



Our Perspectives:

Commentary on the economy & regulatory policies affecting financial companies

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The Longbrake Letter*

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I. U.S. Economy Grinds Higher Slowly; Keep a Close Eye on China

Periodically, there isn't much significant new news about the direction of the U.S. and global economies. This is one of those months. Yes, incoming U.S. data reports have generally disappointed expectations, but many analysts have discounted these developments by blaming unusually severe winter weather in the eastern U.S. The main story line remains intact. Analysts generally expect the U.S. economy to perform much better in 2014 compared to recent years. But, "much better" is a "good," not a "great" outcome.

Real GDP grew 1.9 percent in 2013 and is expected to grow approximately 2.8 percent in 2014. Because the Congressional Budget Office believes potential real GDP growth will be 1.7 percent in 2014, if the forecast

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is realized, the output gap would shrink from 4.0 percent to approximately 3.0 percent. By historical standards, the output gap will remain unusually high throughout 2014.

While the 2014 story remains one of slow, but persistent, healing, the long-run story is about an economy in which growth prospects have not only diminished considerably already but appear to be worsening due to slowing labor force growth and low productivity.

Think tanks and academicians have proposed a plethora of policies aimed at reversing the decline in the potential real rate of GDP growth. But, politicians and policymakers have been preoccupied with short-term issues such as the size of federal budget deficits and the timing of phasing out the Federal Reserve's quantitative easing program. There has been little in the way of serious consideration of long-term policies designed to boost the long-term potential rate of real growth. Perhaps, worse, there appears to be little understanding that many of the recent short-term policy decisions are contributing to declining real long-term growth prospects.

While a smaller federal budget deficit today might seem like prudent policy of living within one's means, if it starves investment that would boost future growth potential, history will judge such a policy as short-sighted and a contributor to America's stagnation and decline as an economic and political global power.

Media have been obsessed with political developments in Ukraine and the missing Malaysian airliner. Although, as of this writing, news about economic developments in China is in short supply, what little news there is points to slowing growth. This combined with tighter credit conditions increases the possibility of financial stress. China bears close watching because developments there could develop into a significant negative surprise with global ramifications.

II. Real U.S. GDP Growth Is Expected to Accelerate in 2014

Above potential real GDP growth is probable in 2014 and this will contribute to reducing still sizable employment and output gaps. 2014 should be a “good” but probably not a “great” year. That is because GDP growth will be slightly above CBO’s potential level of 1.72 percent so that the output gap, which was 4.02 percent in the fourth quarter of 2013, should shrink by about 1.0 percent during 2014 (see **Table 3** below).

However, in the longer run forces are at work which will result in slowing employment growth and low productivity growth. This will lead to diminished growth in real GDP over time. That, in turn, means that improvements in the standard of living, as conventionally measured, will fall short of historical experience.

So, prospective good news for 2014 should not be mistaken as having turned the corner of the U.S.’s growth problem.

1. 2013 Q4 GDP — Preliminary Estimate

Annualized fourth quarter real GDP growth in the Bureau of Economic Analysis’s “Preliminary Estimate” was scaled back from 3.2 percent in the “Advance Estimate” to 2.4 percent. Details are shown in **Table 1**. Private GDP, which omits inventory growth and government spending, declined less from 3.7 to 3.3 percent.

Most of the downward revision can be traced to personal consumption and inventories, although there were gains and losses in other GDP components that largely offset each other. Collectively, the decline in personal consumption and inventories accounted for 79 basis points of the 83 basis point decrease in real GDP growth.

Personal consumption expenditures, which account for 67.9 percent of real GDP, contributed 1.73 percent to fourth quarter GDP growth. The sizable downward adjustment from the “Advance Estimate”, although disappointing, resulted in a growth rate more consistent with those of recent quarters, but still signaled a comparative improvement.

Table 1
Composition of 2013 Quarterly GDP Growth

	Fourth Quarter 2013 Advance Estimate	Fourth Quarter 2013 Preliminary Estimate	Fourth Quarter 2013 Final Estimate	Third Quarter 2013	Second Quarter 2013	First Quarter 2013
Personal Consumption	2.26%	1.73%		1.36%	1.24%	1.54%
Private Investment						
Nonresidential	.46%	.87%		.58%	.56%	-.57%
Residential	-.32%	-.29%		.31%	.40%	.34%
Inventories	.42%	.14%		1.67%	.41%	.93%
Net Exports	1.33%	.99%		.14%	-.07%	-.28%
Government	-.93%	-1.05%		.08%	-.07%	-.82%
Total	3.22%	2.39%		4.14%	2.47%	1.14%
Final Domestic Sales	2.80%	2.25%		2.01%	0.21%	0.21%
Private GDP	3.73%	3.30%		2.39%	2.08%	1.03%

To achieve sustainable GDP growth of 2.5 percent requires consumer spending to grow at an annual rate of 1.70 percent. This was the first quarter in the last seven in which the 1.70 percent bogey was exceeded.

Weak retail sales in both January and February and probably also for March do not bode well for growth in personal consumption expenditures in the first quarter of 2014. Bank of America/Merrill Lynch (**B of A**) expects consumer spending to grow at an annual rate of 2.5 percent in the first quarter of 2014, which would contribute 1.70 percent to real GDP growth. Although February retail sales were a bit better than expected, downward revisions to December and January will probably lead B of A to reduce its forecast. Comparable forecasts from Goldman Sachs (**GS**) are 1.7 percent and 1.16 percent, which are probably closer to the mark.

Nonresidential investment's, contribution to real GDP growth in the fourth quarter was revised sharply higher to 0.87 percent in the "Prelimi-

nary Estimate” from 0.46 percent in the “Advance Estimate.” Equipment and software accounted for nearly all of the improvement. Nonresidential investment accounts for 12.7 percent of GDP and contributed substantially more than its fair share, 37.8 percent, to GDP growth.

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 and nonresidential. 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. Actual growth was 3.0 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 3.1 percent of GDP but contributed 18.3 percent of GDP growth in 2013. However, residential investment reduced fourth quarter real GDP growth, reflecting the impact of higher mortgage rates since last summer on housing demand and construction activity.

Evidence continues to emerge that the much expected recovery in housing will be more gradual and take longer than was initially expected.

Inventories contributed less to real GDP growth in the “Preliminary Estimate” compared to the “Advance Estimate.” However, coupled with the substantial rise in inventories in the third quarter, the combined third and fourth quarter inventory growth far exceeds the normal level which should track closely to the overall growth rate in real GDP. Over the last 12 quarters inventories have grown at an annual rate averaging \$61 billion. Growth shot up to \$116 billion over the last two quarters. A return to \$61 billion in the first quarter would subtract \$56 billion from first quarter real GDP and result in a -1.4 percent contribution to first quarter real GDP growth. This is another reason to expect weak real GDP growth in the first quarter of 2014.

Government expenditures comprise 18.0 percent of real GDP and reduced fourth quarter GDP growth by -44.0 percent. This negative outcome was almost entirely due to the federal government component. Federal expenditures continue to shrink and reduced fourth quarter real GDP growth by -1.00 percent.

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 0.7 percent, but Y/Y growth would actually be slightly negative in a range of -0.3 to -0.6 percent compared to -2.3 percent in 2013.

Net exports contributed an unusually large 39.5 percent of real GDP growth in the fourth quarter. This reflected a narrowing of the oil trade balance by about 20 percent during 2013. This trend seems likely to continue as U.S. energy production continues to grow. An increase in exports to China, which may prove to be temporary, also was a positive contributor. Exports of goods as a percentage of GDP have been relatively stable at 9.5 percent over the last year while imports of goods has eased slightly from 14.0 percent to 13.8 percent, mostly reflecting declining dependency on oil imports.

As a percentage of GDP, the U.S. trade deficit declined from 3.25 percent at the end of 2012 to 2.78 percent at the end of 2013. If consumer spending accelerates in 2014, as expected, imports should grow more rapidly and this could cause the trade deficit to rise modestly. However, through January, the trade deficit shrank further to 2.74 percent. My statistical model forecasts

the trade deficit to bottom out at 2.68 percent in April and then rise to 2.95 percent by the end of 2014. If this occurs, net exports would subtract a basis point or two from 2014 real GDP growth compared to its 12 basis point contribution in 2013.

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

Table 2 compares total real GDP growth from 2008 through 2013 with a measure of private sector real GDP growth, which is derived by subtracting changes in inventories and government spending from total GDP.

Table 2
Composition of 2008 to 2013 Annual GDP Growth

	2008	2009	2010	2011	2012	2013
Personal Consumption	-.24%	-1.05%	1.34%	1.74%	1.52%	1.33%
Private Investment						
Nonresidential	-.09%	-2.03%	.28%	.84%	.85%	.34%
Residential	-1.06%	-.71%	-.07%	.01%	.32%	.33%
Inventories	-.47%	-.77%	1.43%	-.16%	.20%	.17%
Net Exports	1.05%	1.04%	-.49%	.10%	.10%	.12%
Government	.54%	.64%	.02%	-.68%	-.20%	-.44%
Total	-.29%	-2.80%	2.51%	1.85%	2.79%	1.86%
Final Domestic Sales	.18%	-2.03%	1.08%	2.01%	2.59%	1.69%
Private GDP	-.36%	-2.67%	1.06%	2.69%	2.79%	2.13%

There are two takeaways from **Table 2** — one good, and one troublesome. The good story is that private sector real GDP growth was approaching 3 percent in both 2011 and 2012. However, the bad news is that this measure decelerated to 2.1 percent in 2013. This reflects the negative effects of higher personal and payroll taxes implemented at the beginning of 2013 on consumption, reduced government spending, and a sharp slowdown in business investment growth.

Private GDP growth should increase in 2014 as the one-time impact of higher taxes on personal income and consumption falls out of the data and,

if business and residential investment accelerate as anticipated. Also, the drag from reduced government spending shouldn't be as great. It is these expectations that drive the higher real GDP growth forecasts for 2014 shown in **Table 3**.

3. Forecasts for “Final Estimate” of Q4 GDP

Table 3 shows forecasts/projections for 2013 through 2016 and a long-run estimate of potential growth in 2023.

The “Final Estimate” of fourth quarter real GDP will be released on March 27, 2014. Downward revision of December retail sales may result in a further reduction in fourth quarter real GDP and a slight decline in overall 2013 real GDP growth.

4. 2014 Q1 GDP Forecasts and the Impact of Weather

Due to severe winter weather and slower inventory growth, **GS** expects first quarter GDP growth to be 1.5 percent and **B of A** is a tad higher at 1.6 percent.

Just how big an impact is weather likely to have on first quarter growth? The importance of this question lies in whether the recent weak data reports are indicative of a weakening economy or whether they simply reflect temporary dislocations caused by severe weather. The popular view is that the expected acceleration in growth is intact and that weather is responsible for the recent weakness. **GS** and **B of A** have conducted a more thorough analysis and have concluded that weather appears to be responsible for much, but not all, of the weakness.

GS's current activity index, which tracks real GDP growth, decelerated from 2.75 percent last summer to 2.0 percent in December and January and further to 1.4 percent in February. About half of the decline, or 0.7 percent, can be explained by weather with weather-related impacts concentrated on housing, employment, and retail sales. **GS** estimates that weather impacts will depress first quarter real GDP by 0.70 percent from 2.2 percent to 1.5 percent, but will increase second quarter real GDP by 0.50 percent to 0.75

Table 3
Real GDP Growth Forecasts

	2013 Q4/Q4	2013 Y/Y	2014 Q4/Q4	2014 Y/Y	2015 Y/Y	2016 Y/Y	2023 Y/Y
B of A	2.5	1.86	3.0	2.8	3.3		2.20
GS	2.5	1.86	2.9	2.7	3.3	3.1	
Global Insight				2.7	3.2	3.4	
Econ- omy.com				3.2			
Blue Chip Average*				2.8	3.0	2.8	
Bill's Steady Growth	2.5	1.86	2.6	2.6	2.2	2.0	2.10
Bill's Strong Growth	2.5	1.86	3.4	3.0	3.2	2.7	2.36
FOMC - High[#]	2.3		3.2		3.4 [#]	3.2 [#]	2.15
FOMC - Low[#]	2.2		2.8		3.0 [#]	2.5 [#]	2.15
CBO	2.5	1.86*		2.53*	3.3	3.4	2.11

*CBO GDP estimates were prepared prior to release of the "Preliminary Estimate" of 2013 fourth quarter GDP and were 1.7 percent for 2013 and 2.7 percent for 2014.

[#]Measured from Q4 to Q4

percent. **GS**'s second quarter real GDP growth forecast is 3.0 percent, which implies that it would be 2.25 percent to 2.50 percent without the weather bounce back. Thus, adjusting for the weather, real GDP growth would be 2.2 percent in the first quarter and 2.25 percent to 2.50 percent in the second quarter. **GS** expects its current activity index to rise from 1.4 percent in February to 2.9 percent in June.

B of A conducted a statistical analysis which indicated that recent weakness has been widespread, which is indicative of a generalized shock, such as the weather, rather than any specific sector, such as an inventory correction. **B of A** concluded that regardless of whether recent weakness stems from the weather or an inventory correction, the effects are temporary and will dissipate in a relatively short period of time as the shocks play out.

5. GDP Forecasts for 2014 and Beyond

As **Charts 1A** and **1B** and **Table 3** show, most forecasters expect GDP growth to accelerate in 2014 and 2015 as negative fiscal drag diminishes and consumer spending accelerates as unemployment gradually declines.

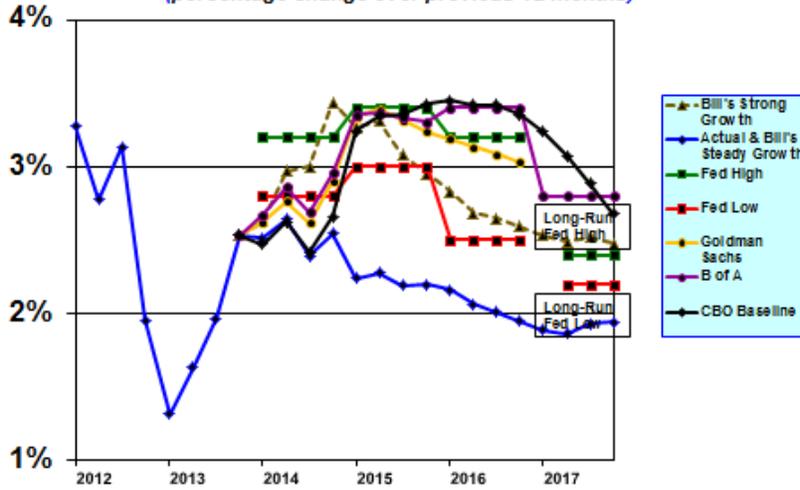
Charts 1A and **1B** show the same data, but the starting date in **Chart 1A** is the first quarter of 2013 and the starting date in **Chart 1B** is the fourth quarter of 2013. It is easier to see the differences in the various forecasts in **Chart 1B** because of the changes in timing and scale.

