



## The Longbrake Letter\*

Bill Longbrake  
April, 2015

With the exception of Europe, the global economy is off to a disappointing start this year. Already forecasters have scaled back expectations for overall global real GDP growth from 3.7 percent to 3.3 percent, primarily due to greater than anticipated weakness in the Chinese and American economies. At the recent International Monetary Fund meetings in Washington, DC, there was discussion about shrinking global aggregate supply growth potential, with the implication being that slower global growth is likely to continue.

As for Europe, the stars appear to have aligned at long last. The decline in the value of the euro against other currencies and the drop in oil prices (Europe is a net importer of gas and oil) have greatly benefited Europe's manufacturing and export sectors. Massive quantitative easing combined simultaneously with easier credit conditions and easing financial conditions have boosted financial markets. Bank lending, which had been shrinking over the last several years has now turned the corner. The really important question, however, is whether Europe's recent good fortune is prelude to steady, if uninspiring growth, or whether it will turn out in a few quarters to be a dead cat bounce within a trend of long-term secular decline.

### 1. United States

First quarter 2015 annualized real GDP growth is likely to be much weaker than forecasters originally expected. Goldman Sachs (**GS**) expects annualized GDP real growth to be 1.4 percent and Bank of America/Merrill Lynch's (**B of A**) forecast is 1.2 percent.

Recent strong employment growth, at least up until March's disappointing jobs report, and the substantial decline in oil and gas prices should be unleashing a surge in consumer spending and along with it a strong growth trajectory for real GDP. In December, **GS** expected consumer spending to grow 3.8 percent in the first quarter and **B of A** was only slightly lower at 3.6 percent. **GS** has revised its first quarter forecast down to 1.5 percent and **B of A** has reduced its to 2.0 percent.

What has occurred to make expected first quarter growth so disappointing? First and foremost, forecasters' optimism remains largely intact. For example, **GS** expects second quarter real GDP growth to

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rebound to 3.5 percent. A variety of reasons are cited for why first quarter's surprising weakness is the result of transitory factors. These include temporary consequences of severe winter weather which slowed home building and delayed consumer spending, faulty seasonal adjustments that depressed first quarter data, consumers deciding to save rather than spend most of the oil price decline windfall, the negative impact of a strong dollar on exports, and a substantial oil-price induced decline in business investment. No doubt there is merit to many of these reasons. But, with the exception of weather, most of these reasons were evident when the original forecasts were made. Thus, it is quite possible that the expected brisk rebound in the second and third quarters will occur. But, this substantial forecasting miss should give one pause to question whether forecasters fully understand the dynamics of a low-inflation, post-Great Recession economy.

Recent economic reports are mixed and do not clearly signal strong economic activity ahead.

- The University of Michigan Consumer Sentiment survey strengthened to 95.9 in April from 93.0 in March, but it had been 95.4 in February. The recent pattern for the Conference Board's measure of consumer confidence is similar: 103.8 in January, 98.8 in February, and 101.3 in March.
- Five-year forward consumer expectations for inflation dropped from 2.8 percent to 2.6 percent. This measure of expectations has been anchored around 3.0 percent for many years and typically changes little from month to month. Thus, the emerging weakness in consumer inflation expectations is noteworthy.
- Real per capita disposable income was up 1.9 percent in February 2015 compared to a decline of -0.5 percent in February 2014. But, at least for the time being much of the extra income is going into savings rather than spending. The saving rate was 4.84 percent in 2014 but has averaged 5.63 percent in the first two months of 2015.
- Payroll employment rose only 126,000 in March following 12 consecutive months of job growth exceeding 200,000 and averaging 269,000. Job growth has greatly exceeded GDP growth during this period and has been accompanied by a collapse in productivity to near zero. So, perhaps March's dismal job growth is not a one-time aberration but a signal of much slower job growth ahead.
- The 12-month rate of growth in payroll jobs edged down from 2.34 percent in February to 2.27 percent in March; household job growth fell more from 2.06 percent to 1.74 percent; but growth in hours worked plunged from 3.46 percent to 2.41 percent. The plunge in hours may reflect to some extent the negative impact of bad winter weather.
- Labor force participation was 62.7 percent in March and appears to be stuck at the lowest level since 1977. It is not edging up as widely expected.
- Hourly wages of all employees have risen 2.07 percent over the last year and shown absolutely no signs yet of an expected upside breakout.
- The National Federation of Independent Business Optimism Index fell to 95.2 in March from 98.0 in February.
- The Institute of Supply Managers manufacturing index fell from 52.9 in February to 51.5 in March but the Markit index, which many argue is a better indicator, rose to 58.8 in March.
- An ISI survey of inventory levels indicated that inventories of consumer goods are slightly higher than desired. This could be cured either through increased consumer spending or production cutbacks.

- Housing prices, according to the Case Shiller national composite index, are rising at an annual rate of 4.5 percent, somewhat more than expected.
- Contrary to expectations, housing starts have declined over the first three months of 2015, compared with 2014. Bad weather may be to blame, or other factors, such as stringent underwriting requirements, may be at work. Nonetheless, forecasters expect strong housing investment growth during the remainder of 2015.

Although much of the recent data is uninspiring, the U.S. economy is performing reasonably well, but not spectacularly. An extended slowdown seems unlikely. Better data reports are likely as winter turns to spring.

Nonetheless, there are serious disconnects in key economic trends. Until March's jobs report, employment and hours worked had been surging with the consequent greater than expected decline in the unemployment rate. However, the rate of increase in hourly wages for all employees is stuck at 2.1 percent, where it has been anchored for five years, and shows absolutely no signs of break out to the upside. Real GDP growth is much weaker than expected and is inconsistent with strong employment growth. The two phenomena do link but in an unhealthy fashion. The connector is nonfarm business productivity which declined 0.1 percent in 2014.

So, a lot more people are working and working more hours, but growth in consumer incomes is being held back by meager wage growth. Real economic growth is being stunted by a lack of productivity. If these imbalances do not correct, employment growth will inevitably slow considerably and growth will be disappointingly lower than most expect.

There are three potential culprits behind the emerging long-run trend of slower growth in the U.S. economy. I discussed one in the *February Longbrake Letter*. It involves very low or negative real rates of interest and the condition of secular stagnation which leads to a persistent output gap and/or slow economic growth. A second culprit is lack of private business and governmental investment spending. It is related to the first but can also be driven by noneconomic forces such as political agenda and uncertainty. A third culprit is a change in expectations about the future that leads to a change in behaviors on a current basis. Such changes can be self-fulfilling. For example, an expectation of low or declining inflation may be interfering with the tendency of wages to rise when the labor market tightens. Employers lack pricing power and resist wage increases. Employees become less demanding for increases in nominal wages because they are less concerned about losing inflation-adjusted spending power.

Other forces have been unleashed which eventually may pose significant challenges for the U.S. economy. One force is the sudden and substantial decline in energy prices. This change is likely to persist for a long time. While this should benefit consumer spending over time, that outcome is not evident in recent data. The near term consequence has been a substantial rise in the saving rate. This will probably change over time and as it does increased consumer spending will boost economic activity. What is evident in recent data is a substantial decline in energy-related business investment. So, at least during the first quarter the negative effects of the decline in oil prices have outweighed the positive effects. However, over the remainder of 2015 real GDP growth should be boosted by 0.2 to 0.3 percent.

Another recent development of consequence involves the 20 percent appreciation of the dollar on a trade-weight basis. This will make U.S. exports, which account for 13 percent of real GDP, less competitive and imports, which account for 16 percent of real GDP, more attractively priced. This will harm U.S. companies that depend on exports for a substantial part of their business and will depress earnings of companies with substantial international operations. It will also take business away from companies that are unable to

compete with cheaper foreign alternative goods and services. On balance, the appreciation of the dollar should reduce 2015 real GDP growth by about 0.5 to 0.6 percent. In addition, the price effects of a strong dollar will depress core inflation by as much as 0.5 percent over the next several quarters and will probably overwhelm modest upward pressure stemming from an improving economy. Overall, the impacts of a stronger dollar on growth and inflation will occur gradually but will probably have a fairly negative impact over time.

Another development whose long-run consequences are not yet fully evident is the effect of excess global capacity and super-loose global monetary policies involving quantitative easing, which is forcing down U.S. interest rates to levels that would probably not otherwise prevail.

## 2. Europe

Although market participants feel that Europe has turned the corner and is emerging from its long nightmare, improvement in the economy is being driven by low energy prices, a falling euro, and quantitative easing. Fundamental problems in the governance structure of the European Union remain unresolved. Political fragmentation continues to build in many countries with parties on both the left and the right gaining at the expense of centrist parties committed to the European Project. The prospects that the Greek situation will end in bankruptcy and exit from the euro are growing, not diminishing. While Greece's exit from the Eurozone, and perhaps the European Union as well, may be contained, exit would set a bad precedent that could contribute to an unraveling process as political fragmentation and differences in economic performance among member countries grow.

Detailed commentary about Europe and the Greek financial crisis is contained in **Sections IV** and **V** of this month's letter.

## I. U.S. Economic Outlook — Real GDP Growth

Annualized fourth quarter real GDP growth in the "Final Estimate" was unchanged from 2.2 percent reported in the "Preliminary Estimate" (see **Table 1**). However, all three of the alternative measures of real GDP growth improved.

"Final Domestic Sales" eliminates the impact of changes in inventories. While real GDP growth fell from 2.64 percent in the "Advance Report" to 2.22 percent in the "Final Report," "Final Domestic Sales" rose from 1.82 percent to 2.32 percent.

"Private GDP" eliminates both inventories and government expenditures. This measure is more stable from quarter to quarter and provides a better sense of what is going on in the nongovernmental part of the economy. This measure improved from 2.40 percent in the "Preliminary Report" to 2.67 percent in the "Final Report."

But, the best overall measure of real GDP growth is "Private GDP minus Net Exports" because it measures the transactions that are occurring in the domestic nongovernmental economy. This measure of GDP, which accounts for approximately 85 percent of total real GDP, has been remarkably stable over the last three quarters and indicates a strong and moderately improving trend in economic activity in the domestic economy from 3.20 percent in the second quarter of 2014 to 3.41 percent in the third quarter and 3.70 percent in the fourth quarter.

**Table 1**  
**Composition of 2014 Quarterly GDP Growth**

	Fourth Quarter 2014 Advance Estimate	Fourth Quarter 2014 Preliminary Estimate	Fourth Quarter 2014 Final Estimate	Third Quarter 2014	Second Quarter 2014	First Quarter 2014
Personal Consumption	2.87%	2.83%	2.98%	2.21%	1.75%	0.83%
Private Investment						
Nonresidential	.24%	.61%	.60%	1.10%	1.18%	.20%
Residential	.13%	.11%	.12%	.10%	.27%	-.17%
Inventories	.82%	.12%	-.10%	-.03%	1.42%	-1.16%
Net Exports	-1.02%	-1.15%	-1.03%	.78%	-.34%	-1.66%
Government	-.40%	-.32%	-.35%	.80%	.31%	-.15%
<b>Total</b>	<b>2.64%</b>	<b>2.20%</b>	<b>2.22%</b>	<b>4.96%</b>	<b>4.59%</b>	<b>-2.11%</b>
Final Domestic Sales	<b>1.82%</b>	<b>2.08%</b>	<b>2.32%</b>	<b>4.99%</b>	<b>3.17%</b>	<b>-0.95%</b>
Private GDP	<b>2.22%</b>	<b>2.40%</b>	<b>2.67%</b>	<b>4.19%</b>	<b>2.86%</b>	<b>-0.80%</b>
Private GDP — Net Exports	<b>3.24%</b>	<b>3.55%</b>	<b>3.70%</b>	<b>3.41%</b>	<b>3.20%</b>	<b>0.86%</b>

## 1. 2014 Q4 GDP — Final Estimate

“Personal Consumption” improved 15 basis points. All of that was offset by a 22 basis point decline in “Inventories.” The only other change of note was a 12 basis point improvement in “New Exports.”

