Confluence INVESTMENT MANAGEMENT

Current Perspectives

By Bill O'Grady and Mark Keller

2016 Outlook

In this report, we will offer our outlook for the upcoming year. Twenty-sixteen could be an interesting year—presidential elections will be held, the Federal Reserve could tighten monetary policy and the geopolitical landscape will likely remain complicated. We will begin the report with our base case for the economy, equities, debt markets, the dollar and commodities. From there, we will examine the "known unknowns,"[1] which could undermine our base case.

Summary: Our Base Case

- No recession in 2016.
- Slow economic growth, low inflation.
- An S&P 500 of 2214.39, based on earnings of $121.67 and a P/E of 18.2x. If our forecast undershoots the market, it will likely be due to further multiple expansion. We would only consider foreign developed for risk-tolerant accounts and continue to avoid emerging equities.
- The 10-year Treasury yield should be in a range of 1.90% to 2.25%. Corporate spreads should contract.
- We expect the dollar will remain strong and commodity prices will be weak.

Our Key "Known Unknowns"

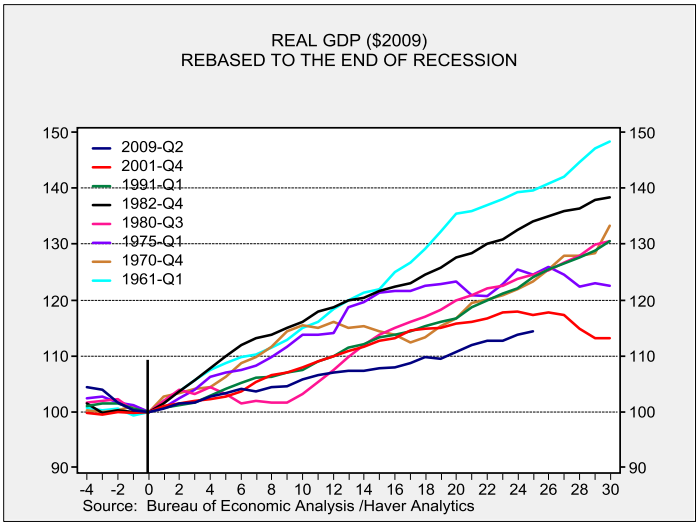
- Monetary Policy
- The Global Economy
- The Upcoming Election
- Geopolitics

Base Case: The Economy

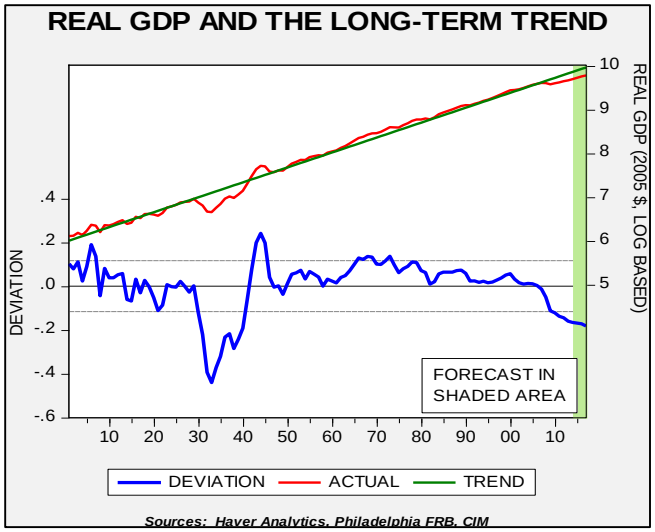
The U.S. economy has experienced slow growth in the wake of the 2007-09 Great Recession.

This chart shows the current recovery and expansion compared to the previous eight cycles, starting with the 1960-61 recession. We are 25 quarters from the end of the recession and, as the chart indicates, the current recovery is the weakest in 50 years.

The following chart offers another historical perspective.

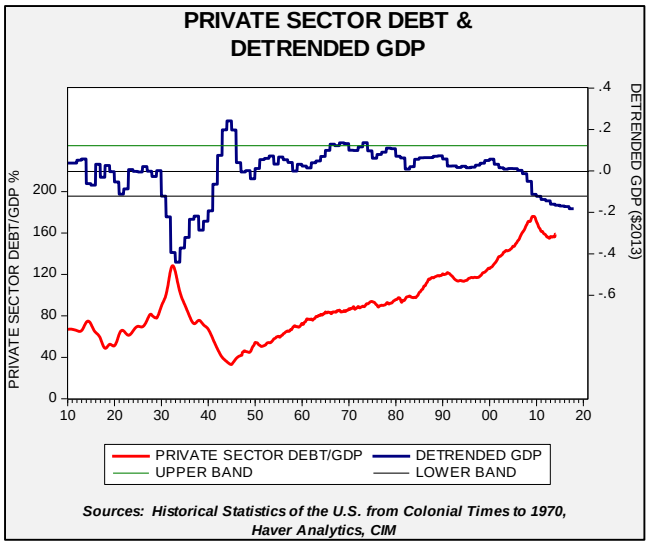


[1] This term was coined by Former Defense Secretary Donald Rumsfeld, who used it to distinguish from "unknown unknowns," which are essentially unpredictable black swans.

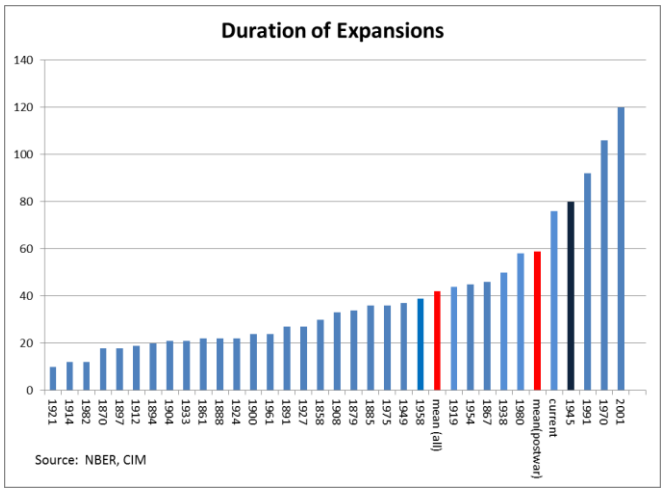


This chart examines the level of real GDP beginning in 1900. We have log-transformed the data and regressed a time trend through it. The lower line shows the deviation from trend. Although the current situation isn't as dire as the Great Depression, it is the second weakest period in over a century. The green shaded area marks the consensus forecast from the Philadelphia Federal Reserve Bank (FRB), which indicates that the economy is expected to remain below its long-term trend.

Our analysis suggests that this underwhelming economic activity will likely continue. The major underlying problem is private sector debt.



This chart shows detrended GDP (the upper blue line, which is the lower line from the previous chart) with private sector debt as a percentage of GDP (red line). Private sector debt consists of household and non-financial business debt (we exclude financial sector debt to avoid the problem of double counting). When private sector debt levels become excessive and deleveraging ensues, growth suffers. History indicates that growth doesn't recover until deleveraging ends. Unfortunately, there is no "magic" level that determines a sustainable level of private sector debt. It really comes down to a level where borrowers feel comfortable adding leverage. The history of debt shows that (a) there is no way to easily determine when debt has become too large, and (b) deleveraging can occur swiftly and last longer than expected. Although it is possible we may be at that level now, as recent data shows a modest uptick in leverage, it appears to us that current levels are probably still too high. Until deleveraging ends, economic growth will likely remain lackluster.



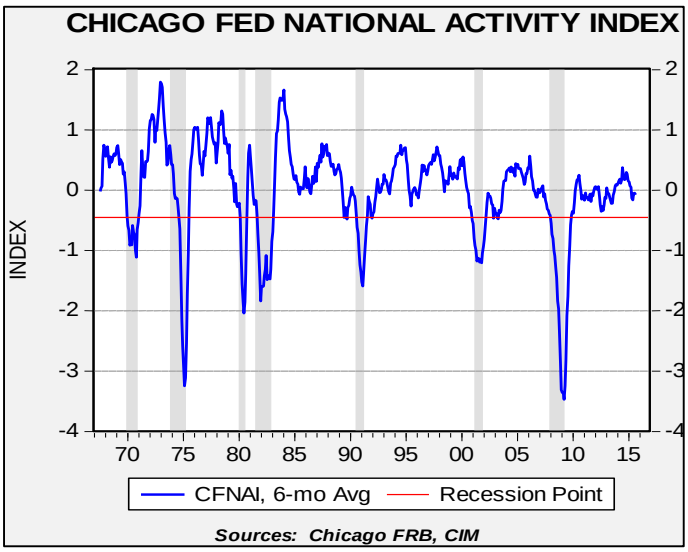
Although growth remains weak, there is little evidence of recession. There are a number of indicators we monitor and the preponderance indicates that this expansion will continue, even though it is getting rather "old."