Except for my "**Steady Growth**" scenario and CBO's projection of 2.5 percent Y/Y growth in 2014, other real GDP Y/Y growth forecasts for 2014 range from 2.7 to 3.2 percent (also see **Table 3**). So, there is substantial consensus that growth will accelerate in 2014 from 2013's pace.

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 proved to be well founded. However, both are now optimistic that growth will accelerate in 2014 and that the case for that call is strong for several reasons.

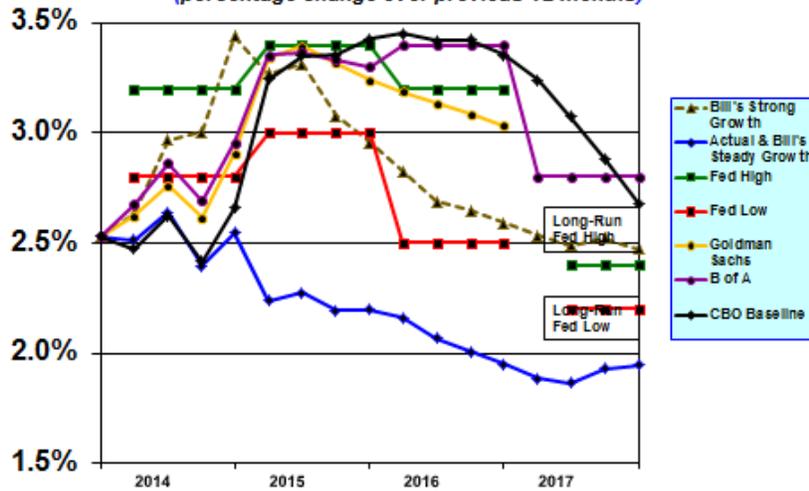
Bill's "**Strong Growth**" scenario of Y/Y 3.03 percent growth in 2014 is in the upper end of the forecast range and Bill's "**Steady Growth**" scenario forecast of 2.57 percent growth is at the bottom end of the range.

CHART 1A – Real GDP Growth Forecasts
(percentage change over previous 12 months)



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CHART 1B – Real GDP Growth Forecasts
(percentage change over previous 12 months)



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

There are several reasons supporting optimism that real GDP growth will accelerate in 2014. ***First, fiscal policy will not be highly contractionary*** as it was 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 support an increase in investment spending. Note, however, that investment spending depends primarily on sales growth and pressures on capacity utilization. Excess capacity remains high and sales growth has been weak. ***Third, banks have rebuilt capital and are more willing to lend.*** Bank loan growth, while weak, has accelerated somewhat since the beginning of the year. ***Fourth, housing prices are rising, excess inventory has diminished considerably but, surprisingly, household formation has slowed.*** Notwithstanding the fourth quarter set back, 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 could slow down in 2014 because the rate of appreciation in the prices of financial assets is likely to slow.

Acceleration in real GDP growth in 2014 and beyond depends primarily on consumer spending and investment, both residential and nonresidential. Optimism about employment gains leads to optimism about sales growth and optimism about sales growth leads to optimism about increases in business and residential investment. Should employment grow a little more slowly than the consensus expects, much slower growth in real GDP will occur. That is the assumption that underlies Bill's "***Steady Growth***" scenario. Employment growth in Bill's "***Strong Growth***" scenario is consistent with consensus expectations.

Table 4 shows consumption growth forecasts for 2014, 2015, and 2016.

About 3/4ths of the difference between the 2.57 percent real GDP growth forecast in Bill’s “*Steady Growth*” scenario for 2014 and the 3.03 percent real GDP growth forecast in Bill’s “*Strong Growth*” scenario is due to higher expected employment and consumption growth. The remainder is due primarily to higher investment growth.

Table 4
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
Actual	1.66	2.36	2.07	1.89			
B of A					2.70	3.24	3.07
GS					2.45	2.98	2.64
Bill’s Steady Growth					2.18	2.28	2.37
Bill’s Strong Growth					2.52	2.91	2.98

Business and residential investment growth forecasts are shown in **Table 5**. Both **GS** and **B of A** have trimmed forecast investment growth for 2014 in recent months, but both still expect investment growth to accelerate in 2014. **GS** forecasts stronger residential and business investment growth of 6.5 percent Y/Y in 2014 compared to 4.5 percent Y/Y in 2013. **B of A** forecasts investment growth Y/Y of 6.0 percent in 2014. Both **GS** and **B of A** forecast further investment growth acceleration in 2015.

Investment in Bill’s “*Steady Growth*” scenario accelerates in 2014 to 6.7 percent and then drops off sharply in 2015 and 2016. Investment in Bill’s “*Strong Growth*” scenario accelerates to a robust 8.0 percent in 2014, which is more optimistic than **GS**’s or **B of A**’s forecasts, then maintains a high growth rate of 8.7 percent in 2015 similar to **GS** and **B of A** before slowing to 4.5 percent in 2016.

Table 5
Real Investment (Residential and Nonresidential) 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
Actual	1.51	6.25	8.28	4.53			
B of A					6.02	8.46	
GS					6.46	8.58	7.53
Bill’s Steady Growth					6.71	4.01	2.60
Bill’s Strong Growth					8.00	8.74	4.50

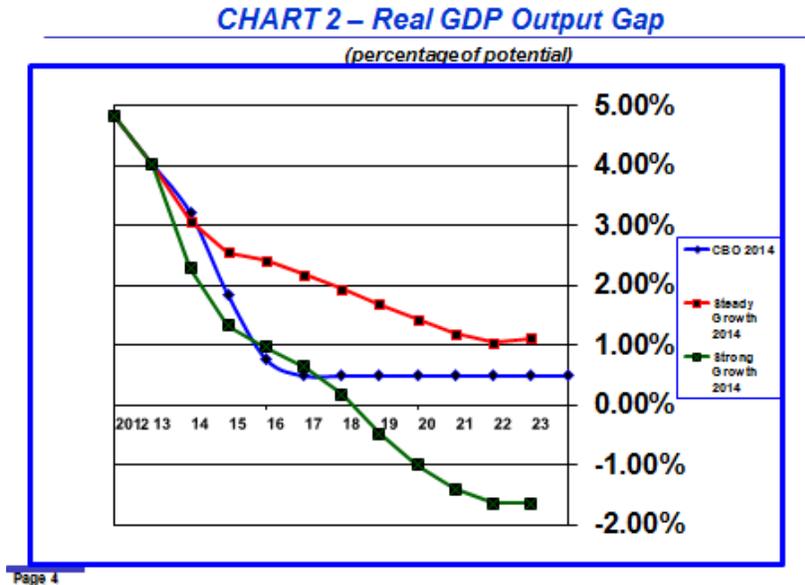
Real GDP growth forecasts for 2015 and 2016 for Bill’s “*Steady Growth*” scenario are considerably lower than other forecasts. The difference has principally to do with the assumption that investment growth and, therefore, productivity growth will remain low relative to historical levels. Slow investment growth will hold back employment growth and retard income growth, which implies that consumer spending growth will continue to be disappointing.

6. GDP Output Gap

CBO’s recent updated reductions in its estimates of potential real GDP resulted in a substantial decrease in the GDP output gap at the end of 2013 to 4.0 percent from its year earlier forecast of 6.0 percent.

Chart 2 benchmarks the GDP output gap as 4.0 percent at the end of 2013 and then shows how the output gap would change over time based upon CBO’s GDP projections and my “*Steady Growth*” and “*Strong Growth*”

scenarios. CBO expects the output gap to close by 2017. The output gap also closes in my “*Strong Growth*” scenario by the end of 2017, but the gap does not close in my “*Steady Growth*” scenario.



In my “*Strong Growth*” scenario, which assumes strong labor force growth, strong investment growth, and robust productivity, the output gap shrinks more rapidly than CBO’s estimates initially, but then the rate at which the gap shrinks slows and it closes at the same time as CBO’s estimate. Employment growth and investment assumptions are intentionally optimistic in this scenario. The positive output gap becomes quite large by 2023, which is possible, but not likely.

In my “*Steady Growth*” scenario the output gap shrinks slowly and does not close. This scenario assumes slow labor force growth, tepid investment growth, and lackluster productivity. It is intentionally structured to be a pessimistic scenario. My expectation is that the eventual realized trend of GDP growth and the output gap are likely to fall somewhere between the “*Strong Growth*” and “*Slow Growth*” scenarios.

III. Recent Employment Trends

Payroll employment increased a stronger than expected 175,000 in February and revisions to December and January added another 25,000. Considering the impacts of bad weather, which caused 601,000 to report they could not make it to work compared to 237,000 in February 2013, market participants interpreted the report as evidence that weak payroll growth in December and January was not indicative a loss of momentum. Now, whispers are that payroll employment should grow at least 250,000 in March to compensate for the weather-depressed consequences of recent months. All of this should remind us that monthly survey data tend to be very noisy and are revised many times in the future. The probable truth is that the reported recent slowdown in payroll employment growth was not as bad as it appeared. A reasonable conclusion is that the labor market continues to heal in a steady, yet unspectacular, fashion.

The companion household survey reported only a 41,000 increase in employment, but the latest three-month average is 274,000. The unemployment rate bumped up to 6.72 percent, but is a full percentage point below the 7.75 percent of a year ago. Hours worked dropped, mostly likely due to weather effects.

What is one to make of all this contradictory information?

The most important observation is data reports are based on surveys with large sampling errors. This means that the data are very noisy. Some data series, such as payroll employment are revised many times; others, like the household survey are never revised, but nonetheless, because it is based on a survey with a large sampling error, the monthly data tend to be very volatile.

What all of this means is that the health of the labor market is better measured by observing trends over time rather than trying to explain each twist and turn in the monthly data reports.

1. Payroll and Household Employment

Employment trends can be observed more easily by viewing **Chart 3**, which shows the annual growth rates for both the payroll and household employ-

ment surveys on a year-over-year basis.

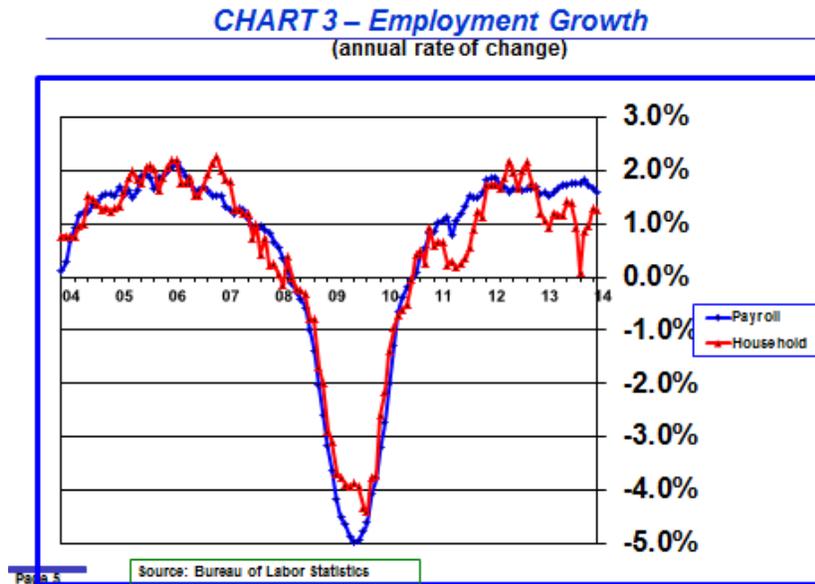


Chart 3 indicates that payroll employment is growing at an annual rate of approximately 1.59 percent and household employment is growing at an annual rate of 1.26 percent. Employment growth is above CBO's long-term labor force trend level of 0.5 to 0.7 percent, which is necessary for the unemployment rate to fall and the economy to return to full employment. Annual payroll employment growth peaked at 1.82 percent in November and has edged a bit lower. It is too early to conclude that the trend growth rate is slowing because of recent weather-related anomalies in the data. However, as the labor market approaches full employment it is certain that growth will slow to the long-term trend level dictated by growth in the labor force.

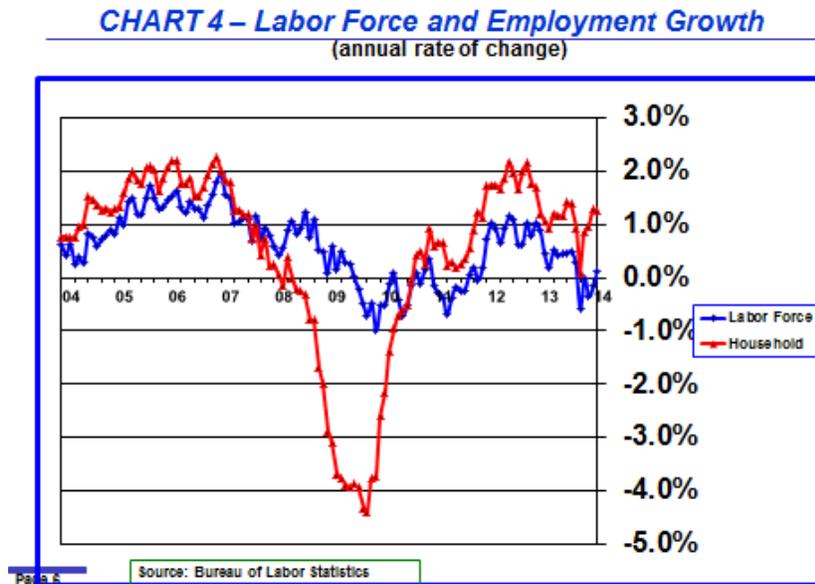
Over the last two years payroll employment gains have been relatively strong, averaging 194,000 monthly in 2013 and 186,000 in 2012.

Over the last two years household employment gains averaged 115,000 in 2013 and 198,000 in 2012. However, the 12-month average as of February was 150,000.

Growth in the payroll and household employee counts track each other closely over extended periods of time, but can diverge substantially over shorter periods of time, primarily due to sampling anomalies and periodic updates to population controls in the household survey.

2. Labor Force

Over extended periods of time growth in the labor force depends upon growth in the population eligible to work and on demographic and cultural factors. As can be seen in **Chart 4**, labor force growth tends to exceed household employment growth during recessions and the reverse is true during economic expansions. The difference between the number of workers in the labor force and the number employed equals the number of unemployed workers. Thus, when employment growth exceeds labor force growth, as typically occurs during economic expansions, the unemployment rate falls. Certainly, this has been the case since 2010.



Notice also that there is a moderate cyclical oscillation in labor force

growth over the economic cycle, rising during expansions and falling during recessions. This oscillation is caused by changes in labor force participation.