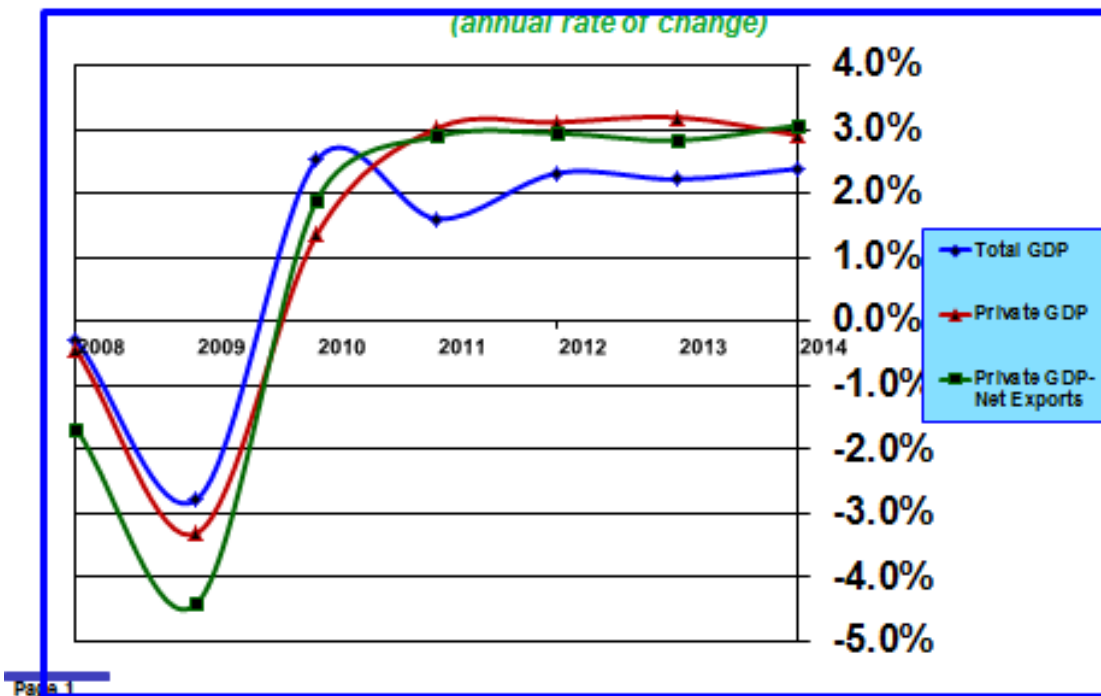
## 2. Longer-Run Trend in Total Real GDP and Private GDP (With and Without “Net Exports”

**Chart 1** compares total real GDP growth from 2008 through the fourth quarter of 2014 with two alternative measures. The first is “Private GDP,” as defined above. (See the second to last line in **Table 1**.) The second is “Private GDP less Net Exports.” (See the last line in **Table 1**.) Over long periods of time the two alternative measures should be approximately the same because the contribution of growth in “Net Exports” is close to zero.

**Chart 1** clearly shows that real GDP growth for both alternative measures has been consistently stronger than total real GDP growth over the last four years, averaging about 3.0 percent compared to 2.1 percent for total real GDP. The drag from tepid growth in government expenditures is very apparent. However, in 2009 and 2010, as can be seen in **Chart 1**, a surge in government spending greatly moderated the consequences of the Great Recession.

While growth in government spending will continue to lag private sector growth in coming quarters, the gap is likely to narrow with the result that total real GDP growth should improve relative to private

**CHART 1 – Total Real GDP and Private GDP (less Inventories and Government Expenditures)**



real GDP growth. With private real GDP growth expected to rise because of employment growth and lower oil prices, total real GDP growth should continue to be in the range of 3.0 percent or a little better over the next few quarters.

### 3. GDP Forecasts for Q1

**Table 2** shows actual real GDP growth for 2014 and forecasts/projections for the first quarter of 2015 and for the full years 2015 through 2017.

**B of A** expects 1.4 percent growth in the first quarter. **GS's** forecast for the first quarter is slightly lower than **B of A's** forecast — 1.2 percent.

### 4. GDP Forecasts for 2015 and Beyond

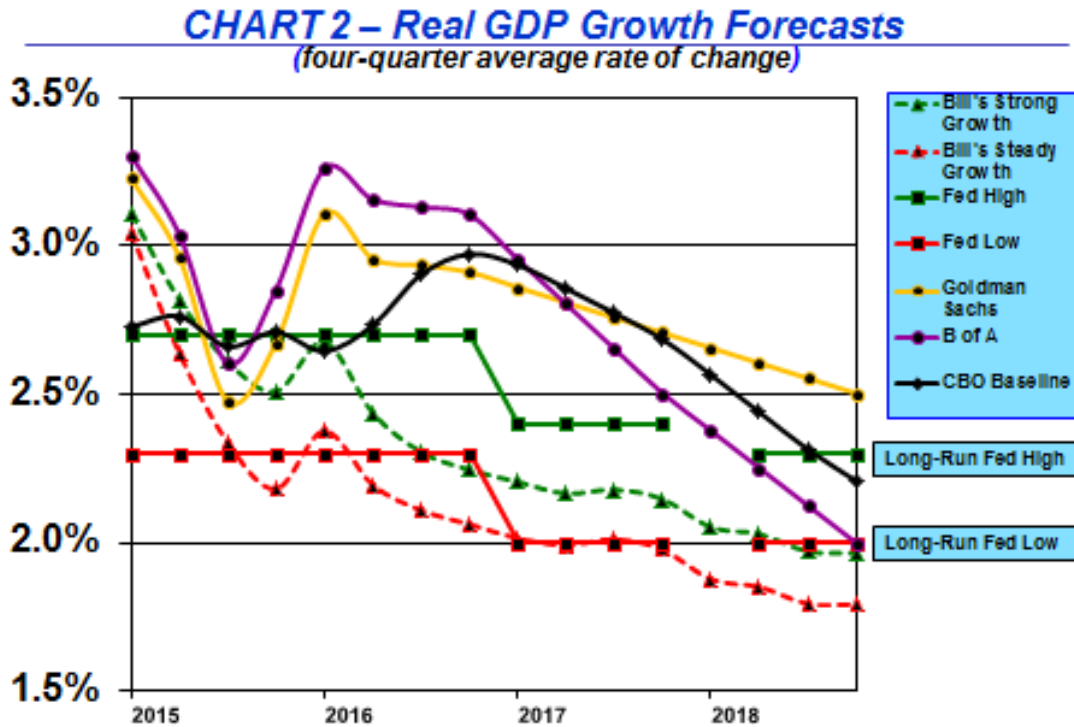
As **Table 2** and **Chart 2** show, most forecasters expect GDP growth to accelerate to about 3.0 percent in 2015 through 2017 as the economy picks up momentum and benefits from lower oil prices. Forecasts for 2015 have edged lower based on the weak performance during the first quarter. **GS** has also reduced its forecast for 2016 and the first half of 2017 by 25 basis points and its forecast for the second half of 2015 by 50 basis points.

While my forecast for 2015 is similar to the consensus view, my forecasts for 2016 and 2017 are more

**Table 2**  
**Real GDP Growth Forecasts — B of A, GS, Bill’s “Steady Growth”, Bill’s “Strong Growth” and FOMC High and Low Projections**

	2014 Q4/Q4	2014 Y/Y	2015 Q1	2015 Q4/Q4	2015 Y/Y	2016 Y/Y	2017 Y/Y
B of A	2.4	2.4	1.4	2.85	2.95	3.2	2.7
GS	2.4	2.4	1.2	2.7	2.8	3.0	2.8
Bill’s Steady Growth	2.4	2.4		2.2	2.7	2.3	2.1
Bill’s Strong Growth	2.4	2.4		2.5	2.9	2.4	2.1
FOMC — High <sup>#</sup>	2.4			2.7 <sup>#</sup>		2.7 <sup>#</sup>	2.4 <sup>#</sup>
FOMC — Low <sup>#</sup>	2.3			2.3 <sup>#</sup>		2.3 <sup>#</sup>	2.0 <sup>#</sup>

<sup>#</sup>Measured from Q4 to Q4



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pessimistic. That is because I am less optimistic about employment growth in those years, and therefore in consumer spending growth. I am also less optimistic about investment growth.

**Consumer Spending.** As can be seen in **Table 3**, **GS** and **B of A** both forecast strong acceleration

in consumer spending growth from 2.5 percent in 2014 to 3.2 percent to 3.4 percent in 2015. Growth rises to between 3.4 percent and 3.7 percent in 2016 and then slows to between 2.8 percent and 3.0 percent in 2017 as the transitory benefit of lower oil prices dissipates and as employment growth begins to slow.

**Table 3**  
**Consumer Spending Growth Rate Y/Y Forecasts — B of A, GS, Bill’s “Steady Growth” and Bill’s “Strong Growth”**

	2012	2013	2014	2015	2016	2017	2018
Actual	1.72	2.34	2.50				
B of A				3.42	3.44	2.79	2.20
GS				3.24	3.71	2.97	2.31
<b>Bill’s Steady Growth</b>				<b>2.78</b>	<b>2.17</b>	<b>2.51</b>	<b>2.43</b>
<b>Bill’s Strong Growth</b>				<b>2.94</b>	<b>2.47</b>	<b>2.72</b>	<b>2.76</b>

**Residential Investment.** Forecasts for growth in residential investment are shown in **Table 4**. GS expects residential investment growth to be about 7 percent in 2015 and then accelerate to 12.5 percent in 2016 and 2017. **B of A** is less optimistic. Its forecast for residential investment growth is about 5 percent in 2015, 9 percent in 2016 and 8 percent in 2017. In both cases residential investment growth is sufficiently strong that it boosts **GS’s** and **B of A’s** overall forecast of real GDP growth for 2015 — 2017.

It should be noted that realization of the much expected acceleration in housing investment continues to be missing in action. This has not deterred robust forecasts. They simply have been pushed forward. Perhaps housing will eventually emerge from the doldrums, but stringent underwriting standards and changes in household formation and, thus, in housing demand, may not be as transitory as forecasters expect.

**Nonresidential Investment.** Forecasts for growth in nonresidential investment are shown in **Table 4**. **GS** forecasts business investment growth will grow 4.0 percent in 2015 4.8 percent in 2016 and 5.4 percent in 2017. **B of A** expects investment growth of about 5.0 percent in 2015, 2016, and 2017. Both sets of forecasts are somewhat less optimistic than those made a year ago. However, real investment growth in the range of 5 percent is above the long-term average and will boost the annual rate of growth in real GDP.

**Private Business Investment.** Private business investment includes inventory accumulation in addition to residential and nonresidential investment. My forecast for 2015 is probably too high. My below consensus forecasts in 2016 and 2017 result from my more pessimistic outlook for nonresidential investment, which I believe will continue to be depressed by low real interest rates and slower real GDP growth.

**Government Investment.** Government investment spending is divided between federal and state/local investment spending. State and local government spending accounts for 61.3 percent of the total.

**Table 5** shows actual total government investment growth for 2012, 2013, and 2014, and forecasts for 2015 through 2018. Relative to the 68-year average growth of 2.69 percent annually the actual results and forecasts are quite pessimistic. But the pessimism is warranted by the political constraints that have been imposed on government spending in recent years. All forecasts, including my own, are consistent with the 1.16 percent rate of growth in government investment spending over the last 16 years, but may still turn out to be too optimistic.



