



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

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The Longbrake Letter*

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I. Overview

Growth anxieties that gripped global financial markets during September and early October have abated. Stock prices in the U.S. have not only rebounded but have marginally exceeded the previous all-time high reached in August.

Yet, the markets' recent tantrum has left some scars that have not reversed and are unlikely to do so in coming months. Most visible has been a substantial decline in oil prices and a more general decrease in commodity prices.

Significant and troublesome imbalances have been building in the global economy for a long time but the threats they pose to global economic well-being have largely been ignored. That is not surprising because markets tend to focus on what is happening in the short run and discount longer-term possible developments, particularly when those possibilities seem remote and are decidedly negative. Such short-termism has been made all the easier by the elixir of abundant and cheap liquidity, which has fueled rising asset prices and damped volatility and risk.

But now the possibilities of much slower growth in China, failure of Abenomics in Japan, and deflation in Europe, not to mention the existential threat to the euro and the European Union, are being discussed more openly. Probabilities of such outcomes have been upgraded, but widespread hope remains that policymakers will be able to avoid worst case outcomes.

“Hope” still holds the upper hand as evidenced by the short duration of the recent market tantrum. The U.S. economy continues to expand in a stolid unspectacular fashion. Japan upped the ante considerably when it delivered its Halloween surprise of greatly expanded quantitative easing and planned government purchase of domestic and foreign equity securities. These actions will provide global capital markets with yet another shot of liquidity that will fuel animal spirits. The ECB promised to expand its balance sheet by euro1 trillion over the next two years. Markets, which had been losing confidence in the European Union's

*The information contained in this newsletter does not constitute legal advice. This newsletter is intended for educational and informational purposes only.

long-term economic prospects, put those doubts aside for the moment. But European policy continues to be all about promises to act, but actual substantive action is missing in action.

My own views are less sanguine. Markets have shrugged off recent anxieties and have stabilized because market participants still want to believe in market-friendly outcomes. In other words, the climactic moment of capitulation and realization that the status quo is neither fixable nor sustainable remains somewhere in the future.

Unfavorable demographic trends, excess supply of goods and services relative to underlying demand, monetary profligacy, negative real rates of interest, and huge and rising debt-to-GDP ratios collectively are the hallmarks of a global *deflationary bust*.

In this month's letter, I review the indicia of the evolving global deflationary bust in Section II. The letter also contains a brief update on economic developments in the U.S. in Section III. Three topics — the U.S. housing market, U.S. fiscal policy prospects, and global energy prices — are examined in the remainder of the letter.

II. Markets and Charles Gave's Deflationary Bust

In a recent analysis, Charles Gave provides additional evidence that most global economies are in the throes of a *deflationary bust*.¹

The changes in consumer price indices of 13 developed economies are negative year-over-year. The change in consumer prices in an additional 8 countries is less than 1 percent. Gave notes that if the imputed inflation impact of housing is purged from the U.S. consumer price index, inflation is rising at approximately 1 percent.

Gave's leading indicator of inflation "is plunging again." This indicator leads changes in measured inflation by about six months and tends to be correlated positively with world trade flows. What this portends is that inflation in developed countries will continue to fall in coming months and trade will also fall both in quantity and value terms.

1. Deflationary Bust

Market economies are naturally deflationary because participants strive to maximize profits. This is accomplished by increasing revenues and decreasing costs. Thus, over the entirety of the economic cycle, market-driven economies will tend to have an excess of supply relative to demand which fosters downward pressure on prices.

This fundamental trait of market economies has been masked in our lifetimes by persistent and sometimes virulent inflation. Because that has been our experience, we have come to think of inflation as a normal condition. But, it is not. However, because that has been our experience and because too much inflation is troublesome, policy has focused on containing inflation. Now that the natural deflationary tendencies of market-based economies are returning to the fore, policies designed to deal with inflation are ineffective in dealing with the opposite problem of deflation. In addition, traditional policies designed to

¹Charles Gave. "Deflation: Boom Or Bust?" GavekalDragonomics Global Research, November 5, 2014. This commentary is proprietary and is not available for distribution without permission by GavekalDragonomics.

stimulate demand, which arguably should counterbalance deflationary forces, don't appear to be working very well and may actually be feeding deflationary forces.

There are several reasons that the deflationary characteristics of economic activity were replaced by inflationary characteristics during our lifetimes. Prominent among these were rapid population growth including lifespan extension, systematic construction of social welfare institutions, and active policy intervention to dampen economic cycles. Aggregate demand stemming from population growth outpaced development of aggregate supply. Social welfare institutions and active monetary and fiscal policies moderated the consequences of economic recessions, but at the cost of limiting the corrective impact of creative destructive; in other words, some economic inefficiencies were not purged during recessions. Collectively, these developments imparted an inflationary bias to market-based economies.

Recent global developments are pushing the performance of many market-based economies back in the direction of their historical deflationary bias. Population growth is slowing in many developed economies and is actually negative in Japan and many European countries, and soon will be in China as well. This development automatically decreases aggregate demand. In addition, over the last 25 years, the portion of the global population living in countries with market-based economies has more than doubled. This has unleashed huge increases in aggregate supply. When supply increases faster than demand, which is what has been happening over the past few years and which will most certainly continue, prices must inevitably fall.

Deflation is not necessarily bad if it is accompanied by economic expansion, an outcome that is called *deflationary boom*. A deflationary boom occurs when the volume of output rises more quickly than prices fall — the nominal value of output rises. This clearly occurs when population grows rapidly.

But, a *deflationary bust* occurs when prices fall faster than output rises — the nominal value of output falls. This has been Japan's problem for over 20 years and is fast becoming Europe's and Russia's problem currently and will become China's problem in a few years. While the U.S. is not likely to suffer from depopulation in coming years, the rate of population growth is slowing and the Congressional Budget Office estimates that the annual rate of growth in total hours worked will fall steadily in coming years to 0.5 percent.

Downward pressure on nominal sales growth in firms makes it more difficult for those firms to service their indebtedness and increases the potential for bankruptcy. The same is true for governments. Slower growth in tax revenues makes it harder to service public debt.

If a *deflationary boom* holds sway, equity returns should exceed the cost of capital. If the relationship is reversed, then a *deflationary bust* is at work.

Charles Gave of GavekalDragonomics has constructed a simple index to measure whether a deflationary boom or a deflationary bust prevails.² Gave measures equity returns as the total return (includes reinvestment of dividends) on a local country's MSCI stock market index in U.S. dollar terms. He measures the cost of capital as the total return on a U.S. 20-year constant duration Treasury zero coupon bond. Over the last 12 months the cost of capital has exceeded equity returns in 14 countries. In only one, the U.S., has the reverse been true. Gave concludes that this is powerful evidence the global economy is mired in a *deflationary bust*.

²Charles Gave. "Plodding Towards Deflation," GavekalDragonomics Global Research, October 13, 2014. This commentary is proprietary and is not available for distribution without permission by GavekalDragonomics.

2. Ruminations — Charles Gave³

Charles Gave opines that “*The current financial situation reminds me of a Greek tragedy. Every step toward an international liquidity crisis is being followed on cue ...*” There are two steps in the developing global liquidity crisis.

Step one — the U.S. trade and current account deficits are shrinking. This means that there are fewer dollars available globally. (When the world was on the gold standard, too little gold led inexorably to sustained deflation. To avoid such an outcome growth in global monetary reserves need to keep pace with growth in nominal economic activity.) To a certain extent Japan’s recent dramatic expansion of quantitative easing is providing needed global liquidity and will help delay the more pernicious consequences of a *deflationary bust*. Europe’s ECB may eventually join the party, but this should not be counted on.

Step two — collectively foreign central bank reserves held at the Federal Reserve are declining. This is an indication that central banks are liquidating dollar reserves to finance current account deficits. India is already feeling the full brunt of an acute liquidity squeeze. India has been forced to raise short-term interest rates in an attempt to stop capital outflows so that it can continue to finance its current account deficit. However, higher interest rates, if sustained, will depress growth in India and could even lead to recession.

What Charles Gave is saying is that growth in global financial flows has not been matched by real wealth creation. Rates of return on real, as opposed to financial, investment are inadequate or even negative. As investors begin to realize this, speculative finance is withdrawn and a liquidity crisis ensues. The Minsky financial instability hypothesis is at work.

This is heavy and frightening stuff. We will know in time whether the analysis is on the mark.

III. U.S. Economic Outlook

Economic activity in the U.S. continues to exhibit gradual improvement. A more detailed update of U.S. and global economic activity is included in the **Appendix**.

Employment growth continues to be a bright spot. Payroll employment has grown 1.93 percent, household employment has grown 2.65 percent, and total hours worked is up 2.74 percent over the last 12 months. (See **Chart 1**.)

The U-3 unemployment rate has fallen to 5.8 percent and the U-6 rate has drifted down to 11.5 percent from 7.2 percent and 13.7 percent a year ago, respectively. (See **Chart 2**.)

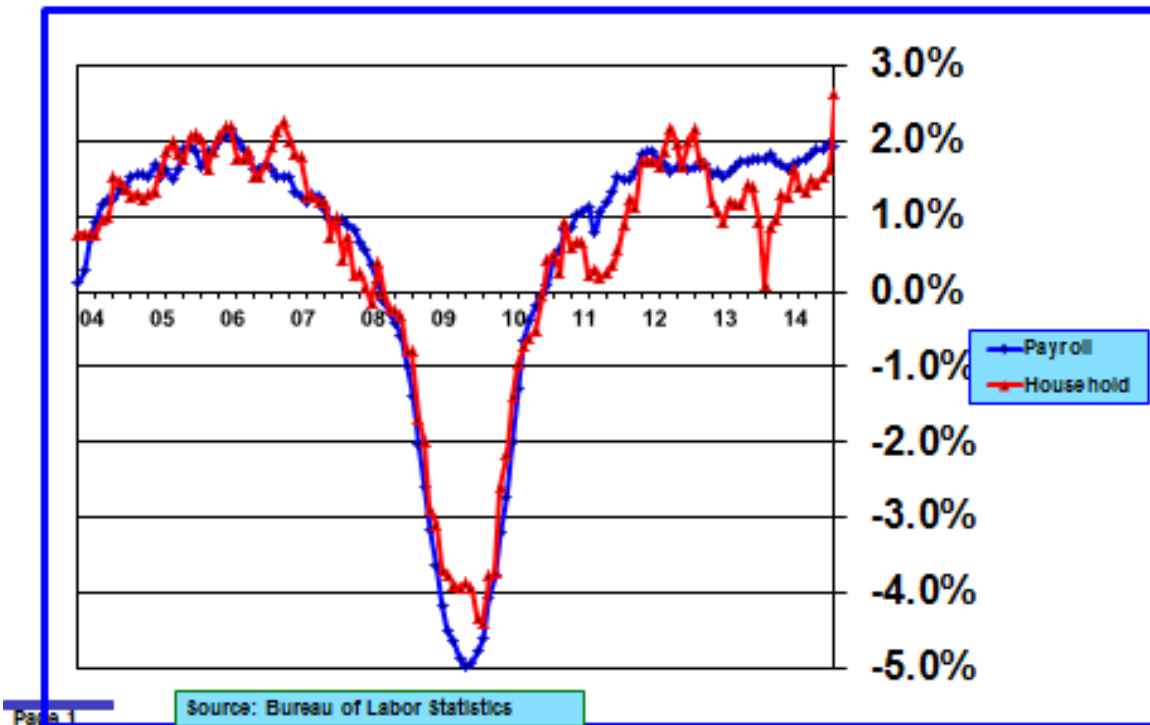
But other labor market indicators are less encouraging. The number of people eligible and willing to work has increased 1.07 percent over the last 12 months. (See **Chart 3**.)