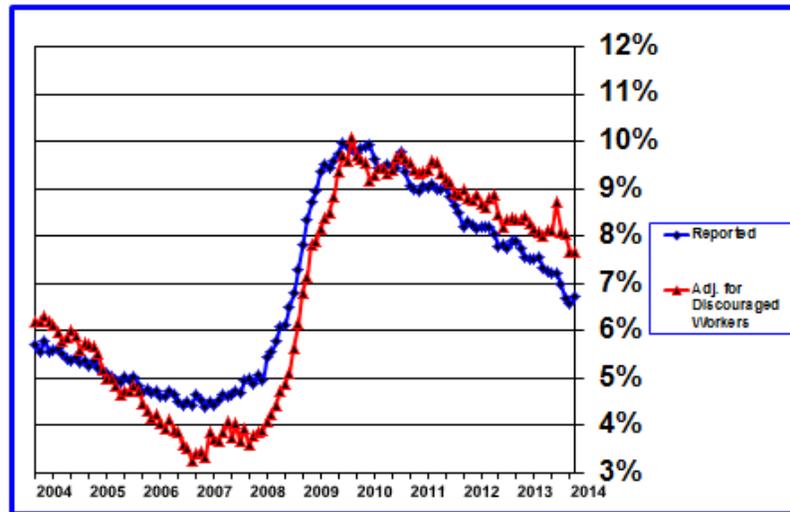
Normally, labor force growth rises during expansions, as can be seen over the period 2004-2007, implying that participation is improving relative to its long-run trend. However, as can be seen in **Chart 4**, beginning in 2013 the growth rate in the labor force began to slow. Not only did it slow to CBO's long-term trend level of 0.5 to 0.7 percent, labor force growth has essentially been zero since last October. Not coincidentally, at the same time the unemployment rate has plunged as has the participation rate. This is not a typical cyclical pattern. Indeed, it is a pattern more typical of recessions, but we are not in a recession and no recession is likely any time soon.

The collapse in labor force growth and with it the plunge in the participation rate is a matter of considerable debate. Slower or no growth in the labor force, if sustained for any length of time, simply means the economy will be smaller — both the level and the growth rate in real GDP will be less. But, perhaps the growth rate will bounce back in coming months as the economy slowly improves. That could occur if much of the plunge in labor force growth is due to temporarily discouraged workers, who will reenter the labor force as the economy strengthens.

Chart 5 shows the historical relationship between the reported unemployment rate and an alternative measure that includes an estimate of the discouraged worker rate. The alternative measure is adjusted for demographic trends, such as the aging of baby boomers. The difference in the two measures in February was 0.93 percent or 1.46 million discouraged workers who have dropped out of the labor force and are not counted as unemployed. I included an extensive analysis of the issue of discouraged and structurally-unemployed workers in the ***February Longbrake Letter***.

Again, the question being debated is whether these 1.46 million “discouraged” workers will reenter the labor force as the economy improves or whether a portion of them will never return. There is no shared consensus as to the answer to this question.

CHART 5 – Reported Unemployment Rate & Adjusted for Discouraged Workers

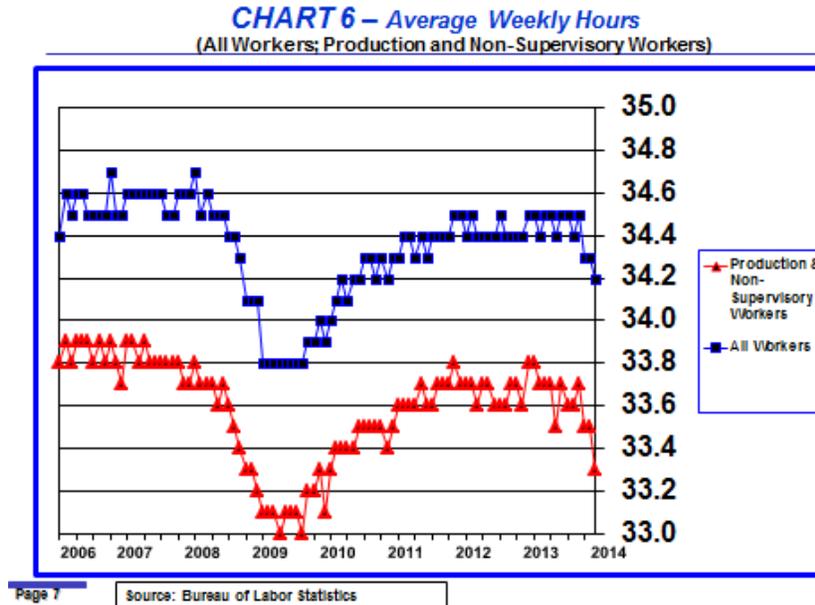


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3. Hours Worked — All Private Employees and Production & Non-Supervisory Employees

Average weekly hours are reported each month in the BLS Employment Situation Report for all private sector employees and for production and non-supervisory employees. The more inclusive “private sector employees” data series begins in March 2006; data for “production and non-supervisory employees” goes back to 1964.

Average weekly hours cover both full-time and part-time workers and include overtime hours. Hourly data for production and non-supervisory employees have trended downward over the 50 years these data have been reported as the proportion of part-time workers has increased. Hours worked also fluctuate cyclically as employers cut down on hours first when economic conditions deteriorate and only later terminate employees. The cyclical pattern is clearly evident in **Chart 6** during the Great Recession. The rebound in hours worked following the Great Recession did not quite reach the pre-Great Recession level, which is indicative of a further increase in the proportion of part-time workers.



Secular trend and cyclical fluctuate patterns for both hourly data series are similar.

Average weekly hours worked for all employees dipped from 34.5 in November to 34.2 in February. Typically, a decline in the length of the work week is an indication of a weakening labor market as employers cut down on overtime and rely to a greater extent on part-time employees. There is reason to believe, however, that the recent decline is weather related and temporary. If that is the case, average weekly hours should bounce back to 34.4 or 34.5 by the April report released in early May.

The 12-month average peaked at 34.46 in November and has fallen only slightly to 34.42 in February. However, average weekly hours worked for production and non-supervisory workers peaked at 33.8 in February and March 2013 and have edged down since then, reaching 33.3 in February, although hours worked were as high as 33.7 in November. While much of this decline certainly is due to temporary weather effects, it appears that part may also be due to increases in the proportion of part-time workers. This latter trend matters because the measure of the number of workers

employed is not adjusted for hours worked. A part-time worker counts the same as a full-time worker. This casts doubt on the quality of recent declines in the unemployment rate.

4. Growth in Hourly and Weekly Wages

Growth in hourly wages is an important measure of labor market strength. An increasing rate of growth in hourly wages would be evidence of a tightening 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.

Weekly average wages fluctuate more than average hourly wages over time due to cyclical oscillations in the number of hours worked. This pattern is clearly evident in **Chart 7** with the plunge in average weekly wages during the Great Recession and the rapid rise during the ensuing recovery. However, since the beginning of 2012, the growth rates for both hourly and weekly wages have been similar, which is indicative of relative structural stability in the labor market.

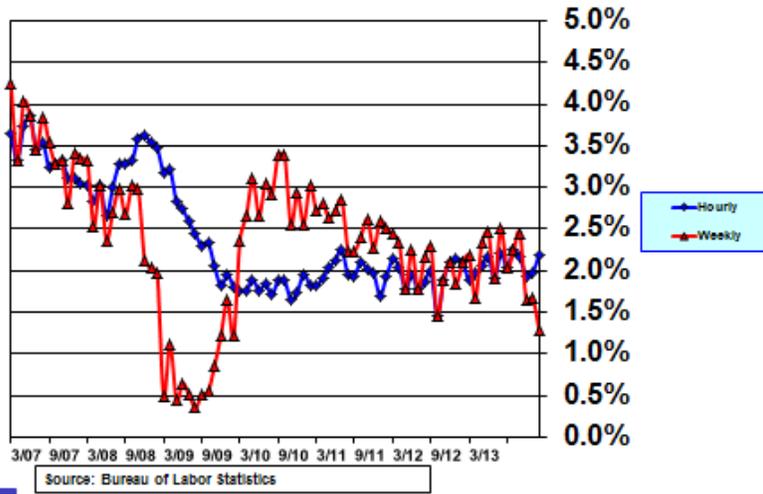
As can be seen in **Chart 7**, the rate of growth in hourly wages for all workers has fluctuated in a narrow band in the vicinity of 2.0 percent for the last four years. This is good news because the large output gap and high unemployment rate, which have persisted for several years, have not put further downward pressure on wage rate growth.

Consistent with the plunge in hours worked from November to February, the growth rate in weekly wages fell from 2.45 percent to 1.30 percent. However, the rate of growth in hourly wages was essentially unchanged, rising from 2.16 percent in November to 2.19 percent in February.

Indeed, as the 12-month moving average, shown in **Chart 8**, indicates, until November there had been a slight improvement in the 12-month moving average rate of growth from 1.88 percent in November 2012 to 2.08 percent in November 2013. However, the trend has been relatively stable and was 2.06 percent in February.

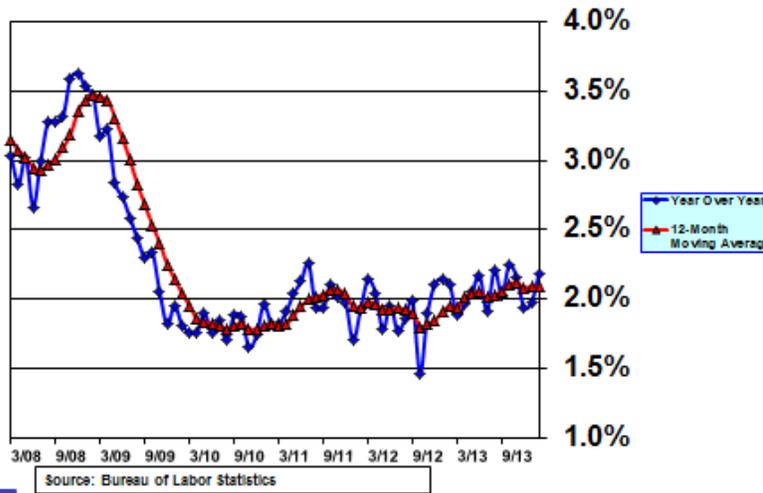
There is reason to conclude that the February uptick in hourly wage

CHART 7 – Hourly and Weekly Wages – All Workers
(annual rate of change)



Page 8

CHART 8 – Hourly Wage Rate Growth – All Workers
(annual year over year and 12-month moving average rates of change)



Page 9

growth for all employees is due to weather-related and temporary labor force composition shifts. This phenomenon is even more apparent in the production and non-supervisory hourly wages data in which the growth rate rose from 2.27 percent in November to 2.50 percent in February, while simultaneously the rate of growth in weekly wages fell from 2.27 percent to 0.98 percent. These contrary movements can be explained by low-wage workers being impacted to a much greater extent by weather-induced shortened work weeks or temporary layoffs than high-wage workers. Because the all worker data include production and non-supervisory workers, this impact would also show up in the all worker data movements, but to a lesser extent because the all worker data series includes high-wage job categories that are not included in the production and non-supervisory worker data series.

Even before weather distorted recent data, some analysts believed that evidence of accelerating wage growth was accumulating. However, there is no definitive indication in the BLS data that this is occurring. Based on details of the December BLS report, the nominal hourly wage rate increased 1.96 percent for high-wage jobs during 2013, but just 1.48 percent for low-wage jobs. This suggests that wage pressures may be greater in high-wage job categories than in low-wage categories. There is some evidence from other sources, such as the National Federation of Independent Businesses monthly survey, and the recent Federal Reserve Beige Book report, that there is moderate wage pressure in selected job categories requiring higher skill levels. However, both sources have been reporting selective wage pressures for the last two to three years, so this is really not new news. Thus, view statements that assert wages are rising, based on this evidence, with great skepticism.

Based on econometric analysis, **GS** has constructed a “wage tracker” measure from three data series: average hourly earnings for production and non-supervisory workers, the employment cost index, and hourly compensation in the nonfarm business sector. **GS**’s “wage tracker” is a derived aggregate measure of wage rate growth momentum. It has been relatively stable in the vicinity of 2.0 percent since the end of the Great Recession and has a recent value of 1.85 percent. To gain insight into where the “wage tracker” might be heading in coming months, **GS** correlated its past movements with data from three consumer and seven business surveys. The survey measures act as leading indicators. Based on its analysis, **GS** concluded that the “wage tracker” could move up to about 2.2 percent from

the recent 1.85 percent level over the next 12 months. This reflects a very modest tightening of the labor market.¹

B of A observed recently that in recent cycles, inflationary pressures did not emerge until nominal wages were growing at a 4.0 percent rate and concluded, after surveying a variety of labor market indicators, that "... pressure on compensation is not moving to the upside in any economically meaningful amount."²

While the data are noisy from month to month, there is no clear indication of acceleration in wage growth. As is discussed in **Section IV** below, personal and disposable income growth also show 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.

5. Duration of Unemployment

Another thread to the debate concerning whether discouraged workers will re-enter the labor force as the labor market tightens concerns the duration of unemployment. Some argue that the measure of short-duration unemployment, defined as the percentage of the labor force willing to work that has been unemployed for fewer than 27 weeks, is a better measure of labor market tightness than the U-3 total unemployment rate. The rationale behind this argument is that those unemployed for more than 26 weeks are less likely to find jobs either because their skills have atrophied (hysteresis) or because of stigma. Thus it is asserted, many of the long-term unemployed will eventually stop looking for work and drop out of the labor market. If that is the case, then the labor market is tighter than implied by the conventional U-3 unemployment rate.

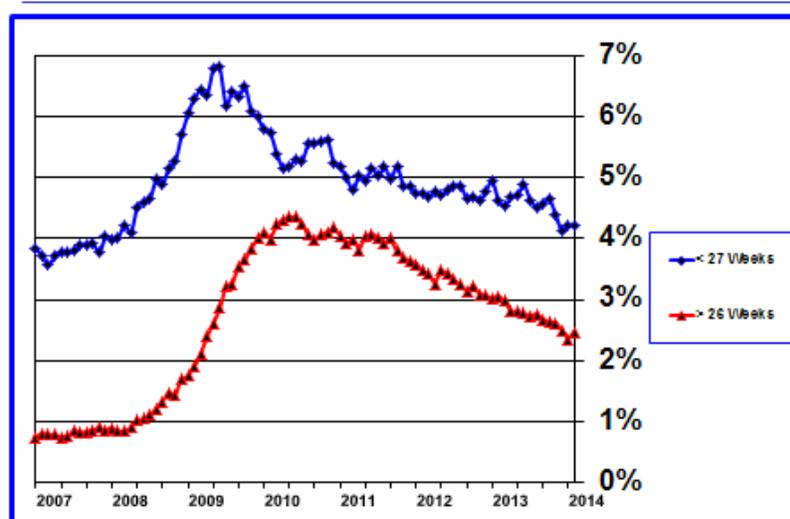
Chart 9 shows two unemployment rates — one for short-duration unemployment and one for long-duration unemployment. The short-duration unemployment rate is almost back to its pre-Great Recession level. It av-

¹David Mericle. "US Daily: Watching for Faster Wage Growth," Goldman Sachs Research, January 28, 2014.