**Table 4**  
**Real Private Business Investment (Residential and Nonresidential) Growth Rate Y/Y**  
**Forecasts — B of A, GS, Bill’s “Steady Growth” and Bill’s “Strong Growth”**

	2012	2013	2014	2015	2016	2017	2018	Ave. 1947-2014
<b>REAL PRIVATE BUSINESS INVESTMENT</b>								
Actual	8.30	4.68	5.39					<b>3.80*</b>
B of A				5.00	5.54	5.65	4.35	
GS				4.56	6.29	6.83	6.54	
Bill’s Steady Growth				6.01	2.90	2.55	2.55	
Bill’s Strong Growth				6.59	4.12	2.94	2.81	
<b>REAL NONRESIDENTIAL INVESTMENT</b>								
Actual	7.19	3.05	6.32					<b>2.55*</b>
B of A				4.93	4.73	5.02	4.44	
GS				4.04	4.79	5.36	5.25	
<b>REAL RESIDENTIAL INVESTMENT</b>								
Actual	13.51	11.90	1.59					<b>-1.34*</b>
B of A				5.28	8.95	8.25	3.98	
GS				6.77	12.54	12.51	11.24	

\*Average 1999-2014; real private business investment = 1.55% for 1999-2014

**Bill’s Scenarios.** Bill’s “*Strong Growth*” scenario of Y/Y 2.9 percent growth in 2015 is consistent with the upper end of the consensus range and Bill’s “*Steady Growth*” scenario of Y/Y 2.7 percent growth is aligned with the lower end of the consensus range. See **Chart 2**.

Bill’s real GDP forecasts for 2016 and 2017 for the “*Steady Growth*” and “*Strong Growth*” scenarios are considerably lower than other forecasts, although neither is much different from the revised FOMC projection range. The principal difference between my scenarios and the **GS** and **B of A** forecasts has to do with my view that employment and investment growth will decelerate in 2016 and 2017. Slow investment growth will hold back employment growth and retard income growth, which implies that consumer spending growth will slow more rapidly after the benefits of the oil price collapse play themselves out.

## 5. Risks to the Economic Outlook

Risks to the economic outlook on balance are skewed to lower rather than higher growth over the next few years. **GS** research indicates the following:

**Table 5**  
**Government Investment Growth Rate Y/Y Forecasts — B of A, GS, Bill’s “Steady Growth” and Bill’s “Strong Growth”**

	2012	2013	2014	2015	2016	2017	2018	Ave. 1947-2014
Actual	-1.28	-2.01	-0.16					<b>2.69*</b>
B of A				0.45	1.00			
GS				0.77	1.22	1.25	1.26	
<b>Bill’s Steady Growth</b>				<b>0.79</b>	<b>1.16</b>	<b>1.26</b>	<b>1.21</b>	
<b>Bill’s Strong Growth</b>				<b>1.01</b>	<b>1.30</b>	<b>1.34</b>	<b>1.36</b>	

\*1999-2014 average growth rate = 1.16%

- A 100 basis points rise in long-term interest rates would reduce real GDP growth by 0.3 percent in the first year and another 0.3 percent in the second year.
- A 10 percent increase in the value of the dollar would depress growth by 0.5 percent in the first year and about 0.15 percent in the second year.
- A 10 percent increase in the price of oil would reduce growth by 0.15 percent.
- A 10 percent decrease in equity prices would depress growth by about 0.15 percent in the first year and about half that in the second year.

## 6. GDP Output Gap

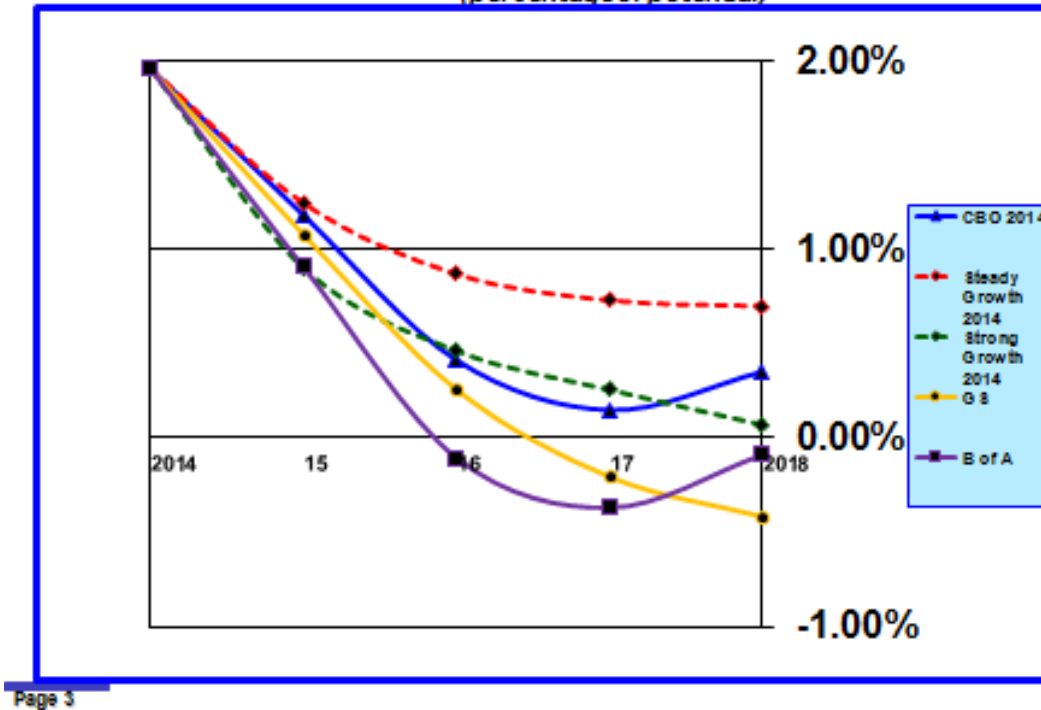
Generally, most forecasters expect the real GDP output gap, which was 2.0 percent at the end of the fourth quarter, to close rapidly during 2015 and 2016. The only exception is my “*Steady Growth*” scenario, but even in that scenario the gap falls to less than 1 percent by the end of 2016. (See **Chart 3**.) So, at long last there is light at the end of a long tunnel. But the tunnel has been long indeed — 8 to 9 years from 2008 to 2016-2017.

## II. Monetary Policy, Inflation and Interest Rates

In the U.S. the major questions confronting policy makers is when to begin raising the federal funds rate and how fast to raise it. The answers depend upon the strength of labor market and inflation prospects. The employment market has improved considerably, but weaknesses in some measures, in particular wage rate growth, still persist. But the improvements, nonetheless, have been sufficient to warrant beginning to tighten monetary policy were it not for depressed inflation.

Fed watchers have pretty much concluded that the FOMC will not begin to raise interest rates until September and even that conviction is fraying. Speculation is rising that the date of the first rate increase

**CHART 3 – Real GDP Output Gap**  
(percentage of potential)



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will be pushed to later in 2015 or perhaps even to sometime in 2016.

## 1. Prospects for PCE Inflation

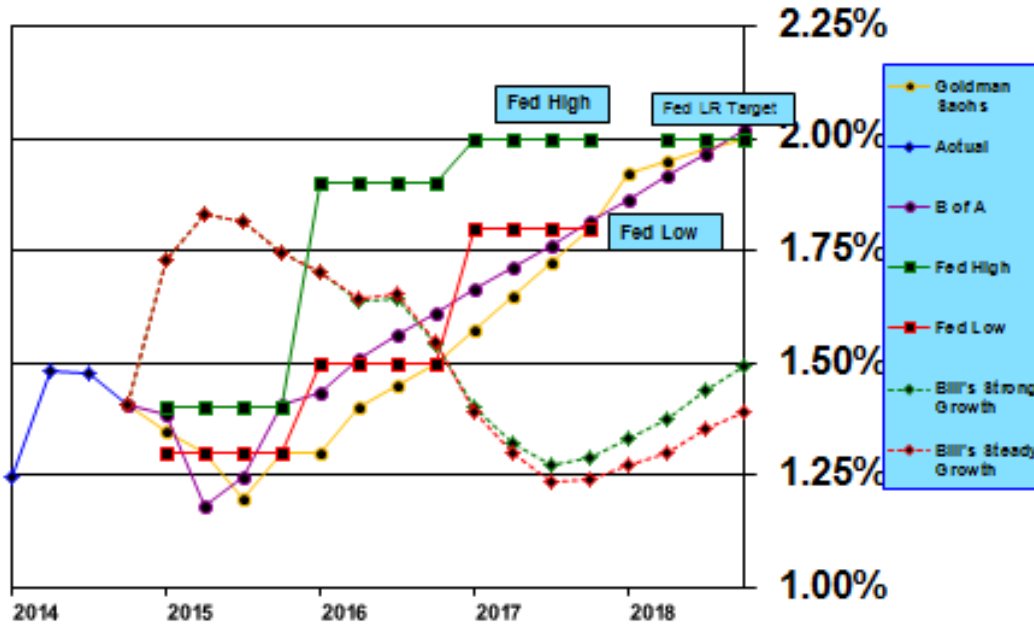
Core PCE inflation was 1.37 percent in February and total PCE inflation was 0.33 percent (see **Chart 4**). Compared to core PCE inflation, total PCE inflation is much more volatile and has been negative for short periods of time in the past. For that reason the FOMC prefers to focus policy deliberations on the core PCE inflation measure.

Core PCE inflation is well below the FOMC's target level of 2 percent and is not much above the lows near 1.0 percent experienced briefly in mid-2009 and late-2010 when the FOMC was concerned about the threat of deflation.

As can be seen in **Table 6** (**Chart 4** shows historical core PCE price index data and data from **Table 6** in graphical form), forecasts of the core PCE inflation index indicate that inflation will change little during 2015. **GS** expects core PCE inflation to bottom out at 1.2 percent in the second and third quarters of 2015 and then begin a very gradual rise in the fourth quarter, but taking nearly three years to reach 2.0 percent. FOMC members are projecting a slightly higher range.

Most forecasters, including the FOMC's projections, expect core PCE inflation to rise gradually in 2016 and 2017 toward the FOMC's 2.0 percent target. Increasingly, this expectation is taking on more of an attribute of hope — a hope based upon building momentum in the U.S. economy and a belief that the FOMC will be successful in fighting powerful global deflationary forces. But, returning to a 2.0 percent

**CHART 4 – Core PCE Inflation Forecasts**  
(percentage change over previous 12 months)



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**Table 6**  
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	2018
B of A	1.3	1.4	1.4	1.6	1.8	2.0
GS	1.3	1.4	1.3	1.5	1.8	2.0
Bill’s Steady Growth	1.3	1.4	1.75	1.55	1.25	1.4
Bill’s Strong Growth	1.3	1.4	1.75	1.55	1.3	1.5
FOMC — High			1.4	1.9	2.0	
FOMC — Low			1.3	1.5	1.8	

level has been a persistent expectation over the last several years and the date of realization continues to be extended year after year.

Risks of downward pressure on core PCE inflation relative to the forecasts and projections outweigh risks of upward pressure. The collapse in oil prices is contributing to downward pressure. Soon, further downward pressure on inflation will occur because of falling import prices due to recent substantial appreciation in the trade-weighted value of the dollar.

