lower end of the range would decrease from 5.22 to 4.44 million, the difference being a reduction of 1.98 million unemployed workers rather than 2.76 million to return to full employment.

My analysis of discouraged and structurally unemployed workers is updated in **Table 1** based upon the BLS December employment report.

Table 1
Composition of Reduced Household Employment in December 2013 Compared to January 2008 When Unemployment Rate Was 5.0%
(in millions)

Category	Number	Comment
Increase in Number Unemployed as Reported by BLS	2.20	Assumes a 5.0% unemp. rate; 1.42 for 5.5% unemp. rate
Decrease Due to Demographic Trends	3.41	Bill's estimate
Increase in Structural Unemployment	2.22	Residual of other estimates
Number of Discouraged Workers	2.85	Bill's estimate
TOTAL	10.68	9.91 assuming 5.5% unemp. rate

Although U.S. payroll employment rose 2.2 million during 2013 and is growing at a 1.6 percent annual rate, payroll employment is 1.2 million below and household employment is 1.8 million below the pre-Great Recession peaks reached in January 2008. By comparison, payroll employment four and a half years after the severe 1980-82 double dip recessions was 11 percent above the pre-recession level.

Unemployment during 2013 has fallen from 7.89 percent to 6.68 percent and is closing in on the Congressional Budget Office's (CBO) full-employment estimate of 5.5 percent. That is the good news. But the official unemployment rate understates the extent of labor market weakness.

For example, the ratio of those employed to those eligible to be employed (employment-to-population ratio) did not improve during 2013. That ratio was .586 at the beginning of the year and remained at .586 at the end of the year. What this means is that job creation during 2013 was just sufficient to

absorb the natural increase in those eligible for employment. This ratio was .629 at the beginning of the Great Recession. There would be 10.7 million more people employed today, if the employment-to-population ratio had not declined.¹

What has happened to these 10.7 million people? They fall into four categories: (1) those officially counted as unemployed by BLS; (2) those who have dropped out of the labor force permanently as a natural result of demographic trends, such as the aging of the baby boom and delayed entry because of pursuit of higher education; (3) those who have exited permanently because their skills no longer meet employer needs (this is referred to as structural unemployment or *hysteresis* in economist parlance); and (4) discouraged workers, who have employable skills, but simply have given up trying to look for work. **Table 1** shows the composition of reduced employment as of December 2013.

While the total employment gap declined only slightly from 10.77 million in November to 10.68 million in December, there were big changes in the estimates of unemployed and discouraged workers. Unemployed workers fell from 2.76 million in November to 2.20 million in December. Most of this decrease shows up in an increase in discouraged workers from 2.46 million in November to 2.85 million in December. The remainder of the difference is primarily due to demographics, a trend that will persist, and a small increase in the residual, which is the default measure of structurally unemployed workers.

The issue confronting policymakers is what the employment-to-population ratio would be, if jobs existed for those willing and qualified to work. The number of additional jobs required to return the economy to full employment ranges between 5.05 (4.27 million, if the full employment unemployment rate is 5.5 percent) and 7.27 million, depending upon whether any of the structurally unemployed people could ever expect to become reemployed. The number of jobs needed could be considerably less than 5.05 (or 4.27) million, if a portion of the 2.85 million discouraged workers actually belongs in the structural unemployment category. In fact, if none of the discouraged workers will ever re-enter the labor force and if 5.5 percent is the full employment unemployment rate, then the employment gap would

¹The unemployment rate at the beginning of the Great Recession was 5.0 percent. If the natural rate of unemployment is 5.5 percent as CBO suggests, then the number of jobs that has disappeared is 9.9 million.

be only 1.42 million.

If the recent rate of growth in employment continues at 1.6 percent, it will take 3.0 years (5.5 percent unemployment rate) to 3.5 years (5.0 percent unemployment rate) to eliminate the employment gap (late-2016 to mid-2017), or as little as 1.0 years (end of 2014), if none of the discouraged workers re-enter the labor force.² Current FOMC guidance suggests that the first increase in the federal funds rate would occur in mid-2015. At the moment, the market agrees with this timing. Whether this turns out to result in a premature tightening of monetary policy will depend to a great extent on whether large numbers of discouraged workers attempt to re-enter the labor market and their impact on acceleration in wage-rate growth and inflationary pressures.

Payroll employment has grown at a 1.6 to 1.7 percent rate in each of the last three years in the face of significant negative forces, including housing foreclosures, tax increases, over indebtedness, gyrations in oil prices, and political uncertainty. Most of these factors should be more benign in 2014, which suggests that the risk is that employment growth could be higher than 1.6 to 1.7 percent. In particular, the large tax increases in 2013, which depressed consumer spending, will not be repeated. Stock prices and housing prices are rising. Repair of consumer balance sheets is essentially complete.

We may look back a year from now and see that a virtuous circle finally took hold in 2014. With no further increases in taxes and rising employment, consumer spending should grow faster in 2014. This is the necessary catalyst to inaugurate the virtuous circle. Increased consumer spending will bolster employment growth. Employment growth will lead to even more consumer spending. And, as the employment gap closes, nominal wages should begin to edge up. None of this is likely to occur very quickly but all of these developments should be mutually reinforcing and contribute to steady improvement.

²The estimate of the time to close the employment gap is based on the following assumptions. The number eligible to work is growing at an annual rate of .98 percent. Because of demographic trends, the number added to the labor force is growing .64 percent, or .92 million, annually. Assuming a 5.5 percent unemployment rate and a 1.62 percent annual growth rate in the number employed amounts to 2.35 million. Based on these assumptions the employment gap, which includes both discouraged workers and those counted as unemployed, would be reduced by 1.43 million annually.

III. Recent Employment Trends

December's payroll employment increase of only 74,000 was ugly and temporarily shocked markets. The companion household survey reported a stronger, but hardly robust, increase of 143,000.

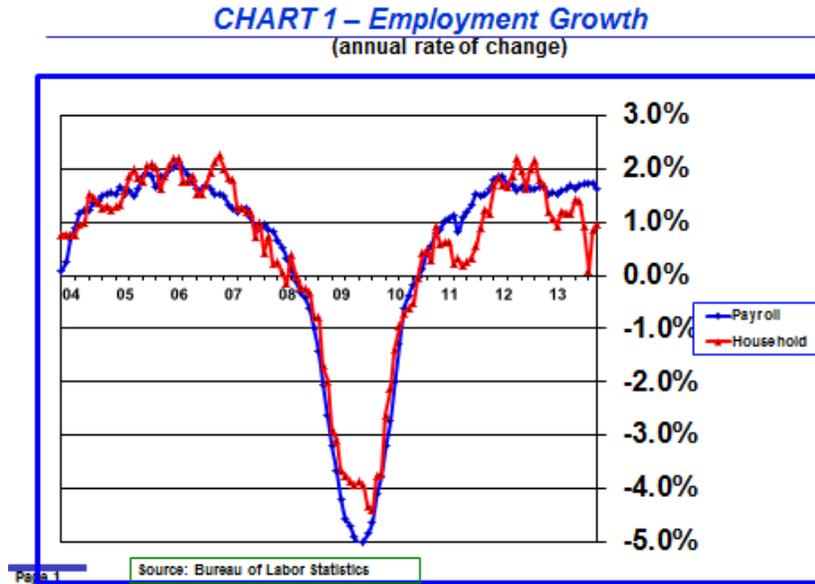
The labor force participation rate, which fell precipitously to 62.76 percent in October from 63.16 percent in September as a result of the government shutdown, after a small bounce in November, returned to an abysmal 62.79 percent in December.

Over the last two years payroll employment gains have been relatively strong, averaging 182,000 monthly in 2013 and 183,000 in 2012. However, other measures of the labor market, such as participation and wage growth, continue to paint a picture of weakness.

Chart 1 shows growth trends in employment for the payroll and household surveys. Over the long-run the employment growth rate in the two surveys is generally the same. Over shorter periods of time, growth rates in the two surveys often diverge, which has been the case recently, although the divergence diminished in December. The household survey, from which the unemployment rate is calculated, is based on a monthly survey of 60,000 households and is never revised. The payroll survey is based on data from large employers and supplemented by extrapolation of recent trends for small employers. Payroll data are periodically updated based on detailed employment information from state-level employment statistics. Household data are revised only for changes in seasonal patterns. That revision occurs annually with the release of the December household employment report.

Chart 1 indicates that payroll employment is growing at an annual rate of approximately 1.6 percent and household employment is growing at an annual rate of 1.0 percent. Payroll growth is above the long-term trend level of 0.6 to 0.7 percent, which is necessary for the unemployment rate to fall and the economy to return to full employment.

There are 1.2 million fewer people employed than in January 2008 according to December's payroll data and 1.8 million fewer according to the household survey. The unemployment rate is 6.7 percent versus a pre-Great Recession low of 4.4 percent. But, if approximately 2.9 million discouraged workers are counted, the current unemployment rate would be in the vicinity



of 8.4 percent.

1. December Payroll Report

Employers added 74,000 jobs in December, considerably below expectations. Revisions to October and November added 38,000 jobs, resulting in a total increase of 112,000. This brought the recent three-month average monthly increase to 172,000 compared to a 12-month average monthly growth of 182,000.

Payroll jobs will be revised for April 2012 through March 2013 when the January payroll report is released. Based on preliminary data, about 235,000 jobs will be added. Seasonal factors will also be revised. These revisions are likely to raise the monthly average increase in payroll jobs for both 2012 and 2013.

2. December Household Jobs Report

During 2013 household employment grew 115,000 monthly compared to 198,000 monthly in 2012.

Average weekly hours worked dipped from 34.5 in November to 34.4 in December. The 12-month average was 34.47. The length of the workweek remains relatively stable. The slight decline in December may be due to the impacts of cold weather. When the length of the workweek is stable it generally indicates an absence of pressure to retain workers as output slackens (declining length of the workweek — weak labor market) and an absence of pressure to resort to overtime work (lengthening workweek — tight labor market).

3. Temporarily Discouraged Workers or Permanent Structural Unemployment?

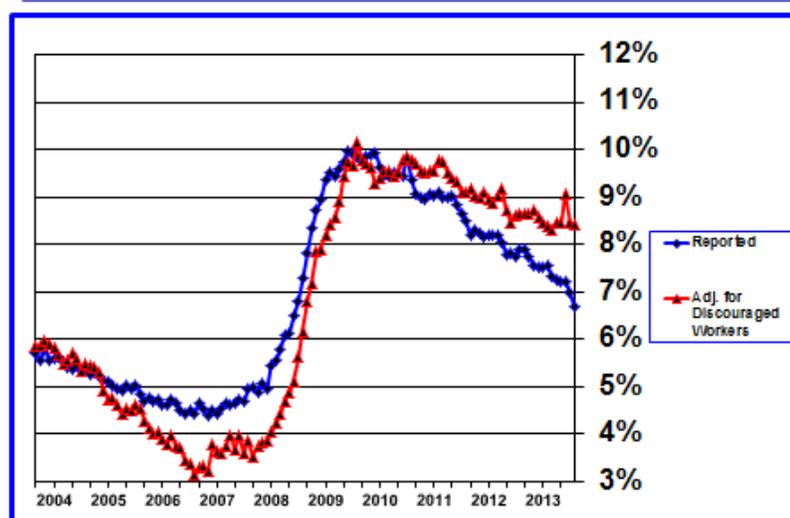
Household employment remains 1.79 million below the pre-Great Recession peak. The question of whether people are too discouraged to look for work in today's difficult labor market or whether they have chosen to leave the labor force permanently is of paramount importance to the conduct of monetary policy. This question was explored in **Section II**.

Unemployment fell to 6.7 percent of the labor force in December — the number of unemployed workers fell 490,000, while 347,000 exited the labor force — those eligible and willing to work. Because the number employed increased by only 143,000, most of the huge decline in unemployment were workers who exited participation in the labor force. The participation rate (those willing to work — includes both employed and unemployed workers — relative to those eligible to work) fell from 62.98 percent to 62.79 percent. The employment-to-population ratio, which measures the number of people who have jobs relative to the number eligible to work, was an unchanged 58.56 percent. It has been near this level for the last two years.