As a consequence the participation rate has been stagnant. (See **Chart 4**.)

If the labor market is really tightening, as suggested by payroll and household employment gains, the hourly wage rate should be rising. But, it is not. Growth in hourly wages has been stagnant at between 2.0 percent and 2.1 percent for the last 12 months. (See **Chart 5**.)

³Charles Gave. “Greek Tragedies Always End the Same.” GavekalDragonomics Global Research August 8, 2013. This commentary is proprietary and is not available for distribution without permission by GavekalDragonomics.

CHART 1 – Employment Growth
(annual rate of change)



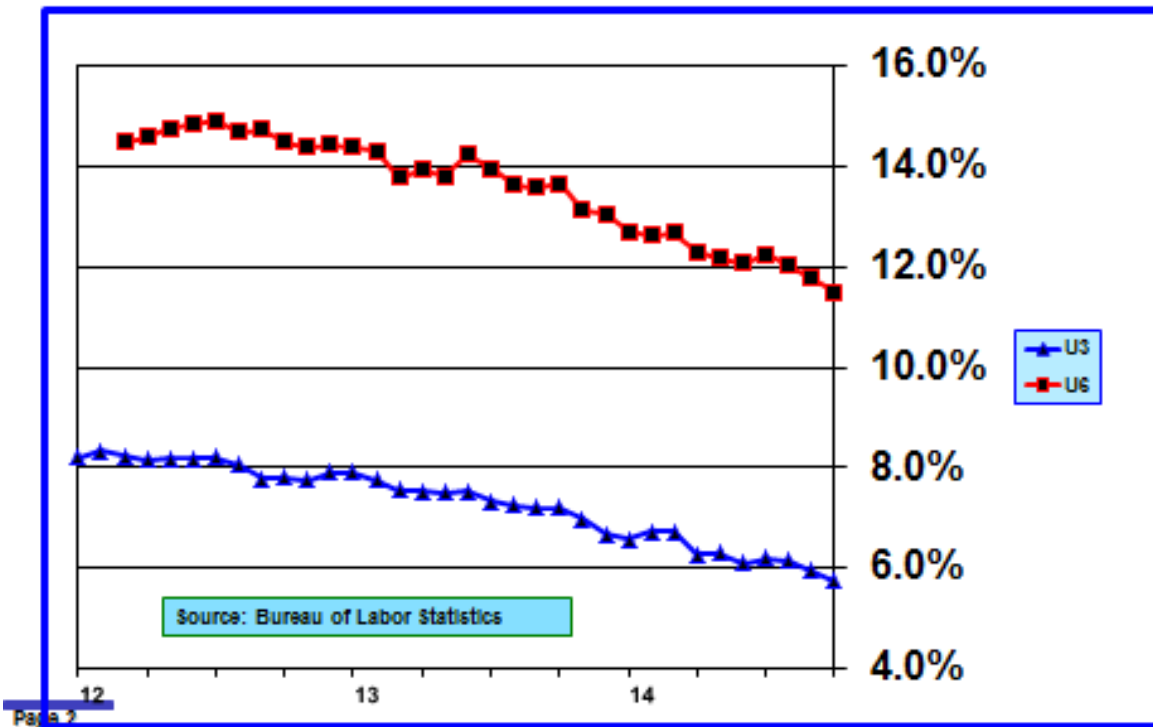
The Federal Reserve updated its Labor Market Conditions Index (LMCI), which was first published in April. LMCI is a composite of 19 labor market indicators. The value of LMCI improved in October to 4.0 from 2.5 in September, which means that labor markets are improving, but the index is below the average of over 5 in 2011-12, 4.1 in 2013, and 4.5 in early 2014. Historically, wage growth has not accelerated appreciably until LMCI rises to a value of about 7. Wage growth should accelerate gradually in the neighborhood of 0.5 percent in the coming year as the labor market continues to tighten. Although rapid growth in hours worked should boost consumer spending, sluggish wage rate growth will retard the rate of improvement.

Recent retail sales and nominal consumer spending data have fallen short of expectations. (See **Chart 6**.) However, retail sales data were revised higher in August and September and were reasonably good in October.

However, *consumer sentiment* has improved to the highest levels since mid-2007. The improvement in both employment and consumer sentiment is consistent with recent improvements in retail sales.

Third quarter *real GDP* growth was a stronger than expected 3.5 percent but is likely to be revised slightly lower to 3.4 percent. **Chart 7** compares annual real GDP growth with annual growth in private real GDP, which nets out the impact of changes in inventories and government spending. It is evident that private real GDP has been relatively stable over the last four years near 3.1 percent. This reflects primarily the drag of cutbacks in government spending. Fiscal policy should cease to be contractionary in 2015 and may even be expansionary, which implies that private real GDP growth should converge upwards to total real GDP growth and may even rise above it.

CHART 2 – U3 and U6 Unemployment Rates
(annual rate of change)



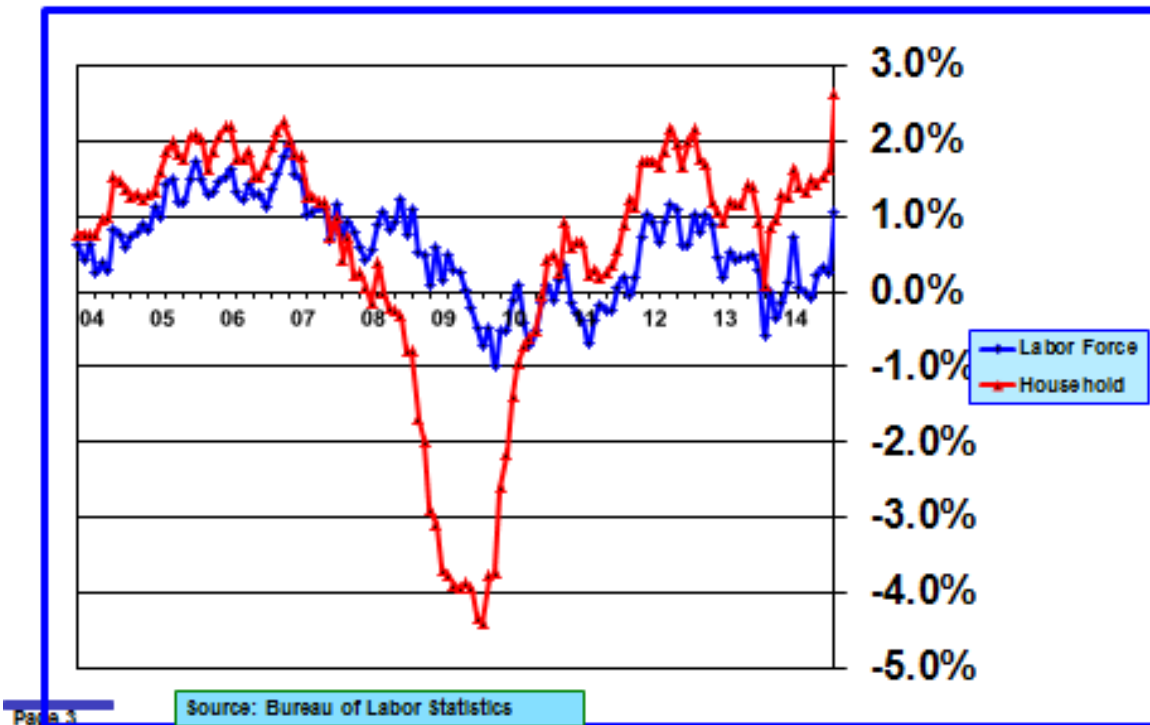
Falling gas prices and somewhat higher stock prices in October and November should boost consumer confidence — oil prices have fallen more than 25 percent since June and 17 percent over the last year. Stock prices have risen 10 percent so far in 2014. The increasing *value of the dollar* will have small negative impacts on consumer spending for imported goods and manufacturing exports. While it is still too early to know with any degree of certainty how these developments will affect consumer spending and real GDP growth, the impact is likely to be modestly positive because the U.S. is a relatively closed economy.

However, recent developments are likely to push *inflation* lower. Most core PCE inflation forecasts for 2015 have been reduced by 0.1 percent to 0.2 percent to between 1.4 percent and 1.6 percent. (See **Chart 8**.)

Long-term interest rates have also declined by about 25 basis points reflecting a decrease in inflation expectations. Even consumer inflation expectation have broken out of a multi-year range of 2.8 percent to 3.0 percent and declined to 2.6 percent in the October Michigan survey. (See **Chart 9**.)

Market participants have reacted by pushing out the expected date of the initial hike in the federal funds rate from June to September 2015. There is increasing speculation that the FOMC might adjust *monetary policy* to recognize the consequences of inflation that persistently falls well short of its 2.0 percent target. If that occurs, the date of the first increase in the federal funds rate could occur even later than September 2015. In any event, the market now expects rates to rise more slowly and top out at a lower level. My federal funds rate projections, shown in **Chart 10**, track the lower end of the FOMC's projection range.