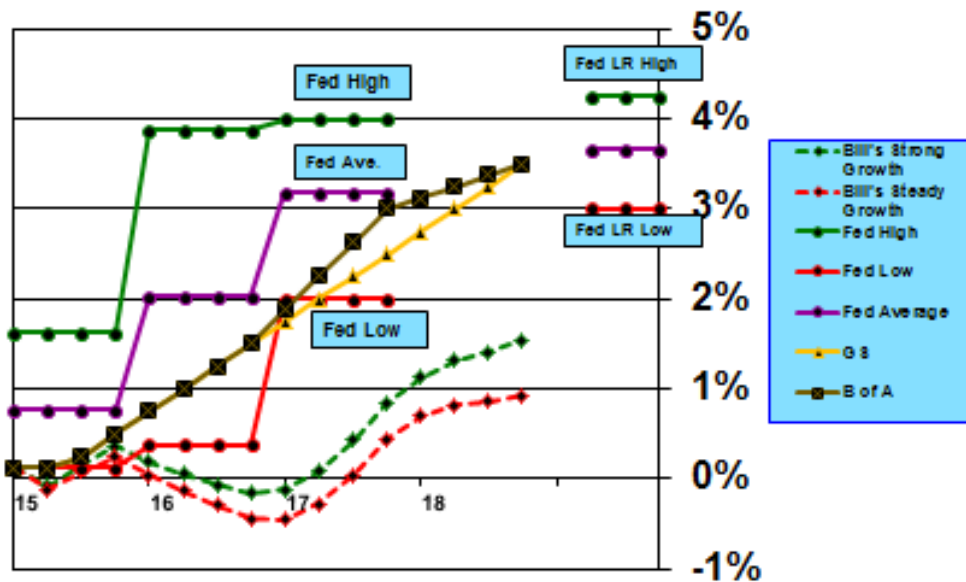
Although real global GDP growth should benefit during 2015 from commodity price deflation as spending power is transferred to countries and consumers with a higher propensity to spend, this outcome may be insufficient to put enough pressure on aggregate global demand to offset the highly deflationary consequences of excess aggregate global supply. Indeed, expectations for global growth in 2015 have already been scaled back from 3.7 percent to 3.3 percent.

Moreover, as global bond markets are signaling, long-term nominal interest rates have fallen to levels that imply deflation once a real rate of return and term premium are considered, provided that the recent substantial declines are not solely an artifact of fear and overreaction to the sudden collapse in oil prices, or to the transitory impact of massive quantitative easing by the European Central Bank and Bank of Japan. At least a part of the recent decline in global nominal long-term interest rates, and perhaps a substantial part, is due to a substantial decrease in long-term inflation expectations. When inflation expectations become unanchored, this time in the downward direction, they can lead to behavioral responses that are self-fulfilling.

## 2. Federal Funds Rate

**Chart 5** shows the FOMC’s central tendency range for high and low projections for the federal funds rate for 2015, 2016, and 2017. The purple line (circles) is the average of projections for the 19 FOMC members (7 governors and 12 presidents — note that there are two vacancies on the Board of Governors currently which means the dots reflect only 17 participants). The projections imply that the first increase in the federal funds rate will take place sometime during 2015.

**CHART 5 – Federal Funds Rate Forecast**



Both **B of A** and **GS** expect the first federal funds rate increase will occur at the September 2015 meeting of the FOMC, although neither is strongly committed to that date.

But, the FOMC is not on a pre-ordained schedule. It has said time and again and Chair Yellen has emphasized repeatedly that the decision to raise interest rates is data dependent. This means that the first increase could occur even later than the September meeting if economic activity remains moderate and inflation falls more than expected.

The FOMC has a dual mandate — to achieve full employment and maintain stable prices. While the FOMC has no explicit employment goal, the CBO's long-term U-3 full-employment potential unemployment rate of 5.4 percent serves as an imperfect proxy. Currently, the U-3 unemployment rate is 5.47 percent which implies that the FOMC is closing in on its full-employment mandate. However, other employment market measures are less robust. Until these other measures improve further the FOMC's "data dependent" language gives it flexibility to delay a rate increase.

Inflation, or lack of it, is rapidly becoming the more important policy mandate. Core PCE inflation has persistently been below the FOMC's explicitly stated 2.0 percent objective. While FOMC members have been steadfastly optimistic that core PCE inflation will return to 2.0 percent within a couple of years, the timing of this expectation has repeatedly been pushed forward. Now global events and bond prices are signaling that even lower inflation and in some countries deflation is a very real threat. To date FOMC members have been dismissive of these risks. But, if core PCE inflation edges down in coming months, the FOMC will be hard pressed to raise interest rates unless the U.S. economy takes off.

My "*Steady Growth*" and "*Strong Growth*" forecasts are shown by the red dashed line (diamonds) and green dashed line (diamonds). My "*Steady Growth*" forecast indicates that the federal funds rate could rise a bit in late 2015 but further rate increases could be delayed until 2017 or later, which is inconsistent with FOMC guidance. In my "*Strong Growth*" forecast, the first increase in the federal funds rate occurs in late 2015 but there is little pressure to move it up rapidly.

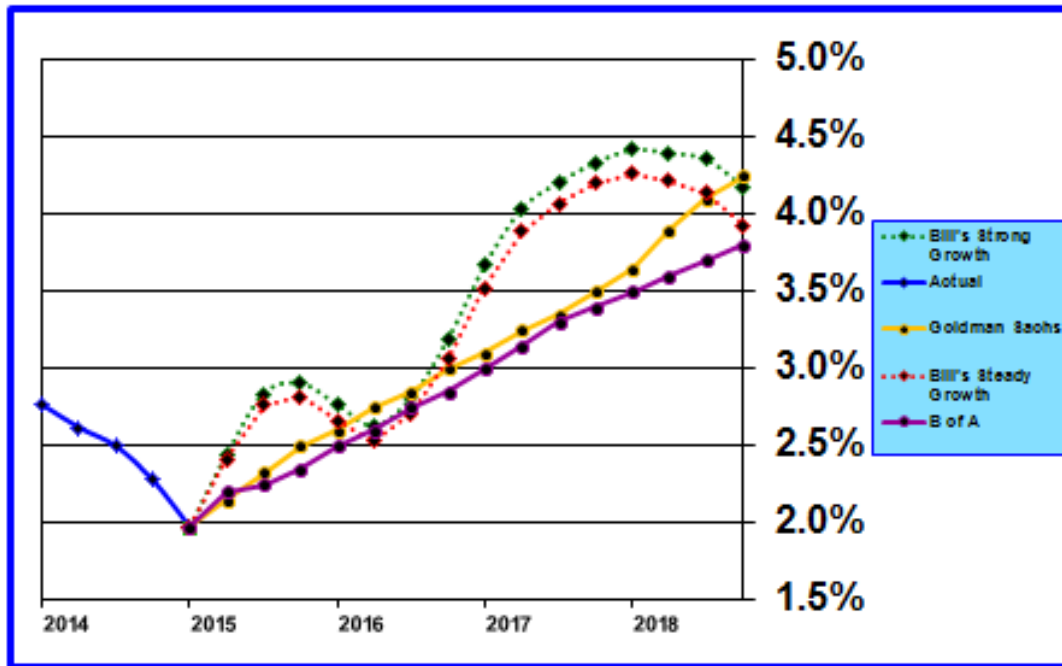
### 3. 10-Year Treasury Rate

**Chart 6** shows forecasts for the 10-year Treasury rate for my "*Steady Growth*" (red dashed line and diamonds) and "*Strong Growth*" (green dashed line and diamonds) scenarios. **GS's** forecast (yellow line and circles) and **B of A's** forecast (purple line and circles) are also shown.

As of April 17, the 10-year Treasury yield was 1.87 percent, down from 2.17 percent at the beginning of 2015 and 3.04 percent at the beginning of 2014. Forecasts of the 10-year rate by the end of 2015 cluster around 3.00 percent. These forecasts increasingly appear to be too high based upon what has happened so far in 2015 in global bond markets. The rapidly rising value of the dollar and very low long-term rates in Europe and Japan will put a lid on long-term U.S. interest rates at a level substantially below 3.0 percent. The forecasts also assume anchored inflation expectations. That assumption may be losing credibility. A step down in inflation expectations, to repeat again, tends to have self-fulfilling behavioral consequences. The implication is that the forecasts shown in **Chart 6** are probably overstating the extent to which long-term interest rates will rise in 2015 and perhaps in the years beyond the current year as well.

Long-term interest rates have a theoretical equilibrium value which is a combination of several components: a real rate of return, the rate of expected inflation over the next several years, an inflation uncertainty premium, a liquidity premium, and a credit risk (default) premium. The risk-based premiums can be artificially reduced if the policymakers state directly or past practices indicate that bondholders

### CHART 6 – 10-Year Treasury Rate Forecasts



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will be protected from default risk. Had not Mario Draghi opined in the summer of 2012 that the ECB would “do whatever it takes to preserve the euro,” long-term rates on the sovereign bonds of countries like Greece, Spain, and Italy would not be nearly as low as they are today.

Long-term rates can also be depressed by an intentional quantitative easing bond buying policy by a central bank. Quantitative easing usually results in depressing the value of a country’s currency. That has been an intentional part of Japan’s Abenomics. Whether intentional or not, the plunge in the value of the euro appears to be a direct result of the ECB’s aggressive quantitative easing bond buying program.

Because the U.S. ended quantitative easing in October last year, the U.S. is now on the receiving end which is evidenced in the rising value of the dollar. This has a relatively immediate effect of transmitting lower foreign long-term interest rates to the U.S. through purchases of U.S. treasury bonds. It also has a longer term effect of depressing U.S. exports and slowing the rate of real GDP growth. This is the phenomenon of currency wars in which each nation attempts to avoid the deflationary consequences of excess aggregate supply relative to aggregate demand by devaluing its currency. The overall result is that that country’s deflation is simply exported to other countries. Where this evolving international policy mix takes us in a deflationary setting is uncertain, but the odds are that the consequences will not be nearly as benign as many expect.

Other factors also influence long-term rates, at least in the short run. There is the dollar safe-haven effect which lowers rates on U.S. Treasury securities. This effect ebbs and flows, depending on global political crises and periodic turmoil in financial markets.

If the real rate of interest is depressed below its “natural level” needed to stimulate investment, then

this will depress investment, slow growth and add to disinflationary and deflationary pressures which, in turn, will drive nominal rates even lower. This is the condition of the world that we currently find ourselves in. The risks are high that outcomes over time will not be favorable.

So what should the 10-year rate be today? If one simply adds the real rate of return to an expected inflation rate and ignores the nuances of all the other factors that influence long-term rates, the rate should be about 3.0 percent, assuming expected inflation is 1.5 percent and the real rate of return is 1.5 percent. That is why most conventional forecasts expect the 10-year rate to be between 2.75 percent and 3.00 percent by the end of 2015. A current 10-year Treasury rate of 1.87 percent barely covers inflation and leaves little real return. Inflation would have to drop a lot from a 1.5 percent level to justify today's 1.87 percent rate and provide an acceptable real rate of return. Either the recent level of rates is the result of temporary factors and rates will soon return to a higher level or today's low rates reflect forces afoot that are not transitory and which will have significant consequences.

Even if the downside risk to the 10-year rate proves transitory and an artifact of momentary surge in market participants' fear and anxiety, it is important to note that none of these forecasts indicates a substantial rise in the 10-year rate for a very long time.

### III. Fiscal Policy Developments

We have entered the last two years of the Obama presidency with Republicans in control of both the House and Senate. Rather than gridlock what has emerged is a willingness of the Republican Congress to work and negotiate with President Obama and Democrats with the result that significant legislation has already been passed and other significant legislative matters are under serious consideration. What has happened is that a majority of centrist Republicans and Democrats has emerged that has proved willing to negotiate compromise legislation. The extreme right fringes of the Republican Party (tea party Republicans) and the left fringes of the Democratic Party have been marginalized and are not currently having significant impacts on legislation.