²Bank of America/Merrill Lynch Morning Market Tidbits. "Viewpoint — Wages: Not Yet Worrisome," March 11, 2014, pp.2-4.

eraged 3.81 percent in 2007 compared to 4.19 percent over the last three months. In contrast, the long-duration unemployment rate averaged 0.81 percent in 2007 compared to 2.44 percent over the last three months.

CHART 9 – Unemployment Rate – Duration of Unemployment



Page 3

Now, if the argument that the short-duration unemployment rate is a more reliable measure of inflation risks has merit, then the recent trend in that rate implies that there is little remaining slack in the labor market. The implication is that the FOMC better get busy and start raising interest rates before inflation gets up a head of steam. At first blush the argument sounds plausible, if one accepts the assumption that the long-duration unemployed are not a factor in wage rate determination.

It is a hypothesis that thus far lacks statistical proof. The presumed imminent risks are not visible in historical economic cycles. But, perhaps this time is different because elevated long-duration unemployment has not persisted for such an extended period of time in previous cycles.

In **Section VI** below, in my discussion of monetary policy, I have adjusted my statistical analysis of inflation and interest rates to test the impact of the short-duration unemployment rate. My findings are that the short-

duration unemployment rate does put upward pressure on inflation, but the impact is delayed until 2015 and amounts only to about 50 basis points (see **Table 8**) in 2015, 2016, and 2017. In fact, the adjustment brings my core PCE inflation forecast up to the same level as those of the consensus and FOMC projections. The revised forecasts including the short-duration unemployment rate impact do not exceed the FOMC's 2.0 percent target for core PCE inflation.

Including the short-duration unemployment rate in the interest-rate forecasting model also increases the forecast interest rates for both the federal funds rate and the 10-year Treasury note. However, the timing of the first federal funds rate increase is advanced only to between mid-2016 and early 2017, which is still later than the market's current expectation that the first increase will occur in mid-2015 (see **Chart 15**). And, as is the case for the revised core PCE inflation forecast, the revised 10-year Treasury note yield forecast now matches the **GS** and **B of A** forecasts rather than being considerably lower (see **Chart 16**).

Thus, although I do find evidence that the short-duration unemployment rate matters, its forecast impact on inflation and interest rates is moderate and within existing consensus expectations.

There is also an indirect argument that supposedly supports the threat of imminent inflation risks. One of the constructs economists use to measure the relationship between unemployment and inflation is called the "Phillips Curve." When the unemployment rate rises, inflation falls. The difficulty recently is that inflation has not fallen as much as the Phillips Curve predicts. It could be that there has been a "structural" shift in the relationship between the unemployment rate and inflation, or, as argued by those who believe inflation risks are imminent, the U-3 unemployment rate is an imperfect measure of labor market slack. It turns out that when the short-duration unemployment rate is substituted for the U-3 unemployment rate the Phillips Curve works as expected. Given that finding, the conclusion that inflation risks are imminent follows because the short-duration unemployment rate is nearly down to the "normal" level that exists during robust economic expansions.

From my point of view the analysis to date is soft and is based on the simplistic concept of the Phillips Curve, which describes a general relationship, but which hardly qualifies as a reliable deterministic guide.

Expect to hear more arguments about structural unemployment and inflation risks as the monetary policy debate shifts from tapering quantitative easing to speculating about the timing of interest rate increases. There is ample potential for all of this to confuse market participants and lead to a premature spike in longer-term interest rates in anticipation of FOMC action. That potential could be reinforced during springtime, if economic growth bounces back from the winter doldrums.

6. Outlook for the Unemployment Rate

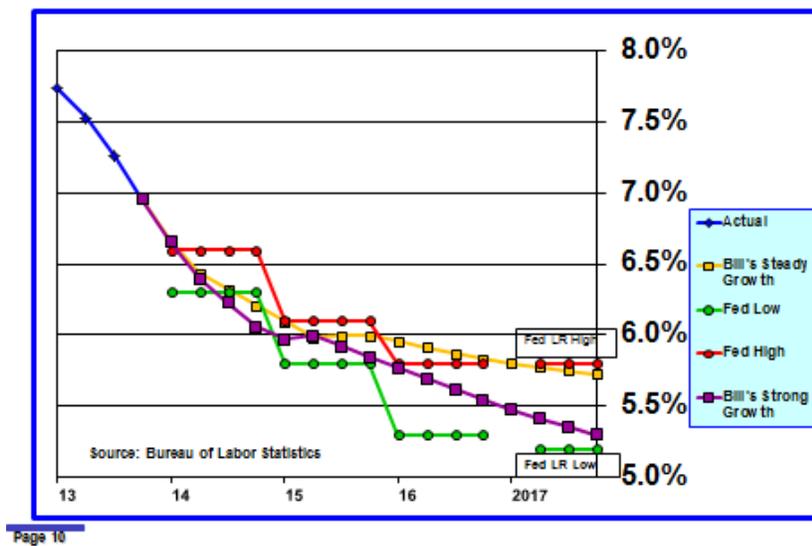
Prior to its December 2013 meeting the FOMC had linked monetary policy explicitly to the BLS's U-3 unemployment rate. In December it backed away from this policy guideline without eliminating it altogether from consideration. The discouraged worker phenomenon and its impact on the participation rate 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 within the next few months.

According to BLS, the number of unemployed workers fell 1.9 million during 2013. The unemployment rate was 6.72 percent in January. Over the last 12 months the unemployment rate decreased from 7.75 to 6.72 percent.

Chart 10 shows the FOMC's high (red line and circles) and low (green line and circles) unemployment rate projections for 2014, 2015, and 2016. The FOMC's projections imply that the 6.5 percent unemployment rate guideline will probably 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 6- percent, especially if projected inflation continues to run below the Committee's 2 percent longer-run goal." Further substantive clarification is likely at the upcoming March FOMC meeting.

I have included in **Chart 10** 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

CHART 10 – Unemployment Rate
(quarterly average)



projection tracks the lower end of the FOMC's range in 2014 and then moves gradually toward the upper end of the range by 2016. This progression is influenced by my assumption regarding the gradual return of discouraged workers to the labor force. The "*Strong Growth*" unemployment rate projection tracks below the lower end of the FOMC's range in 2014 and then moves gradually toward the middle of the range in 2016. The unemployment rate forecast in both the "*Strong Growth*" and "*Steady Growth*" scenarios reaches the 6.5 percent threshold by the second quarter of 2014.

In effect, the FOMC in its December policy statement distanced itself from the 6.5 percent unemployment guideline without going to the trouble of eliminating it or revising it. In retrospect, establishing the 6.5 percent target was an interesting attempt by the FOMC 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 in terms of explicit numerical markers and more dependent on the interpretation of a variety of labor market indicators. More definitive clarification of qualitative forward

guidance is expected following the March FOMC meeting.

7. Implications for Monetary Policy

For starters, the answer to the question of whether discouraged workers will reenter the labor force matters a great deal for the conduct of monetary policy. 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 non-inflationary full-employment rate of 5.5 percent. This is important because wage pressures will begin to emerge as the labor market approaches full employment. And, wage pressures will lead over time to upward pressure on inflation. Monetary policymakers do not want to wait too long to tighten policy by raising interest rates out of concern that delay will unleash inflation. But, if they raise rates too soon before full employment is attained, premature increases in interest rates could stifle economic recovery.

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. This argues for patience, but vigilance.

However, the recent greater than expected decline in the participation rate has fueled doubts about whether this historical pattern will repeat. Falling participation among older workers over the last year lends 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.

Some FOMC members are increasingly skeptical that a large part of the drop in the participation rate is due to discouraged workers and, thus, is temporary. In her maiden congressional testimony, Chair Yellen was quizzed repeatedly about structural unemployment and discouraged workers. Her responses carefully steered a middle ground as she acknowledged both the importance of the issue as well as the difficulty of knowing just how many discouraged workers might eventually reenter the labor force.

In addition, as summarized in the discussion of the short-duration unemployment rate above, some believe that the labor market is already much tighter than the U-3 unemployment rate indicates.

We live in an era in which the electronic media seek out controversial topics on which to focus their attention. Such attention often leads to the issue being perceived as more important than it really is. This appears to be the case with the fretting that is currently dominating the airwaves that the labor market is tightening rapidly, wages are poised to rise sharply, and inflation is just around the corner. Therefore, the FOMC best start raising the federal funds rate sooner than later.

In typical fashion, Paul Krugman, in a *New York Times* column, expressed his annoyance that “. . . *for some reason there’s a growing drumbeat of demands that we not wait, that we get ready to raise interest rates right away or at least very soon.*”³ While not totally discounting the possibility that the labor market could be tightening more rapidly, after citing evidence that this is probably not occurring, he expresses the view that “. . . *the prudent thing would surely be to wait: Wait until there’s solid evidence of rising wages, then wait some more until wage growth is at least back to precrisis levels and preferably higher.*”

What Krugman is saying and given how FOMC thinking about the participation rate and discouraged workers is evolving it would be best to monitor a variety of inflation, employment, and wage measures — various reported indices, financial market expectations, and survey measures of expectations. Movements in all of these measures should be studied carefully before the FOMC determines 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. Relationship Between Wage Growth and Various Measures of Labor Market Slack As Guideposts to Monetary Policy

Because the rate at which wages are growing is a good indicator of the degree of labor market slack, it is possible to work backwards to determine which

³Paul Krugman. “Fear of Wages,” *New York Times*, March 13, 2014.

measures of labor market slack best explain changes in wage rates over time.

GS conducted an econometric analysis to gain insight into how different measures of unemployment impact changes in wage rates.⁴ There should be an inverse relationship between each of these measures and wage rate growth. The three measures of labor market slack included a short-term unemployment rate (those unemployed up to 26 weeks as a share of the labor force), the standard U-3 unemployment rate, and the sum of the standard U-3 unemployment rate and CBO's estimate of the participation gap.

GS found that the short-term unemployment rate, which has fallen recently, over-predicts wage rate growth. Adding the long-term (over 26 weeks) unemployment rate to the model improves the predictive power of the model in explaining changes in wage rates. The influence of the short-term unemployment rate on changes in wage rates is about twice as important as the impact of the long-term unemployment rate. (Note that the sum of the short-term and long-term unemployment rates equals the U-3 measure.) The model predicts an increase in wages over the next 12 months of between 2.1 and 2.4 percent. This result is consistent with the 2.2 percent in GS's "wage tracker" derived from survey measures. Both methodologies suggest an increase in the growth rate in wages of about 30 to 40 basis points over the next year.

Adding the participation gap as a separate variable did not improve the explanatory power of the model.

The takeaway point of GS's analysis is that tracking wage growth is a better indicator of labor market slack than various conventional measures of employment market slack and forecasts of wage growth are more dependable as leading indicators to use in determining the timing of changes in monetary policy than attempting to anticipate changes in the inflation rate, which do not appear to be particularly sensitive to changes in the wage rate in the short run.⁵

⁴David Mericle. "US Daily: What Does Wage Growth Tell Us About Labor Market Slack?" Goldman Sachs Research, February 5, 2014.

⁵Sven Jari Stehn and Jan Hatzius. "Using Wages to Improve the Fed's Aim," Goldman Sachs US Economics Analyst, Issue No: 14/06, February 7, 2014.

9. Implications for Public Policy

If a large number of workers has permanently, rather than temporarily, left the labor force, the longer run consequences are profoundly negative.

In the first place, the size of the economy will be smaller. But, more importantly, given the aging demographics of the population, it means that there will be fewer workers in the future to support funding of social security and Medicare.

For these reasons, it will be increasingly important for policymakers to consider ways to increase labor force participation. Also, the impact of major policy initiatives on labor force participation, such as the Affordable Care Act and immigration and minimum wage legislation, need to be scrutinized carefully so that the overall potential benefits and costs are understood to the greatest possible extent.

IV. 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 made year-to-year comparisons in December 2013 and January 2014 difficult to interpret, which is evident in the December 2013 and January 2014 columns in **Table 6**.

Because of one-time events, comparisons of changes in a particular month of a year to the same month in another year can be highly volatile and mask underlying trends. This was certainly true for the December year-over-year change columns in **Table 6**. This problem can be minimized by constructing a 12-month moving average, which is shown in the last three columns of **Table 6** for December 2012, December 2013, and January 2014. Although the moving average limits volatility, it takes many months for changing trends to show up.

Table 6
Percentage Change in Nominal Personal Income and Its
Disposition for 2012, 2013, January
2014; 12-Month Moving Average for 2012, 2013, and January 2014

	2012 Pct. Change Dec 11- Dec 12	2013 Pct. Change Dec 12- Dec 13	Pct. Change Jan 13 - Jan 14	Pct. Change Dec 2012 12- Month Moving Average	Pct. Change Dec 2013 12- Month Moving Average	Pct. Change Jan 2014 12- Month Moving Average
Personal Income	7.94%	-0.75%	4.09%	-4.22%	3.23%	2.94%
Compensation	6.80%	0.78%	3.38%	3.93%	3.18%	2.93%
Proprietors' Income	5.07%	7.42%	4.69%	6.40%	9.69%	9.63%
Rental Income	7.28%	8.58%	7.90%	12.26%	8.98%	9.01%
Asset Income	18.90%	-10.48%	6.79%	-3.97%	3.27%	2.36%
Government Transfers	4.06%	2.37%	3.16%	2.07%	3.69%	3.62%
Less: <i>Personal Taxes</i>	9.47%	6.24%	4.70%	5.38%	11.07%	10.98%
Disposable Income	7.52%	-1.61%	4.01%	-3.87%	2.30%	2.04%
Less: <i>Consumption</i>	3.73%	3.15%	3.35%	3.96%	3.09%	3.06%
Personal Saving	-74.14%	-51.38%	-21.53%	-2.30%	-10.99%	-15.62%
Personal Saving Rate	8.73%*	4.31%*	4.26%*	5.61%	4.54%	4.59%
Adj. Personal Income [#]	7.84%	0.20%	4.06%	4.12%	4.03%	3.75%

*Saving rate for last month in the 12-month period

[#]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.

1. Percentage Changes in Personal Income and Disposable Income December 2012, December 2013, and January 2013 and 12-Month Moving Average for December 2012, December 2013, and January 2014

Table 6 shows data which compare same-month year-over-year percentage changes for December 2012, December 2013, January 2014, and also the 12-

month moving averages for December 2012, December 2013, and January 2014.

Growth in personal income and disposable income was much weaker in 2013 than it was in 2012. This difference is due almost entirely to increases in tax rates at the beginning of 2013. 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 6**, 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.