In recent months the unemployment rate has declined much more than expected, partially because employment growth was a little stronger but mostly because more workers dropped out of the labor market than expected. **Chart 2** shows my alternative unemployment measure, which adjusts for

discouraged workers. In December, my alternative unemployment rate was 8.43 percent compared to BLS's reported rate of 6.68 percent. This difference of 1.75 percent amounts to 2.70 million discouraged workers based on the current participation rate or 2.85 million based on the pre-Great Recession participation rate.

CHART 2 – Reported Unemployment Rate & Adjusted for Discouraged Workers

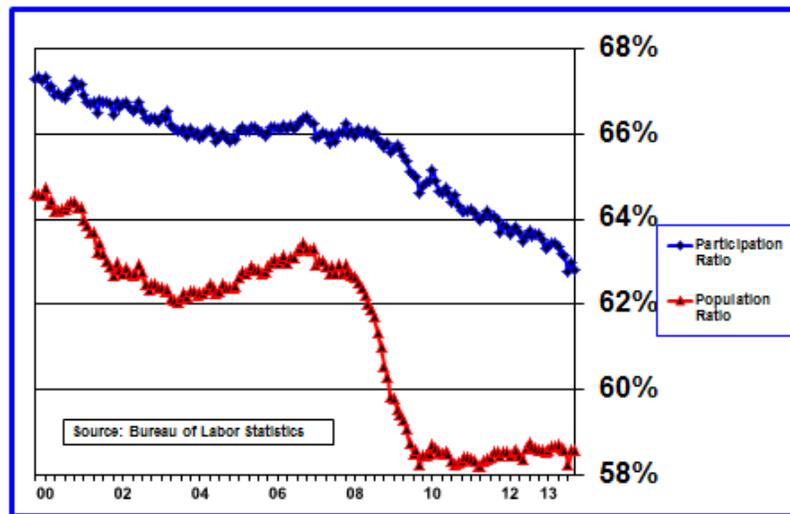


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4. Labor Force Participation and Employment-to-Population Ratios

While the focus of debate has been on discouraged workers and the labor force participation ratio, another important measure of the health of the labor market is the **employment-to-population** ratio which measures the percentage of people eligible to work who have a job. Trends in both the **labor-force-participation ratio** and the **employment-to-population ratio** are shown in **Chart 3**. The denominator of both ratios is the same — total number of people eligible to work. The difference in the numerators of the two ratios is the number of unemployed workers — those who say they are looking for work.

CHART 3 – Labor Force Participation and Employment-to-Population Ratios



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When the Great Recession hit, the employment-to-population ratio plummeted from 62.9 percent in December 2007 to 58.2 percent in December 2009. What is troubling is that this ratio has not recovered to any significant extent. It was 58.6 percent in December 2013. What this means is that almost all the new jobs created since December 2009 have only been sufficient to accommodate new entrants into the labor force and reemployment of a few unemployed workers. A large share of unemployed workers appears to have given up looking for work and have exited the labor force. Or, putting this differently, few jobs lost during and just following the Great Recession have been recovered.

If the noninflationary level of unemployment is 5.5 percent, as CBO believes, and there are no temporarily discouraged workers, the employment gap would be only 1.2 percent. B of A believes that the “true” unemployment gap could be as high as 2.5 percent and GS believes it is closer to 4.0 percent.

5. Implications of Substantial Labor Market Slack

What does all of this mean? First and foremost, the collapse in the employment-to-population ratio means that the U.S. economy is a lot smaller than it could be based on historical employment patterns. That means there is less income and less wealth. Americans are not as well off as they could be, if a greater proportion of them were employed.

Second, the U.S. has no unemployment objectives other than “full employment”. As discussed above, we are not even sure how to measure what “full employment” is. We do not know how to determine whether someone is discouraged. We do not have any objective for what the employment-to-population ratio ought to be. Therefore, we have few specific policies aimed at creating jobs.

6. Unemployment Rate

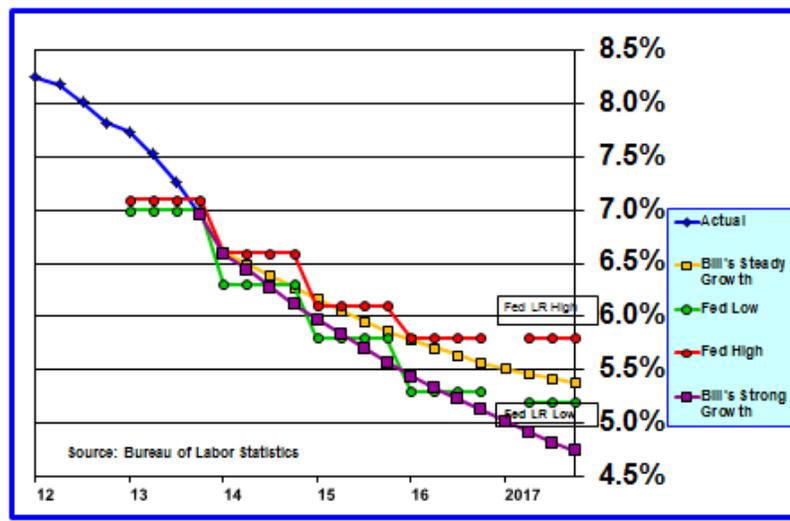
Prior to its December 2013 meeting the FOMC had linked monetary policy explicitly to the BLS’s U-3 unemployment rate. In December it backed away from this policy guideline without eliminating it altogether from consideration. As was discussed in previous sections, the discouraged worker phenomenon and its impact on the participation rate is critically important in ascertaining just how meaningful the 6.5 percent unemployment rate guideline, as conventionally measured, is. The evidence, such as it is, suggests that the labor market will probably still be quite weak even when the U-3 6.5 percent rate is penetrated, which now seems likely to occur in the next few months.

According to BLS, the number of unemployed workers fell 1.9 million during 2013. The unemployment rate was 6.68 percent in December. Over the last year the unemployment rate decreased from 7.89 to 6.68 percent.

Chart 4 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 projections imply that the 6.5 percent unemployment rate guideline will be penetrated during 2014. The FOMC clarified in its December monetary policy statement “. . . that it likely will be appropriate to maintain the current target range for the federal funds rate well past the time that the unemployment rate declines below 6¹/₂ percent, especially if

projected inflation continues to run below the Committee’s 2 percent longer-run goal.”

CHART 4 – Unemployment Rate
(quarterly average)



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I have included in **Chart 4** unemployment rate forecasts for both my “*Steady Growth*” (yellow line and squares) and “*Strong Growth*” (purple line and squares) scenarios. The “*Steady Growth*” unemployment rate projection generally tracks the upper end of the FOMC’s range and the “*Strong Growth*” unemployment rate tracks the lower end of the FOMC’s range. The unemployment rate forecast in the “*Strong Growth*” scenario reaches the 6.5 percent threshold during the second quarter of 2014 while the unemployment rate in the “*Steady Growth*” scenario reaches 6.5 percent about the middle of 2014. In effect, what the FOMC has done is to distance itself from the 6.5 percent unemployment guideline without going to the trouble of eliminating it or revising it. It was an interesting attempt to provide quantitative policy guidance. But, measurement issues and the difficulty of discerning labor market dynamics undercut the reliability of the U-3 unemployment rate as a guidepost for the conduct of monetary policy. As a consequence, going forward, monetary policy will be less transparent and more data dependent.

7. Implications for Monetary Policy

What is important from a policy standpoint is whether workers who have stopped looking for jobs, and thus are no longer counted as unemployed, will reenter the job market when jobs become more plentiful or whether their exit is permanent because there are no jobs that fit their skills and there won't be any in the future.

If discouraged workers re-enter the labor market as unemployment falls this will retard the speed with which the unemployment rate falls. Put differently, it might take longer for the unemployment rate to fall to the monetary policy guideline of 6.5 percent or to the full-employment rate of 5.5 percent. Historical precedence and research indicate that many discouraged workers will re-enter the labor force as labor market conditions improve but that reentry will not occur to a meaningful extent until the unemployment rate, as conventionally measured by BLS, falls well below 6.5 percent. However, the recent greater than expected decline in the participation rate is fueling second thoughts about this expectation. Falling participation among older workers over the last year lend some support to a larger permanent decline in the participation rate. About 80 percent of those exiting the labor force in 2013 were over the age of 55. Few older workers once they leave the labor force re-enter later on.

It is clear from Chairman Bernanke's post-December FOMC meeting press conference that FOMC members increasingly are skeptical that a large part of the drop in the participation rate is due to discouraged workers and, thus, is temporary. In response to about the extent of structural changes driving the drop in the participation rate, Chairman Bernanke said: "*I think a lot of the declines in the participation rate are, in fact, demographic or structural, reflecting sociological trends. . . . I think a lot of the unemployment decline that we've seen, contrary to sometimes what you hear, I think a lot of it really does come from jobs as opposed to declining participation.*" Commentary from other FOMC members corroborates a growing belief that the U-3 unemployment rate should be taken at face value.

What the evolution of FOMC thinking about the participation rate suggests is that any increases in the various measures of inflation — various reported indices, financial market expectations, and survey measures of expectations — will have a significant impact on the timing of increases in the federal funds rate. In that sense the unemployment rate now is less

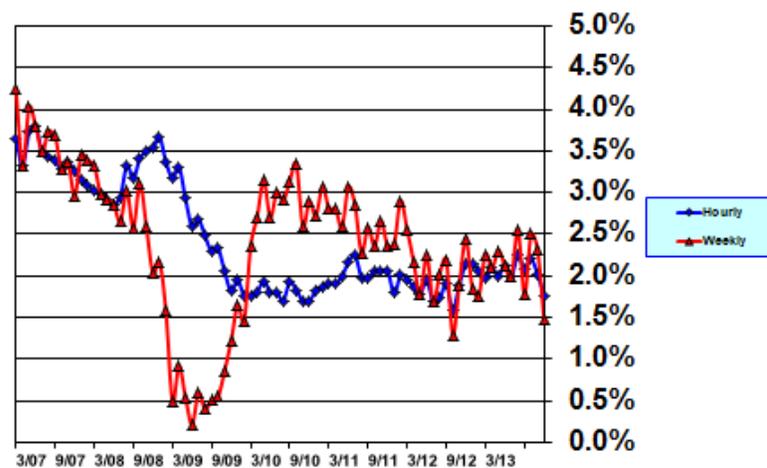
important than previously implied and the future course of inflation is more important in guiding monetary policy.

8. Growth in Wages

Growth in hourly wages is an important measure of labor market strength. An increasing rate of growth would be evidence of a strengthening labor market in which labor, particularly in scarcer job categories, is gaining more bargaining power. Given the uncertainty about just how tight the labor market is becoming, even small increases in wage rate growth would point to incipient inflationary pressures.

As can be seen in **Chart 5**, the rate of growth in hourly wages has fluctuated in a narrow band in the vicinity of 2.0 percent for the last four years. This is good news because the large output gap and high unemployment rate, which have persisted for several years, have not put further downward pressure on wage rate growth.

CHART 5 – Hourly and Weekly Wages
(annual rate of change)



Source: Bureau of Labor Statistics

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Both hourly and weekly wage growth slowed sharply in December. Nominal hourly wages grew 1.77 percent from December 2012 to December 2013; the 12-month moving average, shown in **Chart 6**, was 2.06% over the same period. While the deceleration in weekly wage growth can be blamed on cold weather and a shorter workweek, it is more difficult to make the same argument for the hourly wage growth rate.