The current expansion is now 77 months old and is the fourth longest since 1858. It should be noted that expansions don't die of old age; they are usually ended by inventory

issues, exogenous events or policy errors. Technology and modern logistics have mostly eliminated inventory-induced downturns, where excessive stockpiles led to production cutbacks and layoffs. So, the two primary culprits are outside events (e.g., wars, oil embargos, weather situations) or policy mistakes. We will discuss the likelihood of such disruptions in the "known unknowns" section below.

Among our business cycle indicators, our favorite comes from the Chicago FRB, which publishes a National Activity Index. The index is broad-based, generates few false positives[2] and reliably signals downturns.

We smooth the actual data with a six-month moving average. An economy growing at trend generates an index reading of zero. An average reading under -0.45 is a signal that a recession is underway. The current reading is below zero, which is consistent with a slowly growing economy, but is above the recession line, indicating a downturn isn't imminent.



In the international economy, similar issues are also constraining growth. In the developed world, debt levels are similar or worse than in the U.S. In addition, both Japan and Europe are facing deteriorating demographics; both areas are aging rapidly and without significant immigration this problem will dampen economic prospects.

In the emerging world, the primary issue is China. The Chinese leadership is engaged in restructuring the Chinese economy toward domestic consumption and away from its dependence on exports and investment. Although it is possible this transition will go smoothly, the historical record is far from comforting. Since the industrial revolution in the early 1800s, the world has tended to have at least one ***high growth/low cost*** manufacturing power. Britain was the first to take on this role, and the U.S., Germany and Japan each adopted the role into the 20th century. After WWII, Germany and Japan reprised their roles as part of their recovery from the war's devastation. The Asian Tigers became the high growth/low cost producers during the 1970s into the 1980s. China became the primary low cost producer after Deng Xiaoping opened the Chinese economy in 1978.

This development model is fairly straightforward. A nation suppresses domestic consumption to create saving that is used to pay for investment and infrastructure. Over time, productive capacity exceeds domestic consumption leading the high growth/low cost nation to export. Eventually, the world rebels against this nation's exports, which are essentially absorbing domestic demand in other countries. In addition, workers who have seen their wages suppressed by policy protest against the model and demand a larger share of output. Overall economic growth tends to lead to labor scarcity, which also boosts wages. Eventually, costs rise and the nation loses its status as the global high growth/low cost producer.

Throughout history, there have been two ways that nations attempt to transition from being the high growth/low cost producer to a more sustainable pace. The first strategy is imperialism. The developed

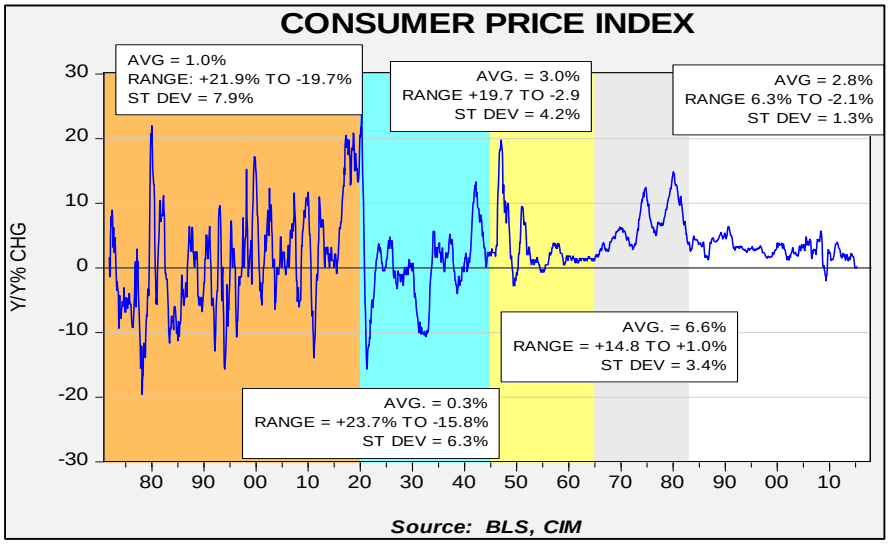
[2] Signaling a recession when one does not occur.

nation acquires colonies and forces them to buy its excess production. Britain adopted this strategy. The second strategy is to move up the value chain in manufacturing. This was Germany's method of making the transition in the postwar world, shifting from producing simple cars to highly sophisticated ones (e.g., Volkswagen to Mercedes).

Unfortunately, history also shows us that these transitions are sometimes catastrophic. Wars, depression and stagnation often occur when these transitions are not properly managed. Germany, the rising European power in the late 1800s, became such a serious threat to Britain that the latter tried to isolate it. Tensions rose until they resulted in WWI. The U.S. was unable to make the transition away from the high growth/low cost producer, leading to the Great Depression. The resulting lack of global leadership was one of the primary causes of WWII. After Germany's and Japan's economies were destroyed following WWII, they both became high growth/low cost producers again. Germany was able to successfully transition to be a higher value-added manufacturer,[3] while Japan was unable to make the shift and has suffered through 25 years of stagnation with no clear path out of its current situation.

We believe that China is embarking on the transition from being a high growth/low cost manufacturer. If all goes well, China's GDP growth will fall to 4% in the coming years, which isn't bad, but clearly well below growth rates seen since the late 1970s. If it goes poorly, China could either face stagnation, similar to what Japan has experienced, or a much worse outcome, such as depression or war. China is trying to move up the value chain, rely more on domestic consumption (a potential path given its huge population) and introduce a form of trade imperialism as seen with its Silk Road Project and the Asian Investment and Infrastructure Bank. Like Japan in the 1930s, China is facing an America that is working to constrain its aspirations of great power. Although we are not forecasting an immediate war (see "Known Unknown #4" below) or stagnation, a slowdown in growth is probably unavoidable.

All this suggests that inflation will remain low in the developing world. Although inflation control is usually considered the purview of central bankers, we believe the key to low inflation is in the management of aggregate supply. As long as nations remain open to globalization and deregulation—in other words, allow for creative destruction to flourish—inflation will remain under control almost regardless of what central bankers do.

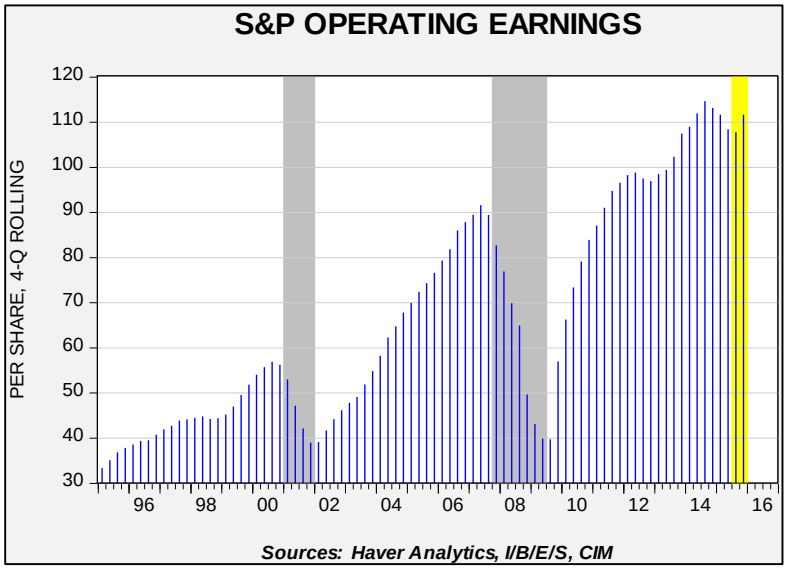


This chart looks at the yearly change in CPI since 1872. We are living in a period of low but also unusually stable inflation, evidenced by the low standard deviation. We believe this situation is mostly due to the fact that globalization and deregulation have essentially "flattened" the aggregate supply curve, leading to price stability. That is why, even with unconventional monetary policy, the Federal Reserve has been unable to boost inflation.

[3] However, it could be argued that the Eurozone is nothing more than the German colonialization of Europe, meaning that it also engaged in imperialism as part of its transition.