Because timing of income recognition accelerated in December 2012 to minimize the consequences of 2013 tax increases, the best sense of trend can be seen from the December 2012, December 2013, and January 2014 12-month moving averages, adjusted for the change in payroll taxes. Adjusted personal income grew 4.12 percent in 2012, declined slightly to 4.03 percent in 2013, and declined further to 3.75 percent in January 2014. The decline in disposable income growth from 3.87 percent in December 2012 to 2.30 percent in December 2013 and further to 2.04 percent in January 2014 was obviously much greater and reflects the impact not only of increased payroll taxes, but also the increase in personal income tax rates. Thus, it is not surprising that growth in consumption fell as well from 3.96 percent in 2012 to 3.09 percent in 2013. The downtrend in consumption growth continued in January 2014, although the year-over-year growth rate rose from 3.15 percent in December to 3.35 percent in January.

Beginning with January 2014 data, the effect of tax increases will disappear in the year-over-year same-month comparisons and will phase out of the 12-month moving average over the next 12 months.

Although it is hard to draw any definitive conclusions from these noisy data, it appears that growth in nominal personal income, adjusted for tax rate changes, has slowed a little over the last 13 months. This seems consistent with the slow recovery of the labor market and relatively static wage growth.

2. Consumption

Retail sales, including auto sales, have been very weak over the last three months. Much of this appears to be related to severe weather, although ISI's auto dealer survey has been weakening for the past five months.

Moving average data in **Table 6** indicate that the growth rate in consumer spending has fallen in recent months. However, consumption growth has exceeded disposable income growth, which means households have reduced their saving rate to maintain consumption.

Forecasters generally expect consumption growth to accelerate in 2014. This is an easy call because the drag on consumption growth from higher taxes will go away. However, how much consumption growth accelerates beyond that will depend upon three additional factors.

First, employment growth will have to accelerate. While possible, it seems more likely that employment growth will match recent rates.

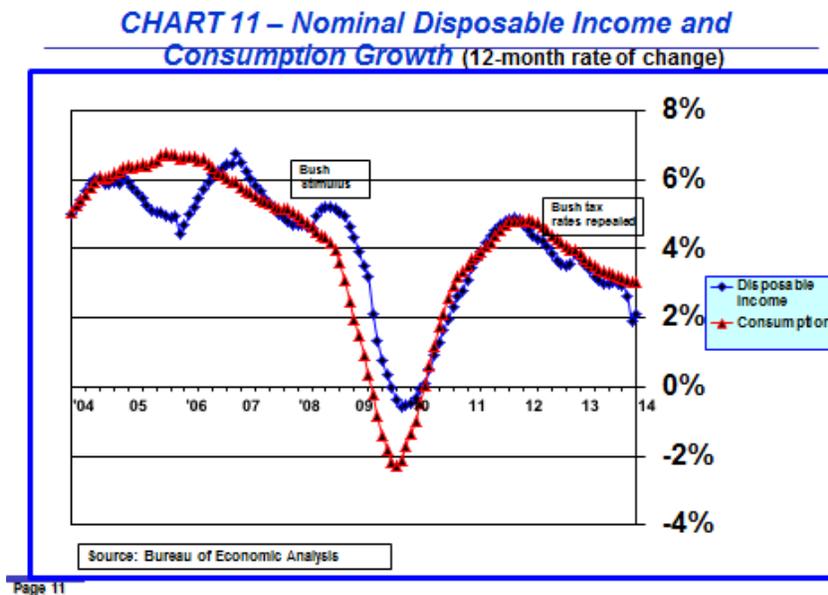
Second, wage growth will need to rise. As the labor market tightens, this will eventually happen but, as discussed in **Section III**, there is a very good chance that wage growth will remain at approximately 2.0 percent in 2014 or edge up, at most, to 2.25 percent.

Third, the saving rate would have to continue to decline. It has already declined from 5.67 percent in 2011 to 4.26 percent in January 2014. The normal tendency, however, would be for households to rebuild savings as disposable income growth accelerates. This would result in a higher saving rate and slower growth in consumption. However, pent-up demand, coupled with increased consumer optimism and easier access to credit, could lead to a further decline in the saving rate and an acceleration in consumption growth. Consumer optimism remains at cyclically low levels and has yet to show signs of a significant upside breakout. Credit conditions for revolving credit are easier, but access to mortgage and second equity credit is still tight.

All-in-all it is difficult to get excited about the likelihood of a significant increase in consumption growth in 2014 other than the favorable impact stable tax rates will provide.

3. Disposable Income and Spending

Chart 11 shows the nominal rate of growth in disposable income and consumer spending from 2004 to the present. Growth rates are calculated as the rate of change in the 12-month moving average on a year-over-year basis. This method smooths timing anomalies, although major events, such as occurred at the end of 2012, will still impact the observed trend for the following 12 months.



The annual rate of growth in nominal disposable income began slowing in late 2011 and declined from 4.9 percent in November 2011 to 1.9 percent in December 2013. Growth edged up to 2.1 percent in January 2014.

Chart 11 shows that growth in consumer spending, after peaking at 4.8 percent between October 2011 and March 2012, slowed to 3.0 percent in January 2014.

4. Outlook for Nominal Disposable Income and Spending

As can be seen in **Chart 12**, forecast nominal consumer disposable income growth is relatively stable between 2.0 percent and 2.3 percent through mid-2015. After that growth accelerates and converges with spending growth by the middle of 2016. Acceleration in income growth is delayed until the employment gap closes and wage rate growth picks up.

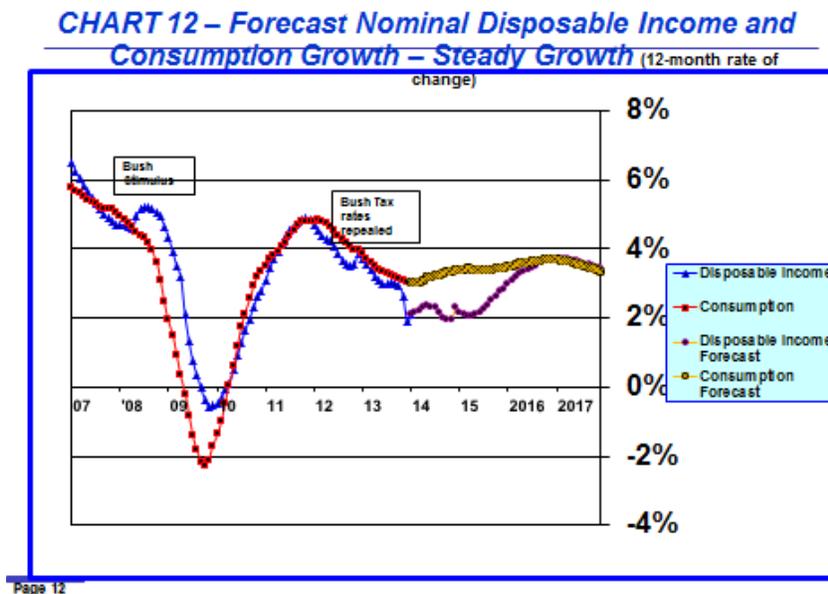
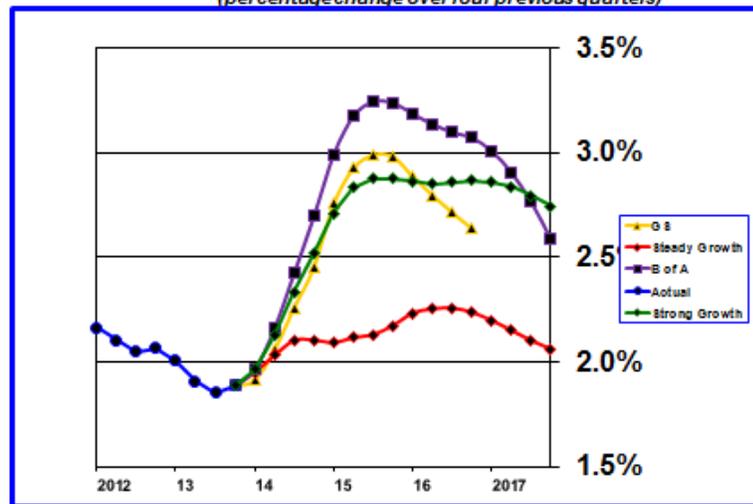


Chart 12 shows the forecast for the “*Steady Growth*” scenario. The forecast for the “*Strong Growth*” scenario follows the same pattern, but the level of growth is higher. In the “*Steady Growth*” scenario, nominal disposable income growth is 3.5 percent at the end of 2017 and nominal spending growth is 3.4 percent. Both growth rates are approximately 85 basis points higher in the “*Strong Growth*” scenario.

5. Real Consumer Spending Forecasts

Chart 13 shows forecasts for quarterly real consumer spending growth at an annualized rate.

CHART 13 – Real Consumer Spending Growth - Forecast
(percentage change over four previous quarters)



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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 **B of A**’s and **GS**’s forecast slightly in 2015 and then outperforms **GS**’s forecast by the end of 2016 (see **Table 4**).

GS and **B of A** believe real consumer spending will accelerate during 2014 to between 2.5 and 2.7 percent. Y/Y growth is 2.45 percent for all of 2014 for **GS** and 2.70 percent for **B of A**. **B of A** forecasts real spending growth of 3.24 percent in 2015 and 3.07 percent in 2016, while **GS** projects growth will be 2.98 percent in 2015 and 2.64 percent in 2016.

The principal difference between **B of A**’s and Bill’s forecasts has to

do with slower growth in disposable income in Bill's forecast, which results from the assumption 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 **B of A's** forecast and Bill's "*Strong Growth*" forecast are relatively small in 2014, 2015, and 2016 and disappear in 2017.

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, households' balance sheets have been cleaned up, which opens up borrowing capacity. 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 in wages. But these favorable factors could be offset to some extent by an increase in the saving rate.

6. Outlook for Real Consumer Income Growth

In a recent analysis, **GS** observed that inflation-adjusted household income has grown an average of just 0.1 percent annually since the early 1970s, well below the 2.5 percent annual rate that occurred during the 1950s and 1960s.⁶ **GS** expects real income growth to improve to between 1.0 percent and 1.5 percent in coming years. Reasons offered for this optimism include steady improvements in labor quality through growth in educational attainment, labor productivity averaging 2.0 percent annually, a slowing in the rate of increase in income inequality, and a playing out of the participation rate decline as retirement of the baby boomers proceeds toward culmination.

7. Consumer Confidence

Measures of consumer confidence mostly moved sideways in February and March, indicative of a consumer economy that is neither gaining nor losing momentum.

⁶Jan Hatzius. "Income Growth: A Dim Past, a Brighter Future," US Economics Analyst, Issue No: 14/09, Goldman Sachs Global Investment Research, February 28, 2014.

The **University of Michigan**'s consumer sentiment index fell to 79.9 in March from 81.6 in February and remains below its recent peak of 85.1 in July. Expectations decreased to 69.4 in March from 72.7 in February, while current conditions rose from 95.4 to 96.1.

According to the **Conference Board**'s survey, overall consumer confidence fell slightly to 71.8 in February from 79.4 in January. The Present Situation Index rose to 81.7 from 79.1 and the Expectations Index fell from 81.7 to 77.3. The differential between jobs "easy to get" versus "hard to get" improved from -20.2 in January to -18.6 in February.

ISI's weekly company surveys have been relatively stable over the last nine 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 51.7 in the week of March 14. This tight range is indicative of an economy that is relatively stable but expanding at a very gradual pace.

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 bounced to 105, but then fell back to 98 on March 10. The recent peak in this index was 108, which was temporarily achieved in July 2013. During the expansion of 2005-07 this measure averaged about 115 before plunging to about 60 during the Great Recession. Recent readings indicate weak, not strong, confidence are consistent with the story told by other consumer confidence measures.

Overall, consumer confidence measures are not particularly robust and reflect the on-going lethargic improvement in the labor market and consumer incomes. Confidence measures remain consistent with sluggish consumer spending growth.

V. 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 had been one of the few bright spots in an otherwise lackluster economic recovery. The **ISM Manufacturing Index** is the traditional measure of manufacturing strength. In January it dropped to 51.3 from 56.5 in December, but because the index was above 50, it indicates that manufacturing continues to expand. Nevertheless, the trend prompted anxieties that manufacturing was losing momentum. The index recovered part of the January decline in February and rose to 53.2. Some regard an alternative index provided by Markit Economic Research as a more reliable indicator of manufacturing strength than the ISM index. The Markit index did not experience the same sharp increase as the ISM index over the last few months of 2013 and did not turn down nearly as much in January and rose strongly in February to 57.1. Given all of this, probably the reasonable conclusion is that manufacturing remains relatively strong and no meaningful trend is developing.

Given the surge in inventories in the second half of 2013, some slowing would probably not be troubling. And that might be what the ISM production sub-index is reflecting. It fell from 61.7 in December to 54.8 in January to 48.2 in February. However, the Markit production sub-index rose to 57.8 in February. It's hard to know what to believe sometimes. The new orders sub-index in both surveys rose — from 51.2 in the ISM survey to 54.5 and to 57.8 in the Markit survey. The ISM employment index held at 52.3. All-in-all there isn't reason for concern.

In contrast, the **ISM Non-Manufacturing Index** fell to 51.6 in February from 54.0 in January. The Markit alternative measure also declined in February to 53.3. The ISM employment sub-index registered 47.5, which implies contraction, and was the lowest it has been since March 2010 during the early days of the recovery from the Great Recession. Weather likely had a great deal to do with this development, so there wasn't any market reaction.

Small business optimism (**NFIB — National Federation of Independent Business**) fell sharply to 91.4 in February from 94.1 in January. This measure remains at an historically depressed level.

GSAI (Goldman Sachs Activity Index) fell to 54.9 in February

from 57.0 in January, but remains comfortably above the 50 threshold that separates expansion from contraction. The employment index, which had registered sub-50 readings for several months, moved to a modest expansionary level of 51.3 in November, then surged to 58.6 in December, but fell back to a contractionary 47.8 in January and 48.9 in February.

Another encouraging data point is an acceleration in the growth rate in bank loans to businesses

2. Prospective Adverse Inventory Investment Adjustment

Over time and absent any significant structural changes, inventories should grow at the same rate as the economy. In reality the change in the level of inventories is very volatile from quarter to quarter depending upon the relative strength of sales activity. When sales are stronger than expected, inventories will be drawn down or grow more slowly than normal. This results in a negative change in inventory growth which reduces measured GDP. If higher sales are expected, inventories may be built up in anticipation. In this case the change in inventories would exceed the normal increase and this would add to GDP growth.

Recently inventories have been growing at about an annual rate of \$60 billion. If inventories grow each quarter at that annual rate, inventory growth would neither add nor subtract from GDP growth. However, if inventories grow over two quarters from \$60 billion to \$70 billion and then to \$50, GDP growth will be favorably impacted in the first quarter and negatively impacted in the second quarter.