CHART 6 – Hourly Wage Rate Growth
(annual year over year and 12-month moving average rates of change)

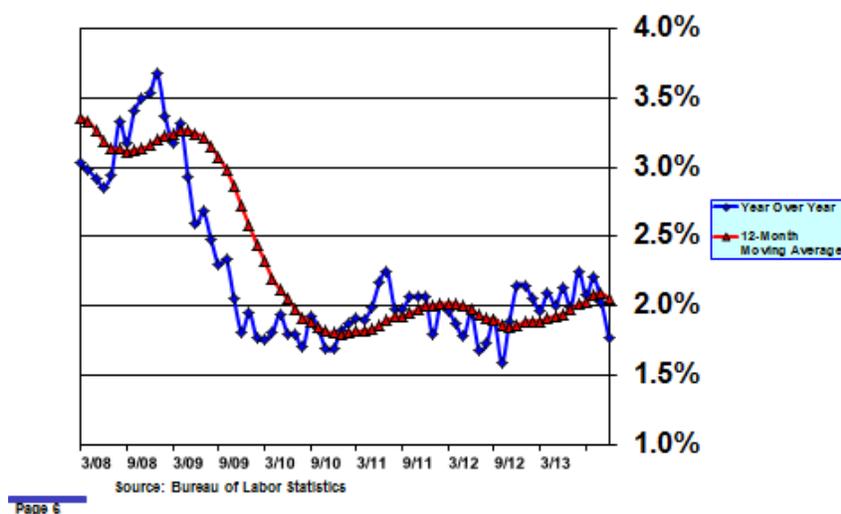


Chart 6 shows the 12-month moving average of the growth rate in hourly wages. Until December there had been a slight improvement in the 12-month moving average rate of growth from 1.85 percent in November 2012 to 2.09 percent in November 2013. However, the trend reversed in December and the 12-month moving average fell to 2.06 percent.

Although some analysts believe there is evidence of accelerating wage growth, there is no definitive indication in the BLS data that this is occurring. The nominal hourly wage rate increased 1.96 percent for high-wage jobs during 2013, but just 1.48 percent for low-wage jobs. The weighted average increase of 1.66 percent was a little less than the 1.77 percent reported in BLS's household employment report.

Because of uncertainty about how quickly the labor market is tightening, it will be important to continue to monitor trends in nominal wages. While the data are noisy from month to month, there is no clear indication of acceleration in wage growth. As will be discussed further below in **Section V**, personal and disposable income growth also shows no clear signs of acceleration. Thus, it is premature to conclude that inflation is a near-term concern. This also implies that a data-driven FOMC is more likely to take longer to raise the federal funds rate than to accelerate the timing of the first increase.

9. Expiration of Extended Unemployment Benefits

Extended unemployment benefits expired at the end of 2013. Although there was an attempt by the Senate to put this issue back on the table in early January, it was not included in the 2014 budget package recently passed by both the U.S. House of Representatives and the Senate. Although extension retroactively is still a possibility, as time passes the odds are diminishing. Discontinuation of extended unemployment benefits will probably push the participation rate down by 0.1 percent as some of those receiving unemployment benefits and thus counted as unemployment will drop out of the labor force. Assuming that occurs, it would also push the unemployment rate down by as much as 0.16 percent, according to an GS analysis.

IV. While Real U.S. GDP Growth Is Poised to Accelerate in 2014, Longer Term Potential Growth Has Downshifted

While progress in closing the employment and output gaps is likely to occur in 2014 and 2015, the level of potential real GDP and its rate of growth appear to have been permanently damaged by the Great Recession. There are two causes. First, much of the lower employment-to-population ratio may be permanent. That development is responsible for lowering the level of potential real GDP.

Second, the rate of growth in real GDP depends on labor force growth and productivity. Potential growth will be considerably less in the future

for two reasons.

First, declining birth rates and immigration will reduce the growth rate in the number of people eligible to work. Demographic trends will continue to depress the number of eligible workers who actively participate in the labor force. As noted above, this already points to a labor force growth rate in coming years of 0.64 percent. CBO estimates that this growth rate could further decelerate to 0.50 percent by 2023.

Second, productivity depends upon strong private and public investment spending. The severity of the Great Recession and the lethargic recovery depressed investment spending. Private investment spending is likely to accelerate as consumer spending increases. Given the anti-spending focus of Congress, public investment spending is not likely to rebound. Collectively, growth in private and public investment spending will probably fall short of historical levels. To the extent this occurs, productivity will be lower. Thus, there is downside risk to CBO's assumption that productivity will return to the 2.1 percent annual historical level.

Lower employment growth and lower productivity growth mean slower growth in real GDP. That, in turn, means that improvements in the standard of living, as conventionally measured, will fall short of historical experience.

1. 2013 Q3 GDP — Final Estimate

Annualized third quarter real GDP growth in the “Final Estimate” was a much greater than expected 4.1 percent. Details, shown in **Table 2**, were much stronger than in the “Preliminary Estimate.” That is because while the headline growth rate rose from 3.60 to 4.14 percent, private GDP, which omits inventory growth and government spending, rose from 1.83 to 2.39 percent.

Much of the improvement was caused by a 0.40 percent increase in consumer spending growth and most of the remainder by a 0.16 increase in nonresidential private investment growth. Growth in inventories and government spending changed little and a small decrease in residential investment growth was offset by an identical increase in net exports growth.

Because inventories tend to be highly volatile, a more informative mea-

Table 2
Composition of 2013 and 2012 Quarterly GDP Growth

	Third Quarter 2013 Advance Estimate	Third Quarter 2013 Preliminary Estimate	Third Quarter Final Estimate	Second Quarter 2013	First Quarter 2013	Fourth Quarter 2012
Personal Consumption	1.04%	.96%	1.36%	1.24%	1.54%	1.13%
Private Investment						
Nonresidential	.20%	.42%	.58%	.56%	-.57%	1.13%
Residential	.43%	.38%	.31%	.40%	.34%	.50%
Inventories	.83%	1.68%	1.67%	.41%	.93%	-2.00%
Net Exports	.31%	.07%	.14%	-.07%	-.28%	.68%
Government	.04%	.09%	.08%	-.07%	-.82%	-1.31%
Total	2.85%	3.60%	4.14%	2.47%	1.14%	0.13%
Final Domestic Sales	2.02%	1.92%	2.47%	2.01%	0.21%	2.13%
Private GDP	1.98%	1.83%	2.39%	2.08%	1.03%	3.44%

sure of the underlying strength of real GDP growth can be derived by subtracting inventory growth. This measure is referred to as “Final Domestic Sales.” With the exception of the second quarter, “Final Domestic Sales” has been growing above 2.0 percent annualized.

Private GDP, which eliminates both inventories and government expenditures, has averaged about 2.0 percent annualized growth over the last several quarters.

Personal consumption expenditures, which account for 67.8 percent of real GDP, contributed 1.36 percent to third quarter GDP growth. To achieve sustainable GDP growth of 2.5 percent requires consumer spending to grow at an annual rate of 1.70 percent, so while the improvement to 1.36 percent in the third quarter “Final Estimate” is headed in the right direction, it is not yet at a level that it needs to be. However, based on incoming fourth quarter data, it appears that consumer spending growth will surge to 2.65 percent in the fourth quarter, well above the 1.70 percent level necessary for 2.5 percent real GDP growth. Incidentally, if consumer spending contributes 2.65 percent to real GDP growth in the fourth quarter, it would bring average growth for all of 2013 to 1.70 percent, exactly equal to the target level needed to achieve a 2.5 percent real GDP growth rate on a sustained basis.

Nonresidential investment growth improved substantially in the “Final Estimate” and added 0.58 percent to GDP growth. Nonresidential investment accounts for 12.6 percent of GDP and contributed a little more than its fair share, 14.7 percent, to GDP growth in the third quarter. Investment in structures was very strong.

To a substantial extent, a significant improvement in real GDP growth in coming quarters will depend upon strong acceleration in private investment spending including residential. Indeed, this is exactly what most forecasters expect to occur. This is a very important assumption because above trend growth in investment is critical to accelerating employment and income growth, which, in turn are necessary outcomes if consumer spending is to strengthen appreciably. Fundamentals, such as growth in corporate profits, are supportive of acceleration in investment spending. This is a bit of a “chicken and egg” problem because stronger consumer spending depends upon increased investment activity to drive employment and income, but increased investment activity depends upon expectations that consumer demand will improve. Thus, improvements in business and consumer confidence are important. Once investment growth rises a virtuous and self-reinforcing circle will set in with employment, income and spending steadily accelerating.

On balance recent forecasts of rising investment spending have turned out to have been overly optimistic. For example, in early 2013 GS forecast the annual rate of growth in nonresidential investment during 2013 would be 4.5 percent. Including a projection for the fourth quarter, the actual growth rate is likely to be approximately 2.9 percent.

If investment activity does not accelerate in coming quarters, then growth in consumer spending and GDP will still rise because of improved disposable income growth, but will fall short of consensus expectations.

Residential investment accounts for 3.2 percent of GDP but contributed 13.9 percent of GDP growth during the first three quarters of 2013, which was revised down from 18.6 percent in the “Advance Estimate”. The downward revision reflects the impact of higher mortgage rates since early summer on housing demand and construction activity. A further weakening in residential investment growth is likely in the fourth quarter.

Evidence continues to emerge that the much expected recovery in housing will be more gradual and take longer than was expected early in the year. What this means is that residential investment growth is likely to continue to fall short of expectations.

Government expenditures comprise 18.4 percent of real GDP and contributed a tiny 0.08 percent to third quarter GDP growth. State and local government expenditures, which had been declining steadily since the Great Recession, accounted for 0.19 percent on top of 0.05 percent in the second quarter and clearly have become a positive contributor to GDP growth. This positive trend is likely to continue but substantial acceleration is unlikely.

Federal expenditures continue to shrink and reduced third quarter real GDP by 0.11 percent. However, the full impact of federal sequestration was not visible in second or third quarter data. A large decline seems likely when fourth quarter data are reported.

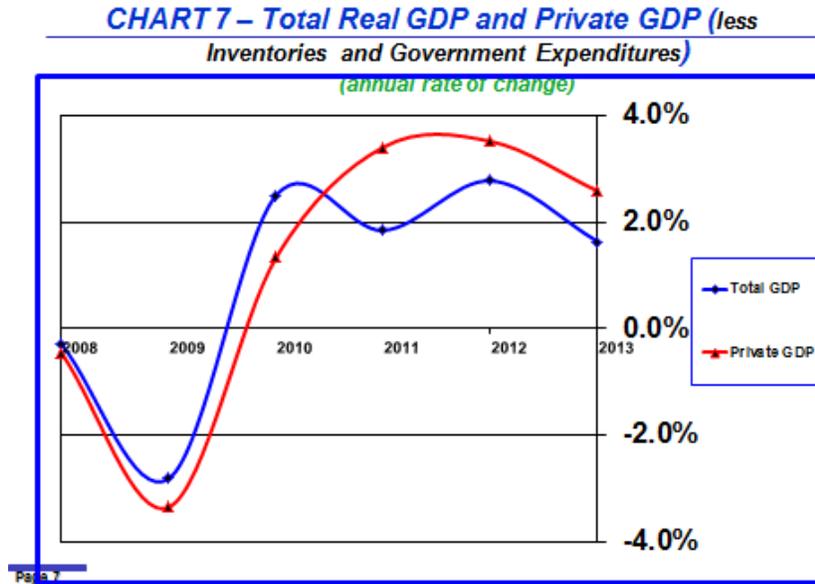
Government expenditures will probably rise modestly during 2014 because state and local spending is expanding and federal government spending cuts will be smaller. Q4/Q4 growth could be about 0.5 percent, but Y/Y growth would actually be slightly negative in a range of 0.1 to -0.3 percent compared to -2.1 percent in 2013.

Net exports fell from a contribution of 0.31 percent in the “Advance Estimate” to 0.14 percent in the “Final Estimate.” Based on strong growth in exports in October and November, net exports should contribute even more to real GDP growth in the fourth quarter.

2. Longer-Run Trend in Total Real GDP and Private GDP

Chart 7 compares total real GDP growth from 2008 through the third quarter of 2013 with a measure of private sector real GDP growth, which is derived by subtracting changes in inventories and government spending from total GDP. (Also, see the last line in **Table 2**.)