Base Case: Equities

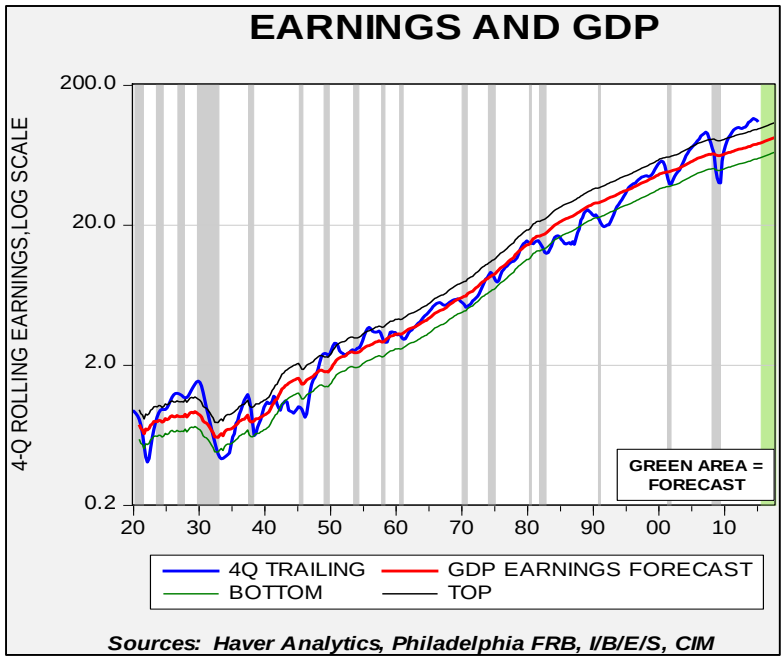
We will focus our analysis on the S&P 500 Index, working under the assumption that foreign markets or other equity capitalization categories will mostly track this index to a greater or lesser degree. Let's start with earnings. Operating earnings growth has been slowing recently.



This chart shows the four-quarter trailing sum of S&P operating earnings since 1995. These peaked at $114.51 in Q3 2014 and have declined to $108.30 through Q2 2015. Based on current consensus estimates, the four-quarter trailing operating earnings (shown in yellow) are expected to recover in Q4.

To forecast next year's earnings, we use top-down methodology. We begin by looking at the relationship of earnings to GDP.

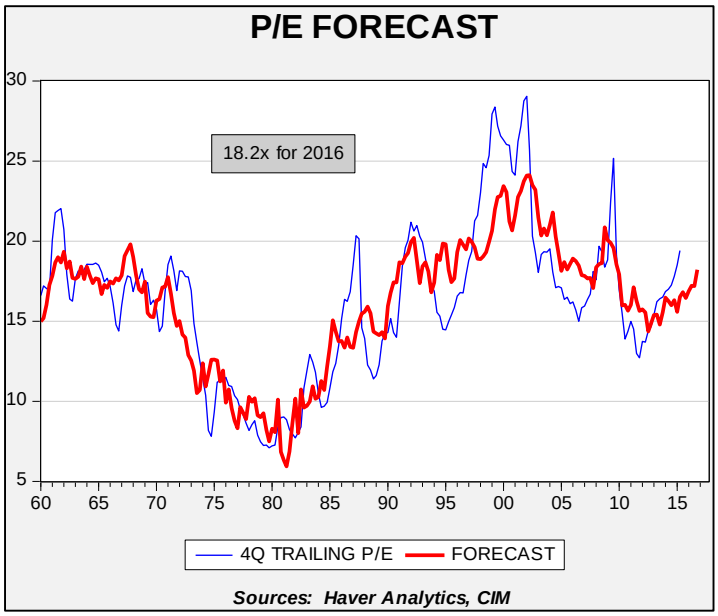
This chart shows S&P earnings from 1920 to the present.[4] We regress the series against nominal GDP over this time period. Essentially, the red line on the chart shows the level of earnings that can be explained by the overall expansion of the economy. A blue line above the red line indicates margin expansion and vice versa. Since the late 1990s, margins have tended to reach or exceed the upper standard error line, suggesting high margins. It is also worth noting that when margins are expanded, they appear very sensitive to the business cycle; during the 1930s and in the last two recessions, earnings fell to at least one standard error below the forecast, which represents a very large decline. Although the next recession may not trigger a similar drop, it is a concern, which is why we spend a significant amount of time analyzing the business cycle.



[4] We use an adjustment factor to convert reported earnings to operating earnings; the latter was established in Q1 1988.

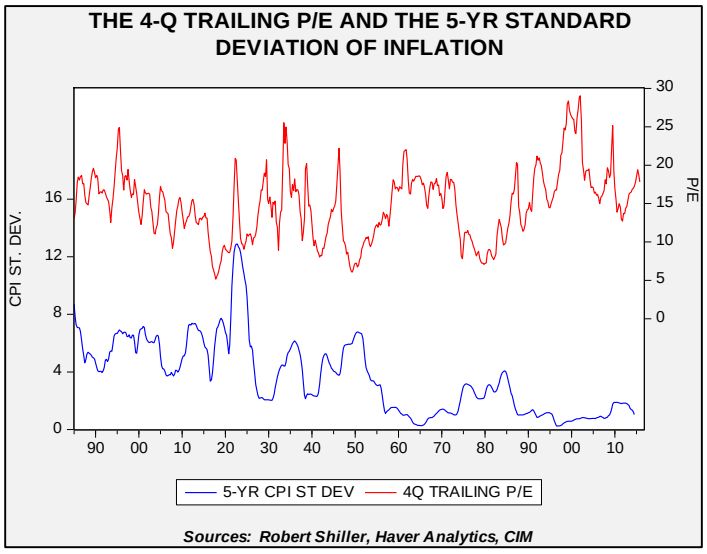
This chart shows a similar way of looking at earnings. It measures the level of S&P 500 earnings as a ratio of nominal GDP. Prior to the last recession, earnings peaked around 6% of GDP; we are seeing similar patterns in this business cycle. This ratio, a measure of margin, is driven by interest rates, unit labor costs and net exports—in other words, the cost of financing, productivity and globalization. The trends in these three variables suggest that margins should remain elevated. Labor costs remain low, the dollar's strength is boosting the trade deficit (a widening deficit supports stronger margins), and we expect interest rates to remain low. ***Assuming a 5.6% earnings-to-GDP ratio, earnings for 2016 should come in at $121.67.*** Our GDP forecast comes from the Philadelphia FRB Survey of Professional Economists.

The other element involved in projecting our S&P forecast is the price/earnings ratio. Our P/E model, which works off the four-quarter trailing earnings, uses demographics (the percentage of Americans aged 35 to 54 of the entire population), long-term corporate interest rates, consumer confidence, fed funds (we are estimating a fed funds target of 50 bps by year-end 2016) and trend inflation. Based on this model, we look for a P/E of 18.2x in 2016.



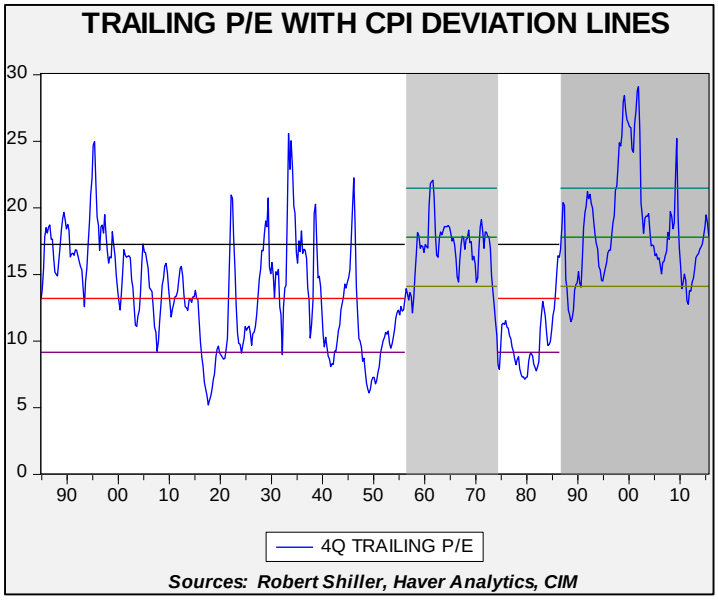
A P/E of 18.2x and earnings of $121.67 yield an S&P 500 of 2214.39.

There is some concern over the elevated P/E. This isn't unreasonable. However, one factor that favors further multiple expansion is the low level of inflation volatility.