In the second quarter of 2013 inventories grew at an annual rate of \$56.6 billion, about the normal amount. However, inventory growth soared to an annual rate of \$115.7 billion in the third quarter and added 1.67 percent to annualized real GDP growth. The rate of growth in inventories normally would have fallen back in the fourth quarter and subtracted from real GDP growth. That, in fact, did not happen as the increase in inventories in the fourth quarter, at an annual rate, was an even greater \$117.4 billion. But, because there was only a small increase from the third quarter level, it added only 0.14 percent to annual real GDP growth in the fourth quarter.

Let there be no doubt — an inventory correction is coming in the next couple of quarters. How much a decline in the amount by which inventories increase impacts real GDP will depend on whether the correction happens quickly or is extended over a couple of quarters. A drop from \$117.4 billion to \$60 billion in one quarter would reduce annualized real GDP growth by approximately 1.6 percent. Obviously, the negative impact would be even greater if the change in inventories was less than \$60 billion to compensate for the overstocking in the third and fourth quarters of 2013.

Unfortunately, publicly available information on changes in inventories is not of high quality which leads frequently to real GDP growth forecasting misses. What we know at this time is that real GDP growth was overstated in the second half of 2013 and this overstatement creates downside risks to real GDP growth in 2014.

3. Shortfall in Business Investment Spending and Low Productivity

Private investment has grown at only a 0.3 percent annual rate over the last six years since the onset of the Great Recession. This compares to 3.5 percent annually over the previous 25 years from 1973 through 2007. Lack of investment has added a year to the age of the capital stock, which now averages 21.7 years.

Table 7 shows historical growth rates in private investment and forecasts for 2014, 2015, and 2016. It is evident that **B of A's** and **GS's** forecasts of investment growth greatly exceed the historical averages. There is no doubt that a capital investment boom is needed to catch up from the lack of investment over the last six years. But, recent investment deficiencies do not guarantee that an investment boom will materialize.

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. During the economic recovery much of this cash has been 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.

Table 7
Private Investment Growth Rate Y/Y Forecasts
 — B of A, GS, Bill’s “Steady Growth” and Bill’s “Strong Growth”

	1973- 2007	2008- 2013	1973- 2013	2014	2015	2016	2014- 2023
Historical	3.5%	0.3%	3.0%				
B of A				6.0%	8.5%		
GS				6.5%	8.6%	7.5%	
Bill’s Steady Growth				6.7%	4.0%	2.6%	2.7%
Bill’s Strong Growth				8.0%	8.7%	4.5%	4.0%

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 remarks to the American Economic Association in early January, former 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.

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, 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. That low value is consistent with CBO's analysis and mine as well. But, unless investment activity increases significantly, even today's lowered expected potential rate of real GDP growth could prove to be too optimistic.

VI. Monetary Policy, Inflation and Interest Rates

The FOMC met on March 18 and 19. The meeting occurred after the March letter was written but before the letter was posted. Thus, the commentary that follows is speculative rather than interpretive.

1. FOMC Assessment of the Economic Outlook

In the January meeting there was no change in the assessment of inflation and no concern expressed about the recent low level of inflation relative to the Committee's long-term 2.0 percent target. Although the FOMC's preferred measure of inflation, the core PCE index, remains at a very low level, there have been no recent developments that are likely to prompt the FOMC to change its inflation assessment.

With respect to economic activity, the FOMC may acknowledge the negative, but temporary, effect of severe winter weather. Otherwise, it is likely to express comfort with progress but reiterate that significant slack remains, a finding which would substantiate continuation of a strongly accommodative monetary policy.

2. FOMC Policy Statement

It is certain that tapering of quantitative easing will continue, which would involve reducing asset purchases by another \$10 billion monthly to \$55 billion.

Policy is likely to emphasize continuation of a balanced approach which involves waiting for the output and employment gaps to shrink further and inflation to begin moving back toward the policy target before initiating monetary policy tightening through interest rate hikes. Given Governor Tarullo's recent speech, it is possible that the policy statement may be adjusted to address financial stability. Tarullo argued in his speech that supervisory and regulatory tools have limitations in dealing with financial market excesses that could lead to financial instability and called for a monetary policy framework to address financial stability issues.

The main policy matter to be considered by the FOMC is to clarify its forward guidance about interest rate increases. As discussed above, the 6.5 percent unemployment rate target has been overtaken by events. It is likely to be replaced by some kind of qualitative forward guidance.

Although the 6.5 percent unemployment rate guideline remained in the December and January FOMC policy statements, the FOMC rejected lowering it and chose, rather, to qualify its importance as a guideline with a lot of conditional 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.”*

However, the FOMC chose not to include any explicit alternative forward guidance language. This now is the work of the March FOMC meeting. The challenge the FOMC faces is to provide sufficient clarification to anchor interest rates while still retaining flexibility to alter policy if economic conditions strengthen materially. As last summer’s taper tantrum illustrates, if guidance is fuzzy, the recent speculation that the labor market is a lot tighter than the headline unemployment rate indicates could gain traction and unleash a run up in interest rates.

Unfortunately, there is no easy formulaic approach. On the one hand the FOMC wants rates to remain low as long as unemployment is above and inflation is below their targets. However, on the other hand, the FOMC does not want to lock itself arbitrarily into rules based on flawed measures, partly because it wishes to reserve flexibility to respond to significant changes in the economic environment, but partly also because it doesn’t want to encourage risk taking that could create financial stability risks.

The great debate about the extent to which discouraged workers have depressed the U-3 unemployment rate and whether the short-duration unemployment rate is a better measure of labor market tightness is indicative of the unreliability of simple quantitative measures in guiding policy. The challenge the FOMC faces is communicating forward guidance in a way that

maintains financial market credibility but does not surrender flexibility to respond to significant changes in economic developments or foster incipient financial instability.

During the five-year period the FOMC has pursued a zero interest rate policy (ZIRP) it has experimented with three types of forward guidance — qualitative, calendar-based, and a measure-based threshold. The two latter forms of forward guidance have been effective in anchoring the short-end of the yield curve but less effective with respect to long-term rates. But, the usefulness of the measure-based threshold has come to an end and there is no apparent appetite to try to come up with a better threshold measure, probably because no one really thinks that is possible any longer.

What all of this means is that the FOMC has now come full circle and is back to where it began five years ago. Forward guidance will need to be qualitative. One possible qualitative approach suggested by Krishna Guha of ISI is a so-called “inertial approach” to monetary policy. As he puts it, such a policy involves “*a commitment to respond less than normal to the expected strengthening in the macro and price data, smoothing the adjustment in the policy stance and staying deliberately behind the curve for a period for traditional zero bound risk-management purposes.*”

If the FOMC chooses to follow Guha’s advice, it will need to revamp its policy statement and supplement it with speeches and congressional testimony that provide the context for how to interpret the qualitative guidance contained in the policy statement. Relevant topics include, but are not limited to, prospects for potential GDP, trade-offs between inflation and employment stabilization, trade-offs between macroeconomic management and financial stability risks, pace of adjustment, and the long-run “natural rate” of interest. Such an approach assumes market participants are rational and can process intricate information and discern complex relationships. However, as the taper tantrum illustrated, markets can feed on a set of beliefs that are out of sync with underlying fundamental analysis and that are at odds with explicit guidance from policymakers.

Another approach might be to adopt **GS**’s suggestion that monetary policy be linked to wages rather than to employment and inflation measures.

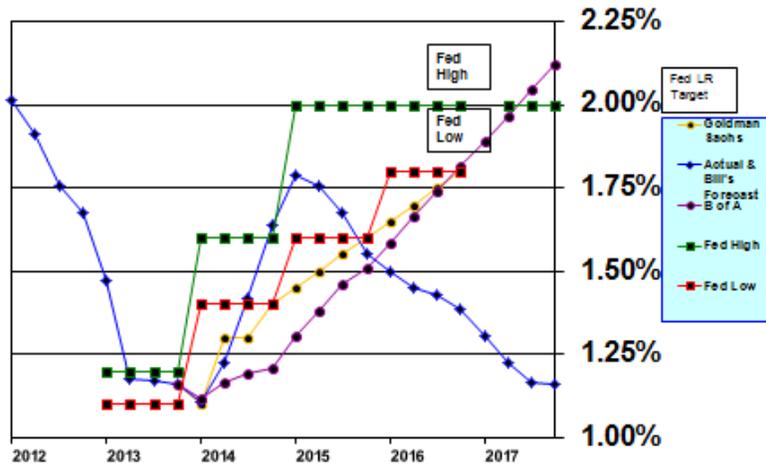
My own sense is that the FOMC will muddle along as best it can by providing qualitative guidance but that guidance will be fraught with un-

certainty and will not guaranty the kinds of market responses the FOMC ideally would like.

3. Prospects for PCE Inflation

Core PCE inflation was 1.09 percent in January and total PCE inflation was 1.18 percent (see **Charts 14A** and **14B**). 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.

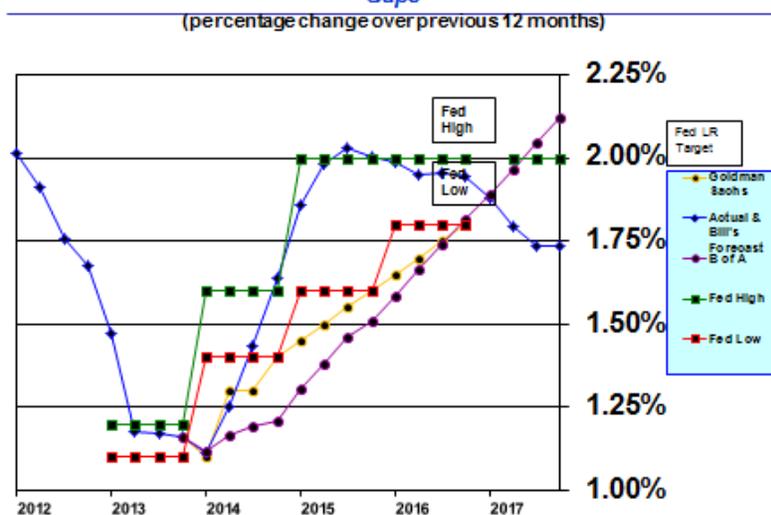
CHART 14A – Core PCE Inflation Forecasts – LT Emp. Gap
(percentage change over previous 12 months)



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Chart 14A includes my “*Steady Growth*” scenario core PCE forecast based on CBO’s measure of the total employment gap. **Chart 14B** includes my “*Steady Growth*” scenario core inflation forecast, adjusted to incorporate both CBO’s measure of the total employment gap and an additional measure of the short-duration employment gap. The short-duration employment gap is defined as the difference between CBO’s short-term employment gap and the unemployment rate for those out of work for fewer

CHART 14B – Core PCE Inflation Forecasts – LT & ST Emp. Gaps



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than 27 weeks.

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.

Table 8 shows **B of A's** and **GS's** core PCE forecasts and the FOMC's core PCE projections. It also shows my core PCE forecasts for the two models — one that includes only the total CBO unemployment gap and a second one that adds a measure of the short-duration unemployment gap to the total unemployment gap.

As can be seen in **Table 8** (**Charts 14A** and **14B** show 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 2013 fourth quarter level of 1.2 percent to 1.2 to 1.6 percent, which is consistent with the FOMC's 2014 central tendency projection range. All 2015 forecasts track the lower end of the FOMC's projection range of 1.4 to 1.6 percent except my alternative core PCE forecast, which includes a measure of short-duration unemployment. My 2016 core PCE

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	1.2	1.2	1.5	1.8	
GS	1.2	1.4	1.6	1.8	
Bill’s LT Emp. Gap					
Steady Growth	1.2	1.6	1.5	1.4	1.2
Strong Growth	1.2	1.6	1.5	1.4	1.3
Bill’s LT & ST Emp. Gaps					
Steady Growth	1.2	1.6	2.0	2.0	1.8
Strong Growth	1.2	1.6	2.0	2.0	1.8
FOMC — High	1.2	1.6	2.0	2.0	
FOMC — Low	1.1	1.4	1.6	1.8	

*Inflation rates are quarterly averages; thus, the fourth quarter 2013 average was 1.16 percent, which rounds to 1.2 percent, while the December rate was 1.09 percent, which rounds to 1.1 percent.

inflation forecasts, based only on the total unemployment gap, are slightly below **GS**’s forecast and the FOMC projection range. But, my 2016 core PCE inflation forecasts, based on both the total unemployment and short-duration unemployment gaps, are slightly above **GS**’s forecast and consistent with the FOMC’s projection range. In all cases inflation remains below the FOMC’s 2.0 percent long-run guideline through 2016. Since inflation risks appear benign, this suggests that the FOMC should not be in any hurry to raise the federal funds rate.

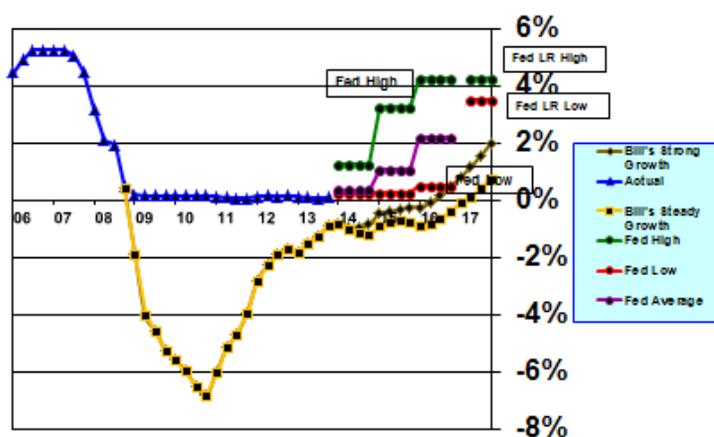
Note that inclusion of the short-duration unemployment rate, which is already close to its long-run normal full-employment level, raises the core PCE inflation forecast by about 50 basis points, but importantly, the forecast is still within the FOMC’s projection range and does not exceed the FOMC’s 2.0 percent inflation target. This analysis does indicate that inflation risks are significant enough for the FOMC to alter the course it has been on. Rather, it reinforces the need to continue to monitor all relevant measures of employment, wages, and inflation and to exercise patience in determining

when to tighten monetary policy.

4. Federal Funds Rate

Chart 15 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 up to 1.06 percent by three high estimates.

CHART 15 – Federal Funds Rate Forecast



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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 will occur 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 early 2017. In my “*Strong Growth*” forecast, the first increase in the federal funds rate occurs in early 2016. My projections assume that the employment gap remains high for an extended period of time, the short-duration employment gap returns to a normal level, 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 could begin raising the federal funds rate before my forecast dates.