What follows is an update on key issues and dates:

- February 2 — President's budget released and sent to Congress (This was a political document which was ignored by the Republican Congress; however, there were many areas in the budget where potential agreement between the president and Congress was possible and some agreements are now being forged.)
- February 27 — Spending authority for Department of Homeland Security expires (After much brinkmanship, funding was approved for the remainder of the fiscal year by a preponderance of Democrats and a few Republicans.)
- March 4 — Supreme Court hears arguments on Affordable Care Act subsidies; ruling will come before session ends in June (The Supreme Court may invalidate the provision of the Affordable Care Act that provides subsidies for insurance purchased through federal exchanges. However, invalidation is unlikely to have significant macroeconomic impact.)
- March 16 — Federal debt ceiling reinstated at then current level of debt (CBO expects crunch time to be delayed until October or November after the start of the next fiscal year. Neither party is enthusiastic about messing with the debt ceiling. Thus, it seems likely that when time runs out later



this year Congress will suspend the debt ceiling until some future date, probably following the 2016 presidential election.)

- March 31 — Medicare “doc fix” expires (The centrist Republican-Democratic coalition negotiated a compromise that resolved this issue, which had been changed temporarily 17 times since 1997. The permanent fix replaced the sustainable growth rate formula with one that better compensates doctors and will keep pace with changes in medical costs. Democrats agreed to the permanent fix in exchange for a short-term extension of the Children’s Health Insurance Program. Importantly, Congress ignored the pay-go requirement so that not all of estimated cost of \$213 billion over the next ten years will be offset by increased revenues or other spending reductions. Not surprisingly, congressional anxiety about increased budget deficits has abated as public interest has waned.)
- April — Fiscal Year 2016 budget resolution — (For the first time in many years both houses of Congress have passed budget resolutions. There are some differences between the two resolutions which remain to be resolved. But the absence of political posturing implies that compromises will eventually be forged quietly. There is some talk about trying to use the budget reconciliation legislative process to deal with other matters such as Dodd-Frank Act reform and Affordable Care Act issues.)
- May — Highway Trust Fund depleted (Both parties want to fund the highway trust fund on a long-term basis; however, no agreement exists with respect to a funding source; President Obama wants to use repatriation of foreign earnings as a source, but Republicans are firm that repatriation must be linked to corporate tax reform. At this juncture it appears that another temporary extension is the most likely outcome.)
- May 31 — Highway legislation expires (This legislation will be extended but it is linked to the Highway Trust Fund, which probably means it will be renewed for a short time period.)
- June 30 — Export-Import Bank charter expires (While extension is likely because a bipartisan majority in Congress supports the bank, it is not guaranteed. House Financial Services Committee Chairman, Jeb Hensarling, and House Ways and Means Committee Chairman, Paul Ryan, oppose re-chartering the bank.)
- October 1 — Spending authority expires requiring either a continuing resolution or appropriation legislation; next phase of budget sequester kicks in (House and Senate Budget Committees passed fiscal year 2016 budget proposals on March 19; the proposals boost military spending above sequestration caps. Differences in the two resolutions have yet to be resolved and then Congress needs to adopt detailed appropriation bills that implement the intent of the budget resolution.)
- December 31 — Tax extenders — latest date for renewal for calendar year 2015
- Late 2016 — Social Security Disability Insurance Trust Fund becomes insolvent

Other fiscal issues under consideration include European and Pacific trade partnerships, tax reform, Federal Reserve audit, immigration, and energy policy reform. These and other issues will be considered by Congress and may result in legislation.

Senator Hatch, chairman of the Senate Finance Committee, and Senator Wyden, ranking minority member of the committee, announced on April 16 that they had reached agreement on **Trade Promotion Authority** legislation. Finance Committee action on this legislation is scheduled for action as early as April 23. House Ways and Means Committee chairman, Paul Ryan, has been working with Senators Hatch and Wyden. It is expected that the House of Representatives will consider essentially identical legislation.

Trade Promotion Authority legislation defines in considerable detail guidelines the Administration must meet in negotiating trade treaties with foreign countries. Importantly, the legislation requires Congress to approve without amendment or disapprove trade treaties within 60 days of submission. Passage of this legislation is expected to occur by the end of May.

Enactment of this legislation is an important precursor to completing negotiation of the Trans-Pacific Partnership, intended to increase U.S. trade with Asian nations, and the Trans-Atlantic Trade and Investment Partnership, which has a similar objective with respect to European countries.

Some expect some type of **tax reform legislation** — to be enacted and signed into law in late 2015 or sometime in 2016. Whether this is a reasonable expectation or not should become clear by June and will depend upon whether Senate Finance Committee Democrats decide to support Senator Hatch's tax reform legislation. Currently, Senate Finance Committee Republicans and Democrats are working in several bipartisan groups and that could lead to a bipartisan consensus to support comprehensive tax reform.

President Obama released his tax reform proposal on April 13 “to help middle-class and working families get ahead.” Obama's proposal is unlikely ever to become law. However, the probability of significant tax reform legislation being enacted by late 2015 or early 2016 is rising. That is because serious proposals are under development in the Senate and also because of the recent détente between centrist elements of Republicans and Democrats in both houses of Congress.

Public concern about **deficits** has been waning which has opened the door to some budget deals that don't have matching funding offsets. This is was the case for the doc fix and may be the case for approving higher defense spending above existing sequestration limits and for dealing with tax extenders when they come up for extension at the end of the year.

## IV. Europe — The European Project in Jeopardy

Optimism has blossomed in Europe in recent weeks as economic activity has improved more than expected.

### 1. Optimism on the Rise

ECB president Mario Draghi has undertaken the aura of savior for the apparent success of his bold quantitative easing monetary policy. Those who remember how Alan Greenspan was vetted as the “Maestro” only subsequently to be heavily criticized for contributing to the housing bubble, financial crisis and Great Recession might counsel that it will take time to determine whether Draghi's monetary policies are a stroke of genius or whether he has set Europe on a disastrous course. Of course, financial markets love quantitative easing because it floods an economy with liquidity and depresses interest rates. Financial asset prices soar. This is exactly what is happening in Europe today. So, for now, good feelings prevail and Draghi is the darling of financial markets.

This upwelling of euphoria and sense that better days are ahead have been reinforced by several other favorable developments including a plunge in the value of the euro, the collapse in oil prices, sharply easing credit conditions, and the ebbing of fiscal austerity. The expectation is that Europe is now on a course of sustained and improving growth.

## 2. Greece — the Skunk At the Party

Europe's long nightmare seemingly would be over were it not for the on-going Greek financial crisis which threatens to explode as Greece runs out of money to pay wages, pensions and debt service payments. Greece's political crisis, which is a product of four years of unrelenting austerity in the face of creditor demands, ongoing economic depression that has destroyed more than a quarter of Greece's GDP and driven unemployment above 25 percent, is on a collision course with unyielding creditors, principally Germany and the International Monetary Fund, which are demanding further austerity in return for additional funding. Deadlines are fast approaching, one as soon as May 12. However, the moment of apocalypse probably will be pushed back by half measures that buy more time but do little to address the underlying problems.

Greece is the canary in the coal mine. Its condition and crisis is the direct result of deeply embedded flaws in the European Union (EU) and the economic policies of its most prominent member, Germany.

## 3. Consequences of the European Project's Structural Flaws

In spite of much talk in recent year, the fundamental flaws in the governance, economic policies, fiscal policies and monetary policy remain largely unaddressed. As a consequence it is only a matter of time before the European Project endures a great cataclysm. Because the stakes are so high, ongoing attempts will be made to band-aid the beast just as been the case over the last four years. This will buy more time, but without fundamental governance changes, the EU and euro cannot survive indefinitely in their current forms. This is a risk that few see and fewer believe could happen.

Policy actions to bail out peripheral nations and establish bailout facilities, coupled with the ECB's stated intention "to do whatever it takes," eased financial conditions considerably. These policies muted the negative economic consequences of the German-inspired policy of sovereign budget austerity which led to restrictive fiscal policies across the EU. Nonetheless, the damage from austerity has been cumulative in the form of higher unemployment and zero inflation.

While the rate of economic decline has exhausted itself in the European peripheral countries that bore the brunt of austerity, their economies remain mired in depression with stunningly high rates of unemployment. The social contract in those countries is eroding and with it social stability. Political stability is also ebbing. For the time being the policy palliatives have created a sense that all is well. But, the cancer has not been cured and continues to spread. At some juncture a flash point will be reached when the palliatives no longer work. Although the moment of truth is probably not yet at hand, it is getting closer. And, Greece, may be the trigger.

Centrist political parties committed to the European Project still rule the roost in most EU countries, but euro-skeptic parties on both the right and the left are gaining momentum just about everywhere. Inevitably, this puts pressure on ruling parties to avoid losing votes and perhaps power by embracing popular aspects of fringe party policy issues. Thus, the political trend is unambiguously evolving in the direction of nationalism and this will increasingly undermine the glue that holds the EU together.

## 4. Reasons Why the European Project, As Currently Structured, Is Fatally Flawed

There are many reasons why it is likely that the European Project, as currently designed, will eventually fail. In my opinion the most important reasons are crippling design flaws in the governance structure of

the EU and Germany's economic policies.

**Incomplete Political and Economic Integration.** The U.S. federal/state system and constitution, which have been the foundation of U.S. economic success and ascendancy for over two centuries, rightly provide a model of the governance structures required for a successful and durable union. The EU has some of the necessary governance structures, but lacks others.

Essential governance components include political union, economic integration, fiscal consolidation and a common currency. The euro area has a common currency, but the remainder of the governance structures, which extend to all EU countries, do not strike the necessary balance for long-term success between central authority and individual country sovereign prerogatives.

For example, all EU member countries must agree to a treaty change before it becomes effective. The U.S. constitution only requires of the states to ratify amendments.

There is no ability for the EU to tax citizens of member countries directly and there is no provision for fiscal transfers from countries with strong economies to countries with weak economies except through onerous bail-out agreements complete with intrusive, and often counterproductive, conditions. Fiscal transfers are essential to address differentials in economic performance. Such transfers occur automatically in the U.S. with virtually no notice.

While there is ample tension between the federal and state governments in the U.S., the ability of the federal government to forge national policies and to enforce them is clear. The EU does have a limited ability to forge common policies and to enforce them. However, the EU's sway does not extend to any significant degree to matters of finance and commerce, which is partly why the financial and economic situations spun out of control in Ireland and Cyprus.

The European Project will remain fundamentally flawed until its governance structures are modified to align to a greater extent with those that have made the American union successful. It is not mysterious as to what needs to be done. Doing it, however, given the strong allegiance to individual country sovereignty, has a probability close to zero.

There have been a few somewhat helpful modifications, such as the shared bailout facilities and establishing a banking union. However, the banking union, while providing for common regulation of the largest European Banks, has yet to incorporate the unified approach to deposit insurance and resolution of insolvent banks that has worked so well in the United States through the Federal Deposit Insurance Corporation.

**Banking Union.** One of the features of the EU is free and uninhibited capital flows. This is an essential governance component for successful union, but unfortunately its operation is flawed because of an imperfect a banking union.

An effective banking union has three components. First it has a common set of rules and a single supervisor. Second, it has a universal deposit insurance system. Third, it has a centralized resolution facility to manage failures of individual financial institutions. All three components exist in the U.S. The only component that exists in the EU today is a common set of rules and regulations for the largest banks with the ECB serving as the single regulator. Other rules, for example those governing the granting of credit, are left to the determination of individual countries. This absence of unified rules and oversight contributed to the unsustainable financial imbalances that built up in Ireland and Cyprus.