CHART 3 – Labor Force and Employment Growth
(annual rate of change)



IV. Housing

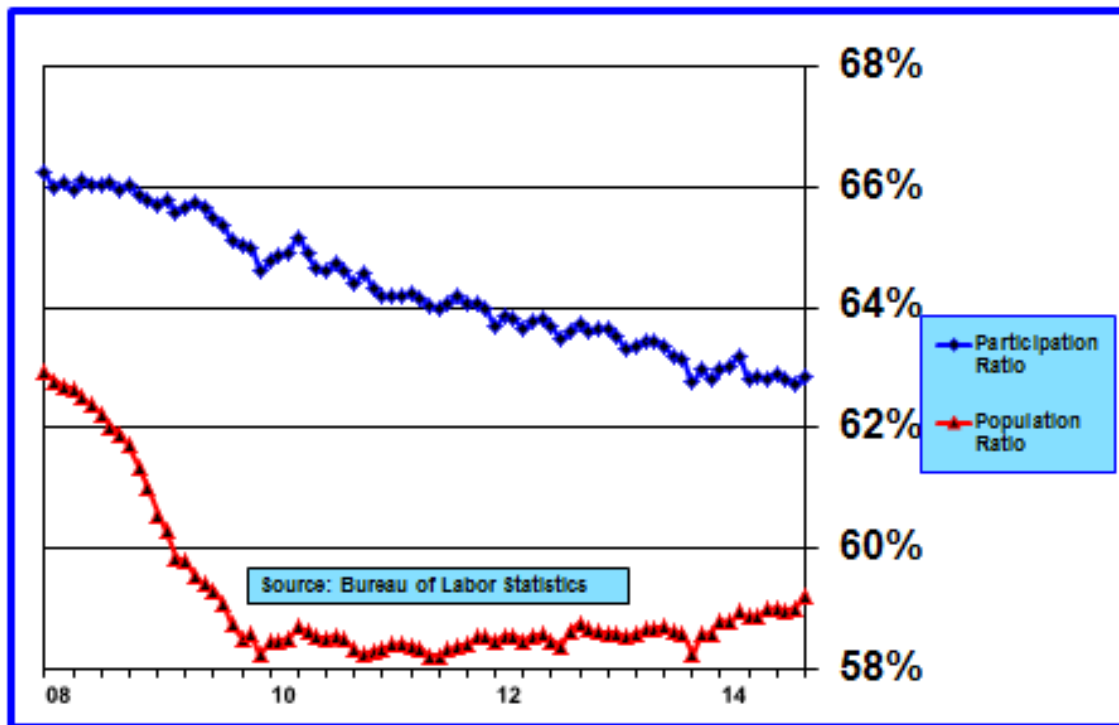
Residential housing construction has not led the cyclical recovery from the Great Recession as has been typical of past recoveries. At least in the early stages of recovery that was not surprising because a huge excess supply of houses accumulated during the bubble years and had to be worked off. However, as **Chart 11** shows, the excess residential housing inventory has been eliminated.

Yet, new housing construction has languished. **Chart 12** shows new residential homes sold as a percentage of the long-run average scaled by the total U.S. population. After rising to 164 percent of the long-run average in 2005, new homes sold fell to 37 percent of the average in 2011. Recovery remains feeble and has averaged just 52 percent of the long-run average over the last 21 months.

Housing demand remains severely depressed and shows little sign of returning to historical levels. There are two sets of reasons why this has happened — decreased affordability and stricter credit standards.

Decreased affordability has resulted from prolonged high unemployment rates and decreases in real after-tax spendable income, particularly among younger people. Home ownership rates have declined for all age cohorts except for those 65 years or older. The greatest declines have occurred for those 44 years or younger. The National Association of Realtors reported that first-time home buyers comprised 33 percent of total home purchases in the 12 months ending in June 2014, compared to the historical norm of 40 percent. Also, burgeoning student debt has been a contributing factor to affordability. A large amount of student loan debt makes it simply more difficult to meet mortgage loan down payment requirements.

CHART 4 – Labor-Force-Participation and Eligible-Employment-to-Population Ratios



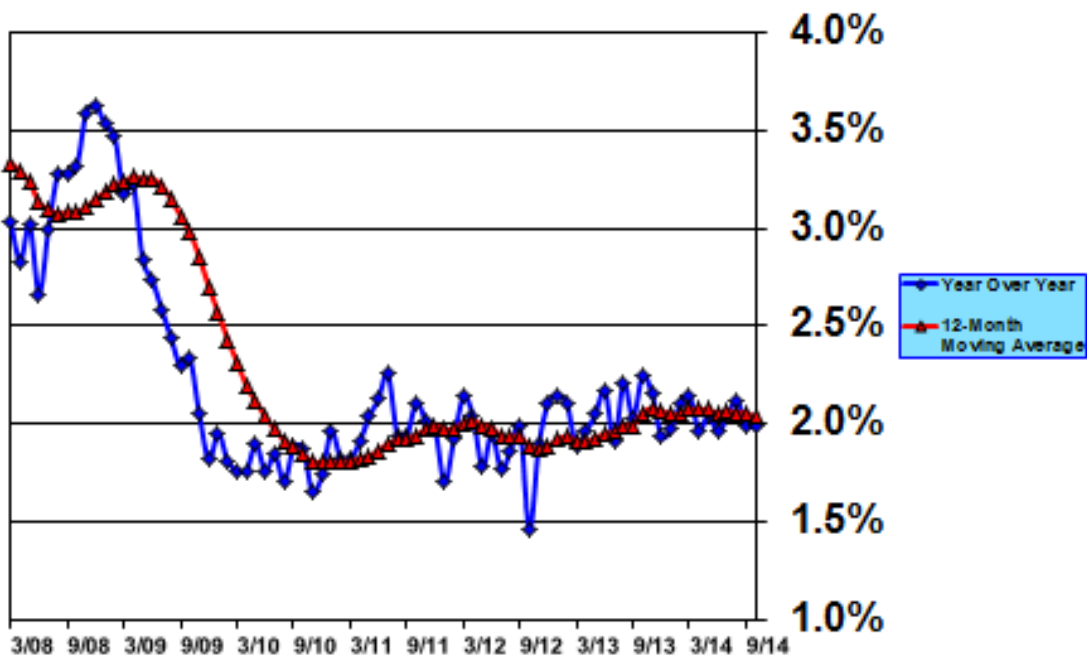
Page 4

It has become more difficult to amass the financial resources to make the required down payment and declining real after-tax incomes limits that amount of monthly mortgage payments some households can afford. As a consequence, household formation rates have been severely depressed and the formation rate has actually declined since 2012. A low household formation rate depresses not only demand for new single family residential houses, it also decreases demand for apartment units.

Chart 13 shows the home ownership rate from 1968 to 2014. The home ownership rate was 64.3 percent in the third quarter of 2014, about the same level as in the late 1960's and the decade from 1984 to 1994. There is risk that the home ownership rate will continue to fall further unless affordability gets better and access to credit improves.

Access to credit has also contributed significantly to the decline in the home ownership rate. In the wake of the Dodd-Frank Act, the emphasis on consumer protection has decreased access to credit and increased its cost. Several factors have contributed. First, the Act mandated two new regulations — the qualified mortgage regulation and the qualified residential mortgage regulation. The **qualified mortgage** regulation, which comprises 52 pages, provides a safe harbor to mortgage originators from litigation, if the mortgage loan complies with specific underwriting standards. If the mortgage loan does not comply with the safe harbor standards, the originator must prove that the borrower has the ability to repay. Typically, this requires detailed documentation to reduce the potential for class action law suits. The **qualified residential mortgage** rule, which comprises 553 pages, imposes a 5 percent risk retention of principal requirement unless certain standards are met. Those standards are now largely similar to the qualified mortgage safe harbor requirements.

CHART 5 – Hourly Wage Rate Growth – All Workers (annual year over year and 12-month moving average rates of change)



Source: Bureau of Labor Statistics

Page 5

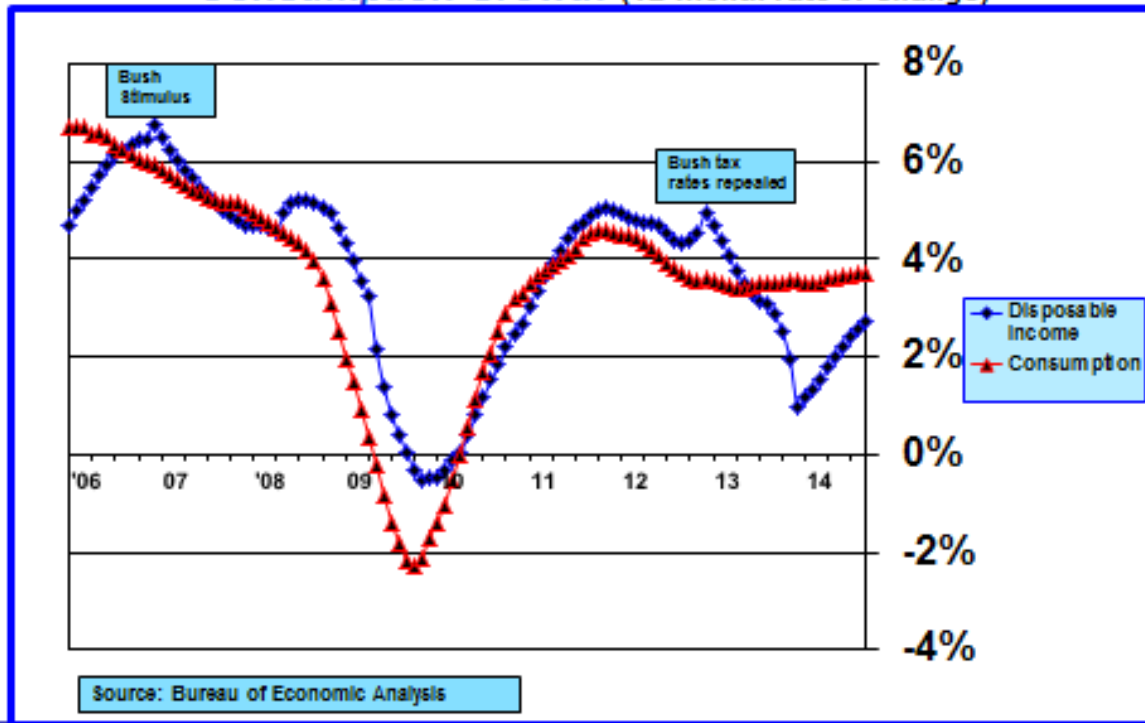
Other regulatory changes have increased the cost of mortgage lending. The Dodd-Frank Act created the Consumer Financial Protection Bureau (CFPB). The CFPB has focused on strict compliance and aggressively pursued civil money penalties as an enforcement tool. This has greatly increased the cost of engaging in mortgage lending. In addition, the Basel III capital regulations have increased the amount of capital that must be held for mortgage loans, as well as increasing the risk weights for certain types of mortgage loans. Capital regulation is now very burdensome for mortgage servicing rights, which has prompted many regulated financial institutions to limit mortgage servicing.

As a result many would-be borrowers with marginal credit are unable to obtain a mortgage loan. The average credit score for the bottom 10 percent of borrowers has moved up from 620 during the housing bubble to 660 currently. Although the Federal Reserve's Senior Loan Officer Survey indicates some easing of mortgage credit standards recently, those standards remain very tight by historical standards. But, the Mortgage Bankers Association (MBA) reported that its index of credit conditions declined in October. According to the MBA, lender expenses to extend a mortgage loan in the second quarter of 2014 rose 35 percent to \$6,932 from the cost two years earlier. Lenders reported in a survey released by Fannie Mae in October that mortgage lending compliance costs have increased 30 percent since 2013.