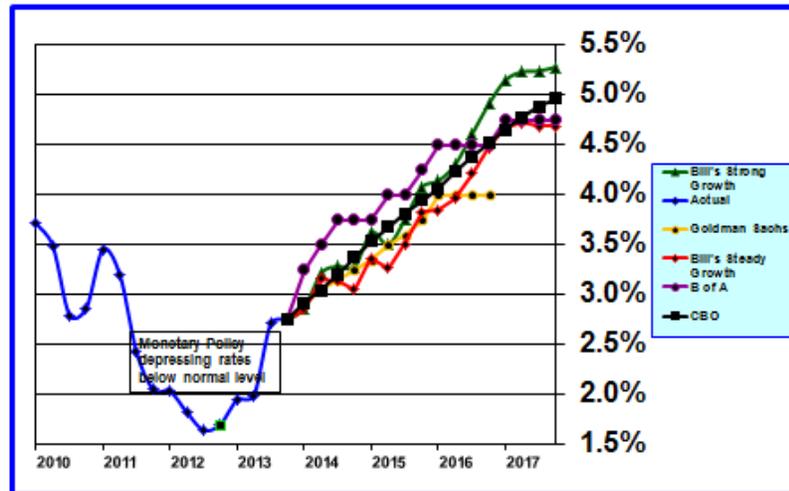
5. 10-Year Treasury Rate

Chart 16 shows forecasts for the 10-year Treasury rate for my “*Steady Growth*” (purple line and diamonds) and “*Strong Growth*” (red line and triangles) scenarios, which incorporate the effect of the short-duration unemployment rate. **GS**’s forecast is also shown (yellow line and circles). Also included are forecasts from **GS**, **B of A**, and CBO.

As can be seen in **Chart 16**, my 10-year forecast for the “*Steady Growth*” scenario changes little through the remainder of 2014, fluctuating between its recent level of 2.75 percent and 3.25 percent. Beginning in 2015, the 10-year rate moves up gradually from 3.25 percent to 4.75 percent by the end of 2017. This is very similar to the pathways forecast by **B of A** and **GS**. The forecast for the “*Strong Growth*” scenario tracks the pattern of the forecast for the “*Steady Growth*” scenario but rises a little faster reaching 5.25 percent by late 2017.

What is important to note is that none of these forecasts indicates a surge in the 10-year rate merely a steady upward movement as the employment and output gaps diminish.

There is one potential disconnect in the inflation and 10-year Treasury rate forecasts. A long-term inflation rate of 2.0 percent and a long-term interest rate of 5.0 percent imply a 3.0 percent real rate of interest, which would be considerably higher than the historical average. This suggests that the interest-rate forecasts are too high, the inflation forecast is too low, or

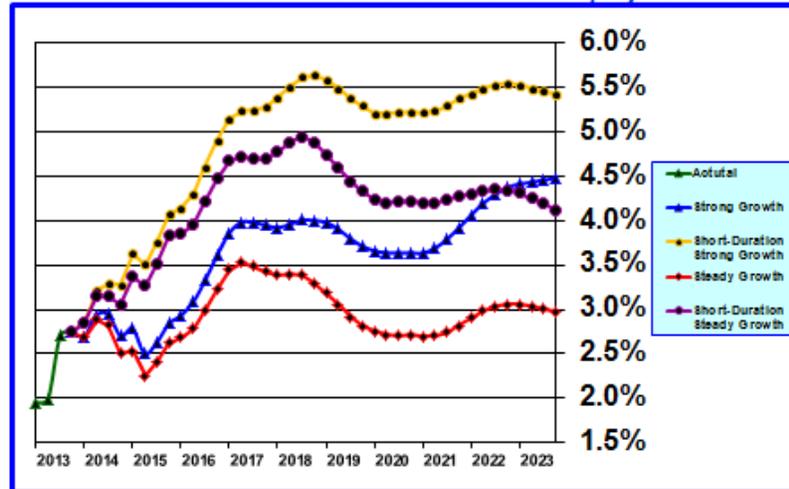
CHART 16 – 10-Year Treasury Rate Forecasts

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timing lags are involved in the sense that either the inflation rate will move higher or the 10-year rate will move lower after 2017. My own analysis suggests that the third explanation is the relevant one. The real 10-year Treasury yield falls from 2.90 percent in the “*Steady Growth*” scenario in 2017 to 2.14 percent in 2023 and the real yield falls in the “*Strong Growth*” scenario from 3.38 percent to 2.46 percent over the same period. This also implies that once the economy returns to full employment, inflation will not spiral out of control, even in the “*Strong Growth*” scenario, and long-term interest rates will not exceed 5.5 percent.

Chart 17 shows the differences in my “*Steady Growth*” and “*Strong Growth*” scenarios when the effect of the short-duration unemployment rate is added to the forecast model for 10-year Treasury note yields.

CHART 17 – 10-Year Treasury Rate Forecasts – With and Without the Effect of the Short-Duration Unemployment Rate



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VII. Fiscal Policy Developments

With the passage of a 2014 fiscal year budget and suspension of the federal debt ceiling until March 16, 2015, there are no further fiscal issues of consequence facing Congress until the end of the fiscal year in September. By that time, Congress will either need to pass a fiscal year 2015 budget or a continuing resolution. At the moment that task does not appear particularly daunting because Congress already agreed, when it passed the Bipartisan Budget Act in December 2013, upon spending limits for fiscal year 2015. Of course, budgetary details would still need to be worked out.

In addition, declining budgetary deficits in the short run have taken the pressure off Congress to deal with longer run fiscal issues — in particular, how to fund burgeoning entitlements. Based upon CBO budget deficit projections, which assume certain expiring expenditures will be extended, there will not be serious pressure on Congress to deal with entitlement spending reforms for another five to ten years. CBO's public-debt-to-GDP ratios remain relatively stable in the vicinity of 74 percent until 2020 and then begin rising, gradually at first, and then more rapidly over time. Of course, it

would be good policy to deal with long-term budgetary issues long before the eruption of crisis forces them to be addressed. But the issues are difficult and the proposed solutions are highly politically charged, which prompts a “kick the can down the road” default strategy on the part of politicians.

1. President Obama’s Fiscal Year 2015 Budget

On March 4, 2014, the Obama Administration released its budget proposals for the next ten years and characterized it as an “Opportunity, Growth, and Security Initiative.”

Because Congress already has agreed to budget caps for fiscal 2015, the Obama budget is more of a political document than a real budget that Congress will actually consider. The proposal includes \$1.1 trillion in additional revenues and \$2.2 trillion in spending reductions.

Budget highlights include:

- Raise \$651 billion in additional revenues by limiting tax deductions for wealthy taxpayers and enacting the “Buffett Rule”, which would impose a minimum 30 percent tax rate on individuals earning more than \$2 million.
- Raise \$130 billion in revenues by reforming and increasing the estate tax.
- Increase revenues by \$153 billion by enacting the Senate-passed immigration reform legislation. This is net of increases in both revenues and expenditures and results primarily from increased labor force participation.
- Cut various health care spending programs by approximately \$400 billion, such as prescription drug payments.
- Retroactive one year extension of unemployment benefits for calendar year 2014. Although the Senate continues to work on legislation, final congressional approval is very unlikely.

- Elimination of sequestration limits on spending and slightly higher spending increases over the next ten years, including \$56 billion more is fiscal 2015 evenly split between discretionary and military spending.
- \$302 billion in surface transportation reauthorization over the next four years, which is \$70 billion above current baseline levels. The increase is funded by one-time transitional revenue from business tax reform and would restore the Highway Trust Fund. Because Congress must act on reauthorization, increased funding, if consensus can be reached on offsetting revenue sources, is possible.
- Proposes corporate tax reforms that would broaden the tax base and be revenue neutral over ten years.
- Expand the earned income tax credit (EITC) by \$60 billion over ten years for workers without children. The intent is to increase labor force participation. There appears to be bipartisan interest in this particular proposal, so some variant of this proposal could become law.
- Establish universal pre-school funded by doubling and indexing the cigarette tax.

Many of these proposals are unlikely ever to become law. In an election year, tax reform is unlikely. However with Representative Camp's recent tax reform proposal and the reforms proposed in the Obama budget, although there is little common ground, tax reform could gain traction in the future.

2. Tax Extenders and Medicare Physician Reimbursements

Various tax breaks (called tax extenders) and Medicare physician reimbursements expired at the end of 2013. There is a high probability that Congress will eventually vote to extend most of these provisions. The price tag would be approximately \$70 billion in 2014 and \$950 billion over ten years.

Ron Wyden, U.S. Senator from Oregon and chairman of the Senate Finance Committee is preparing extension legislation. There is reason to expect the House to be sympathetic. But, the challenge will be finding revenue sources to cover the full \$70 billion. This will be no small task and may prove to be a show stopper.

3. Tax Reform — Representative Camp’s Proposed “Tax Reform Act of 2014”

On February 26, 2014, Representative Camp, Chairman of the House Ways and Means Committee, released a discussion draft of the “Tax Reform Act of 2014.” Detailed legislation has yet to be drafted.

The overall thrust is to broaden the tax base, reduce tax rates and scale back or eliminate many tax preferences, while maintaining tax revenue neutrality over the next ten years. The proposal, however, is not revenue neutral beyond ten years because it relies on one-time revenue increases to offset permanent tax rate reductions.

Highlights of the discussion draft include:

- Repeals of the alternative minimum tax.
- Replaces current individual tax rates with three levels — 10 percent up to \$100,000; 25 percent up to \$500,000; and 35 percent above \$500,000.
- Eliminates the deduction for state and local taxes.
- Limits the mortgage interest tax deduction to \$500,000 of debt.
- Eliminates charitable deductions unless they exceed 2 percent of adjusted gross income — referred to as the 2-percent-of-AGI-floor.
- Adopts the chained CPI for indexing various revenue provisions of the tax code. The net effect would be to increase revenues over time.
- Reduces the corporate tax rate from 35 percent to 25 percent and repeals the corporate alternative minimum tax rate. Lost revenues would be offset by repealing accelerated depreciation and modifying or eliminating other business tax preferences.
- Repeals the medical device tax.
- Imposes a 3.5 percent tax on financial institutions with more than \$500 billion in assets.

Importantly, House Republican leadership did not endorse Chairman Camp's proposals. Democrats, of course, have their own and very different ideas about tax reform. Consequently, there is no chance that tax reform legislation will become law in 2014. However, it is constructive that serious proposals have now been put on the table. Senator Wyden, if he is still chairman of the Senate Finance Committee in 2015, will probably also develop specific tax reform proposals next year.

Thus, although significant tax reform is still a long ways away from becoming law, the active engagement by Congress is encouraging and moves the process of more serious consideration forward.

VIII. China — Will Commitment to 7.5 Percent Real GDP Growth Lead to Financial Instability?

In recent days, Chinese data reports for industrial output, investment, and retail sales have systematically fallen short of investor expectations. Although this follows a pattern that has occurred at the beginning of the calendar year in each of the last three years, it is receiving more concern this year because of concern about tight credit and potential financial stress. This growing concern is reflected in the poor performance of the China Shanghai Composite stock index, which has fallen over 35 percent over the last three years.

For a variety of reasons, a financial crisis is not imminent in China. But serious imbalances in the Chinese economy have been building for years and, if the policies that have been responsible are not adjusted, the imbalances will continue to build and could lead eventually to a severe financial crisis. That is because resources are being allocated increasingly to investment activities that have low or negative rates of return. The investments are being financed by credit that ultimately cannot be repaid in full because the investments are not earning sufficient returns to service both interest costs and repay principal. Put differently, the rate of return on investment is less than the cost of capital. This state of affairs can be sustained for a while through refinancing loans and capitalizing interest expenses, but eventually losses will have to be realized and bankruptcies will occur. Thus, sometime

in China's future a financial cataclysm — a Minsky moment — lurks unless policies are pursued that reverse the persistent misallocation of resources in non-economic activities.

As a reminder, Minsky moments occur when markets realize that significant amounts of credit cannot be repaid through cash flows naturally flowing from the business activities they finance. Credit extension increasingly covers losses in addition to new investment initiatives. This is a pattern consistent with financial speculative bubbles. When markets realize that loans will never be repaid in full, credit access is abruptly withdrawn and the Minsky moment is underway. Governments then are forced to intervene and absorb the losses to prevent economic collapse. This is what happened in the U.S., Europe, and elsewhere in the world during the financial panic of 2007-08. But, while governments can stop panic, the harm done to economies is severe and, as we have seen, recoveries are slow and extended. And, there is also a limit to how much bad debt a government can absorb before it has its own Minsky moment. Greece is a recent case in point but there are many other examples throughout history.

There are two data points that underline the evolving credit speculative bubble. The first has to do with deteriorating return on assets (ROA) and return on equity (ROE) in state-owned enterprises (SOEs). According to data from the Ministry of Finance, ROA for nonfinancial SOEs declined from a peak of 5.0 percent in 2007 to 3.25 percent in 2011. The decline was broad-based across a variety of industries. Other data indicate that the ROA for non-state companies was approximately 8.0 percent in 2007 and 9.0 percent recently.⁷

The second set of data has to do with the rate of growth in credit compared to the rate of growth in nominal GDP. When credit grows faster than GDP, which is what has been happening in China, this indicates that a portion of credit is going to support price increases in existing assets, to refinance existing debt and capitalize interest, or to finance unproductive investments. This is reflective of speculation or, in Minsky terminology, Ponzi finance. But the situation is deteriorating because the gap between the rates at which credit and nominal GDP have been growing has been widening. This means that an increasing portion of credit growth is going in speculative ventures and nonproductive investments. These are the

⁷Data provided by Gavekal Dragonomics.

indicia of inflating bubbles.

There is hope that China's new leadership and the reforms announced at the culmination of the Third Plenum last November will diminish the extent of existing imbalances and set China on a course of sustainable growth. However, to date many of the reforms are couched as goals and have yet to be articulated through specific implementation plans. The absence of specifics for dealing with misallocation of resources and underperformance of SOEs is especially troublesome. Also, the leadership is clinging to a real GDP growth goal of 7.5 percent for the next several years, which can only be met in the short run by continuing to pursue the policies that are contributing to growing, but ultimately unsustainable, imbalances.

To avoid a potentially painful and stressful future, China needs to implement reforms with teeth and accept the reality that a healthy and stable economy will be one that grows more slowly than 7.5 percent.

1. Michael Pettis' Commentary on Typical Progression Economic Miracles and Transition Challenges⁸

In a series of blog posts, Michael Pettis explains cogently why China's growth rate must slow if it is to achieve sustainable and stable growth and why the alternative course, which China is currently pursuing, will probably not end well. The challenge China is facing is not unique. It is the same challenge that other "growth miracle" emerging economies have faced historically, most notably Japan in the 1980s.

Pettis opines that "The most difficult part of growth miracles has not been the growth miracle itself but rather the subsequent adjustment." China now finds itself at the point of adjustment. What needs to be done is no mystery but the obstacles are formidable.