Common supervision of European banks has been limited in two ways by Germany. First, Germany

gained acceptance of EU members to limit unified supervision to the 150 largest financial institutions, leaving thousands of smaller banking and financial institutions to be supervised by their home country. Second, more recently Germany convinced EU members that the next time treaty revisions are considered, one of the revisions should be a clear separation of the ECB's monetary and supervisory responsibilities. While such a clarification appears to be reasonable, many view this development as a German tactic for delaying implementation of a more all-encompassing banking union.

Centrally coordinated deposit insurance and resolution remain under discussion. One of the working resolution principles is to "bail in" creditors. This principle, coupled with the free flow of capital among EU members, assures that creditors will flee a troubled bank at the first whiff of trouble, that almost assuring a liquidity crisis in an institution. This is a very real threat that could impact Greek Banks hard and quickly, if the ECB closes access of Greek banks to its emergency liquidity facility.

There is implied deposit insurance for the first euro100,000 of bank deposits. This implied guarantee was violated in the initial Cyprus bailout proposal. The subsequent proposal restored the implicit guarantee but also forced conversion of "uninsured" deposits into equity which is estimated will result in at least a 50% to 60% loss.

Now ponder this. If you can move euros freely to any financial institution in any EU member country and there is doubt that your deposits are guaranteed, why would you keep them in financial institutions that are perceived as weak or that are located in EU countries that are potential candidates for bailouts replete with conditionality. The Cyprus solution is extremely dangerous because knowledgeable depositors will move their funds to safer places at the first hint of trouble. This is the stuff of contagion. The best way to prevent the potential for contagion is through a banking union that covers all financial institutions and provides for a unified approach to deposit insurance and resolution.

**Unwillingness to Forge a Fiscal Union and Mutualize Sovereign Debt.** Losses must eventually be borne by someone. When individual institutions fail, the losses are borne by the creditors. But, because this usually triggers panic and a meltdown in the financial system, nations generally step in and bailout creditors. This solution works only as long as the nation itself remains solvent. If the obligations of bailing out creditors become too great as it has in Greece, Ireland, Portugal and Cyprus, either the nation must declare bankruptcy or it must be bailed out by others.

As we know, the solution to date to avert bankruptcy of individual EU members has been to provide bailout loans with conditions that ostensibly are intended to return those nations to solvency over time. We also know that these policies not only are not working but they are making matters worse and spreading economic decline to other EU nations.

Issuance of euro bonds, which would mutualize sovereign debt, would spread losses to all EU member countries, which collectively are in a position to backstop individual country insolvencies. But this means that strong EU countries would end up paying for the sins of weak countries. To date this solution has been unacceptable and is particularly politically toxic in Germany.

Embedded in the ECB's quantitative easing program is a limited amount of debt mutualization. The program provides for the purchase of most sovereign bonds by a country's national central bank. However, the ECB may purchase a limited amount directly for its own account. Since all member countries stand behind the ECB this constitutes a form of debt mutualization. Greece sovereign debt is not eligible to be purchased in the ECB's quantitative easing program. This enables German politicians to state categorically that German taxpayers are not on the hook for making good on Greek sovereign debt should Greece default. However, Germany may be forced to blink if Greece is on the verge of defaulting, which is a real threat over the next few weeks. Default could be avoided by restructuring existing Greek debt to reduce debt service

payments or by extending new loans. Because Greece lacks the ability to repay its debt under just about any conceivable scenario, such actions would constitute a form of debt mutualization. But, the alternative of Greek default would force immediate realization of losses. Nearly all Greek sovereign debt is currently held by the ECB, the IMF and European bailout facilities.

**Cultural and Language Differences and Limitations on Population Mobility.** Although the Schengen Agreement among EU members mandates the free movement of people with EU citizenship, cultural and language differences limit population mobility. In the U.S. when a particular geographic area is afflicted by an economic downturn many people leave the area to seek employment opportunities in regions with stronger economies. Language and cultural differences make labor mobility stickier in the EU. As a result, it takes longer for depressed areas to recover.

What mobility does exist primarily involves immigration of people from different cultural and religious backgrounds. In the wake of higher unemployment political opposition to unrestricted movement of people across borders has escalated and nurtured expansion of fringe anti-immigration parties.

**Aging and Declining Population Growth and Low Potential GDP Growth.** Most EU countries either have low population growth or negative population growth. The problem is much worse in peripheral countries whose economies have suffered most from austerity. Emigration, particularly of young able-bodied workers, has escalated in those countries, particularly in Spain and Greece.

Population growth is a critical component of potential GDP growth. When population growth is negligible or negative, potential GDP growth depends entirely on productivity gains. But, productivity growth has collapsed in EU countries since the Great Recession.

Potential GDP growth is important because the higher it is the easier it is to grow out of a sovereign debt problem.

In addition to the low potential GDP growth posed by limited or negative population growth, an aging population stresses social welfare pension and health systems. EU nations collectively have extensive social safety nets which will result over time in increasing amounts of government expenditures. At the same time, as work forces shrink, revenues will also shrink. Declining and aging populations inherently create potential budget deficits in nations with extensive social welfare programs.

This problem is one that is gathering momentum gradually. While not an immediate consideration in most EU countries, it will make policy resolution more difficult.

**High Levels of Sovereign Debt.** While I have argued that sovereign debt is not bad in and of itself, too much of it relative to the size of a nation's economy creates enormous risks. The EU has established a 60 percent target maximum for the sovereign-debt-to-GDP ratio. This appears to be a reasonable upper bound to avoid the potential for insolvency risks to become significant. Unfortunately, most EU members have higher ratios. And, even when they have lower ratios, as was the case for Ireland and Cyprus, the need to backstop the financial system resulted in an immediate and substantial escalation in their debt ratios to levels greatly in excess of 60 percent.

It would seem that the solution to high debt ratios is fiscal austerity and that is the policy that the EU has pursued. But, when economies are already weak, we have seen that austerity depresses economies and results in rising rather than falling debt ratios. The alternative solution of growing out of the problem is limited by population dynamics and poor productivity.

Unfortunately, the more probable solution longer term is restructuring of sovereign debt through

bankruptcy or other means. This requires forcing creditors to absorb losses. This is an alternative that has been totally off the table, but may be a forced outcome of the Greek financial crisis. Since Germany is the largest creditor in the EU, it would be the largest loser.

Write down of sovereign debt either directly or through the issuance of euro bonds appears to be inevitable. Write down has already occurred in the case of Greece, but in a way that permitted Greece to remain a member of the EU. Private creditors experienced losses but public creditors did not, but may have little option to avoid losses in coming weeks. The consequences for Greece of the bailout solution now in place have been disastrous.

Ultimately, EU nations with high debt to GDP ratios will not be able to work their way out of the problem. Debt restructuring, either voluntarily or involuntarily through default and exit from EU membership, can be postponed only so long. Since Greece is in the most extreme condition and has just about run out of time and ways to duck the day of reckoning, whatever happens to resolve Greece's untenable debt situation will set precedents for how debt difficulties in the face of insufficient growth will be handled by other EU members.

For countries who are not members of a monetary union, the solution to debt problems is straight forward and resolutions have occurred repeatedly throughout history. The over indebted country defaults, restructures its debt and devalues its currency. This relieves it from an unbearable debt servicing burden while simultaneously making its exports competitive. The result almost always is a renaissance in economic growth. In a monetary union, current devaluation is not an option, so a country cannot restore competitiveness in this fashion. Default is an option but requires other member countries to embrace this solution. So far the default solution in the EU has been anathema, particularly in Germany, for political reasons and also for fear that once a precedent has been established many other EU countries will demand similar treatment of their sovereign debt.

## 5. Germany's Economic Model and Policies

While the rest of Europe struggles economically, Germany is enjoying low unemployment. Germany's success is rooted in reforms it undertook in the 1990s following the union of East and West Germany which improved competitiveness tremendously. But, success is also the result of Germany's intentional policy to emphasize manufacturing and exports. Its competitiveness and prowess in manufacturing have resulted in the creation of jobs and large trade surpluses. Germany's economic strategy and success are a cause of economic problems in other members of the euro area.

Germany enacted significant economic reforms between 2003 and 2005 based on Gerhard Schroeder's Agenda 2010. At the time Germany's economy was sputtering and Germany was sometimes referred to as "the sick man of Europe."

Agenda 2010 entailed large cuts in corporate income tax rates; reductions in public medical insurance, pensions, and unemployment insurance; and significant labor market reforms, which prioritized employment over high wage rates.

Ten years later Germany is an economic powerhouse with low unemployment and reasonable growth, given the extensive difficulties in the rest of the Eurozone. Germany also has transformed its balance of payments from chronic deficits to enormous surpluses, which continue to grow ever larger. This development stemmed directly from the Agenda 2010 reforms which resulted in a substantial competitive advantage for the German economy. This advantage was amplified by its participation in the Eurozone and the shared

common currency, particularly because the deutsche mark was undervalued at the time of its conversion into the euro.

Unfortunately, Germany's success has contributed to weakness in some other European countries. Ordinarily, a growing competitive advantage would cause the value of the country's currency to rise and that would increase the price of its exports offsetting the competitive advantage. But this cannot occur when the currency is shared with countries with less competitive economies. Consequently, not only did Germany's competitive advantage result in a trade surplus, the surplus grew larger year by year.

Suffice it to say that because Germany is a net exporter, other euro area countries are forced to be net importers. This shifts jobs from those countries to Germany. Were it not for the common currency, such imbalances would melt away over time through adjustment in currency exchange rates. This is not possible in the euro area. Thus, adjustment can only occur through internal devaluation which entails eliminating competitive disadvantages with Germany by driving down labor costs, among other things. For example, internal devaluation has been forced on Greece. It has worked because wages in Greece have fallen 25 percent so that Greece's exports are now competitive. However, it has come at the cost of a 25 percent unemployment rate and a 25 percent shrinkage in the size of the Greek economy.

Germany has forced internal devaluation in euro area members by mandating fiscal austerity. This is enforced directly through bailout agreements but also indirectly through the Fiscal Pact which establishes budget deficit targets with enforcement to be carried out through the European Commission. Unfortunately, as well intentioned and as fiscally prudent as these policies might appear to be, in practice they have been a disaster. That is because fiscal multipliers in weak economies have turned out to be greater than one. What that means is that tax increases and spending cuts intended to reduce the public-debt-to-GDP ratio actually end up raising it because economic activity falls too much. Unfortunately, Greece is the poster child for this phenomenon.

One country's trade surplus must be offset by trade deficits in other countries. By running a consistent trade surplus, Germany transferred production and jobs from trade-deficit countries to Germany. That was good for German growth and German employment but hurt growth and employment in trade-deficit countries.

Germany could have reduced its competitive advantage by using fiscal policy to stimulate consumer spending. This would have resulted in moderate increases in inflation and somewhat higher wage increases, which would have reduced Germany's competitive advantage.

But, Germany did the opposite. Having engaged in belt tightening to become more competitive and then benefiting from those sacrifices, the German public felt that austerity was not just a matter for German workers to endure but that the government should live within its means as well. Thus political pressure emerged for Germany to have a tight fiscal policy and to balance the budget. This, unfortunately, kept inflation low and, rather than moderating Germany's competitive advantage, the competitiveness gap grew even larger.

In a U.S. Treasury Department report on foreign economic and currency policies, Germany was sharply criticized for its huge balance of payments surplus which the report cited as creating "... a deflationary bias for the euro area, as well as for the world economy."

It has been German policy to demand that members of the Eurozone reduce budget deficits. In Germany austerity policy works because of its export-based economic model and its competitive advantage. However, in less competitive countries austerity depresses economic activity, engenders recession and, in the case of Greece, has fostered a lengthy and ugly depression.