Recent relaxation of regulatory requirements appears to be much ado about very little. At best the modifications will have a small incremental impact on the cost and availability of mortgage credit.

About the only good news is that the recent rise in housing prices has reduced the percentage of mortgage borrowers who have limited or negative equity. That development has increased the number of borrowers eligible to refinance their loans and obtain home equity lines of credit. But the impact is not

CHART 6 – Nominal Disposable Income and Consumption Growth (12-month rate of change)



Page 6

yet significant. But, perhaps the news is not all good. Higher home prices relative to income constrains affordability.

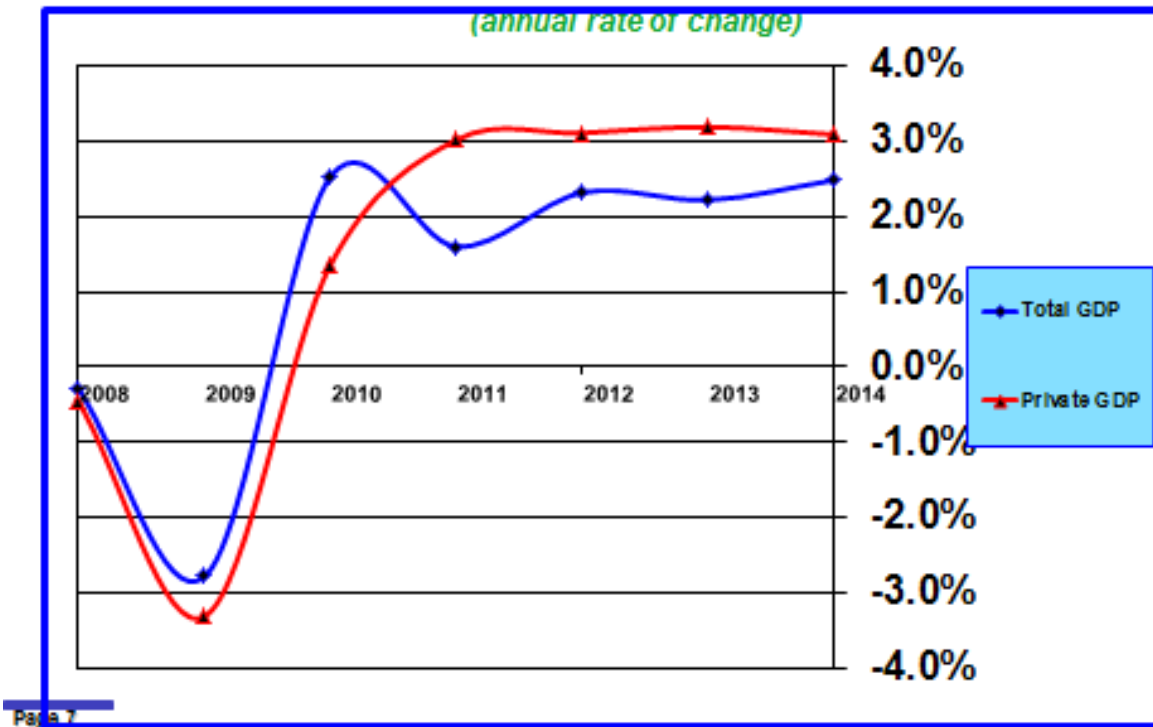
Since 2007 8.3 million homeowners, or about 17 percent of those with mortgage loans, have completed foreclosures or short sales. A majority of these have become renters, a few have been able to obtain a new loan, and quite a few have gone to live with mom and dad or friends, as reflected by the depressed household formation rate. Many others were able to modify their loans to reduce monthly payments. The good news is that mortgage liquidations are dwindling rapidly in number. However, the bad news is that few of those whose mortgages were liquidated will return to home ownership for a very long time.

With restricted access to credit and low household formation, growth in new construction of residential units, including apartments, will revive very slowly and will continue to hold back the contribution of residential investment to real GDP growth. My sense is that forecasts continue to be overly optimistic about a significant rebound in residential investment.

Chart 14 shows single-family and multi-family housing starts from 1975 to 2014. Multi-family housing starts have recovered to their pre-Great Recession level. Single-family housing starts remain severely depressed.

Chart 15 shows a gradual increase in forecast housing starts (both residential and multi-family) over the next two years. But, the forecasts do not reach the long-term average of approximately 1.4 million starts annually. Bank of America/Merrill Lynch and Goldman Sachs have had to lower their forecasts repeatedly in recent years and their most recent forecasts may still be too optimistic. If this turns out to

CHART 7 – Total Real GDP and Private GDP (less Inventories and Government Expenditures)



be the case, then real GDP forecasts could be 0.1 percent to 0.2 percent too high.

V. Fiscal Policy

Now that the Republicans will control both houses of Congress for the next two years, the stage is set for possible action on tax reform. However, that will wait until after the new Congress convenes in January. In the meantime, the lame duck session of the current Congress has work to do.

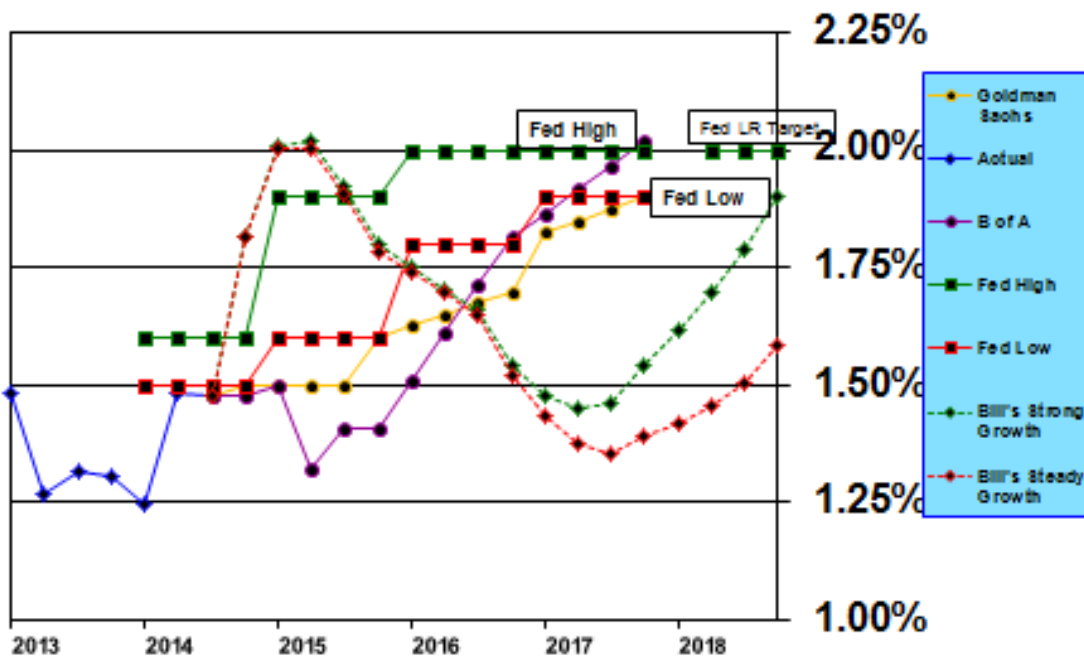
1. Lame Duck Session of Congress

By December 11, Congress must extend the *continuing resolution* or enact appropriations bills to keep the government running. Unlike two years ago, Congress will not let the government shut down. Enacting appropriation bills seems unlikely. Now that the Republicans will control both houses in the next Congress, a short extension of the continuing resolution seems the most likely outcome. Then, a Republican Congress can decide what to do next year to fund the government through September 30, 2015.

Congress must pass a *defense authorization* bill.

Tax extenders expired at the end of 2013. However, most all extenders are popular with both Republicans and Democrats. Action has not occurred so far this year because a deal to fund the extenders

CHART 8 – Core PCE Inflation Forecasts
(percentage change over previous 12 months)



Page 8

so been elusive. It seems likely that Congress will pass most, if not all of the extenders, before it adjourns without providing any means to pay for them.

Congress may also deal with extending the *doc fix*. However, the temporary extension does not expire until April 1, 2015, so this provision could be deferred to the new Congress. However, a temporary payment increase for *Medicaid primary care physician payments* in the Affordable Care Act will expire at year end unless extended.

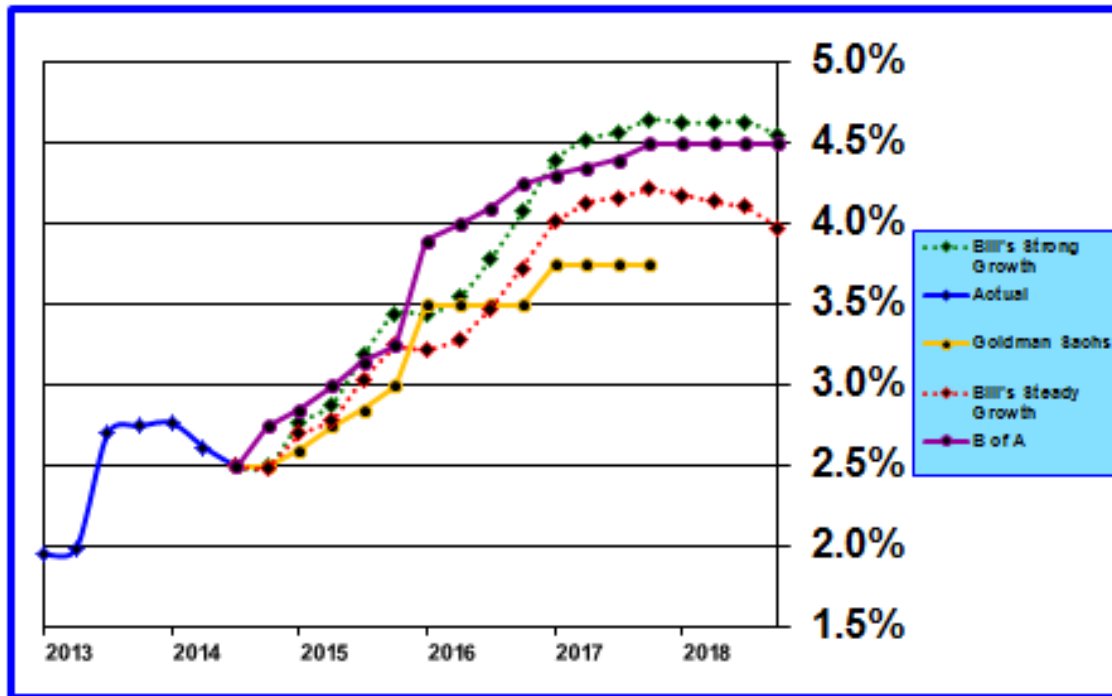
Extension of *terrorism risk insurance* and funding of *Ebola* and the use of military force against *ISIS* are also on the docket.