There are two takeaways from **Chart 7** — one good, and one troublesome. The good story is that private sector real GDP growth was about 3.5 percent in both 2011 and 2012. However, the bad news is that this measure



decelerated to 2.6 percent in the first three quarters of 2013 compared to the first three quarters of 2012 and reflects the negative effects of higher personal and payroll taxes.

Although the recent decline in private GDP growth is troublesome, as the shock effect of higher taxes on personal income disappears in 2014 there is reason to be hopeful that real private GDP growth will return to the 3.5 percent level. It is this expectation along with acceleration in investment spending that underpins forecasters' consensus that real GDP growth will accelerate to an above trend level in 2014.

3. GDP Forecasts for Q4

Because **third quarter** GDP growth exceeded expectations for the wrong reasons, namely inventory overstocking, initial estimates of **fourth quarter** GDP growth were quite low. However, incoming data reports have been consistently strong and this has led to a substantial increase in estimates of fourth quarter real GDP growth. **Table 3** shows GDP forecasts/projections

for the fourth quarter of 2013 and for the full years 2013 through 2016.

Table 3
Real GDP Growth Forecasts — B of A, GS, Global Insight, Economy.com, Blue Chip Average, Bill’s “Steady Growth”, Bill’s “Strong Growth” and FOMC High and Low Projections

	2013	2013	2013	2014	2014	2015	2016
	Q4	Q4/Q4	Y/Y	Q4/Q4	Y/Y	Y/Y	Y/Y
B of A	3.8	2.9	1.95	2.9	3.15	3.2	
GS	3.2	2.75	1.9	3.4	3.4	3.2	3.0
Global Insight*					2.5	3.2	3.2
Economy.com*					3.1		
Blue Chip Average*					2.6	2.9	2.8
Bill’s Steady Growth		2.9	1.95	2.4	2.4	2.0	1.8
Bill’s Strong Growth		2.9	1.95	3.4	3.2	2.7	2.3
FOMC - High#		2.3		3.2		3.4#	3.2#
FOMC - Low#		2.2		2.8		3.0#	2.5#

*Not updated from November

#Measured from Q4 to Q4

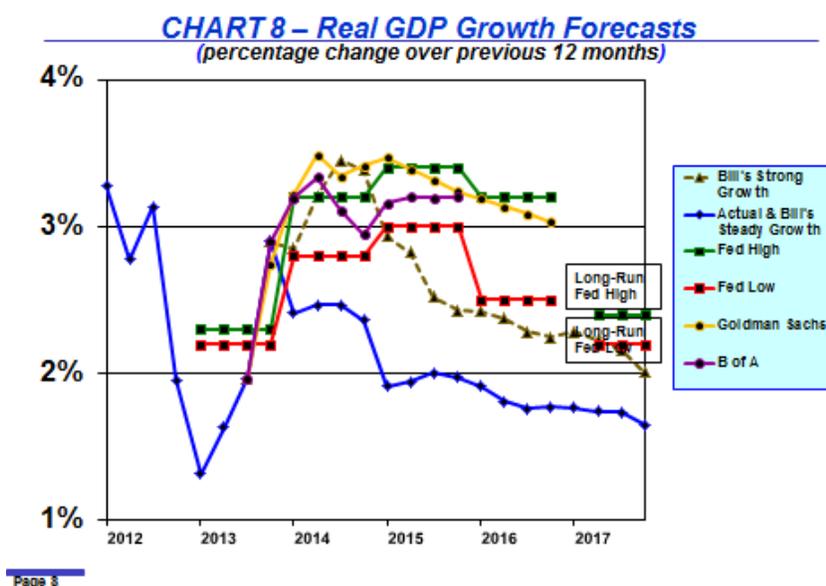
B of A expects 3.8 percent growth in the fourth quarter. B of A’s forecast for 2013 GDP fourth-quarter-to-fourth-quarter (Q4/Q4) growth is 2.9 percent and 1.95 percent year over year (Y/Y).

GS’s forecast for the fourth quarter is slightly weaker than B of A’s forecast — 3.2 percent Q4, 2.75 percent Q4/Q4, and 1.9 percent Y/Y.

Bill’s “*Steady Growth*” Q4/Q4 forecast is 2.9 percent and 1.95 percent Y/Y. Bill’s “*Strong Growth*” Q4/Q4 forecast is 2.9 percent and 1.95 percent Y/Y.

4. GDP Forecasts for 2014 and Beyond

As **Chart 8** and **Table 3** show, most forecasters expect GDP growth to accelerate in 2014 and 2015 as negative fiscal drag diminishes and unemployment gradually declines.



GS forecasts strong residential and business investment growth of 8.5 percent Y/Y in 2014. B of A forecasts more moderate investment growth Y/Y of 6.2 percent. Since investment comprises 15.7 percent of real GDP, these forecasts imply that investment will contribute between 1.34 percent and 0.98 percent to real GDP growth in 2014. If consumer spending continues at its recent average level of 1.22 percent, then real GDP should grow between 2.20 percent and 2.56 percent in 2014, provided that none of the other GDP components contribute anything. B of A forecasts Y/Y 3.14 percent GDP growth in 2014 and GS forecasts Y/Y 3.37 percent. This implies that about 0.80 to 0.90 percent in GDP growth would have to come from additional consumer spending or sources other than investment spending. The FOMC's median central tendency projection of 2.75 percent (**Table 4**) is somewhat lower, but the FOMC's high-low projection range of 3.2 percent

to 2.8 percent is consistent with B of A's and GS's Q4/Q4 2014 forecasts (**Table 3**).

As **Table 4** shows, the median of the FOMC's real GDP growth projections have been persistently overly optimistic. Following a well-established pattern, the FOMC reduced its GDP projections for 2014, 2015 and 2016 at its December meeting.

Table 4
Median of FOMC's Central Tendency Real GDP Growth
Projections Compared to Actual Results — 2011 to 2016

Meeting Date	2011	2012	2013	2014	2015	2016	Long Run
Jan 2011	3.70	3.95	4.00				2.7
Apr 2011	3.30	3.65	4.00				2.7
June 2011	2.75	3.10	3.75				2.7
Nov 2011	1.70	2.90	3.35	3.60			2.6
Jan 2012		2.55	3.10	3.55			2.6
Apr 2012		2.55	3.10	3.60			2.6
June 2012		2.05	2.85	3.40			2.6
Sep 2012		1.80	2.90	3.40	3.35		2.6
Dec 2012		1.80	2.60	3.40	3.35		2.6
Mar 2013			2.50	3.20	3.15		2.5
June 2013			2.30	2.90	3.05		2.5
Sep 2013			2.10	2.75	2.95	2.85	2.3
Dec 2013			2.30	2.75	2.90	2.80	2.15
Actual Q4 to Q4	2.01	1.95	2.74*	3.42*	3.24*	3.03*	
Actual Y/Y	1.85	2.78	1.92*	3.37*	3.35*	3.11*	
Long Run Potential							2.2-2.4#

*GS forecast

#Bill's "*Steady Growth*" long-run potential = 2.16%; Bill's "*Strong Growth*" long-run potential = 2.39%

Except for my "*Steady Growth*" scenario, other real GDP Y/Y growth forecasts for 2014 range from 2.5 to 3.4 percent (**Table 3**). So, there appears to be substantial consensus that growth will accelerate in 2014.

For the last couple of years both B of A and GS's forecasts have been at the pessimistic end of the spectrum and their conservatism has proved well founded. However, both are now optimistic that growth will accelerate in 2014 and that the case for that call is strong.

First, fiscal policy will not be highly contractionary as it has been over the last two years. Recovery in state and local spending will marginally exceed a small negative impulse from federal spending. **Second, corporate profits are high and balance sheets are strong.** This should stoke a sizable increase in investment spending. Note, however, that investment depends primarily on sales growth and pressures on capacity. Excess capacity remains high and until the most recent quarter sales growth has been very weak. **Third, banks have rebuilt capital and are more willing to lend.** Note, however, that willingness to extend credit requires demand for credit and so far demand has been slack, although preliminary January data indicate a pickup in bank loan growth. **Fourth, housing prices are rising, excess inventory has diminished considerably but, surprisingly, household formation has slowed.** Residential investment could increase further from already relatively strong levels in 2013, but access to mortgage credit remains constrained and higher home prices and interest rates are reducing affordability and could depress demand. **Fifth, households have reduced debt burdens and rising prices for houses and financial assets are boosting wealth, which should increase consumer spending.** Note, however, that the increase in wealth is almost entirely concentrated at the top of the distribution. Wealthy households have a much lower propensity to spend. Also, wealth accumulation seems likely to slow down in 2014.

Bill's "**Strong Growth**" scenario of Y/Y 3.23 percent growth in 2014 is consistent with the consensus, but Bill's "**Steady Growth**" scenario projects only Y/Y 2.43 percent growth. About 68 percent of the difference in these two 2014 GDP growth rates is due to 10.0 percent private investment growth in Bill's "**Strong Growth**" scenario, similar to GS, compared to 7.4 percent in Bill's "**Steady Growth**" scenario, which is similar to B of A.

While investment growth could accelerate sharply during 2014, the recent increase in mortgage rates could slow residential investment growth, which would require nonresidential investment growth to pick up the slack. Whether that occurs will depend on the strength of employment gains and

increases in consumer spending.

Although FOMC projections have been systematically overly optimistic in the past, FOMC projections for 2014, 2015, and 2016 are similar to those of most forecasters.

Bill's real GDP forecasts for 2015 and 2016 are lower than other forecasts for both scenarios. The principal difference has to do with my view that investment growth and, therefore, productivity growth will remain low relative to historical levels. Slow investment growth will hold back employment growth and retard income growth, which implies that consumer spending growth will remain mired near recent low levels.

V. Consumer Income and Spending

At the end of 2012 personal income, consumption expenditures, and saving were very volatile from month to month. This was caused by timing of income recognition in late 2012 to optimize tax burdens in anticipation of changes in fiscal policy. This led to a substantial increase in reported income in late 2012. This will make year to year comparisons in November and December difficult to interpret, which is evident in the November 2013 column in **Table 5**.

1. Percentage Changes in Personal Income and Disposable Income 2011, 2012 and 12 Months Ending in August, September, October, and November 2013

Table 5 shows data which compare percentage changes for 2011, 2012, the first 11 months of 2013, and the 12-month periods ending in September, October, and November 2013. The 12-month periods simply take the difference between data for a month in 2012 and the same month in 2013. By showing four successive 12-month periods, one can get a sense of the underlying trend in various income categories. However, as a caution, the data will be revised many times in the future. Also, as mentioned above, the November data are unreliable. The 11-month 2013 column provides a better comparison with the full-year changes in 2011 and 2012.

Table 5
Percentage Change in Nominal Personal Income and Its
Disposition for 2011, 2012, 2013 and 12 Months Ending
September, October, and November 2013

	2011	2012	2013	Pct.	Pct.	Pct.
	Pct.	Pct.	Pct.	Change	Change	Change
	Change	Change	Change [^]	Sep 12-	Oct 12-	Nov 12-
				Sep 13	Oct 13	Nov 13
Personal Income	4.63%	7.94%	3.19%	3.88%	3.37%	2.33%
Compensation	2.81%	6.80%	3.06%	3.23%	3.02%	2.16%
Proprietors' Income	11.05%	5.07%	10.35%	12.39%	10.31%	8.81%
Rental Income	19.44%	7.28%	9.25%	9.39%	9.10%	8.79%
Asset Income	4.59%	18.90%	3.33%	6.33%	4.85%	2.33%
Government Transfers	0.17%	4.06%	3.80%	3.78%	3.80%	3.50%
Less: <i>Personal Taxes</i>	4.50%	9.47%	13.29%	12.46%	12.47%	11.59%
Disposable Income	3.63%	7.52%*	2.21%	3.16%	2.56%	1.51%
Less: <i>Consumption</i>	4.13%	3.73%	3.06%	2.82%	3.07%	3.42%
Personal Saving	-4.40%	74.14%	-13.05%	10.02%	-7.01%	-28.77%
Personal Saving Rate	5.67%	5.61%	4.52%	5.07%	5.03%	4.88%
Adj. Personal Income [#]	3.77%	7.84%	4.05%	4.72%	4.22%	3.20%

[^]Percentage change between the first eleven months of 2013 and the first eleven months of 2012

*2.68%, if tax-avoidance timing impacts on "Compensation" and "Asset Income" are removed

[#]Growth rate in personal income, assuming no change in the payroll tax rate. The payroll tax rate was lowered by 2 percentage points in 2011 and restored to its original level in 2013.