Germany could transfer some of its accumulated wealth to other Eurozone countries through fiscal transfers or by agreeing to replace sovereign country debt with Eurobonds. But Germany has adamantly opposed such proposals. That is because it would be suicidal to pursue such a policy in light of passionate public opinion opposition.

Unfortunately, rebalancing of the Eurozone economies cannot occur until Germany adjusts its economic model. No one is openly talking about the need for Germany to do so. To the contrary, Germany is applauded for its economic success and other countries are encouraged to follow the German model to achieve economic success. But this is not possible for every country because the sum of all countries' trade surpluses and deficits must be zero. Thus, as long as Germany continues to pursue its economic policies, and there is little to no pressure for them to do otherwise, the integrity of the EU will continue to erode slowly — the weak will continue to stagnate and suffer high unemployment. No amount of austerity will change this outcome.

This leaves countries with weak economies in a hopeless situation. Unrelenting pain and absence of hope are a toxic combination politically. The political process has unfolded slowly, but the consequences are now visible and the trend is troublesome. In democracies, political parties that do not deliver prosperity lose elections. It starts first with erosion of the political power of centrist parties that support the European Project. It continues in time to the election of parties that focus on national priorities and resist the dictates of the European Commission, the ECB, and the IMF — formerly referred to as the “troika,” now referred to as the euro group.

Greece, having suffered more than any other EU country, is now governed by Syriza, a left-leaning coalition that rejects the mandates of the euro group. Political fragmentation is evolving in other EU countries, including Spain, Italy, France, and the U.K. and support for the EU is simultaneously eroding steadily.

What we have learned over the last four years is that the promise of liquidity by the ECB has taken investor risk off the table. This means that financial markets will not be the catalyst for forcing rebalancing. Rebalancing will eventually occur, but it may take a very long time to unfold. The catalyst most likely will be slowly escalating social unrest in economies with high unemployment rates and the gravitation over time of voters to political parties on the right and the left that do not have a stake in the preservation of the EU.

## 6. Where Are the EU and Euro Area headed?

When I review the fundamental flaws inherent in the EU and euro area governance structures and consider demographic trends and political constraints, I am hard pressed to see an outcome that preserves the EU and euro area in their current forms. But European political elites are committed to the European Project and will continue to struggle to preserve it. This means that the unraveling process is likely to be an extended affair. However, deterioration is proceeding and damage is accumulating. Social unrest is building and legitimacy of the ruling political elite is slowly eroding. In short, the crisis is far from over. Indeed, more and worse episodes are ahead.

The disparities in economic performance among the EU member countries are substantial. For long-term survival of the EU, such disparities must diminish. That requires creating governance and fiscal structures that provide for greater integration. It also would require the strongest economy — Germany — to modify its current export-driven economic model. While there has been a lot of talk about what is needed, little of substance has taken place and there is little reason to expect further action of consequence

to occur. The weakening of centrist parties that support the European Project virtually assures that policies necessary to assure long-term survival of the EU will never occur.

So, if you thought all is well in Europe and things are getting better, that is hardly the case in several key countries. The fundamental problems that are tearing the EU apart have not been addressed. Unlimited liquidity from the ECB can engineer improved economic momentum and hold things together for a while longer, but it is not a lasting solution. Indeed, as Charles Gave of GaveKal Dragonomics has opined, there are many parallels to what the ECB is currently doing through its quantitative easing program and the South Seas bubble. And, we know from history that the South Seas bubble eventually burst and exacted a terrible toll.

## V. Greece Nears the Day of Decision

Market participants increasingly understand how serious the Greek financial crisis is and how it could easily spin out of control and set in motion a chain reaction of unpleasant consequences. But there is an underlying presumption that the consequences would be so harmful to Greece that the Greek leaders will eventually fall into line and do the euro group's (creditors') bidding packaged with some face-saving, albeit minor, concessions to the Greek leadership.

This reasoning is misguided in two ways. First, it reflects no appreciation for the severity of the underlying problem the Greek economy faces constrained as it is by the straitjacket of the common currency. There is simply no way Greece can work its way out unless a substantial portion of its debt is cancelled. This can only occur if there is intentional debt forgiveness or default. Second, it reflects a lack of appreciation for the political constraints within which the current Greek Syriza-led government is operating.

It is useful to analyze the situation within a game theory context.

### 1. Players

- European Union, European Commission, International Monetary Fund — but it is really Germany that is calling the shots
- Greece

### 2. Political Constraints

- Germany
  - ✓ the German electorate believes the narrative that Greeks are lazy and shiftless and need to be forced to adopt reforms that emulate the kinds of economic efficiencies that Germans sacrificed to achieve
  - ✓ the German electorate is proud of its economic achievements and wants its leaders not to tinker with success
  - ✓ the German electorate is vehemently opposed to shifting any portion of Greece's debt to German taxpayers
- Greece

- ✓ the Greek electorate wants Greece to stay in the European Union
- ✓ the Greek electorate wants political leaders to throw off the oppressive yoke of the euro group and pursue policies that revive the Greek economy and maintain, or should I say, revive an acceptable quality of life
- ✓ Syriza is a coalition of factions united only by their hate of the euro group and its mandates

### 3. Economic Stakes

- Germany
  - ✓ Preserve Germany's export-led economic model
  - ✓ Preserve the integrity of the EU which is critical to the long-run success of Germany's economic model — this means avoiding forcing Greece out of the euro because Greece's exit could create a domino effect
- ECB — can wield the hammer at any time of withdrawing Greek bank access to emergency liquidity, thus precipitating a run on Greek banks and forcing implementation of capital controls
- Greece — bring down the high unemployment rate; pay wages and pensions on time; restore viability of essential services such as the decimated health care system

### 4. Outcomes

- Muddle through — this has been the operative strategy to date; it could last a bit longer, but because the underlying financial problems have not been addressed, it is not a strategy that can be successful, indeed it has reached the point where there is little wiggle room left
- Greece agrees to mandated reforms and the euro group provides new bailout funds — this is a longer-term variation on the muddle through option. Greek acceptance of mandated reforms is probably not politically viable and would do little to improve the Greek economy in the near term
- The euro group agrees to restructure Greek debt service in return for Greek acceptance of some of the mandated reforms
- Greece defaults, sets up a parallel currency, and implements capital controls to protect its banking system but remains in the EU
- Greece defaults and exits the euro and the EU

### 5. Commentary

First, it should be understood that political constraints greatly narrow room for developing a compromise solution that keeps Greece in the EU but gives Greece greater autonomy and flexibility in shaping policies to revive its severely depressed economy.

Greece's political leadership is in a difficult position because the electorate wants to remain in the EU but unless the EU shows flexibility on repayment of debt and economic reforms, history indicates that Greece would be better off in the long run exiting the euro and reinstating and devaluing the drachma. There is little doubt that the transition impacts of exiting the euro would be enormously painful, but there

is strong reason to expect that in time Greece's economy would revive and grow rapidly. Such a long-term outcome is less likely as long as Greece continues in the euro, unless significant debt relief is granted.

Because the Greek leadership is constrained by the incompatible goals the electorate currently embraces of staying in the euro and EU but wresting control of its economic destiny from the EU, the leadership may need to pose the question directly to the Greek electorate as to which goal is more important. There have already been hints of holding a referendum or even calling new elections to resolve this matter.

My sense is that Prime Minister Alexis Tsipras is intentionally stretching out negotiations with the euro group for as long as possible for two reasons. The first reason is obvious. If he caves in too soon to creditor demands, he will split Syriza. He might survive as prime minister by assembling a new coalition that includes members of the discredited centrist parties. Second, if he takes too hard a stance too soon with creditors he risks Greece being forced into default before the Greek electorate is ready to accept the consequences. This, too, would have negative political consequences for Tsipras and Syriza.

Scrapping together enough funds to pay the next debt payment due on May 12 and pay a month's worth of wages and pensions by ordering state entities to transfer cash balances to the Greek central bank is consistent with a strategy to stretch out negotiations as long as possible. To preserve his governing coalition and put maximum pressure on creditors he needs to convince the Greek electorate that creditors are being unreasonable and that the alternative of exit from the EU is less dire than the consequences of acceding to the requirements of the creditors.

This process of brinksmanship could go on for several more months, although the current bailout program expires on June 30 and a new one would need to be negotiated. Creditors rightly fear the consequences of Greece's potential exit from the euro and the EU but not so much so yet that they are willing to concede much.

So, my overall sense is that the crisis will continue to lurch on with both parties letting it extend by making inconsequential concessions. But, because there are few such concessions remaining this process cannot extend for very long.

Because I see no hope for the EU to cure its fundamental flaws and I am doubtful that Germany can overcome its own political constraints, my sense is that ultimate resolution involves Greece's exit from the euro and perhaps the EU as well. If and when this event occurs, what else it leads to is uncertain, but what I can say confidently is that the risks are extremely high.

## VI. APPENDIX: Outlook — 2015 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 2015 U.S. and global economic outlook and risks to the outlook were contained in the *December 2014 Longbrake Letter* and are included below without any changes. As events unfold during 2015, this will enable the reader to track my analytical prowess. Current assessments follow each item with the following identifiers: “+” tracking forecast; “-” not tracking forecast; “?” too soon to know. As events unfold during 2015, this will enable the reader to track my analytical prowess.

### 1. U.S.

- **2015 real GDP Y/Y** growth projections range from 2.7% to 3.5%. The FOMC’s central tendency Q4/Q4 projections range from 2.6% to 3.0%. (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.) Because the substantial decline in oil prices is likely to boost consumption growth more than it depresses investment growth, actual 2015 real GDP growth is likely to be at the high end of the forecast range.
  - *The Federal Reserve lowered its GDP forecast range to 2.3% to 2.7%;*
  - ? *Other forecasts remain in the middle of the range: GS = 2.8%; B of A = 2.95%; Bill’s Steady scenario = 2.7%; Bill’s Strong scenario = 2.9%*
- **Real GDP output gap** will remain high, but will close rapidly during 2015 from about 3.4% to 2.0%. (The exact size of the output gap will be revised by CBO, probably in February 2015).
  - + *CBO revised the output gap down by 1.1 percentage points in February; output gap should decline to between 1.3% and 0.9% by the end of 2015*
- **Potential structural rate of real GDP growth** has declined significantly in recent years. I expect potential growth to be about 2.0% in 2014. Long-term potential real GDP growth will edge up in coming years to between 2.0% and 2.3%.
  - + *CBO reduced 2015 potential growth from 1.8% to 1.7%*
  - *Potential growth for my scenarios for 2015 is 1.4%*
  - + *Long-run potential growth for my scenarios is between 2.0% and 2.2%; it is between 2.0% and 2.3% for the Federal Reserve; and it is 2.1% for CBO*
- **Productivity** should rise during 2015 as growth improves and investment increases, but should still fall well short of the historical 2.1% average.
  - ? *No 2015 data yet available; nonfarm productivity declined 0.1% in 2014, so it won’t be hard to meet this forecast*
- **Employment** growth should slow during 2015 as full employment approaches and grow about 185,000 per month.
  - + *Payroll growth has averaged 197,000 over the first three months of 2015*
- **Employment participation** will rise slightly during 2015 as the unemployment rate falls, labor market conditions tighten and discouraged workers find jobs. These cyclical factors will more than offset the downward pressure on the participation rate stemming from an aging population.
  - ? *The participation ratio has not changed; it was 62.7% in December and 62.7% in March*
- **Unemployment rate** should edge down to about 5.25%. A higher rate could occur if substantial numbers of discouraged workers re-enter the labor force.