2. Tax Reform

Comprehensive tax reform still appears to be a long shot in the next Congress. However, the probability of corporate tax reform, with an all-Republican Congress has increased. The shrinking budget deficit makes consideration of corporate tax reform less troublesome. Publicity surrounding tax inversions has alerted the public to problems inherent in the existing tax code and the need for reform.

There may be reluctance to consider only corporate tax reform, but the issues embedded in individual tax reform are complex and political differences are huge. While there is general agreement that corporate tax reform should be revenue neutral and that the overall tax rate should be reduced, there is little consensus on what preferences should be modified or eliminated to maintain tax revenue neutrality. You

CHART 9 – 10-Year Treasury Rate Forecasts



Page 3

can be assured that special purpose lobbying will be intense.

Corporate tax reform would probably address three sets of issues. First, reform would need to encourage repatriation of foreign earnings and also discourage future accumulation of foreign earnings. The latter can be accomplished by eliminating the current tax differential between domestic and foreign earnings. Repatriation can be encouraged through a one-time lower tax rate, but probably not a tax holiday as has occurred in the past. Second, adjustments in the taxation of investments with increases in rates for equipment and decreases in structures are under consideration. Third, effective tax rates across industries are likely to be brought into closer alignment. This would involve adjusting various preferences with some resulting in higher tax rates and others leading to lower tax rates.

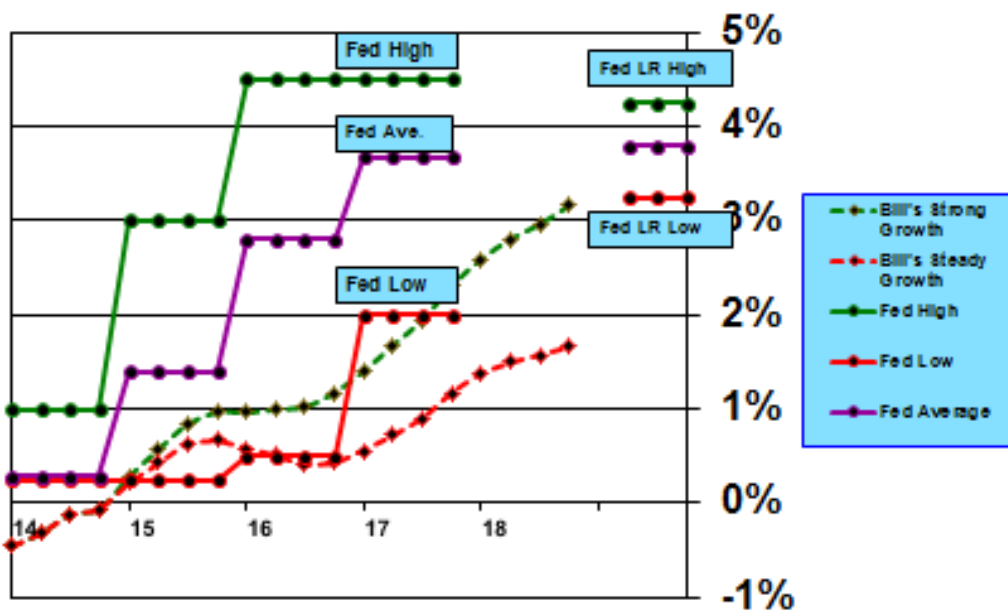
Ultimately reform will be difficult to accomplish because it necessary will result in winners and losers.

3. Other Unfinished Business

There are several other pending fiscal policy issues. First, the charter of the *Export-Import Bank* was temporarily extended to the end of June 2015. The bank is unpopular with some Republicans but its charter is likely to be extended.

Second, funding of the *highway trust fund* will need to be found. A short-term extension was jerry-rigged this year for a short period, but expires on May 31, 2015. The problem is that as long as budget caps remain in place highway trust fund money must come from cuts elsewhere in the budget. Congress

CHART 10 – Federal Funds Rate Forecast



Page 10

may decide to resolve the problem by bypassing the cap requirement or may put together yet another short-term temporary funding solution.

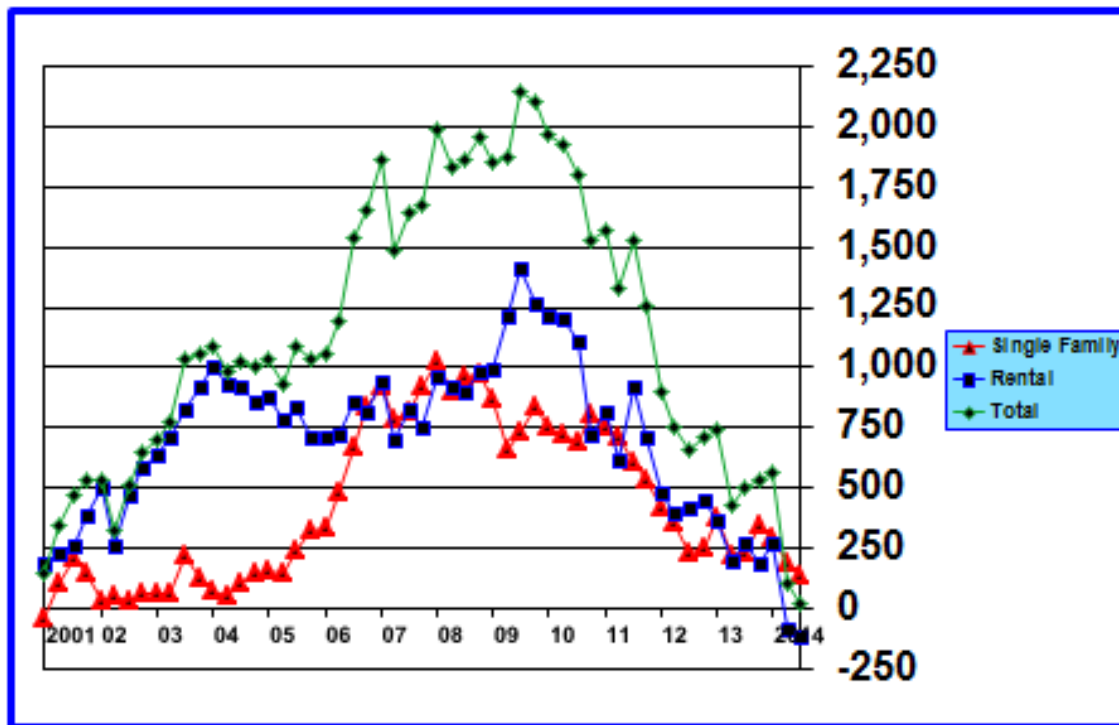
Third, Congress needs to deal with the *debt ceiling*, which has been suspended until March 15, 2015. Now that the deficit has declined to a low level, the debt ceiling issue has lost most of its sting. It seems likely that Congress will suspend the ceiling for an additional period of time. Politically it is less troublesome to do it this way than have to vote to raise the debt ceiling.

Fourth, Congress will need to adopt a *fiscal year 2016 budget* by April 15, 2015. Because Republicans wish to raise defense spending about \$60 billion above the current budget caps and there is no possibility that Democrats will permit this to occur by reducing domestic spending, the probable outcome is that the budget caps will be adjusted or eliminated for defense spending.

Fifth, depending upon what the Supreme Court decides some subsidies under the **Affordable Care Act** could be ruled unconstitutional. Congress would in all probability do nothing. The Affordability Care Act itself will not be repealed or even significantly modified. However, there is some chance that the unpopular medical device provision could be modified.

Sixth, Republicans are generally supportive of *trade legislation* as is President Obama. Congressional Democrats have prevented action during the current Congress on Trade Promotion Authority. There is a good chance that a Republican Congress will renew presidential "*fast track authority*." If this were done, the odds of reaching a deal on the Trans-Pacific Partnership, which is especially important to Japan, would go up considerably. Fast track authority would also improve the odds of completing negotiations on

**CHART 11 – Number of Housing Units Above 1994-2000 Average
(in thousands of units)**



Page 11

Source: Census Bureau

the Transatlantic Trade and Investment Pact, including finding a compromise for the right of investors to pursue dispute settlement proceedings against a foreign government.

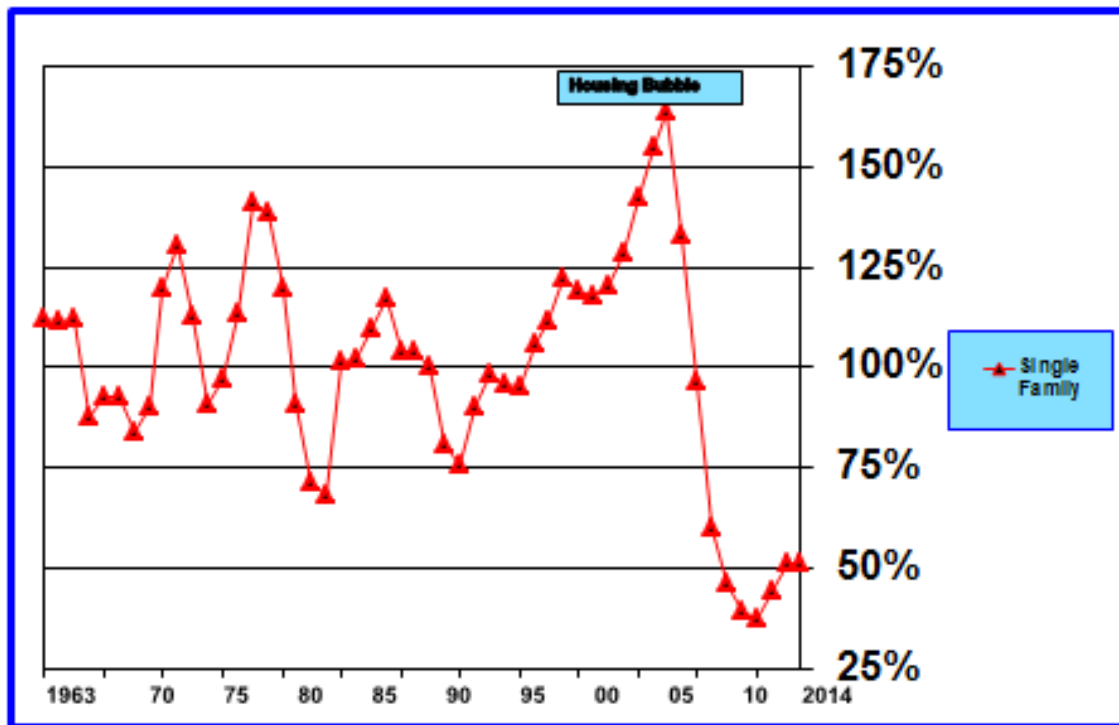
Seventh, the *Keystone XL pipeline*, which was just defeated by the lame duck Senate, will probably be approved. Approval probably won't have a material effect on the U.S. economy but it is tremendously important for Canada.