Growth in personal income and disposable income has been weaker so far in 2013 than it was in 2011. This difference is due entirely to the change in the payroll tax rate. Changes in the payroll tax rates in recent years have distorted the growth rate in personal income. That is because payroll taxes are netted from personal income. That doesn't affect the growth rate in personal income if the payroll tax rate remains constant. However, Congress reduced the tax rate in 2011 and then returned it to its original rate in 2013. The bottom line in **Table 5**, labeled "Adj. Personal Income", shows what the growth rate in personal income would have been in each period, if the payroll tax rate had never been changed.

When personal income growth is adjusted for the decrease in the payroll tax rate in 2011 and the increase in 2013 personal, income growth changes by exactly 0.86 percent in each year — down in 2011 and up in 2013. When this adjustment is made, nominal personal income growth is slightly higher in 2013 compared to 2011 — 4.05 percent versus 3.77 percent. Thus, although personal income growth appears to be weakening over the course of 2013, this appears to be an artifact of changes in the payroll tax rate and year-end 2012 income recognition acceleration.

However, disposal income growth in 2013 has been depressed by the increase in personal tax rates. This is why consumption growth is weaker in 2013 than in 2011. Consumption growth would have been weaker still were it not for a decrease in the saving rate.

2. Consumption

Data in **Table 5** suggest that the growth rate in consumer spending has risen in recent months. This trend is corroborated by other measures of consumer spending. Whenever the growth rate in spending exceeds the growth rate in disposable income, as it has during 2013, the gap is filled by drawing down savings.

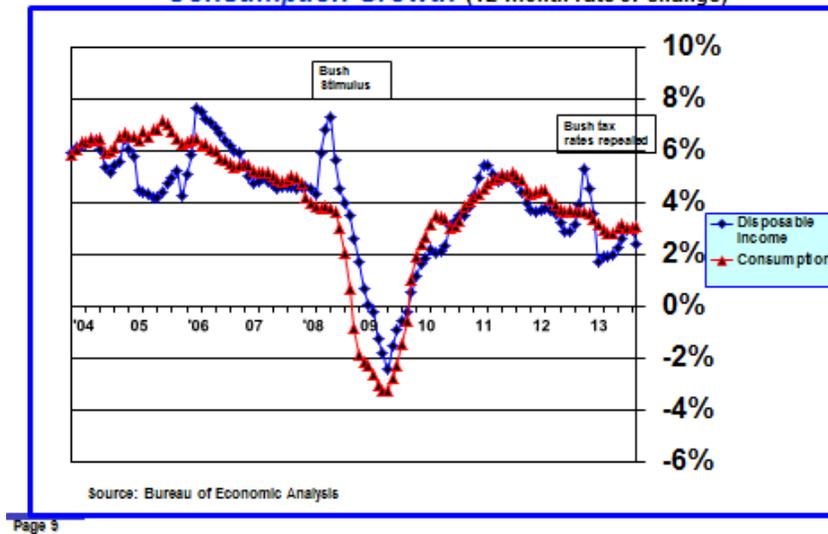
Prospects for faster income growth in coming months will also improve with employment growth. While employment growth has been good, a disproportionate amount of new jobs has been in the part-time and lower wage categories.

Disposable income growth will increase come January when the effects of the 2013 tax increases drop out of the year over year comparisons. The growth rate in consumption should also accelerate in 2014.

3. Disposable Income and Spending

Chart 9 shows the nominal rate of growth in disposable income and consumer spending from 2004 to the present. Growth rates are calculated as changes in quarterly averages year over year. This method smooths timing anomalies to a certain extent, although major events such as occurred at the end of 2012 will still impact the observed trend for the following 12 months.

CHART 9 – Nominal Disposable Income and Consumption Growth (12-month rate of change)



The annual rate of growth in nominal disposable income began slowing in early 2011 and declined from 5.5 percent in April 2011 to 2.9 percent in September 2012, but then surged to 5.3 percent in December 2012. Since then growth in nominal disposable income has slowed in a choppy fashion to 2.4 percent in November 2013.

Chart 9 shows that growth in consumer spending, after peaking at 5.2 percent in September 2011, slowed to about 3.7 percent in August 2012, remained at that level until November 2012 and has since declined further to 3.1 percent in November 2013.

4. Outlook for Nominal Disposable Income and Spending

As can be seen in **Charts 10A** and **10B**, I expect nominal consumer disposable income growth will slow in coming months. This trend is not in doubt because of the 12-month moving average calculation method. Strong

acceleration in nominal income growth in the “*Steady Growth*” scenario (**Chart 10A**) does not occur until 2015. This is partly due to the distortion of the year-over-year comparisons in early 2014 due to the effects of tax increases in early 2013 and partly due to very low nominal PCE inflation in 2014. Since nominal wage growth tends to follow the trend in inflation in the long run, low inflation will retard improvement in wage growth. Thus, most of the increase in the growth rate in disposable income during 2014 will have to come from improved employment growth. Of course, above trend employment growth will slowly close the employment gap and as the gap closes eventually that will result in upward pressure on nominal wages and that explains the expected acceleration in the growth rate in 2015.

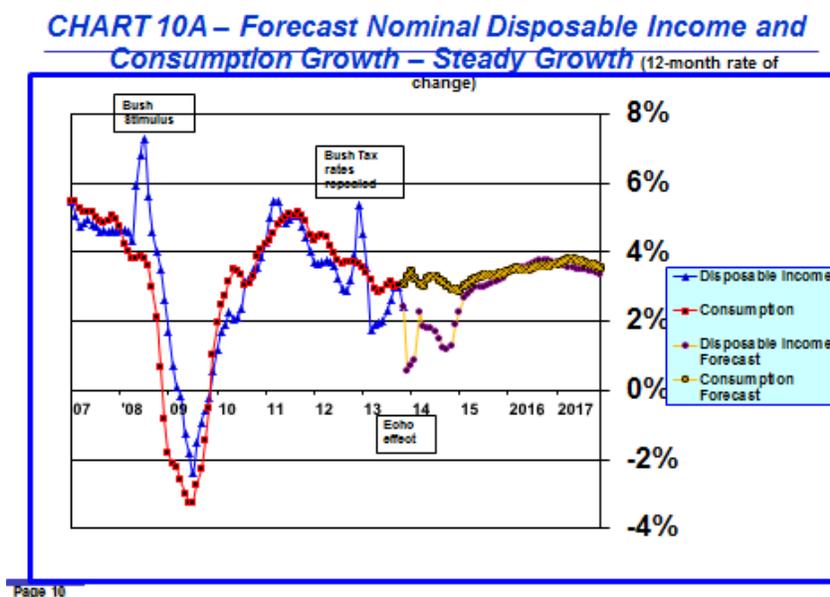
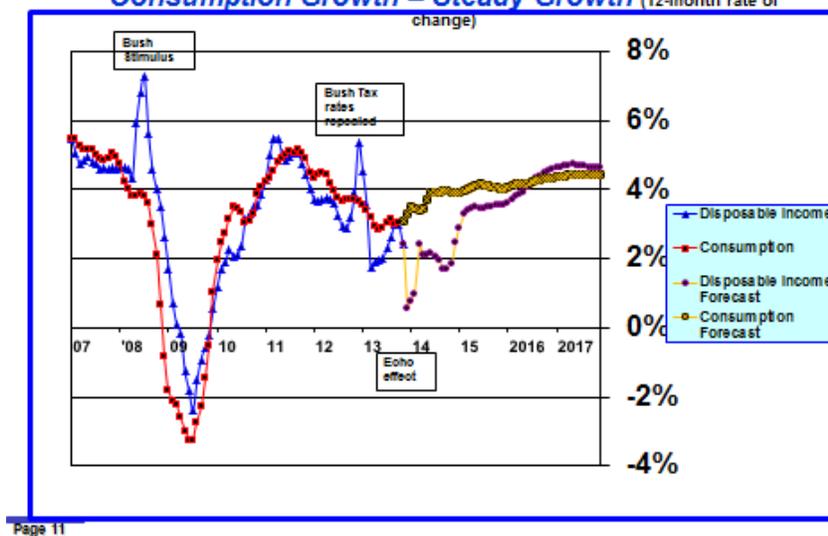


Chart 10B shows my “*Strong Growth*” scenario forecast for growth in nominal consumer disposable income and consumption through 2017. Higher rates of growth in employment and productivity in the “*Strong Growth*” scenario lead to stronger growth in nominal disposable income and consumption on an escalating basis during 2014-2017.

Notice that in **Chart 10B** nominal disposal income growth modestly exceeds nominal consumption growth in 2016 and 2017. This means that

CHART 10B – Forecast Nominal Disposable Income and Consumption Growth – Steady Growth (12-month rate of change)



the saving rate, based upon the assumptions underpinning the “*Strong Growth*” scenario, will increase in those two years.

5. Real Consumer Spending Forecasts

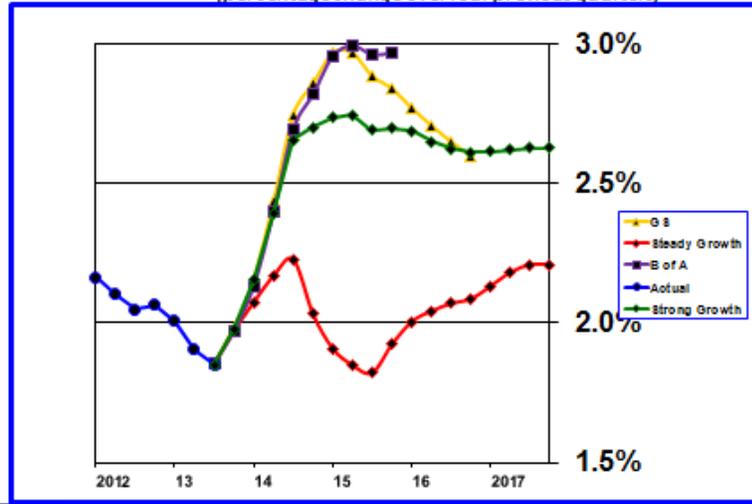
Chart 11 shows forecasts for quarterly real consumer spending growth at an annualized rate. B of A and GS expect real consumer spending to rise 2.0 percent during 2013. Bill’s “*Steady Growth*” forecast also indicates growth of 2.0 percent in 2013.

My “*Steady Growth*” scenario forecasts much weaker real consumer spending growth in 2014, 2015, and 2016 than either GS or B of A. My “*Strong Growth*” forecast is about the same as GS’s and B of A’s forecasts through late 2014 but underperforms GS’s forecast slightly in 2015 and then converges by the end of 2016.

GS and B of A believe real consumer spending will accelerate during 2014, reaching 3.0 percent toward the end of the year. Y/Y growth is 2.86

CHART 11 – Real Consumer Spending Growth - Forecast

(percentage change over four previous quarters)



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percent for all of 2014 for GS and 2.86 percent for B of A. B of A forecasts real spending growth of 2.97 percent in 2015, while GS projects growth will be 2.84 percent in 2015 and 2.60 percent in 2016. **Table 6** shows forecast real consumer spending growth rates for B of A, GS and my two scenarios.