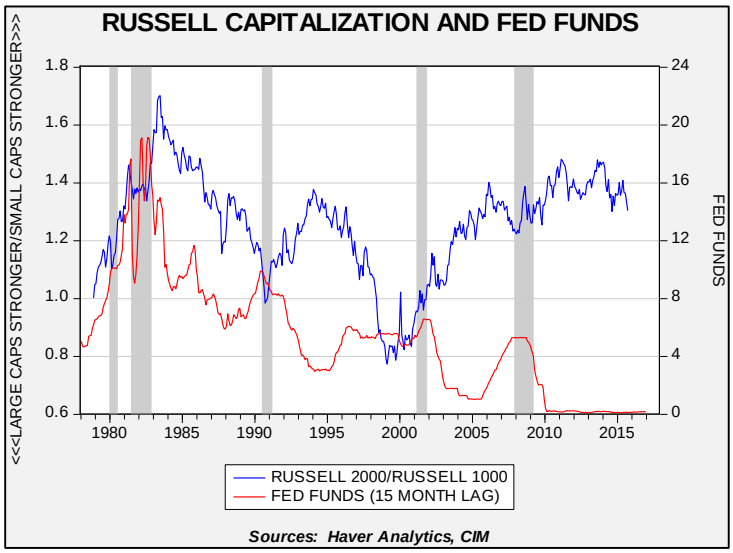
The upper line is the four-quarter trailing P/E while the lower line is the five-year moving standard deviation of the yearly change in CPI. There have been two periods in which the volatility of inflation was consistently below 2%, the 1960s into the early 1970s and from 1990 to the present. Stable inflation gives investors confidence that real earnings will be mostly stable, too. We note that during these periods, investors tend to reward equities with persistently high P/Es.

In the white areas of the graph, when CPI volatility exceeds 2%, we have calculated the average and standard deviations of P/E. The average is 13.1x. During the periods when inflation volatility is 2% or below, the average P/E was 17.2x. This tells us that, if inflation volatility remains low, a P/E of 21.4x would only be one standard deviation above the average. Thus, the market could support a much higher P/E than the long-term average alone (which is about 14.5x).



To conclude, our S&P 500 forecast of 2214.39 is based on earnings of $121.67 and a P/E of 18.2x. There is a real possibility that the P/E could surprise to the upside, especially if monetary policy, which will be examined at length below, remains very accommodative. If our forecast of the economy is correct and a recession is avoided, then there will be further room for multiple expansion.

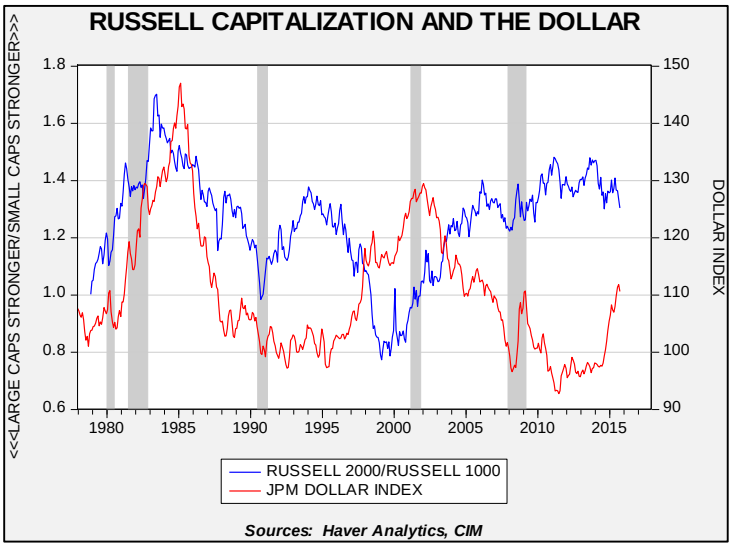
In terms of capitalization, the trends are mixed. There are essentially three macro variables that drive the relative performance of large caps compared to small caps. First, tighter monetary policy tends to favor large caps which can more easily secure financing at favorable rates compared to small caps. Thus, when the FOMC raises rates, large caps tend to have relative outperformance. Second, small caps tend to outperform when the dollar strengthens. A rising dollar tends to hurt the earnings of large caps, which are more dependent on foreign economies. Small caps tend to be more domestically sensitive and thus do relatively better when the dollar is strong. The third variable is the business cycle. In recessions, large caps tend to outperform.



First, monetary policy.

The blue line on the chart shows the ratio of small caps to large caps, using the Russell indices. When the blue line is rising, small caps are performing better than large caps. The red line shows fed funds; we lag this rate by five quarters to reflect the lag it takes for tightening policy to affect this ratio. From 1990 to 1994, as the Fed cut rates, small caps did better. The relationship also held from 2001 to 2005 and from 2009 to 2013. It did not hold when the central bank cut rates in the 1980s; as we will show in the next graph, the massive depreciation of the dollar offset the effect of lower interest rates. It is also worth noting that large caps have been doing better than small caps since the FOMC began tapering the expansion of its balance sheet in 2014.

Second, the dollar.



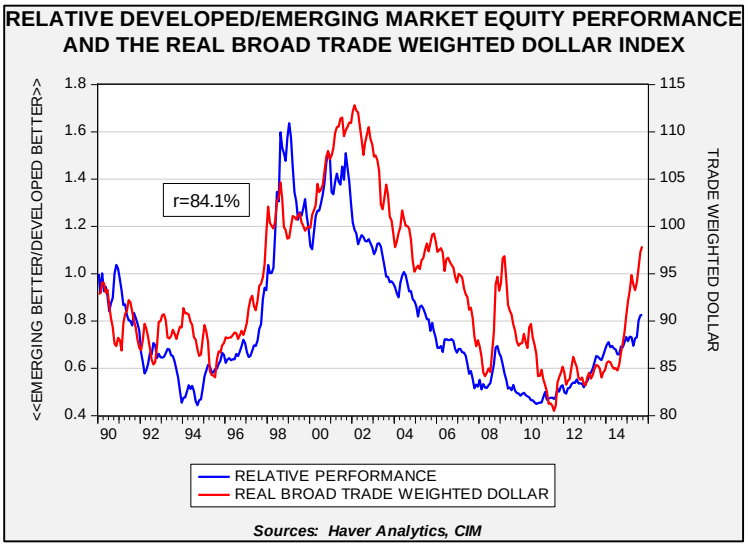
As the dollar appreciated from 1978 to 1985, small caps strongly outperformed large caps. This pattern reversed with the dollar's depreciation, engineered at the Plaza Accord in 1985. The stable dollar from 1990 to 1995, along with Fed easing, led to small cap outperformance during this period. Dollar strength did not hamper large cap outperformance into 2000, but its persistence did lead to a major recovery in small caps from 2000 into 2005. The recent dollar strength has not hurt large caps yet, probably because the Fed has already begun tightening by no longer expanding its balance sheet, which is offsetting dollar strength. However, if the index hits the 120 level, we would look for large caps to underperform small caps, based on the historical relationship.

Finally, the onset of recession tends to support large caps relative to small caps. Recessions are shown in gray bars on the above charts. With the exception of the very mild 2001 recession, large caps tend to do better into the downturn.

Since we are seeing both policy tightening and a stronger dollar, it is something of an empirical question as to which factor dominates. If recession is avoided, as we expect, small caps will probably do well. For the most part, in our asset allocation, we are leaning more toward small caps in aggressive accounts. But, for more risk averse investors, large caps can be a less risky position.

In terms of foreign markets, the restructuring issues in China will increase emerging market volatility. Many emerging markets are sensitive to Chinese commodity demand and as China's GDP slows its growth will be pressured as well. In addition, emerging economies tend to be very sensitive to the dollar's exchange rate; a strong dollar hurts them in two ways. First, it depresses commodity prices, which are priced in dollars. For commodity-producing countries, since the rising dollar keeps commodity prices high in local currencies, they are encouraged to keep producing (inasmuch as their costs are in local currencies). This keeps supplies of these commodities high, hurting all emerging market producers. Second, many emerging markets borrow in dollars because the interest rates tend to be lower. This decision can lower borrowing costs as long as the dollar doesn't appreciate. However, dollar appreciation raises debt service costs to a dollar borrower and can put financial system pressure on an emerging market economy.