Growth miracles have common features. They typically involve aggressive state-directed investment in infrastructure and export-based industries. This is accomplished by subsidizing investment and suppressing consump-

⁸Michael Pettis. "China: The Politics of Adjustment," blog post on [EconoMonitor](#), December 9, 2013; "Will Reforms Speed Growth in China," blog post on [EconoMonitor](#), January 6, 2014; "China: The Impact of Reform on Growth," blog post on [EconoMonitor](#), February 3, 2014.

tion, which forces up saving to support the outsized investment activity. This is an intentional resource reallocation strategy. It works for a while because the stock of capital is “lower than the country’s social and institutional ability to absorb investment efficiently.” Such a strategy initially enables a country’s infrastructure to catch up with other more developed economies. It has the benefit of producing rapid GDP and productivity growth. This is a good result.

But once the infrastructure deficit has been largely eliminated, this strategy begins to create negative outcomes. That is because high return projects are no longer available. Indeed, the infrastructure investments now available have expected returns that are insufficient to cover debt servicing requirements. In other words, the debt can never be repaid in full and can only be sustained as long as lenders are willing to refinance the debt plus accumulated interest. Once the infrastructure deficit has been closed, the strategy of shifting resources from consumption to investment no longer results in wealth creation. In fact, it leads to wealth destruction.

An indicator of when the gap has been closed is how many dollars of credit it takes to create a dollar of GDP. When the ratio begins to rise rapidly, as it has in recent years in China, it is a clear signal that much of the increased credit is going into inferior investments or is simply refinancing unrecognized bad debts.

Michael Pettis’ first observation is that “when a country’s growth has been driven by wasteful investment, GDP growth will exceed economic wealth creation, productivity will be overstated, and debt will rise faster than debt servicing capacity.” The final phase of an investment-driven growth miracle is always characterized by debt growing at an unsustainable pace. Emergence of wealth management products over the last two years provides ample evidence that China is in the final phase.

Just as was the case with the housing bubble in the U.S. market participants typically don’t see trouble coming and generally expect the growth miracle in China to continue. Even skeptics tend to underestimate the difficulty and severity of the adjustment period that inevitably follows the extreme accumulation of debt leverage that accompanies the final phase of the economic miracle.

What needs to happen when the economic miracle has run its course, as

is now the case in China, is to end the suppression of consumption, redirect investment into productive activities, and rely to a much greater extent on market forces to allocate resources efficiently. The reforms announced at the culmination of the Third Plenum in November recognize what needs to happen. In this sense denial is not at issue. But, what is at issue is whether the articulated reforms will be implemented and whether the inevitable dislocations that accompany implementation will be managed effectively.

Continuation of real annual GDP growth of 7.5 percent is mathematically impossible as the economy shifts resources from investment to consumption. That is because, as Pettis observes, “. . . deleveraging, writing down unrecognized investment losses, and reversing policies that goosed growth rates — must lead to much slower growth.” While observers generally acknowledge the legitimacy of these three conditions, they uncritically believe that reforms will unleash sufficient productivity gains to maintain a high level of growth. Pettis explains that for this to occur, productivity would have to be “implausibly, even extraordinarily, high” and would need to occur “almost immediately.” Moreover, the kinds of necessary reforms involve education, land, SOEs, the hukou registration system, the one-child policy, and others, all of which will take significant time to unfold and take hold.

Lower real GDP growth that accompanies successful implementation of reforms would be a good and healthy result. Sticking with the 7.5 percent real GDP growth goal can only be accomplished by continuing to rely on the investment-driven economic model and would serve to worsen imbalances and create even greater financial instability.

Managed transition and adjustment to a more consumer-based economy is particularly difficult in emerging economies in which the growth miracle has been driven by the state. During the rapid growth phase of the economic miracle the political power structure and the system of incentives are aligned. Party members benefited personally and disproportionately relative to the general population from rapid economic growth. But the country as a whole also benefited. However, as the growth miracle matures, unproductive investment escalates and along with it party-member corruption.

Adjustment to a consumer-focused economy, driven to a much greater extent by market forces, necessarily will diminish benefits to party members as they will no longer be able to direct the deployment of funds to the same extent or extract financial benefits in the process. Generally speaking, it

is not within human nature to voluntarily engage in behaviors that forego personal benefit unless the culture, reinforced by severe penalties, mandates selfless decision making. Thus, it is not accidental that part of the new Chinese leadership's response has been a campaign to root out high-level corruption. Also, the art of politics mandates that power be tightly centralized when policy changes are not aligned with the incentives of the old decision-making structure. Centralization of power is already underway.

There is yet another political tactic that typically is helpful during periods of significant policy change and political power realignment. That involves stirring up patriotic fervor and deflecting focus from internal problems to external "enemies." This, too, is exactly what the new Chinese leadership is doing with all its saber-rattling with Japan, the Philippines, and other Asian countries.

So, having stated how formidable the obstacles to fundamental change are and how little market participants understand about the difficulties and challenges that lie ahead, one must not sell the new leadership short, at least with respect to their understanding of what needs to be done and some of the necessary political tactics that are required. Nevertheless, there is a gaping hole in reform plans that, unless filled, will, as Derek Scissors writes, lead to the failure.⁹ That hole involves the absence of definitive plans to attack the underperformance of SOEs and impose market discipline.

2. State Owned Enterprises — Exit Policies Are Needed

In 1997 China implemented policies intended to force SOEs to improve profitability and productivity. The policy was adopted in conjunction with China joining the World Trade Organization with the intent of making SOE's more competitive on a global footing. This policy was enforced by withdrawing direct government subsidies and forcing underperforming SOEs to cease operations or merge with successful SOEs. This policy was quietly abandoned in 2003. Then in 2008 SOEs became the means through which the Chinese leadership stimulated the Chinese economy and parried the consequences of the global recession that followed the financial panic of 2007-08.

⁹Derek Scissors. "China's Economic Reform Plan Will Probably Fail," American Enterprise Institute, February, 2014.

In 1997 there were 262,000 SOEs most of which were controlled by local governments. By 2003 that number had fallen to 146,000. ROA rose from a paltry 0.2 percent in 1997 to a peak of 5.0 percent in 2007; ROE rose from 0.4 percent to 12.4 percent over the same time period. SOE profits soared from 0.3 percent of GDP in 1998 to 6.6 percent in 2007. By 2011, with the abandonment of the policy of forcing exit of underperforming SOEs, ROE fell to 3.25 percent. The decline in performance has been broad-based across a variety of industries.

Third Plenum reforms highlight the need to rely to a greater extent on market forces. However, unlike the SOE policy pursued from 1997 to 2003, no specific policy has yet been articulated that establishes clear performance goals for SOEs and requires exit of those that do not meet those goals. Without such a policy rigorously enforced, it is hard to see how significant transformation of the Chinese economy can occur.

3. Concluding Comment

Two essential policies for restoring financial stability and transitioning China's economy from investment-driven to consumer-focused and thereby achieving stable long-term growth are missing. One is outright acknowledgement that the 7.5 percent real GDP growth goal is inconsistent with economic transformation. The other is absence of performance goals for SOEs and disciplinary action for SOEs that do not meet the goals.

Even if policies were specified precisely and clear cut rationale provided, successful implementation would still be at great risk because of formidable obstacles. Fundamental reforms are necessary but will be fraught with social and political consequences. The demographics of China's long-standing one-child policy stand in the way of achieving high rates of growth over the longer run.

All of this said, disaster is not necessarily imminent. Imbalances could continue to build and can be papered over for a period of time that could run to years. But, there is no country in recorded history that has been able to sustain rapid growth indefinitely once the final phase of excessive leveraging and Ponzi finance has been reached as is now the case with China.

Managing transition itself is fraught with risk and simply getting on with the process, as necessary as it is for avoiding the alternative of a major financial and economic crisis, could be mishandled in ways that lead to social and political instability.

It is far too soon to attempt to predict how China's leadership will handle the challenges. Suffice it to say that it will not be easy and the risk of bad things happening is great.

IX. 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.

✓ + Y/Y forecast range has risen to 2.7% to 3.2%; I remain comfortable with Y/Y growth near the bottom end of the original forecast range

- ✓ ? *no data for 2014 will be available until late April; based on projections of Q1 GDP, the four-quarter Y/Y would be 2.2% compared to 1.9% for 2013*
- **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).
 - ✓ *CBO updated its output gap analysis on February 4, 2014; 2013 Q4 gap was 4.02%; projected 2014 Q4 gap is 3.21%; I expect actual results to be close to or a little better than CBO's projected gap*
 - ✓ ? *no data for 2014 will be available until late April*
- **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
 - ✓ ? *CBO expects 2014 potential growth to be 1.7%; my estimate has edged up to 1.6%*
- **Productivity** should rise as growth improves and investment increases, but should still fall well short of the historical 2.1% average.
 - ✓ ? *no data for 2014 will be available until late April*
- **Employment** should grow about 190,000 per month in 2014, about the same as in 2013.
 - ✓ ? *employment averaged 152,000 over the first two months of 2014 and may have been depressed by severe weather*
- **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.
 - ✓ + *January and February data are supportive*
- **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.
 - ✓ - *the unemployment rate was 6.7% in February and will probably decrease below 6.5% by the end of the year to about 6.1%*

✓ + *the discouraged worker phenomenon appears to be increasing but is hard to measure*

- **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

✓ ? *the 12-month moving average was 2.10% in January*

- **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).

✓ ? *the 12-month moving average was 3.04% in January*

- **Household personal saving rate** will decline slightly as growth in spending exceeds growth in disposable income.

✓ + *the saving rate was 4.26% in January compared to 4.54% in 2013*

- **Stock prices**, as measured by the S&P 500 average, should rise about 5%.

✓ ? *through March 14, S&P 500 average is down 0.4% year to date*

- **Manufacturing** growth will continue to be relatively strong and the PMI index will exceed 50.

✓ + *January ISM index was above 50, but down from December*

- **Business investment** spending growth should improve to about 5 to 6% as employment and consumer spending growth gathers momentum.

✓ ? *no 2014 data will be available until late April*

- **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%.

✓ ? *data for residential housing investment will not be available until late April*

✓ - *housing starts were down 3% in January from the 2013 average*

- **Residential housing prices** should rise about 5% in 2014, more slowly than 2013's 10% increase.
✓ ? no data for 2014 are available yet
- **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.
✓ ? trade deficit was 2.74% in January compared to the 2013 trade deficit of 2.83%, but should rise later in 2014 as consumer spending strengthens
✓ - the value of the dollar has risen 0.9% so far in 2014
- **Monetary policy** — the Federal Reserve will end quantitative easing by mid-year and will clarify forward guidance.
✓ - the FOMC is on a course to end quantitative easing by the end of 2014
✓ + the FOMC provided some additional forward guidance that undercut the importance of the 6.5% unemployment threshold, but has more work to do to clarify forward guidance
- **Inflation** will rise slightly in 2014 but will remain well below the FOMC's 2% objective at least through 2016.
✓ ? core PCE inflation was 1.09% in January compared to 1.19% in December
✓ ? total PCE inflation was 1.18% in January compared to 1.15% in December
- **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.
✓ + outlook for federal funds rate is unchanged
✓ + the 10-year Treasury rate was 2.65% on March 14, which is near the lower end of the expected range
- **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.
✓ + federal budget deficit is on track to decline to 2.75% or slightly less 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.
✓ ? no data for 2014 are available yet; however, growth appears to be moderately slower than 3.5%
- **European growth** will be positive but will fall short of the ECB's forecast of 1.1%.
✓ ? no data for 2014 are available yet; 2013 Q4 euro area growth was 0.3%, which is consistent with an annual growth rate of 1.2%
- **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.
✓ + all is quiet so far
- **European banking union** will do little to solve deep-seated European and Eurozone structural problems; ECB stress tests will contribute to slow credit expansion.
✓ + no new action has occurred
- **European political dysfunction, populism and nationalism** will continue to worsen gradually.
✓ + Italy recently replaced its prime minister without triggering new elections; established parties seem intent on postponing new elections for as long as possible; in advance of the May European parliamentary elections, Eurosceptic parties appear to be gaining momentum
- **U.K. growth** will continue to be robust as the housing and debt bubble continue to build.
✓ + early reports indicate that U.K. growth is getting stronger
- **China's GDP growth** will slow below 7% as economic reforms are implemented.
✓ ? no 2014 data are available yet but Chinese officials have confirmed the 7.5% growth target
- **China's leadership** will focus on implementing **economic reforms** and will overcome resistance and maintain stability.

✓ + *it's really too early to make a call; however, investor anxiety is increasing in the wake of weaker than expected data reports*

- **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.

✓ + *market skepticism has increased and is reflected in a moderately stronger yen; 2014 Q4 GDP 0.7 percent annual rate of growth was much slower than expected due to a greater than expected trade deficit*

- **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

✓ + *emerging markets countries with large balance of payments deficits are already under severe pressure that will stunt 2014 growth*

countries with large balance of payments deficits.

3. **Risks** — stated in the negative, but each risk could go in a positive direction. “+” means risk not realized; “?” means risk may be developing; “-” means risk realized

- **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
✓ + Stock prices are flat year to date
- ***Growth in U.S. residential housing investment and housing starts*** is less than expected
✓ ? housing formation hit a new low in last year's fourth quarter; starts have been disappointing, perhaps due to weather, but perhaps due to tight credit availability and slow household formation
- ***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
✓ ? various indices have edged down but this may be weather related; strong inventory growth in the second half of 2013 may result in slower manufacturing growth in early 2014
- ***U.S. trade deficit*** widens and the ***value of the dollar*** falls
✓ + the trade deficit continues to edge down; the value of the dollar has been relatively stable
- ***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
✓ + long-term rates have fallen approximately 40 basis points so far in 2014
- ***U.S. fiscal policy*** is more restrictive than expected and the ***budget deficit*** falls more than expected
✓ ? in the first two months of 2014 the budget deficit has fallen a little 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
✓ + *growth appears to be edging higher*
- **Europe** — financial market turmoil reemerges
✓ +
- **Europe** — political instability and social unrest rises more than expected threatening survival of the Eurozone and the European Union
✓ ? *European Parliament election scheduled in May could bolster anti-European Union political parties' strength*
- **U.K. growth** falters as housing bubble collapses
✓ +
- **Chinese** leaders have difficulty implementing *economic reforms*
✓ ? *too early to determine but crisp policies to deal with the underperformance of state owned enterprises have not yet been developed*
- **China's growth** slows more than expected
✓ ? *growth is on track to hit the target of 7.5% but financial stresses may be building*
- **Japan** — markets lose faith in Abenomics
✓ ? *stock price appreciation has stalled; the yen is no longer appreciating in value; the trade deficit is larger than expected and has depressed GDP growth; the pending increase in the consumption tax may depress consumer spending*
- Severe and, of course, unexpected **natural disasters** occur, which negatively impact global growth
✓ +
- **Middle East oil supply** is disrupted and oil prices rise sharply
✓ +

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