Table 6
Real Consumer Spending Growth Rate Y/Y Forecasts — B of A, GS, Bill’s “Steady Growth” and Bill’s “Strong Growth”

Real Consumer Spending Growth	2010	2011	2012	2013	2014	2015	2016
B of A	1.66	2.36	2.07	1.98	2.86	2.97	
GS	1.66	2.36	2.07	1.98	2.86	2.84	2.60
Bill’s Steady Growth	1.66	2.36	2.07	1.97	2.03	1.92	2.09
Bill’s Strong Growth	1.66	2.36	2.07	1.98	2.70	2.70	2.61

The principal difference between GS's and Bill's forecast models has to do with slower growth in disposable income in Bill's model because of low growth in productivity. This is very apparent in the "*Steady Growth*" scenario. Higher productivity growth in Bill's "*Strong Growth*" scenario boosts real consumer spending growth so that the differences between GS's forecast and Bill's "*Strong Growth*" forecast are relatively small in 2014, 2015, and 2016.

In summary, there are four arguments for stronger consumer spending in 2014 and, therefore, strong real GDP growth. First, the tax rate increase shock will no longer be a factor. Second, household balance sheets, as discussed in the next section, have been cleaned up. Third, hiring is relatively strong and firing is declining as reflected by the decline in new unemployment claims. Fourth, there is some evidence that wage rates are beginning to rise and a tightening labor market should lead to a more rapid increase.

6. Consumer Confidence

Measures of consumer confidence improved in December.

The University of Michigan's consumer sentiment index improved to 82.5 in December from 75.1 in November, but remains below its recent peak of 85.1 in July. The current conditions sub-index rose to 98.6 from 88.0.

According to the Conference Board's survey, overall consumer confidence rose to 78.1 in December from 72.0 in November; the present situation index fell from 72.6 to 72.0.

ISI's weekly company surveys have been relatively stable over the last five months. Its diffusion index peaked at 52.3 in the week of June 7, edged down to 50.7 in the week of November 8, then rose a tad to 51.3 in the week of January 17. This is indicative of an economy that is neither gaining nor losing momentum.

Rasmussen conducts a daily consumer confidence poll. Prior to the government shutdown the Rasmussen index averaged 100 during September and was 103 on October 1. By October 9 the index had fallen to 92. By the end of 2013, this measure of consumer confidence rose to 105 just short of the recent peak of 108 temporarily achieved in July.

Overall, consumer confidence measures are not particularly robust and reflect the on-going lethargic improvement in the labor market and consumer income. Recent improvements in confidence measures suggest modest acceleration in economic activity in coming months.

VI. Business Activity

Business activity is positive but is also indicative of a weak economy. Business investment continues to be lackluster. But, manufacturing continues to be a strong contributor to economic growth.

1. Recent Developments

Manufacturing has been strong for many months. The **ISM Manufacturing Index** edged down slightly in December to 57.0 from 57.3 in November. Values of this index above 50 mean that manufacturing activity is expanding. This measure is now at the highest level since early 2011. The new orders subcomponent soared to 64.2, which is the highest it has been since April 2010, indicating that strong manufacturing growth will continue. The employment subcomponent rose further to 56.9 and is the highest since June 2011. Inventories contracted, which is also an indicator of strength. However, according to an ISI survey, inventories in early January were too high at retailers and auto dealers.

However, the **ISM Non-Manufacturing Index**, while still above 50, fell to 53.0 in December from 53.9 in November. The employment sub-index rose to 55.8 from 52.5. The overall index was pulled down by sharp declines in both new domestic orders and new export orders.

Small business optimism (**NFIB — National Federation of Independent Business**) improved further to 93.9 in December from 92.5 in November, but remains below the recent peak of 94.4 reached in May. This measure remains at an historically depressed level.

GSAI (Goldman Sachs Activity Index) strengthened further to 64.0 in December from 57.2 in November and 50.0 in October. As is the

case for the ISM index, a value above 50 connotes business expansion. Importantly, the employment index, which has registered sub-50 readings for several months, moved to a modest expansionary level of 51.3 in November and then surged to 58.6 in December.

2. Shortfall in Business Investment Spending and Low Productivity

There is a general belief that large corporations are awash in cash which could at any time be quickly put to work financing new investment initiatives. However, the inflation-adjusted rate of change in capital spending has been declining steadily and is near zero. Cash is being deployed into nonproductive uses such as share buybacks, dividends, and mergers and acquisitions. These activities fall into the category of financial engineering. They can boost share prices, but they do not contribute to expansion of economic activity.

In a world of repressed interest rates, courtesy of FOMC quantitative easing, the risk-adjusted rate of return on capital is simply inadequate to prompt significant investment activity. This is a demand feature. But, it is reinforced on the supply side by tight underwriting standards that are a legacy of the Great Recession, tighter regulatory capital and liquidity requirements for banks, and closer prudential supervision.

In recent remarks to the American Economic Association, Federal Reserve Chairman, Ben Bernanke, noted that productivity recently has been disappointingly weak for reasons that are “not entirely clear.” He mentioned some possible reasons including the impact of the Great Recession on credit availability, slow growth in sales revenues, mis-measurement, or unspecified long-term trends. Notably, he did not mention the possibility that the FOMC’s own policy of depressing long-term interest rates may be contributing to the investment shortfall and miserable productivity gains.

As I have repeatedly pointed out, the potential rate of real GDP growth depends importantly on the level of productivity. And, higher productivity depends on robust investment spending. However, both private and public investment spending remains extremely weak. In the case of private investment spending the depressed risk-adjusted rate of return on capital incents firms to deploy cash in financial engineering, which returns capital

to investors, rather than pursue new capital projects. The shortfall of public investment is simply the result of budget deficit anxiety and significant cutbacks in government spending.

It is interesting that economists do not agree on the repressive effects of quantitative easing on capital investment. In fact, it is argued by many, including FOMC participants, that lower interest rates, particularly on safe assets, should induce greater investment spending. The mystery to them, as Chairman Bernanke notes, is finding a reason why this has not happened. What we do know with certainty is that quantitative easing depresses the long-term discount rate on financial assets and in so doing boosts their nominal value. Stock market investors do very well and paper wealth is created. However, this increase in paper wealth is not translating into greater capital investment.

To be fair, part of the rationale for quantitative easing is intentionally to create financial wealth with the expectation that this will increase consumer spending. Then, as consumer spending increases, sales revenues will improve and firms will be less hesitant about investing cash and borrowing funds to finance capital investment projects. In this way, it is argued, quantitative easing helps accelerate economic recovery.

But, as is so often the case in economics, the supply and demand dynamics are complicated and what appear to be simple logical explanations of what should happen overlook or misunderstand the complexity of these dynamics. But with the passage of time we can assess outcomes and look back and better understand consequences of policy actions.

It may turn out that quantitative easing, which is intended to accelerate economic recovery, has contributed in a meaningful way to a sustained lower potential rate of real GDP growth by discouraging investment necessary to boost productivity. So, although FOMC officials may not understand why the long-run potential rate of growth is declining, as can be seen in **Table 4**, they have acknowledged the reality by steadily reducing the median of the central tendency range of long-term real GDP projections from 2.7 percent in January, 2011 to 2.15 percent at the December, 2013 meeting. The current low value is consistent with my own analysis, but unless investment activity increases, even today's lower expectation could prove to be too optimistic.

Note that Larry Summer's discussion of secular stagnation (*December*

Longbrake Letter) focuses on the long-term consequences of persistent negative real rates of interest. He comes at the issue of a depressed long-term rate of growth by arguing that when the zero bound is binding, monetary policy is unable to lower interest rates enough to achieve positive real rates, which are necessary to induce investment. This is essentially the same logic as summarized above. Summers' solution is for the government to engage in massive infrastructure investment spending because there is no way that the private sector will engage in significant investment spending as long as the real rate of interest is negative.

Monetary Policy, Inflation and Interest Rates

The FOMC met on December 17 and 18. It surprised the markets by initiating a program to phase out large scale asset purchases gradually over the course of 2014. Even though the market had not expected the FOMC to take this action until January or March, the market's reaction was muted and long-term interest rates have actually declined a few basis points since the meeting.

3. Tapering Large-Scale Asset Purchases

Beginning in January the Federal Reserve will reduce its monthly large scale asset purchase by \$10 billion from \$85 billion to \$75 billion. The reduction will be spread evening between U.S. Treasury securities and agency mortgage backed securities.

There was no explicit policy statement about the timing or amount of further decreases in large scale asset purchases. However, the FOMC policy statement provided the following guidance: *“If incoming information broadly supports the Committee’s expectation of ongoing improvement in labor market conditions and inflation moving back toward its longer-run objective, the Committee will likely reduce the pace of asset purchases in further measured steps at future meetings. However, asset purchases are not on a preset course, and the Committee’s decisions about their pace will remain contingent on the Committee’s outlook for the labor market and inflation as well as its assessment of the likely efficacy and costs of such purchases.”*

Notwithstanding the cautions strongly articulated in the second sentence, most market observers expect the FOMC to reduce asset purchases

by an additional \$10 billion per month at each meeting during 2014. That would result in the end of quantitative easing by the end of the year. There is a sense that FOMC members are eager to put quantitative easing behind them. The benefits have been ambiguous and the political consequences have not been trivial. Based on this view, many market participants expect deviation from a “measured pace” of tapering only if the economy slows or accelerates materially. A further fall in inflation, which no one expects, would also probably lead to a slowdown in the pace of tapering.

4. Separation Principle and Forward Guidance

It finally appears that the FOMC has made some headway in convincing market participants that tapering of quantitative easing and raising the federal funds rate are not linked policies. This is known as the Separation Principle.

The FOMC policy statement goes to great lengths to emphasize this separation by adding the following language: *“In determining how long to maintain a highly accommodative stance of monetary policy the Committee will also consider other information, including additional measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial developments. The Committee now anticipates, based on its assessment of these factors, that it likely will be appropriate to maintain the current target range for the federal funds rate well past the time that the unemployment rate declines below 6-1/2 percent, especially if projected inflation continues to run below the Committee’s 2 percent longer-run goal.”*

Although the 6¹/₂ percent unemployment rate guideline remains in the policy statement, the FOMC rejected lowering it and chose, rather, to qualify its importance as a guideline with a lot of conditional language. So ends the FOMC’s experiment with a quantitative measure of unemployment as a policy guideline. In effect, although the 6¹/₂ percent guidepost remains, it is now irrelevant in gaging timing of future policy actions.

Also, the FOMC chose not to include any explicit alternative forward guidance language. This means that we are back to the days of old when market participants speculated about the FOMC’s reaction function and hung on every comment made by a member of the FOMC, particularly,

of course, comments made by the Chairman. In this sense monetary policy has become less transparent and this may lead to increased market volatility. Since the December FOMC meeting markets have been quite tranquil. But it has been much too short a time to reach a judgment about how markets will respond to a data-dependent FOMC which has provided little guidance as to how it would respond to the data.

5. Economic Projections

As is customary at its quarter-end meeting, the FOMC updated its economic projections at the December meeting. The updates are shown in red in **Table 7**. Comparisons are shown for the previous four FOMC meetings so that the evolution in FOMC members' collective thinking is apparent.

Real GDP. Projections of future real GDP growth changed little, but the pattern of small downward revisions over time remains intact.

Unemployment Rate. The FOMC has been surprised as much as everyone else by the more rapid than expected decline in the unemployment rate. The latest reductions in the projections merely reflect a mark-to-market phenomenon.

PCE Inflation. Inflation projections were marked down yet again. However, FOMC members continue to be confident that inflation will revert to the 2.0 percent long-term target. To date this expectation has yet to be met. But, most forecasters now agree with the FOMC's view. Accelerating economic activity and the possibility that the employment gap is shrinking because fewer discouraged workers may be able to re-enter the labor force provide support for the expectation that inflation will gradually rise.

Core PCE Inflation. The pattern of adjustments in the projections and the arguments for gradual increases are the same as for PCE inflation.