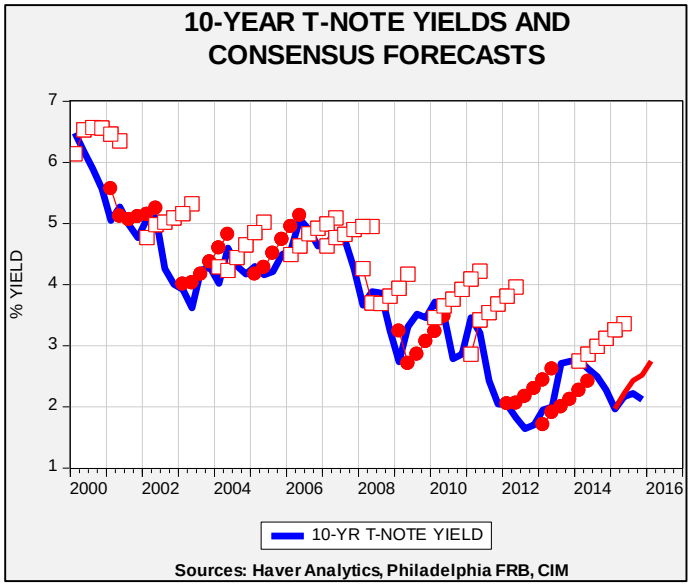
This chart shows the relative performance of developed versus emerging market equities (the blue line) and the dollar. When the blue line is rising, developed economy equities are outperforming emerging market equities. Note that swings in relative performance correlate closely with the dollar index's behavior. A rising dollar tends to support stronger developed economy performance. As we will note below, we expect the dollar to remain strong in 2016.



Base Case: Debt Markets

One of the enduring forecasts we have seen over the past decade and a half is the expectation that long-term Treasury rates are about to rise. These forecasts have been persistently wrong.

This chart shows the yield on the 10-year Treasury with the first of the year forecasts from the Philadelphia FRB's Professional Forecaster's survey. The red dots are forecasts that the group generally got right; the open blocks are forecasts in error. First, note that all the forecasts have been predicting higher rates. Second, the majority of the forecasts are wrong; in fact, the forecast for this year looks like it will go into the record books as another incorrect one.

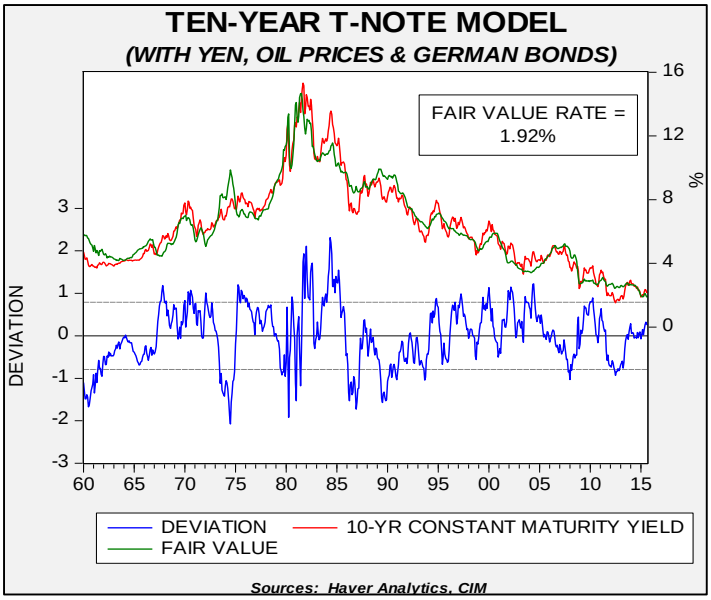


Why have these forecasts been so wrong? We believe there are two reasons. First, forecasters have been expecting higher inflation. They have noted that monetary policy has been mostly accommodative and expected easy policy to lead to higher inflation. We believe that the key to inflation isn't monetary

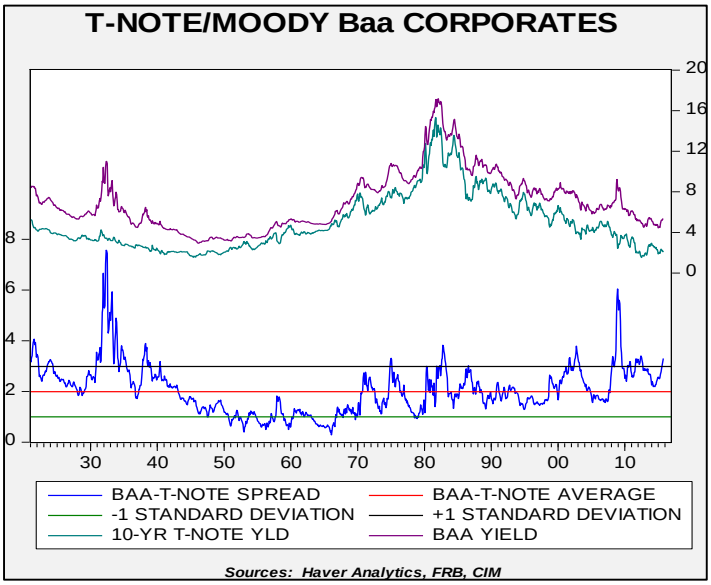
policy but supply side policies. As long as policymakers are open to trade and allow mostly free introduction to disruptive technology, the aggregate supply curve remains flat and can accommodate rising demand without price pressures. When demand rises, domestic firms tend to meet this new demand with capital investment and technology instead of new workers; if this strategy doesn't work, they source the supply from abroad, thus keeping prices low. Second, especially since 2007, economists have generally underestimated the impact of deleveraging on the economy, leading to persistent errors in overestimating future economic growth.

Our analysis suggests that rates will remain low.

The top chart on the right shows our 10-year T-note yield model, which uses fed funds, inflation trends, the yen's exchange rate, oil prices and German 10-year sovereign yields. The current fair value for yields is 1.92%. We are not expecting major changes in the underlying variables, ***meaning that for 2016, the 10-year Treasury yield will probably move within a range of 1.90% to 2.25%.***



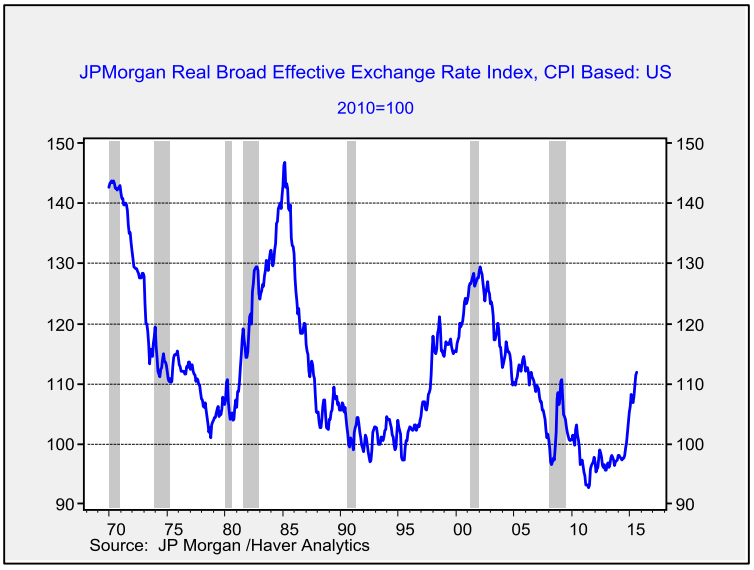
Fears of monetary policy tightening and problems in mining and oil exploration have led to rising financial system stress and widening credit spreads. History does suggest that spreads at current levels mean that high-grade corporate bonds are offering attractive yields relative to Treasuries. Of course, the worry is that spreads could widen further if a recession occurs. Since we don't expect a recession, we have been favoring corporate credits in our asset allocation process. However, as the 1930s and the 2008 crises show, corporate yields can spike to very high levels. We don't expect a repeat of these events in 2016.



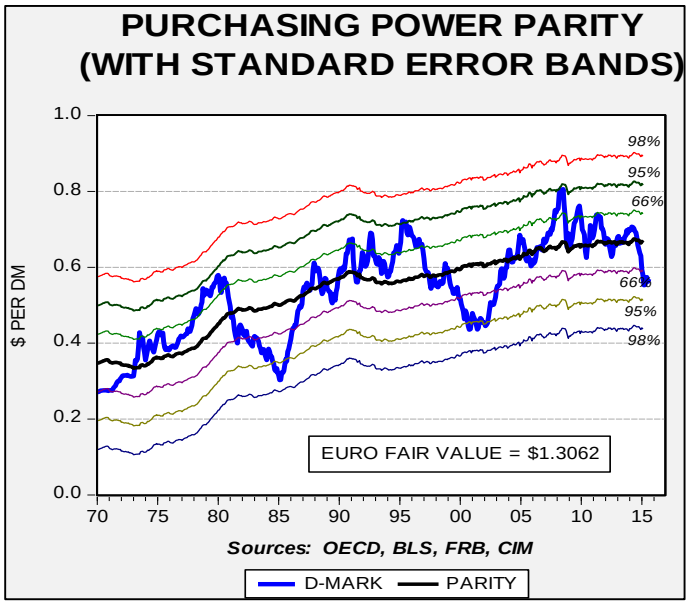
Base Case: The Dollar

The dollar has appreciated in 2015; we expect that to continue in 2016, even if the FOMC does not raise rates. This is because other central banks, including the People's Bank of China (PBOC), the Bank of Japan (BOJ) and the European Central Bank (ECB), are continuing to ease policy. Thus, even if the Federal Reserve keeps policy steady, on a relative basis, the policy moves of other central banks support further dollar appreciation.