*+ The unemployment rate has fallen from 5.56% in December to 5.47% in March*

- **Nominal consumer disposable income**, measured on a Y/Y basis will rise about 3.2% (roughly 1.2% increase in hours worked; 1.8% increase in CPI inflation and .2% increase in the hourly wage rate).

*- 12-month rate of change is 4.4% through February; total hours worked are growing at a 2.4% annual rate*

- **Nominal consumer spending growth** on the Y/Y basis will grow slightly faster at approximately 3.5%, but could grow slightly faster if low oil prices persist.

*+ 12-month rate of change is 3.7% through February*

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

*- Saving rate averaged 5.6% over the first two months of 2015 compared to 4.9% in 2014; consumers are not yet spending the oil price decline windfall*

- **Stock prices**, as measured by the S&P 500 average, should rise between 0% and 5%.

*+ Through April 17, stock prices were up 1.1%*

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

*+ The ISM manufacturing index has softened since the beginning of the year but was still at an expansionary level of 51.5 in March; however, the Markit index was much stronger in March at 58.8*

- **Business investment** spending growth should remain relatively strong in a range of 4% to 6% as employment and consumer spending growth gathering momentum; however, low oil prices will depress energy investment.

*? Data not yet available for 2015; Q1 investment growth expected to be weak between an annual rate of 2% and 4%*

- **Residential housing investment** should improve over 2014's disappointing level by 8% to 10%; residential housing starts should rise 15% to 20%.

*? Data not yet available for 2015; Q1 investment growth expected to be very weak between an annual rate of 2% and 3%*

*- Over the first three months of 2015 total housing starts were 3.2% below and single-family housing starts were 1.6% below the 2014 level*

- **Residential housing prices** should rise about 2% to 4% in 2015, more slowly than 2014's projected 4.5% increase.

*? Housing price data for 2015 not yet available; housing prices rose 6.4% in 2014 according to the Federal Housing Finance Agency and 6.6% according to the S&P Case/Shiller Index*

- **Trade deficit** should be slightly higher in 2015 as economic growth improves growth in imports and the rising value of the dollar depresses growth in exports. The **dollar's value** on a trade-weighted basis should continue to rise.

*? The trade deficit for goods edged down slightly from December to February; imports of goods were depressed by the west coast dock strike*

*+ The trade weighted value of the dollar rose 8.9% from December through March and is 19.6% higher than March 2014*

- **Monetary policy** — the Federal Reserve will raise the federal funds rate at its June, or possibly, September 2015 meeting. Because inflation is likely to continue to fall short of the Federal Reserve's expectations, the pace of increases in the federal funds rate is likely to be slow.

*+ Most expect the first increase in the Federal Funds rate to occur in September, although recent weaker data reports could delay the first increase to an even later date; FOMC members lowered projections for the level of the Federal Funds rate in the future*

- **Total inflation** measures (CPI and CPE) will fall sharply during the first half of 2015, reflecting the significant decline in oil prices. **Core PCE inflation** will be stable to slightly lower in a range of 1.3% to 1.5%, reflecting global disinflationary trends. Core PCE inflation will remain well below the FOMC's 2% objective at least through 2017.

*+ Total CPE was up 0.3% in February compared to February 2014 and is projected to decline -0.4% by June and rise 0.7% for all of 2015*

*+ The annual rate of change in core PCE was 1.4% in February and should dip to 1.1% by June before ending the year at 1.4%; however, an even lower rate of increase is more likely than a higher rate*

- The **10-year Treasury rate** is likely to fluctuate in a range between 2.0% and 3.0% in 2015. Faster than expected real GDP employment growth will push the rate toward the top end of the range; greater than expected declines in inflation and/or heightened financial instability will push the rate toward the bottom end of the range.

*? The 10-year Treasury rate was 1.87% on April 17; because of low rates globally and aggressive quantitative easing by the European Central Bank and the Bank of Japan, the 10-year Treasury rate is likely to remain near the lower end of the 2.0% to 3.0% range during 2015*

- **Fiscal policy** will have limited impact on real GDP growth during both fiscal year and calendar year 2015. The deficit as a percentage of nominal GDP will probably decline from fiscal year 2014's level of 2.75% to 2.50%. The decline could be greater if economic growth and tax revenues exceed expectations or less if Congress increases spending without offsets as it did in approving the tax extenders bill for 2014.

*? The 2015 fiscal year deficit is on track to match 2014's deficit of 2.75% based on a recent small increase in CBO's estimate of the expected 2015 deficit; the 12-month deficit through March was 2.87%*

- **State and Local investment** spending growth rises slightly from 0.5% in 2014 to 1.0% in 2015, which is still well below the long-term average of approximately 1.4%.

*? No data will be available until Q1 GDP data are released at the end of April*

## 2. Rest of the World

- **Global growth** is likely to improve to 3.7% in 2015 from 3.2% in 2014. Risks are tilted to the upside because of the substantial decline in oil prices.

*- Global growth forecast has been lowered to 3.3%*

- **European growth** will be positive but will likely fall short of the consensus 1.2%.

*- Europe's growth forecast has been raised to 1.7%*

- **European inflation** will continue to decline and may even turn into outright deflation. Quantitative easing, assuming it occurs, may be too late and have too limited an impact to deflect emerging deflationary expectations. Europe may well be headed to the kind of deflationary trap Japan has been in for the last 20 years.

+ *Consumer prices in Europe are expected to decline -0.1% during 2015*

- **European financial markets** may face renewed turmoil. Markets expect the ECB to begin purchasing large amounts of securities, including sovereign debt, by March. This presumes that legal hurdles and German opposition will be overcome. Assuming that quantitative easing actually occurs, its impact is likely to disappoint.

- *The ECB has embarked upon a massive quantitative easing program; markets remain quiet and interest rates continue to plunge to near zero levels across the yield curve; credit and financial conditions have eased; the decline in oil prices and the exchange value of the euro are also helping boost growth to a higher than expected rate*

- **European political dysfunction, populism and nationalism** will continue to worsen gradually. Countries to watch include the U.K., Greece, Spain, Italy and Portugal.

+ *Centrists lost the Greek election; the National Front party is gaining ground in France; centrist parties are likely to lose the Spanish elections scheduled for late 2015; the UK parliament could be hung after the May elections*

- **U.K. growth** is expected to slow from 3.0% in 2014 to 2.6% in 2015; however, political turmoil should the May parliamentary elections be inconclusive could drive growth lower.

? *It will not be clear until much later in the year whether prospective political turmoil results in lower growth*

- **China's GDP growth** will slow below 7% and gradually moved toward 6% as economic reforms are implemented and the shift to a consumer-focused economy gathers momentum.

+ *Year over year growth in the first quarter of 2015 was 7.0% but annualized first quarter growth was 5.3%*

- **China's leadership** will focus on implementing *economic reforms* and will overcome resistance and maintain stability.

+ *Chinese reform policies are being implemented slowly; the anti-corruption campaign continues and has had a chilling impact on speculation in commodities*

- **Japan's** economic policies may be successful in defeating deflation, but GDP growth will be hard pressed to achieve the expected 1.6% rate in 2015 if Abenomics' third arrow of economic reforms fails to raise the level of potential growth sufficiently to overcome the effect of negative population growth on labor force growth.

+ *Japanese expected growth has been lowered to 1.3%; the Bank of Japan is likely to fall short of its goal to raise inflation to 2.0%inflation expectations currently are about 0.8%*

- **India** should experience an improvement in real GDP growth to 6.3% in 2015.

? *Too early to determine*

- **Emerging market countries** that are energy consumers will experience greater growth, as long as the U.S. does better in 2015; energy producing countries and those heavily dependent upon commodities exports for growth will do less well.

? *Too early to determine*

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

- **U.S. potential real GDP growth** falls short of expectations

+ *Preliminary data for Q1 suggest this risk will be realized*

- **U.S. employment growth** is slower than expected; the *participation rate* is stable or declines rather than rising modestly



? *Participation rate has been stable; employment growth only slightly above expected level through the first three months of 2015*

- **U.S. hourly wage rate growth** does not rise materially over its 2014 level of 2.1%
  - + *Through March this risk is being realized — wage growth remains unchanged at 2.1%*
- **US. Unemployment rate** falls less than expected
  - *Data for January and February suggest that the unemployment rate may fall more than expected*
- **U.S. productivity** remains low in the vicinity of 1%
  - ? *No data available until late April; however, hours worked are growing faster than output which implies that productivity may fall well short of 1%*
- **Real U.S. consumer income and spending** increase less than expected
  - *Data for January and February suggest that consumer disposable income and spending may rise more than expected*
- **U.S. financial asset prices** rise more than expected posing increased bubble risks
  - + *Bond prices have risen much more than expected*
  - *The increase in stock prices is within the expected range so far*
- **Growth in U.S. residential housing investment and housing starts** is less than expected
  - + *Housing starts and residential investment are well below expectations, but may recover later in the year*
- **U.S. residential housing price increases** slow more than expected
  - *Preliminary evidence suggests that home prices may rise more than expected*
- **U.S. private business investment** does not improve as much as expected
  - ? *Too early to tell; data will be released in late April, but forecasts have been revised lower*
- **Oil price declines** in the U.S. trigger bankruptcies and cause tight financial conditions with negative implications for economic activity and growth
  - *There is no evidence yet of significant disruptions stemming from the fall in oil prices*
- **U.S. manufacturing growth** slows as the value of the dollar rises and global growth slows
  - ? *ISM manufacturing index remains above 50 but is softening; however, the alternative Markit number has been strong*
- **U.S. trade deficit** widens and the **value of the dollar** rises more than expected
  - + *The value of the dollar has risen more than expected*
  - *The trade deficit widened slightly in January and February, perhaps due to the west coast dock strike*
- **U.S. monetary policy** spawns financial market uncertainty and contributes to financial instability
  - *Volatility has increased somewhat but there is no indication of financial instability*
- **U.S. inflation** falls, rather than rising, and threatens deflation
  - ? *Total PCE inflation is falling, but core PCE inflation is relatively stable and positive; deflation is not yet a threat*
- **U.S. interest rates** fall or rise more than expected
  - + *Interest rates have fallen more than expected*

- **U.S. fiscal policy** is more restrictive than expected and the **budget deficit** falls more than expected
  - *This risk has not materialized; recent legislation will probably put modest upward pressure on the deficit*
- **U.S. state and local spending** does not rise as fast as expected
  - ? *Too early to tell; data will not be available until late April*
- **Global GDP growth** does not rise as fast as expected
  - + *The global GDP growth forecast has been reduced from 3.7% to 3.3%*
- **Europe** slips back into recession
  - *Growth is improving in Europe because of the decline in the value of the euro, easier financial conditions, and less fiscal drag*
- **ECB** does not engage in quantitative easing or the quantitative easing program it decides to pursue lacks market credibility
  - *This risk will not materialize because the ECB has initiated a massive quantitative easing program*
- **Europe** — financial market turmoil reemerges
  - *This risk has not materialized*
- **Europe** — political instability and social unrest rises more than expected threatening survival of the Eurozone and the European Union
  - ? *Political fragmentation is building slowly but does not yet threaten the survival of the Eurozone and the European Union*
- **Acute political turmoil** engulfs the U.K.
  - ? *This risk will remain unclear until after the May parliamentary elections*
- **Chinese** leaders have difficulty implementing **economic reforms**
  - *This risk has not materialized*
- **China's growth** slows more than expected
  - + *While year over year growth in the first quarter was 7.0%, the annualized rate of growth in last year's fourth quarter and the first quarter of this year have been well short of 7.0%*
- **Japan** — markets lose faith in Abenomics
  - *This risk has not materialized*
- Severe and, of course, unexpected **natural disasters** occur, which negatively impact global growth
  - *This risk has not materialized*

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