Regrettably, no action is expected in the next Congress on *housing finance reform*. This means that the status quo of the conservatorship of the government sponsored enterprises — Fannie Mae and Freddie Mac — will continue for at least another two years.

4. Impact of Fiscal Policy on GDP

All-in-all, fiscal policy is likely to be neutral to slightly positive. Whether it is positive or not will depend upon whether Congress is willing to alter budget caps and enact spending provisions without revenue offsets or reductions in other expenditures.

CHART 12 – New Residential Houses Sold – 1963-2014
 (percentage of long-run average scaled by population)



Page 12

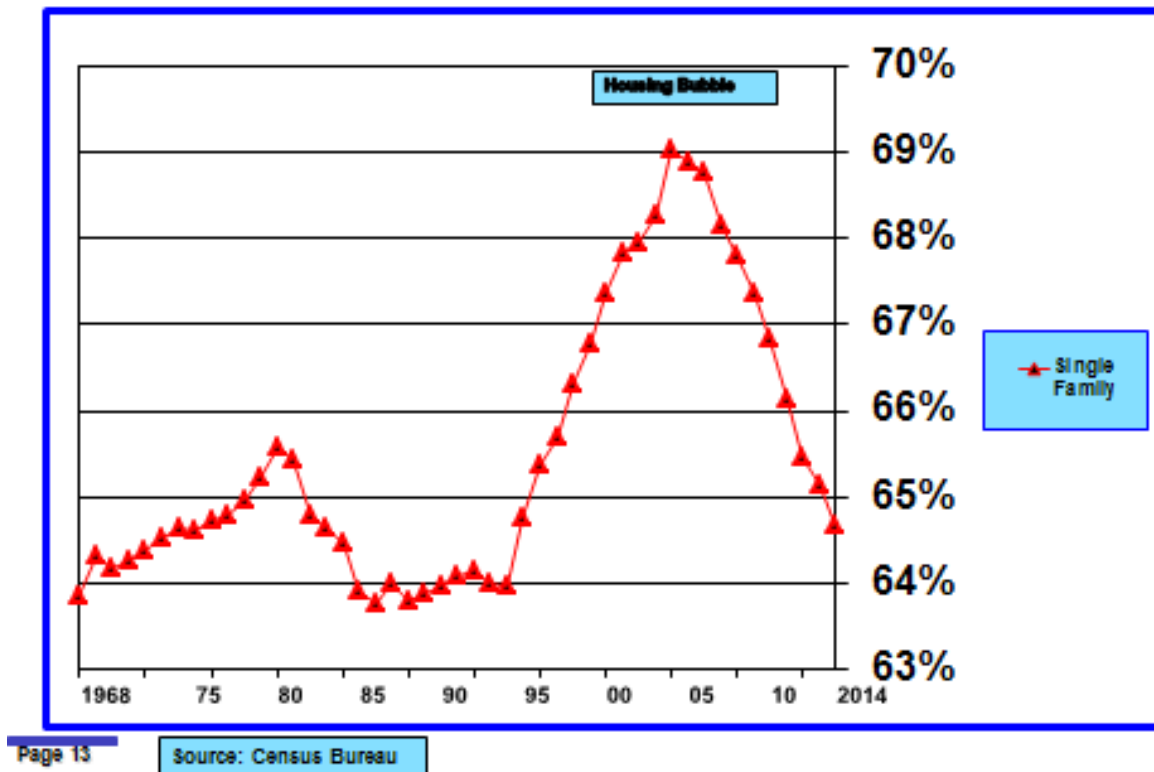
Source: Census Bureau

VI. Energy Prices

Over the last two months crude oil prices have plummeted. The price of Brent crude oil has dropped by nearly one-third from approximately \$115 per barrel at the end of June to \$78 currently. Although this sharp and rapid price collapse came as a surprise to many market participants, the decline was not accidental. The seeds were sown long ago. It is simply a matter of falling demand and rising supply.

As has been observed, based on past experience, commodity prices tend to climb the stairs but come down the elevator. This phenomenon cannot be explained by changes in actual supply and demand, which generally occur gradually over time. Rather, market paradigms evolve over time and prices tend to mirror the prevailing paradigm because traders tend to buy and sell relative to an expected price. This results in relatively sticky prices — a trading range — for a period of time, even when underlying supply and demand dynamics are changing. Eventually, an event occurs that discredits the established paradigm. When this occurs, prices rapidly adjust, often accompanied temporarily by high volatility, to a new paradigm. This is what occurred during September when market participants realized that slowing global demand for commodities, and oil in particular, was not a short-term phenomenon.

What is important to understand is that what has happened is not a temporary aberration. It reflects a fundamental adjustment to changed supply and demand dynamics, which are likely to persist for a long time. In other words, oil prices are unlikely to move much higher in coming months.

CHART 13 – Home Ownership Rate – 1968-2014

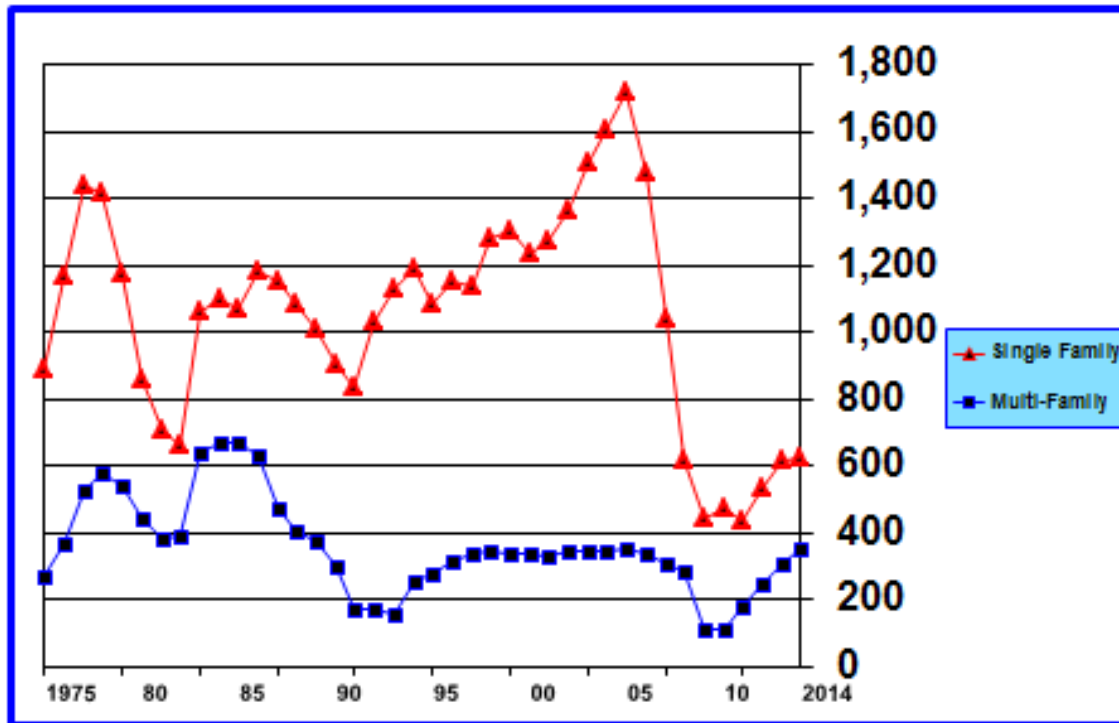
1. Supply

We have seen this story before — high oil prices stimulate higher production, but the lag time is very, very long. That is because it takes time to exploit new sources of supply. Oil prices skyrocketed during 2007 and the first half of 2008, plunged during the Great Recession, and then rose again sharply during 2010 and 2011. U.S. investment in gas and oil soared during 2010 and 2011, but substantial production increases did not occur until 2012 and 2013. U.S. production is still increasing rapidly during 2014 and is expected to increase an average of 800,000 barrels per day in 2015 and 2016 or 1.6 million barrels overall.

Production in other parts of the world has risen to a lesser extent. Importantly, factors that temporarily reduced pumping in some countries have subsided. Production has recently increased in Libya, Nigeria, Iraq, and even Saudi Arabia.

In the U.S. the technology of fracturing and horizontal drilling has increased oil recovery rates enormously, not to mention the huge explosion in the supply of natural gas. Importantly only about 4 percent of U.S. shale oil production has a break-even price above \$80 per barrel and globally only about 2.6 million barrels out of daily production of 93.2 million barrels, 2.8 percent, has a break-even price above \$80 per barrel. Thus, the recent decline in prices below \$80 will have only a moderate impact on production in the short run. However, new investment is likely to slow to a much greater extent, especially if prices decline substantially below \$80 per barrel.

CHART 14 – Housing Starts – Single-Family & Multi-Family
(in thousands of units)



Page 14

Source: Census Bureau

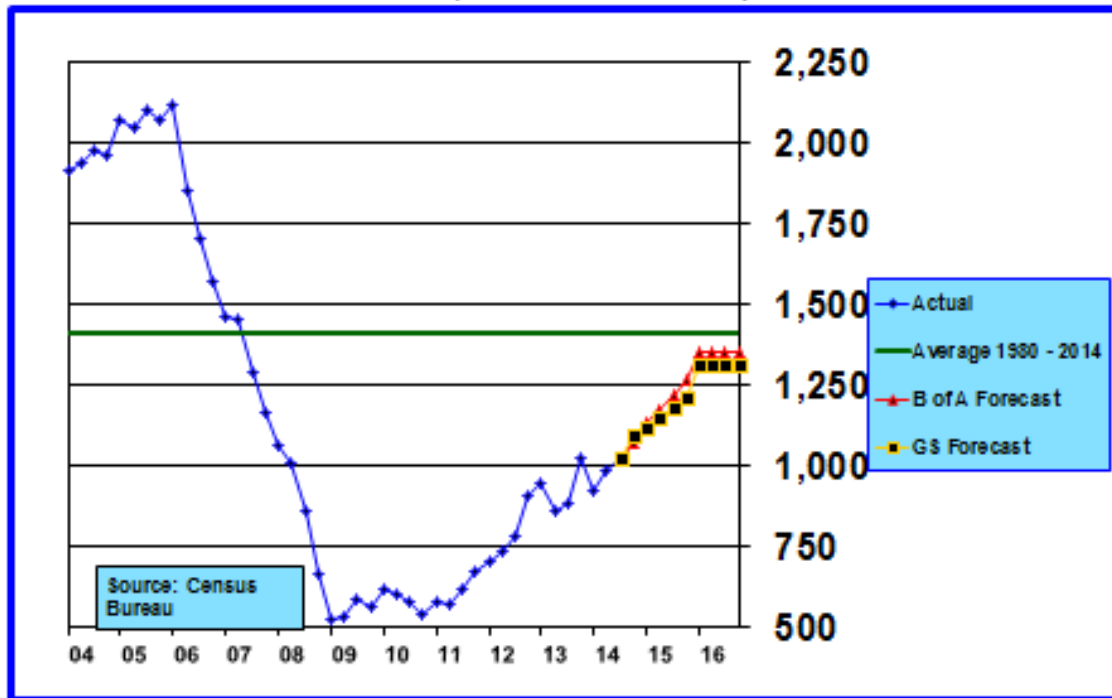
2. Demand

Global demand for crude oil has slowed considerably. The International Energy Agency expects global demand to increase only about 0.75 percent, or 700,000 barrels per day, in 2014. The increase in U.S. production is expected to be close to 1 million barrels per day.