This chart shows the JP Morgan inflation- and trade-adjusted exchange rate index. Although the dollar is mostly quoted on television in bilateral terms (€/$, ¥/$), this index is a better reflection of the economic impact of the exchange rate in that it adjusts for relative inflation between other countries and the U.S., weighted by their trade activity. As the chart indicates, we are in the third major appreciation period since currencies began floating in the early 1970s.[5]



In terms of bilateral exchange rates, the dollar is getting rather expensive compared to the euro.



This chart shows our calculation of the purchasing power parity exchange rate for the legacy D-mark and the dollar, using German and U.S. inflation rates.[6] Purchasing power parity is one of the oldest methods of valuing exchange rates; it's based on the concept that exchange rates equalize inflation differences between countries.[7] The parity model is clearly not a good model for predicting exchange rates; deviations are constant and rather wide. However, it does offer reasonably good insights when an exchange rate valuation is getting extreme. In the past two dollar bull markets, the D-mark did cross two standard deviations from the model's forecast; at present, two standard deviations would put the euro at parity ($1.00).

Given that the ECB is prepared to take additional easing measures, we suspect the dollar will make it to parity sometime in 2016. At that level, we would expect a depreciation of the dollar to follow at some point. Although we won't go into further detail, the economics of the yen look similar to the euro. Thus, we would expect further yen weakness as well.

---

[5] It should be noted that the Mexican debt default and the subsequent Latin American debt crisis in the 1980s, the Peso Crisis of 1994 and the Asian Economic Crisis of 1997-99 all occurred during major dollar appreciation periods.

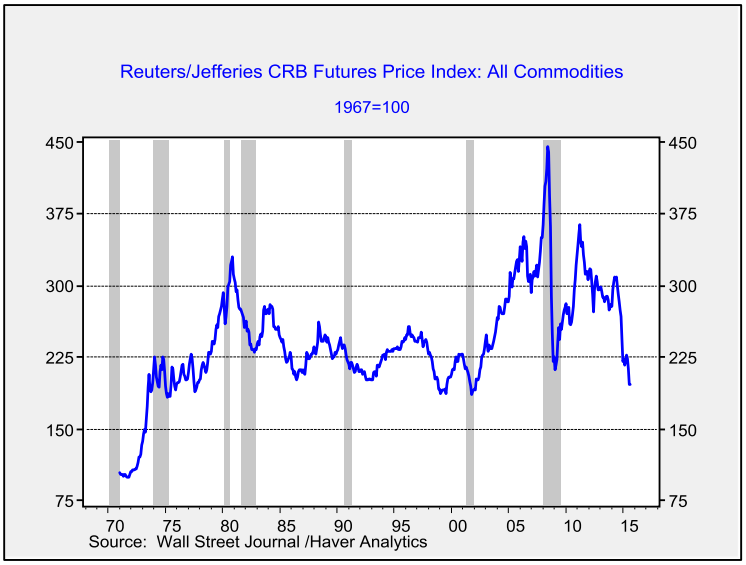
[6] We use the legacy D-mark and German inflation rates to show a longer history, and Germany represents the largest economy in Europe.

[7] *The Economist* magazine's famous "Big Mac" index is a simplified model of this theory, measuring the exchange rates based on the local prices of this iconic sandwich in various countries. In its July 2015 calculation, it put the euro's fair value at $1.2987, near our above calculation. See http://www.economist.com/content/big-mac-index.

Base Case: Commodities

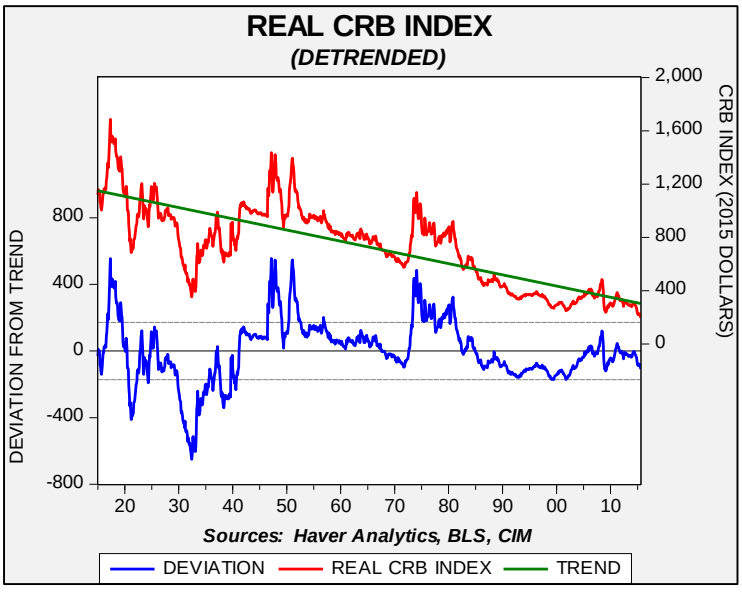
Commodity prices have been under severe pressure since the summer of 2014. While several commodities had come under pressure prior to the summer of 2014, oil prices were supported by OPEC. However, Saudi Arabia began defending market share in mid-2014 and the subsequent drop in oil prices lowered the entire commodity complex to levels last seen 15 years ago.

This chart shows the Commodity Research Bureau's (CRB) index of commodity prices. The index was off its 2011 highs but plunged to levels last seen in late 2001 with the drop in oil prices.



The strong dollar has been a significant headwind for commodity prices. First, since commodities are priced in dollars, an appreciating greenback means that all non-dollar consumers pay more for commodities. Second, foreign commodity producers are paid in dollars but most of their costs are denominated in local currency. Thus, when the dollar appreciates, the cost of producing commodities declines in these nations. This delays the necessary cuts in supply to balance the market and adds to price pressure. In other words, it creates a negative feedback loop that not only reduces demand (by raising prices to non-dollar consumers) but also reduces costs to all non-dollar producers.

This model looks at the inflation-adjusted CRB index dating back a century. Over the long run, commodity prices fall relative to consumer prices; this is one of the characteristics of capitalism. In capitalist economies, there are usually steady improvements in efficiency, which means less material is needed to produce a product. However, as the deviation line shows, there are periods when commodity prices spike. This tends to occur during wars or periods of unusual monetary instability. In fact, the commodity bull market of the last decade was one of the most sedate on record! In the last bear market, commodity prices tended to languish around the lower deviation line. ***A similar situation is likely, which means commodity prices will remain under pressure.***

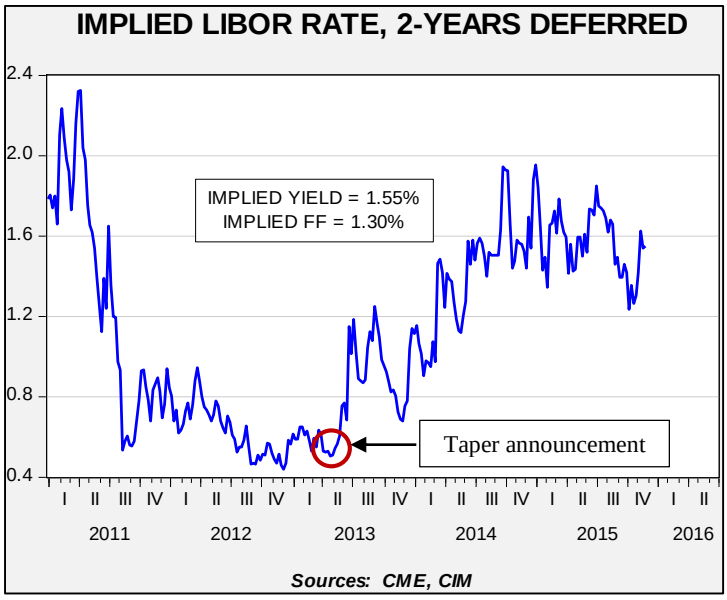


Our views on the most critical of commodities, oil and natural gas, are reviewed every quarter in our Quarterly Energy Report. In our most recent report, we made the argument that ***oil prices will likely***

remain in a $35 to $55 per barrel trading range until some supply event occurs. Global economic growth won't be strong enough to lift demand, so a major recovery in prices will occur when (a) the Saudis end the current market share war and cut production, (b) high-cost non-OPEC production falls due to low oil prices, (c) an OPEC nation collapses under the weight of low oil prices, or (d) a war involving oil producers begins in the Middle East. Will any of these events occur next year? They could, but we doubt it. ***Therefore, we expect the aforementioned range to remain in place until supplies are reduced. Trading within the range will likely be a function of seasonal demand. Thus, we look for a rally through year's end, into the high end of the range, and a pullback in Q1 and Q2 of next year, with a summer recovery.***

The Known Unknowns

Known Unknown #1—Monetary Policy: It should be noted that the FOMC actually tightened policy in 2014 by ending its expansion of the bank's balance sheet. Although not generally recognized, interest rates began to increase as soon as then-Chairman Bernanke mentioned the word "taper" (red circle on the chart).