Federal Funds Rate. What is shown in **Table 7** for the federal funds rate is the average of the "dots" provided by all FOMC members. Over time these averages have steadily declined as members have extended the expected timing of increases in the federal funds rate. It should be noted that the "average" tends to be higher than the median because of a few high estimates. For example, the December average federal funds rate for

Table 7
Economic Projections of Federal Reserve Board Members And
Federal Reserve Bank Presidents, June 2013

Variable	Central Tendency					
	2013	2014	2015	2016	Longer Run	
Real GDP %	<i>Dec</i>	<i>2.2 - 2.3</i>	<i>2.8 - 3.2</i>	<i>3.0 - 3.4</i>	<i>2.5 - 3.2</i>	<i>2.2 - 2.4</i>
	Sep	2.0 - 2.3	2.9 - 3.1	3.0 - 3.5	2.5 - 3.3	2.2 - 2.5
	June	2.3 - 2.6	3.0 - 3.5	2.9 - 3.6		2.3 - 2.5
	Mar	2.3 - 2.8	2.9 - 3.4	2.9 - 3.7		2.3 - 2.5
	Dec	2.3 - 3.0	3.0 - 3.5	3.0 - 3.7		2.3 - 2.5
Unemp. Rate %	<i>Dec</i>	<i>7.0 - 7.1</i>	<i>6.3 - 6.6</i>	<i>5.8 - 6.1</i>	<i>5.3 - 5.8</i>	<i>5.2 - 5.8</i>
	Sep	7.1 - 7.3	6.4 - 6.8	5.9 - 6.2	5.4 - 5.9	5.2 - 5.8
	June	7.2 - 7.3	6.5 - 6.8	5.8 - 6.2		5.2 - 6.0
	Mar	7.3 - 7.5	6.7 - 7.0	6.0 - 6.5		5.2 - 6.0
	Dec	7.4 - 7.7	6.8 - 7.3	6.0 - 6.6		5.2 - 6.0
PCE Inflation %	<i>Dec</i>	<i>0.9 - 1.0</i>	<i>1.4 - 1.6</i>	<i>1.5 - 2.0</i>	<i>1.7 - 2.0</i>	<i>2.0</i>
	Sep	1.1 - 1.2	1.3 - 1.8	1.6 - 2.0	1.7 - 2.0	2.0
	June	0.8 - 1.2	1.4 - 2.0	1.6 - 2.0		2.0
	Mar	1.3 - 1.7	1.5 - 2.0	1.7 - 2.0		2.0
	Dec	1.3 - 2.0	1.5 - 2.0	1.7 - 2.0		2.0
Core PCE %	<i>Dec</i>	<i>1.1 - 1.2</i>	<i>1.4 - 1.6</i>	<i>1.6 - 2.0</i>	<i>1.8 - 2.0</i>	
	Sep	1.2 - 1.3	1.5 - 1.7	1.7 - 2.0	1.9 - 2.0	
	June	1.2 - 1.3	1.5 - 1.8	1.7 - 2.0		
	Mar	1.5 - 1.6	1.6 - 2.0	1.8 - 2.1		
	Dec	1.6 - 1.9	1.6 - 2.0	1.8 - 2.0		
Federal Funds %	<i>Dec</i>	<i>.25</i>	<i>.34</i>	<i>1.06</i>	<i>2.18</i>	<i>3.88</i>
	Sep	.25	.40	1.25	2.26	3.93
	June	.26	.43	1.34		4.01
	Mar	.29	.55	1.30		4.01
	Dec	.30	.61	1.47		4.04

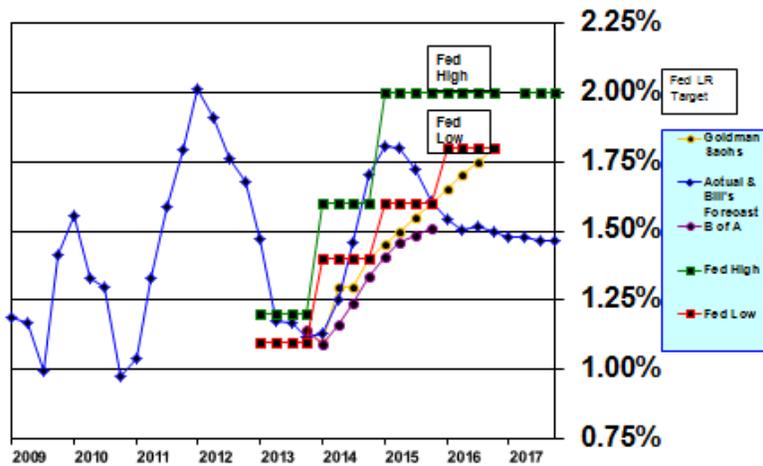
2015 was 1.06 percent but the median was 0.75 percent. This should be interpreted as meaning that a preponderance of FOMC members do not expect the federal funds rate to increase until 2015 and, initially, increases will be very modest.

Table 7 Economic Projections of Federal Reserve Board Mem-

bers And Federal Reserve Bank Presidents, June 2013

Prospects for PCE Inflation Core PCE inflation was 1.12 percent in November and total PCE inflation was 0.87 percent (see **Chart 12**). Compared to core PCE inflation, total PCE inflation is much more volatile and has been negative for short periods of time in the past. For that reason the FOMC prefers to focus policy deliberations on the core PCE inflation measure.

CHART 12 – Core PCE Inflation Forecasts
(percentage change over previous 12 months)



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Core PCE inflation is well below the FOMC's target level of 2 percent and is not much above the lows experienced briefly in mid-2009 and late-2010 when the FOMC was concerned about the threat of deflation.

As can be seen in **Table 8** (**Chart 12** shows historical core PCE price index data and data from **Table 8** in graphical form), forecasts of the core PCE inflation index indicate that inflation should edge up slowly in 2014 from its November level of 1.1 percent to 1.3 to 1.7 percent, which is consistent with the FOMC's central tendency projection range 2014. All 2015 forecasts track the lower end of the FOMC's projection range. My 2016 core PCE inflation forecast is slightly below GS's forecast and the FOMC projec-

tion range. In all cases inflation edges up gradually, but remains below the FOMC's 2.0 percent long-run guideline. Since inflation risks appear benign, this suggests that the FOMC will not be in any hurry to raise the federal funds rate.

Table 8
Core PCE Inflation Forecasts — B of A, GS, Bill's "Steady Growth", Bill's "Strong Growth" and FOMC High and Low

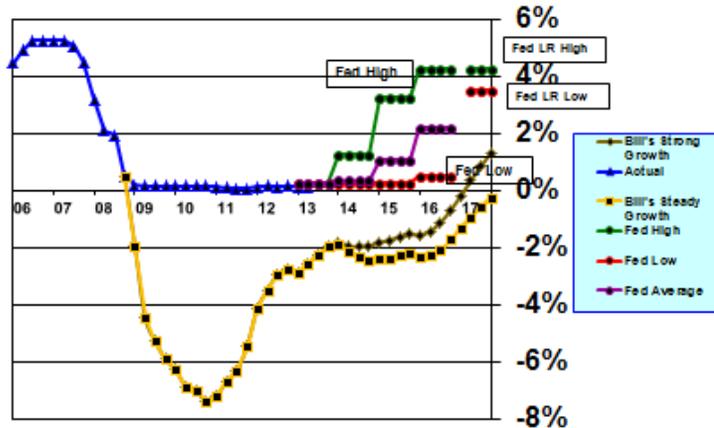
Core CPE	2013	2014	2015	2016	2017
B of A	1.1	1.3	1.5		
GS	1.1	1.4	1.6	1.8	
Bill's Steady Growth	1.1	1.7	1.6	1.5	1.5
Bill's Strong Growth	1.1	1.7	1.6	1.6	1.8
FOMC — High	1.2	1.6	2.0	2.0	
FOMC — Low	1.1	1.4	1.6	1.8	

6. Federal Funds Rate

Chart 13 shows the FOMC's central tendency range for high and low projections for the federal funds rate for 2013, 2014, 2015, and 2016. The purple line (circles) is the average of projections for the current 17 FOMC members (5 governors and 12 presidents). The projections imply that the first increase in the federal funds rate will take place during 2015. However, the median expected federal funds rate is only 0.75 percent by the end of 2015 — the average is skewed to a higher 1.06 percent by three high estimates.

Both B of A and GS do not expect the first federal funds rate increase to occur until early 2016. The New York Federal Reserve's primary dealer survey indicates that the median expectation is that the first increase in the federal funds rate occurs in the third quarter of 2015.

My "*Steady Growth*" and "*Strong Growth*" forecasts are shown by the yellow line (squares) and brown line (diamonds). My "*Steady Growth*" forecast indicates that the federal funds rate is not likely to increase until 2017 or later. In my "*Strong Growth*" forecast, the first increase in the

CHART 13 – Federal Funds Rate Forecast

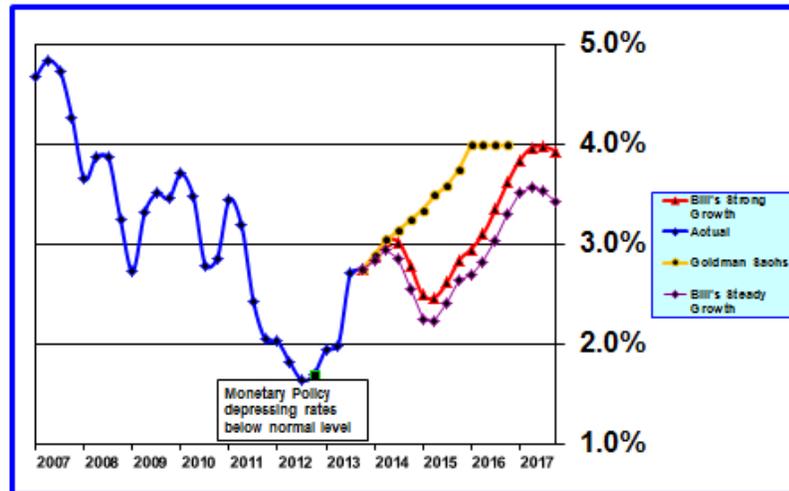
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federal funds rate occurs in early 2017. My projections assume that the employment gap remains high for an extended period of time and inflation remains low. However, if the employment gap is smaller because discouraged workers are really structurally unemployed and, therefore, will not re-enter the labor force, the employment gap will close more quickly, inflation will start rising sooner and the FOMC will begin raising the federal funds rate well before my forecast dates of 2017 or later.

7. 10-Year Treasury Rate

Chart 14 shows forecasts for the 10-year Treasury rate for my “*Steady Growth*” (purple line and diamonds) and “*Strong Growth*” (red line and triangles) scenarios. GS’s forecast is also shown (yellow line and circles).

As can be seen in **Chart 14**, my 10-year forecast for the “*Steady Growth*” scenario remains near its current level for the next year and then falls about 50 to 75 basis points to approximately 2.25 percent by early 2015 and then gradually increases to about 3.50 percent by the end of 2017.

CHART 14 – 10-Year Treasury Rate Forecasts

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The forecast for the “*Strong Growth*” scenario tracks the pattern of the forecast for the “*Steady Growth*” scenario but rises a little faster reaching 4.00 percent by late 2017.

In contrast, GS’s forecast does not decline, but rises only about 50 basis points to 3.25 percent by the end of 2014 and rises a further 50 basis points to 3.75 percent by the end of 2015 and reaches 4.00 percent by the end of 2016. The principal difference between my forecasts and GS’s is that I forecast inflation to be about 25 basis points lower in 2016 and the employment gap to be a little higher.

What is important to note is that none of these forecasts indicates a surge in the 10-year rate for a very long time. Indeed, the 10-year rate should fluctuate in a narrow range around 2.75 percent for at least the next year and move only modestly higher after that.

VII. Fiscal Policy Developments

For the first time in many months there is not much to talk about with respect to fiscal policy.

1. 2014 Budget

By large bipartisan majorities the House and Senate both passed a fiscal year 2014 spending bill, which replaces the continuing resolution. The legislation was 1,582 pages in length that included 12 appropriation bills funding all federal government activities. It was provided to members with virtually no time to study details before voting occurred. The House passed the legislation by a vote of 359 to 67 with only died-in-the-wool Tea Party Republicans voting no. CBO estimated that the legislation will result in \$1,021 billion in fiscal year 2014 spending, which is approximately \$12 billion less than actual 2013 expenditures.