There are several reasons that global demand has slowed. First, consumers are steadily learning how to use oil more efficiently. Higher prices have provided ample incentive. Even China is now improving its use of oil so that the increase in its consumption is growing at a rate considerably below the growth in nominal GDP.

Second, slower economic growth in the developed world and slowing growth in emerging market economies are important contributing factors to slower growth in the demand for oil. Oil consumption in the U.S., Canada and Europe, in fact, has been in structural decline for approximately ten years. Until recently, China's rapid growth overwhelmed slower growth in developed countries. However, China is committed to transforming the focus of its economy from heavy industry and infrastructure to consumption and services. This change is well underway and is driving down the rate of growth in Chinese demand for oil which is expected to increase only about 400,000 barrels per day in 2014. Growing angst about air pollution and pressure to curtail, as reflected in the recent accord signed by Presidents Xi and Obama, reflect the escalating public pressure in China to curtail dirty energy consumption.

CHART 15– Total Housing Starts Forecast (quarterly average)
(in thousands of units)



Page 15

3. Implications for U.S. Economic Growth and Inflation

Lower oil prices will on balance be favorable for real GDP growth in the U.S. and will lower inflation slightly.

Growth in investment activity will decline but should reduce real GDP growth in 2015 by no more 0.1 percent. Of course, the impact will be much greater on energy-producing states, such as Alaska, Colorado, Louisiana, New Mexico, North Dakota, Oklahoma, Texas and Wyoming. Consumers will benefit from lower gas prices and this will enable them to shift consumption to other goods and services. Historically, falling oil prices have had a favorable impact on real GDP growth. The combined effects of falling oil prices on investment and consumption are expected have a slightly favorable impact on real GDP growth equally about 0.1 percent in 2015. However, this small benefit might be offset by the depressing effects of a stronger dollar on U.S. exports.

Lower oil prices will definitely reduce total inflation dramatically. However, even the measure of core inflation, which does not include the impact of energy prices, is expected to be about 0.1 to 0.2 percent lower in 2015 due to falling energy prices. Already, markets have reduced inflation expectations and the recent Michigan survey of consumers reported a drop in expected inflation within five years from 2.8 percent to 2.6 percent, a decisive breakout from a long-standing range of 2.8 percent to 3.0 percent. If inflation expectations continue to ebb in coming months, this will have important implications for monetary policy and may prompt the FOMC to delay hiking the federal funds rate. In any event, that rate seems likely to rise more slowly than previously anticipated and may top out at a lower level.

4. Geo-Political Implications

Several oil producing countries' budgets are dependent on a high price of oil. The recent plunge in prices, if sustained, as seems likely, will put strains on these countries and could lead to domestic unrest.

Saudi Arabia, which has the greatest flexibility to reduce oil production in the interest of supporting higher oil prices, appears unlikely to do so. That is because it seems intent on maintaining market share. Even though its oil receipts will decline, the decrease will be smaller than if it decreased production. Saudi Arabia has substantial foreign exchange reserves and a very large national wealth fund and, as such, is well positioned to ride out an extended period of low prices. **Kuwait** and the **United Arab Emirates** are in a similar position. Another possible reason for staying the course is to put pressure on the Shiite governments of Iran and Iraq.

Russia finds itself in a difficult position. Already due to its adventures in Crimea and Ukraine and the imposition of economic sanctions by the European Union and the U.S., Russia has experienced substantial capital flight and a slowing economy, which may already be in recession. The value of the ruble has plummeted in recent months. Oil and gas revenues comprise 50 percent of Russia's budget and 25 percent of its GDP. Oil alone accounts for 80 percent of the total. Russia's 2015 budget assumes oil prices of \$100 per barrel. Unlike Saudi Arabia, Russia's reserves from all sources amount to only about \$600 billion. It has used \$70 billion already this year. It seems likely that Russia will be forced to cut spending as time passes and this could be accompanied by domestic political unrest. This latter possibility seems remote at the moment, but its realization probably would be negative as a successor to Putin could well be even more problematic. It should be noted, however, that the plunge in the value of the ruble and a possible further decline offsets some of the consequences of lower oil prices.

While oil plays a smaller role in the **United Kingdom**, higher prices will certainly take the bloom off of the U.K.'s GDP growth but will be welcomed by British consumers. It is uncertain whether oil will play a significant role in the parliamentary elections scheduled for May.

Venezuela may well be the most exposed country. The country's finances are already precarious and its political stability is fragile. Default on \$18.5 billion in foreign debt due to mature between 2015 and 2017 and political upheaval are nontrivial risks.

Iran also depends on oil revenues but its domestic politics are stable and are unlikely to be impacted. However, at the margin, lower oil prices may coax Iran to be more willing to reach a nuclear deal acceptable to the west.

Although countries like **Brazil** and **Australia** are not oil producing nations, the decline in commodity prices in general will adversely impact their economies. The same concern, perhaps to a somewhat lesser extent, also pertains to **Canada**.

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

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

1. U.S.

- **2014 real GDP Q4/Q4** growth projections range from 2.9% to 3.4%; the FOMC’s projection range is 2.9% to 3.1%. **2014 real GDP Y/Y** growth projections range from 2.5% to 3.1%. (Q4/Q4 projections are highly dependent upon potential anomalies in Q4 data; therefore, Y/Y estimates, which average all four quarters, are more stable estimates.) Growth should improve gradually over the course of the year. I expect real GDP growth to track the lower end of the Y/Y range in 2014.
 - ✓ + Y/Y forecast range has been reduced to 2.2% to 2.3%; the FOMC lowered its projection range to 2.0% to 2.2% at the September meeting
 - ✓ + Q3 GDP was initially reported as 3.5% but may be reduced slightly to 3.4%
 - ✓ + Q4 GDP is expected to be about 3.0%
- **Real GDP output gap** will remain very high, but will close a little faster during 2014.
 - ✓ - CBO updated its output gap analysis in August 2014; 2013 Q4 gap was 3.72%; CBO’s projected 2014 Q4 gap is 3.52%; I expect the year-end output gap to be between 3.5% and 3.6%; the gap is closing, but not as rapidly as expected
- **Potential structural rate of real GDP growth** has declined significantly in recent years. I expect potential growth to be about 1.5% in 2014, which means the output gap could close by approximately 1.0%. Potential GDP growth is likely to rise slowly in coming years to between 2.1% and 2.4%.
 - ✓ - CBO expects 2014 potential growth to be 1.6%; my estimate for 2014 has risen to 1.8% to 2.1%
 - ✓ + My future potential growth range remains between 2.0% and 2.3% and most other forecasts now fall within this range
- **Productivity** should rise as growth improves and investment increases, but should still fall well short of the historical 2.1% average.
 - ✓ - Nonfarm productivity is up 0.9% over the last 12 months and is projected to rise 0.4% during 2014 compared to 2.0% in 2013
- **Employment** should grow about 190,000 per month in 2014, about the same as in 2013.
 - ✓ - payroll employment averaged 229,000 monthly over the first ten months of 2014, which is stronger than expected; household employment averaged 270,000 over the first ten months of 2014
- **Employment participation** will not rebound in 2014, which will contribute to a more rapid decline in the unemployment rate; the secular demographic decline will be offset by a small reduction in discouraged workers.

- ✓ + the participation rate in October was 62.85%, slightly higher than 62.79% in December 2013
- **Unemployment rate** should edge down to about 6.5%. A lower rate is not very likely unless discouraged workers do not re-enter the labor force or more exit the labor force.
✓ - the unemployment rate was 5.76% in October and will probably be about 5.7% by the end of the year
 - **Nominal consumer disposable income**, measured on a Y/Y basis will rise about 2.0% with employment growth and a small increase in the nominal wage rate. Because of the depressing effect of increased taxes in 2013 on disposable income growth, the Q4/Q4 growth rate should be a much higher 2.9%.
✓ - the 12-month year-over-year average increase was 2.73% in September and I project it to be 3.8% by the end of the year; projected Q4/Q4 growth rate for 2014 is 3.5% (note that income and consumption data were revised substantially in July)
 - **Nominal consumer spending growth** on the Y/Y basis will grow at a faster rate of approximately 3.3% (Q4/Q4 growth rate would also be about 3.3%, as spending was not affected materially by increased tax rates in 2013).
✓ + the 12-month moving average was 3.7% in September and I project it to be 3.6% by the end of the year; projected Q4/Q4 growth rate is 3.9%
 - **Household personal saving rate** will decline slightly as growth in spending exceeds growth in disposable income.
✓ - the average saving rate was 5.25% through the first nine months of 2014 compared to 4.86% for all of 2013
 - **Stock prices**, as measured by the S&P 500 average, should rise about 5%.
✓ ? through November 17, S&P 500 average is up 10.4% year to date
 - **Manufacturing** growth will continue to be relatively strong and the PMI index will exceed 50.
✓ + October ISM index was 59.0 and has been above 50 the entire year
 - **Business investment** spending growth should improve to about 5 to 6% as employment and consumer spending growth gathers momentum.
✓ + business investment spending is on track to grow 5.1% to 5.4% in 2014
 - **Residential housing investment** should rise about 10% and contribute 30 to 40 basis points to real 2014 GDP growth; residential housing starts should rise 20 to 25%.
✓ - residential investment spending decreased 5.3% in the first quarter, increased 8.8% in the second quarter, increased 1.8% in the third quarter, and is now projected to increase about 3% in 2014
✓ - total housing starts are up 5.2% over the first nine months of 2014 from the 2013 average; residential housing starts are up 0.5%
 - **Residential housing prices** should rise about 5% in 2014, more slowly than 2013's 10% increase.
✓ + Housing prices were up at an annual rate of 4.2% in the first half of 2014 according to data compiled by the Federal Housing Finance Agency (5.6% per S&P/Case-Shiller index); S&P/Case-Shiller index is forecast to rise between 3.8% and 4.2% year-over-year by the end of 2014