This chart shows the two-year deferred implied three-month LIBOR rate from the Eurodollar futures market. In May 2013, the implied three-month LIBOR rate was 0.43%; after tapering was announced, the implied rate steadily rose, projecting a fed funds rate at its highest point of 1.70%. The current implied fed funds rate, two years from now, is 1.30%. The rise caused by tapering also appeared in swap rates; the two-year swap rate rose from 39 bps in May 2013 to 83 bps today.

Currently, the FOMC is riven by three factions, which are as follow:[8]

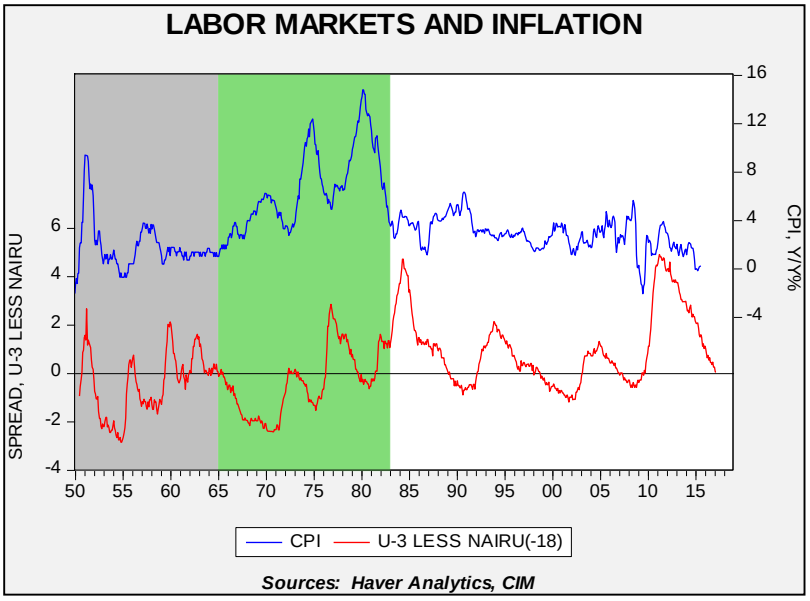
1. The Traditionalists: The tightening labor markets are at a point where further gains in employment will likely lead to rising price levels. To keep inflation under control, the FOMC should move promptly to raise rates. In this group are *Vice Chairman Fischer*, *St. Louis FRB President Bullard*, *Kansas City FRB President George*, Richmond FRB President Lacker, Dallas FRB President Kaplan, Philadelphia FRB President Harker and *Cleveland FRB President Mester*.

2. The Doubters: The amount of slack in the labor markets is uncertain due to structural changes in the labor force. The high level of involuntary part-time workers and the low participation rate are examples of data that would suggest there is ample slack in the labor markets and policy should remain accommodative. In this camp are *Chairman Yellen*, *Governor Powell*, *New York FRB President Dudley*, Chicago FRB President Evans, Atlanta FRB President Lockhart, San Francisco FRB President Williams and *Boston FRB President Rosengren*.

[8] Underlined members are current voting members, italicized are voters in 2016. Members who are both underlined and italicized are permanent voters.

3. The Renegades: The labor markets are irrelevant to the behavior of inflation, thus policy should not move until inflation reaches its 2% core PCE target. This group consists of *Governors Brainard* and *Tarullo* and Minneapolis FRB President Kocherlakota.

This split is more subtle than the usual "hawk/dove" divergence. The first two groups agree that the Phillips Curve exists. The Phillips Curve, simply put, postulates that there is a relationship between the level of slack in the labor markets and inflation. It has always been a rather controversial thesis because it oversimplifies the dynamics of both the labor markets and inflation. However, policymakers like the rule as it gives them a simple tradeoff—if inflation is too high, a country must accept higher unemployment. If a policymaker wants to lift employment, the risk is inflation.



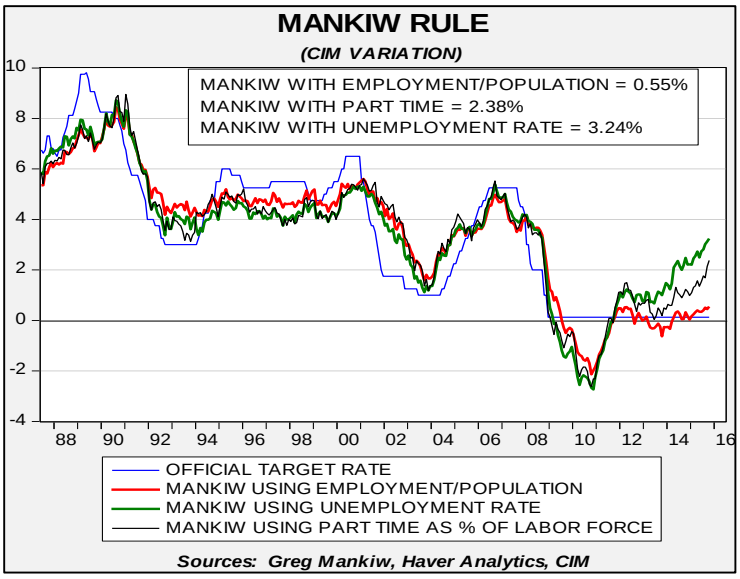
The upper line is the yearly change in overall CPI. The lower line is the difference between the unemployment rate and the Congressional Budget Office's estimate of the Non-Accelerating Inflation Rate of Unemployment (NAIRU); we call this the spread. The NAIRU is an estimate of full employment; according to the Phillips Curve, an actual unemployment rate below the NAIRU will lead to higher inflation. On the chart, we use an 18-month lag of the spread when comparing to inflation, assuming that it takes about 18 months for the inflation impulse caused by overly tight labor markets to translate into higher inflation.

We have three distinct periods on the chart. The gray and white periods show only a modest relationship between the spread and inflation. In the green area, there is a clear relationship, at least in terms of trend; when the red line is rising (the unemployment rate is rising compared to NAIRU), inflation falls and vice versa. Interestingly enough, the level seems to have less of an impact.

The dispute between the first two groups is whether or not the unemployment rate[9] is an accurate measure of slack. The basis for this analysis is the Taylor Rule. The Taylor Rule model measures the neutral rate by core CPI and the difference between GDP and potential GDP, which is an estimate of slack in the economy. Unfortunately, potential GDP cannot be directly observed, only estimated. To overcome this problem, Greg Mankiw created a similar model called the Mankiw Rule, which used the unemployment rate as a proxy for economic slack. We have created two other variations, one that uses the employment/population ratio and a third using involuntary part-time workers as a percentage of the total labor force as a measure of slack.

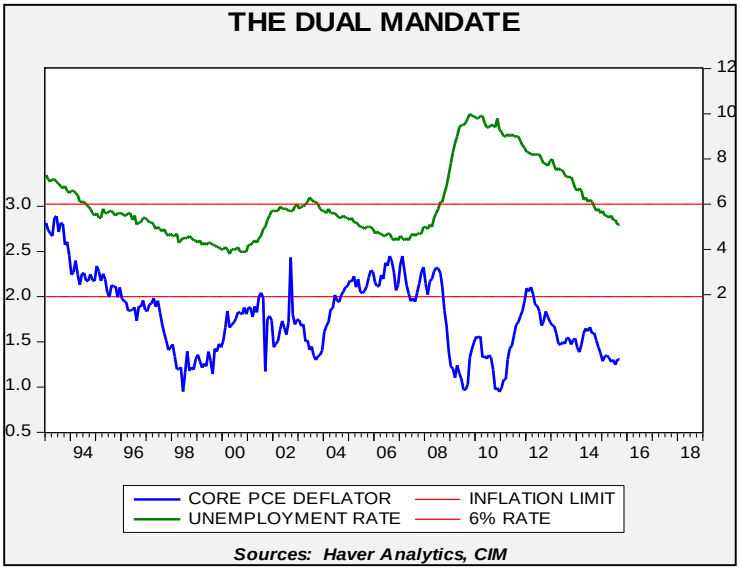
[9] The U-3 rate.