2. Debt Ceiling

The only fiscal matter of note that remains to be dealt with is the federal debt ceiling. Congress suspended the federal debt ceiling until February 7, 2014. That means that the U.S. Treasury can borrow as much as it needs until then, but it has no authority to over borrow and stockpile cash. A new debt ceiling will commence instantaneously on February 7, 2014 at whatever debt level exists on that date.

Past experience suggests that Congress will take its time and debate attaching various fiscal initiatives to a debt ceiling increase. Thus, it seems likely that Congress will not pass debt ceiling legislation until the U.S. Treasury has exhausted all available methods to continue financing operations. That is not likely to occur until sometime between mid-March and May. While this will create policy uncertainty, which is not market friendly, the smooth handling of the fiscal year 2014 appropriation bills argues for a similar quietly negotiated deal to extend the debt ceiling. In any event, for the time being, it is likely that the market will assume that Congress will reach agreement with a minimum of drama.

3. Federal Budget Deficit

Based on federal receipts and expenditures over the first three months of fiscal 2014, it increasingly appears likely that the budget deficit will be much smaller than the \$575 billion forecast by CBO a few months ago. The fiscal year 2013 deficit was \$680.3 billion, which was equal to 4.02 percent of nominal GDP. As of December, the deficit over the previous 12 months fell further to \$560.6 billion, which is approximately 3.28 percent of estimated fourth quarter nominal GDP. I expect the deficit to continue shrinking in coming months, particularly if economic growth picks up, as seems increasingly likely. My current projection is a deficit of \$500 billion, which would be less than 3.0% of estimated third quarter nominal GDP. The risks tilt toward an even smaller deficit.

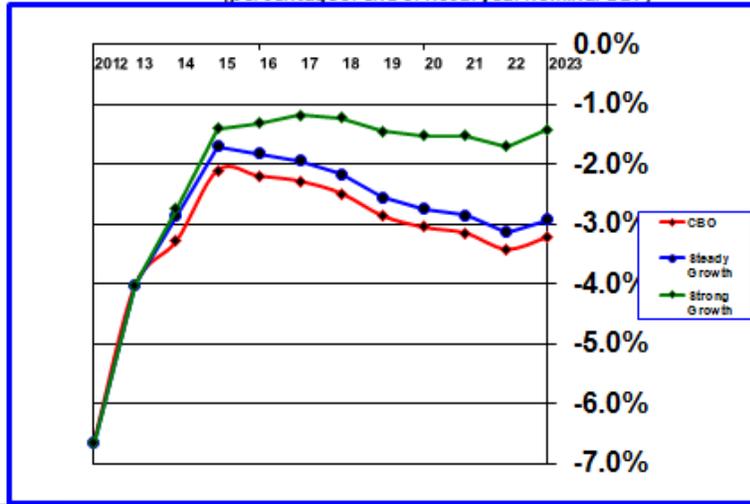
Over the last year revenues have risen at a 12.5 percent annual rate while expenditures have declined at a 5.2 percent annual rate. As a consequence the deficit has fallen 47.2 percent.

Chart 15 shows the projected annual federal budget deficit as a percentage of end of fiscal year nominal GDP for CBO and my “*Steady Growth*” and “*Strong Growth*” scenarios. The slow deterioration in the budget deficit beginning in fiscal year 2016 is the result of an aging population which drives up entitlement spending.

Chart 16 shows the ratio of federal debt held by the public as a percentage of nominal GDP for the same three scenarios. Strong growth leads to a rapid decline in the public-debt-to-GDP ratio. This, of course, assumes that current revenue and spending policies remain unchanged. Steady growth results in a relatively stable public-debt-to-GDP ratio. CBO’s current law projections result in a rapid increase in the public-debt-to-GDP ratio after 2023.

CHART 15 – Annual Federal Budget Deficit

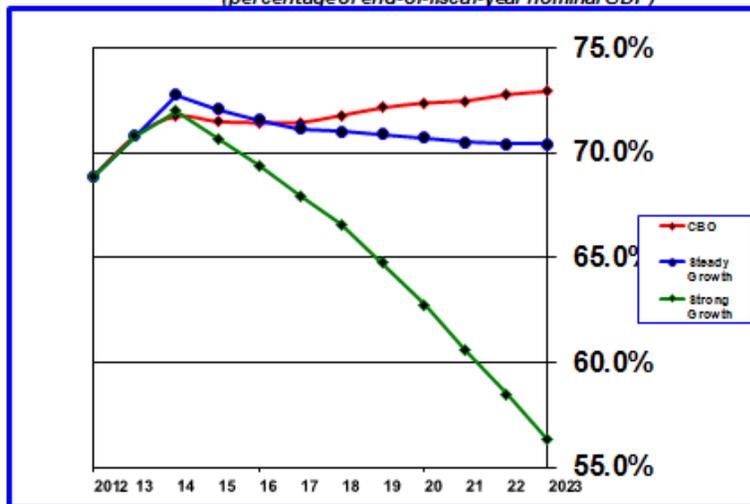
(percentage of end of fiscal year nominal GDP)



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CHART 16 – Publicly Held Federal Debt

(percentage of end-of-fiscal-year nominal GDP)



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VIII. APPENDIX: Outlook — 2014 and Beyond — Forecast Summary for the U.S. and the Rest of the World, Highlights of Key Issues, and Identification of Risks

Observations about the 2014 U.S. and global economic outlook and risks to the outlook were contained in the *December Longbrake Letter; 2013 Forecast Assessment and 2014 Outlook* and are included below without any changes. As events unfold during 2014, this will enable the reader to track my analytical prowess. Beginning in February I will add current assessments follow each item with the following identifiers: “+” tracking forecast; “-“not tracking forecast; “?” too soon to know.

1. U.S.

- **2014 real GDP Q4/Q4** growth projections range from 2.9% to 3.4%; the FOMC’s projection range is 2.9% to 3.1%. **2014 real GDP Y/Y** growth projections range from 2.5% to 3.1%. (Q4/Q4 projections are highly dependent upon potential anomalies in Q4 data; therefore, Y/Y estimates, which average all four quarters, are more stable estimates.) Growth should improve gradually over the course of the year. I expect real GDP growth to track the lower end of the Y/Y range in 2014.
- **Real GDP output gap** will remain very high, but will close a little faster during 2014 (I intend to supply numerical estimates once CBO updates its GDP gap analysis).
- **Potential structural rate of real GDP growth** has declined significantly in recent years. I expect potential growth to be about 1.5% in 2014, which means the output gap could close by approximately 1.0%. Potential GDP growth is likely to rise slowly in coming years to between 2.1% and 2.4%.
- **Productivity** should rise as growth improves and investment increases, but should still fall well short of the historical 2.1% average.
- **Employment** should grow about 190,000 per month in 2014, about the same as in 2013.

- ***Employment participation*** will not rebound in 2014, which will contribute to a more rapid decline in the unemployment rate; the secular demographic decline will be offset by a small reduction in discouraged workers.
- ***Unemployment rate*** should edge down to about 6.5%. A lower rate is not very likely unless discouraged workers do not re-enter the labor force or more exit the labor force.
- ***Nominal consumer disposable income***, measured on a Y/Y basis will rise about 2.0% with employment growth and a small increase in the nominal wage rate. Because of the depressing effect of increased taxes in 2013 on disposable income growth, the Q4/Q4 growth rate should be a much higher 2.9%.
- ***Nominal consumer spending growth*** on the Y/Y basis will grow at a faster rate of approximately 3.3% (Q4/Q4 growth rate would also be about 3.3%, as spending was not affected materially by increased tax rates in 2013).
- ***Household personal saving rate*** will decline slightly as growth in spending exceeds growth in disposable income.
- ***Stock prices***, as measured by the S&P 500 average, should rise about 5%.
- ***Manufacturing*** growth will continue to be relatively strong and the PMI index will exceed 50.
- ***Business investment*** spending growth should improve to about 5 to 6% as employment and consumer spending growth gathers momentum.
- ***Residential housing investment*** should rise about 10% and contribute 30 to 40 basis points to real 2014 GDP growth; residential housing starts should rise 20 to 25%.
- ***Residential housing prices*** should rise about 5% in 2014, more slowly than 2013's 10% increase.
- ***Trade deficit*** should rise slightly as economic growth improves because imports should grow more quickly than exports. The dollar's value should decline modestly on a trade-weighted basis.
- ***Monetary policy*** — the Federal Reserve will end quantitative easing by mid-year and will clarify forward guidance.
- ***Inflation*** will rise slightly in 2014 but will remain well below the FOMC's 2% objective at least through 2016.

- **Federal funds rate** is not likely to increase before mid-2015 and might not increase until late 2016 or early 2017. The 10-year Treasury rate is likely to fluctuate in a range between 2.5% and 3.5% in 2014.
- **Fiscal policy** will be significantly less contractionary in 2014, decreasing real GDP growth by about -0.4%; the **federal budget deficit** will decline to 3.0% by the end of 2014.

2. Rest of the World

- **Global growth** is likely to improve to 3.5% in 2014 from 2.9% in 2013.
- **European growth** will be positive but will fall short of the ECB's forecast of 1.1%.
- **European financial markets** are likely to remain relatively calm thanks to the activist role of the European Central Bank, the May European parliamentary elections could lead to a new round of turmoil.
- **European banking union** will do little to solve deep-seated European and Eurozone structural problems; ECB stress tests will contribute to slow credit expansion.
- **European political dysfunction, populism and nationalism** will continue to worsen gradually.
- **U.K. growth** will continue to be robust as the housing and debt bubble continue to build.
- **China's GDP growth** will slow below 7% as economic reforms are implemented.
- **China's leadership** will focus on implementing **economic reforms** and will overcome resistance and maintain stability.
- **Japan's** economic resurgence is likely to falter by the end of 2014, as Abenomics' third arrow of economic reforms fails to raise the level of potential growth sufficiently to overcome negative population growth.
- **Emerging market countries** on balance will experience greater growth, as long as the U.S. and European economies do better in 2014; countries heavily dependent upon commodities exports for growth will do less well as will also be the case for countries with large balance of payments deficits.

3. **Risks** — stated in the negative, but each risk could go in a positive direction
- *U.S. potential real GDP growth* falls short of expectations
 - *U.S. employment growth* is slower than expected; the *participation rate* continues to decline
 - *US. Unemployment rate* falls less than expected
 - *U.S. productivity* does not improve
 - *Real U.S. consumer income and spending* increase less than expected
 - *U.S. financial asset prices* rise more than expected posing increased bubble risks
 - *Growth in U.S. residential housing investment and housing starts* is less than expected
 - *U.S. residential housing price increases* slow more than expected
 - *U.S. private business investment* does not improve as much as expected
 - *U.S. manufacturing growth* slows
 - *U.S. trade deficit* widens and the *value of the dollar* falls
 - *U.S. monetary policy* spawns financial market uncertainty and contributes to financial instability
 - *U.S. inflation falls, rather than rising, and threatens deflation*
 - *U.S. interest rates* rise more than expected
 - *U.S. fiscal policy* is more restrictive than expected and the *budget deficit* falls more than expected
 - *U.S. state and local spending* does not rise as fast as expected
 - *Global GDP growth* does not rise as fast as expected
 - *Europe* slips back into recession
 - *Europe* — financial market turmoil reemerges
 - *Europe* — political instability and social unrest rises more than expected threatening survival of the Eurozone and the European Union
 - *U.K. growth* falters as housing bubble collapses

- *Chinese* leaders have difficulty implementing *economic reforms*
- *China's growth* slows more than expected
- *Japan* — markets lose faith in Abenomics
- Severe and, of course, unexpected *natural disasters* occur, which negatively impact global growth
- *Middle East oil supply* is disrupted and oil prices rise sharply

Bill Longbrake is an Executive in Residence at the Robert H. Smith School of Business at the University of Maryland.