- **Trade deficit** should rise slightly as economic growth improves because imports should grow more quickly than exports. The *dollar's value* should decline modestly on a trade-weighted basis.
 - ✓ + trade deficit was 2.80% in September compared to the 2013 trade deficit of 2.79%, but should rise slightly to 2.9% by the end of 2014
 - ✓ - the trade-weighted value of the dollar has risen 6.0% over the first ten months of 2014
- **Monetary policy** — the Federal Reserve will end quantitative easing by mid-year and will clarify forward guidance.
 - ✓ - the FOMC ended quantitative easing in October
 - ✓ + the FOMC eliminated the 6.5% unemployment threshold and clarified forward guidance to embrace a broader set of labor market indicators and to emphasize that rate increases will be data dependent and will occur slowly after the initial increase takes place
- **Inflation** will rise slightly in 2014 but will remain well below the FOMC's 2% objective at least through 2016.
 - ✓ + core PCE inflation was 1.48% in September compared to 1.34% in December 2013;
 - ✓ + total PCE inflation was 1.43% in September compared to 1.24% in December
- **Federal funds rate** is not likely to increase before mid-2015 and might not increase until late 2016 or early 2017. The 10-year Treasury rate is likely to fluctuate in a range between 2.5% and 3.5% in 2014.
 - ✓ + federal funds rate is most likely to increase in September 2015, but could rise later if inflation declines and growth is weak
 - ✓ - the 10-year Treasury rate was 2.34% on November 17, which is below the lower end of the expected range
- **Fiscal policy** will be significantly less contractionary in 2014, decreasing real GDP growth by about -0.4%; the **federal budget deficit** will decline to 3.0% by the end of 2014.
 - ✓ - fiscal policy will add about 0.1% to real GDP growth in 2014
 - ✓ + federal budget deficit was 2.76% in fiscal year 2014

2. Rest of the World

- **Global growth** is likely to improve to 3.5% in 2014 from 2.9% in 2013.
 - ✓ - growth is on track to reach 3.1% in 2014; however the global growth pulse appears to be running at about 3.5% in the fourth quarter; China and Europe have fallen short of expectations; Russia and Brazil are in recession
- **European growth** will be positive but will fall short of the ECB's forecast of 1.1%.
 - ✓ - euro area growth is on track to reach only 0.7% in 2014 (current ECB forecast is 0.8%)
 - ✓ - euro area inflation was 0.3% year over year in September and is expected to fall to 0.2% in October; core inflation was 0.8%; inflation expectations have fallen to 0.4%
- **European financial markets** are likely to remain relatively calm thanks to the activist role of the European Central Bank; the May European parliamentary elections could lead to a new round of turmoil.
 - ✓ + until the last few weeks all was quiet; however, volatility rose during September; a tentative semblance of calm has resumed for the time being; stocks continue to underperform
- **European banking union** will do little to solve deep-seated European and Eurozone structural problems; ECB stress tests will contribute to slow credit expansion.

- ✓ + institutional structures to implement the banking union have been put in place; however, critics say the plan is fraught with uncertainties and weaknesses
- ✓ + results of stress tests were released in late October; they were not particularly uplifting but the market's reaction was muted
- ✓ + private bank loans have contracted 2.2% over the last year
- **European political dysfunction, populism and nationalism** will continue to worsen gradually.
 - ✓ + Eurosceptic parties are gaining momentum
 - ✓ + Scottish voters defeated an independence referendum by a narrow margin, but political fragmentation in the U.K. is growing in advance of parliamentary elections that must be held by May 2015
- **U.K. growth** will continue to be robust as the housing and debt bubble continue to build.
 - ✓ + GDP growth is on track to reach 3.0% in 2014, but this might be as good as it gets
- **China's GDP growth** will slow below 7% as economic reforms are implemented.
 - ✓ ? forecasters expect full year growth to come in at 7.2% to 7.3%; however, recent economic data have been disappointing; housing growth is slowing sharply
- **China's leadership** will focus on implementing **economic reforms** and will overcome resistance and maintain stability.
 - ✓ + Policymakers are staying the course on restructuring the economy from an investment/manufacturing focus to a consumer focus, although progress has been slow; the anti-corruption campaign is controlling potential resistance but at the possible cost of somewhat slower growth
- **Japan's** economic resurgence is likely to falter by the end of 2014, as Abenomics' third arrow of economic reforms fails to raise the level of potential growth sufficiently to overcome negative population growth.
 - ✓ + market skepticism has increased; third arrow market reforms have yet to have significant impact
 - ✓ + Q3 GDP contracted 0.4% versus an expected increase of 0.5%, placing Japan in a technical recession
 - ✓ + the planned increase in the value added tax in 2015 has been postponed
 - ✓ + Prime Minister Shinzo Abe has dissolved the diet and called for early elections with the intent of building public support for faltering Abenomics
 - ✓ + 2014 GDP growth expectations have been downgraded to 1.2%; in response ratcheted up substantially the purchase of government bonds and corporate equity securities
 - ✓ + inflation is running at 2.7%, which is above the 2.0% target, but when the effect of higher taxes is stripped out, inflation is only about 1.0%; there is no definitive evidence yet that Japan has escaped the deflationary trap it has been in for the last two decades
- **Emerging market countries** on balance will experience greater growth, as long as the U.S. and European economies do better in 2014; countries heavily dependent upon commodities exports for growth will do less well as will also be the case for countries with large balance of payments deficits.
 - ✓ - growth in emerging market countries has fallen short of expectations as growth has slowed in Europe and China
 - ✓ + falling commodity prices have exacerbated growth shortfalls in export-oriented emerging economies, such as Brazil and Russia; plunging oil prices, if sustained, as seems likely, will drive even worse results

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

Note: *Risks generally have remained subdued in the U.S., but have escalated considerably in the rest of the globe in recent weeks.*

- **U.S. potential real GDP growth** falls short of expectations
 - ✓ - full year actual growth estimates have been revised sharply lower, however, an improving trend in actual growth is likely over the next year
- **U.S. employment growth** is slower than expected; the **participation rate** continues to decline
 - ✓ + participation rate remains unchanged over the first ten months of 2014
 - ✓ + employment growth is higher than expected
- **US. Unemployment rate** falls less than expected
 - ✓ + unemployment rate has fallen more than expected
- **U.S. productivity** does not improve
 - ✓ - productivity has risen at a 0.9% annual rate over the last 12 months, but has risen only 0.1% since the beginning of 2014 and is projected to rise 0.4% in 2014 compared to 2.0% in 2013
- **Real U.S. consumer income and spending** increase less than expected
 - ✓ + consumer income and spending are increasing at a slightly faster rate than expected; however, retail sales growth has been weak in recent months
- **U.S. financial asset prices** rise more than expected posing increased bubble risks
 - ✓ + stock prices are up 10%, but valuations still appear reasonable
- **Growth in U.S. residential housing investment and housing starts** is less than expected
 - ✓ - housing formation hit a new low in last year's fourth quarter; housing starts have been disappointing and are only 5.2% above 2013's average; year-over-year residential investment is forecast to rise approximately 2% in 2014 compared to 12% in 2013
- **U.S. residential housing price increases** slow more than expected
 - ✓ + prices are rising at about a 4% annual rate
- **U.S. private business investment** does not improve as much as expected
 - ✓ + business investment is on track to rise about 5.1% to 5.4% in 2014
- **U.S. manufacturing growth** slows
 - ✓ + manufacturing activity has remained strong, but slowing global growth and the rising value of the dollar are threats
- **U.S. trade deficit** widens and the **value of the dollar** falls
 - ✓ + the trade deficit has been stable
 - ✓ - the trade-weighted value of the dollar has increased 6%
- **U.S. monetary policy** spawns financial market uncertainty and contributes to financial instability
 - ✓ + financial conditions have been benign except for a brief period during September
- **U.S. inflation** falls, rather than rising, and threatens deflation
 - ✓ + Inflation has risen slightly since the beginning of the year, but declining commodity prices and slower global growth could result in lower inflation in coming months

- **U.S. interest rates** rise more than expected
 - ✓ + *long-term rates have fallen approximately 60 basis points so far in 2014; (Note: if rates continue to fall from recent levels, this would be a negative, not a positive, development as it would foreshadow concerns about potential deflation)*
- **U.S. fiscal policy** is more restrictive than expected and the **budget deficit** falls more than expected
 - ✓ - *the budget deficit was 2.76% for fiscal year 2014 — slightly lower than expected; although fiscal policy has been slightly more restrictive than expected, the lower deficit was driven by higher revenues, rather than lower spending, reflecting a somewhat stronger economy*
- **U.S. state and local spending** does not rise as fast as expected
 - ✓ + *state and local spending is rising slowly, supported by a gradual rise in tax receipts*
- **Global GDP growth** does not rise as fast as expected
 - ✓ - *2014 growth is now forecast to be 3.1% compared to the forecast of 3.5%; the balance of risks tilts toward even slower growth*
- **Europe** slips back into recession
 - ✓ - *second quarter GDP growth was near zero*
 - ✓ - *German growth is deteriorating*
 - ✓ - *the European Commission reduced 2014 forecast GDP growth for the euro area to 0.8% and slashed 2015 expected growth from 1.7% to 1.1%*
- **Europe** — financial market turmoil reemerges
 - ✓ + *financial conditions have deteriorated some, but turmoil has not reemerged*
- **Europe** — political instability and social unrest rises more than expected threatening survival of the Eurozone and the European Union
 - ✓ - *Euro-skeptic parties continue to gain strength*
- **U.K. growth** falters as housing bubble collapses
 - ✓ + *2014 GDP growth is on track to reach 3.0%*
 - ✓ + *Scotland voted against independence*
 - ✓ - *Rise of Scottish National party and United Kingdom Independence Party threaten political instability after the May 2015 parliamentary election*
- **Chinese** leaders have difficulty implementing **economic reforms**
 - ✓ + *Implementation is proceeding slowly*
- **China's growth** slows more than expected
 - ✓ - *full year GDP growth is likely to slow to 7.2% to 7.3%; risks are tilted toward even slower growth*
 - ✓ - *housing prices are declining, the housing market price correction has been more severe than expected*
- **Japan** — markets lose faith in Abenomics
 - ✓ - *GDP growth has weakened to an expected 1.2% in 2014; GDP growth was negative in both the second and third quarters; the Japanese economy has not recovered as strongly as expected following last Spring's tax increase, forcing a substantial escalation in quantitative easing; implementation of supply-side reforms is lagging; value added tax increase scheduled for 2015 has been postponed to 2017*

- Severe and, of course, unexpected *natural disasters* occur, which negatively impact global growth
✓ + nothing of consequence has happened
- **Middle East oil supply** is disrupted and oil prices rise sharply
✓ + oil prices have declined more than 25% over the last year; note that this is a favorable result for net consuming nations, but an unfavorable development for exporting nations, particularly Russia
- **New — Russia's annexation of the Crimea and Civil Unrest in Ukraine**
✓ - political tensions between Russia and member nations of NATO have risen; Russia's economy has slowed and probably is in recession; sanctions are contributing to recession risk in European economies

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