Based on the standard Mankiw Rule, the fed funds target should be at 3.24%, which implies the FOMC is hopelessly behind the curve and needs to raise rates now. The second model, which uses the employment/ population ratio, indicates the target should be 55 bps, suggesting that policymakers should consider one modest tightening and then maintain steady policy until conditions change. The third model, using involuntary part-time employment, suggests policy needs to be tightened to 2.38%. The hawks tend to lean toward the standard model. The traditional doves or moderates opt for one of the alternative measures of slack and lean toward modest tightening.



However, for those who disagree with the concept of the Phillips Curve, the FOMC shouldn't raise rates until both mandates are fulfilled.

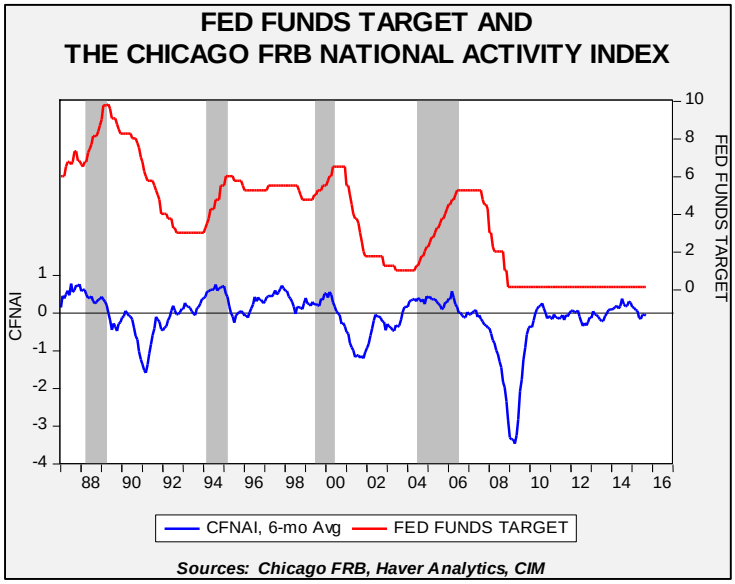
This chart shows historical unemployment and inflation rates relative to the prevailing estimate of the Fed's mandate for full employment and inflation (the FOMC has generally tried to avoid "hard targets" for its mandate). If the Fed's estimate of near-full employment is an unemployment rate of 6% (we note that NAIRU is 5%), then this threshold was crossed in early September 2014. Assuming it takes 18 months for overly tight labor markets to trigger inflation, this may explain why the focus has been on tightening rates before year's end (18 months after September 2014 is late February 2016). If the Phillips Curve doesn't hold, then one should treat the two mandates as separate, which Brainard seemed to suggest in her speech. In other words, in the current situation, the Fed should not move on rates until inflation, as measured by the core personal consumption deflator, reaches 2%.



This difference of opinion on the Phillips Curve means the FOMC has lost its fundamental narrative for monetary policy. The Taylor Rule and the Mankiw Rule are based on the Phillips Curve relationship; if nothing else, these rules model how the FOMC normally behaves. If the FOMC decides to jettison the Phillips Curve as a model for how the economy and policy interact, the operation of monetary policy will likely become very difficult. Essentially, the Fed will struggle to construct a rationale that will clarify their behavior.

Chairman Yellen, who we assume is in the traditional dovish camp, is trying to placate the hawks who see current policy as very dangerous, risking a rapid return of inflation. At the same time, she now faces a smaller rebellion from two governors who believe that the Phillips Curve will lead policymakers to prematurely tighten. So far, she has placated both groups by seemingly standing on the precipice of tightening but also suggesting that "more data" will be needed to act.

Which group is right? We lean toward the anti-Phillips Curve group. Based on that position, the FOMC should probably wait to raise rates.



This chart shows the fed funds target (upper red line) along with the Chicago FRB's National Activity Index (smoothed with a six-month average). The gray bars represent tightening cycles. The past 27 years of policy indicate that the FOMC tends to raise rates only when the activity index is above zero. This factor probably explains why the committee was leaning toward a rate hike last year into early this year. Note that the activity index dipped below zero in May and remains in negative territory. This change is probably behind the Fed's decision to wait.

With the economy struggling, the FOMC should wait to raise rates, if for no other reason than it is almost impossible to forecast how the financial markets will react to a hike. As the two-year Eurodollar market shows (see the above chart on page 13), the mere decision to slow the expansion of the FRB's balance sheet led to a sharp rise in market rates. An actual rate hike might bring a similar reaction…or it may not. Nevertheless, it would make more sense to raise rates when the economy is doing better, perhaps with a national activity index above zero. At the same time, the majority of the FOMC, which adheres to the Phillips Curve thesis, will be pressing the chairman to move rates soon. Consequently, the chances of a policy error are unusually elevated. That doesn't mean one will occur, but investors have to be prepared for an adverse outcome.

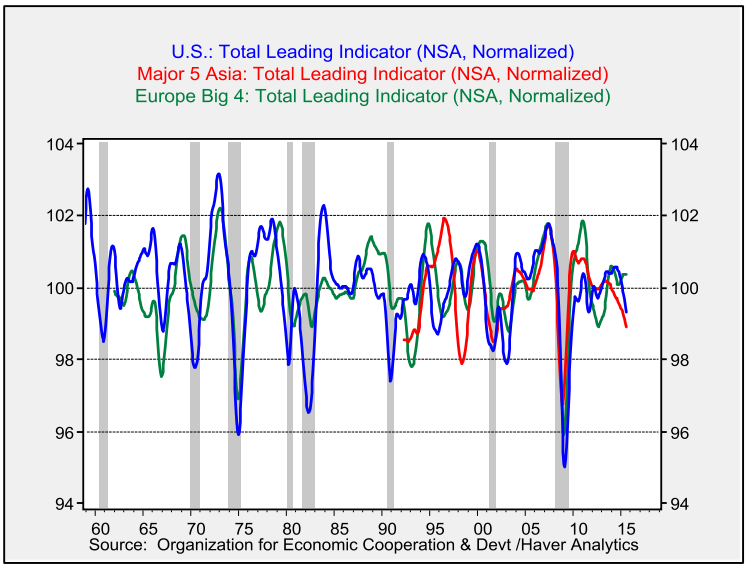
Known Unknown #2—The Global Economy: In the post-WWII world, the adage of "when the U.S. sneezes the rest of the world catches cold" was generally accurate.

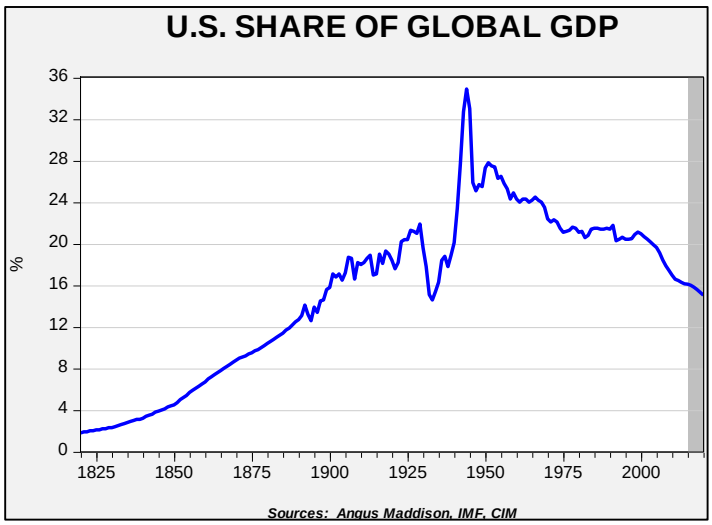
The first chart on the next page shows the long-term OECD leading indicators' deviation from trend for the U.S., the "big 4" European economies[10] and the major "Asian 5" nations.[11] Note that in 1977, Europe saw its indicator fall below trend with no drop in the U.S. indicator. The Asian Economic Crisis in 1997-98 had little impact on the U.S. On the other hand, Europe was doing well in the late 1980s only to fall with the U.S. during the 1990-91 recession (brought on, in part, by the Persian Gulf War).

[10] Germany, France, Italy and the U.K.

[11] China, India, Indonesia, Korea and Japan (since 1993)

There are two reasons the U.S. was mostly isolated from the economic conditions of the rest of the world for most of the postwar period. First, the relative size of the American economy meant that it was affected less by foreign developments. At the same time, given that the dollar is the reserve currency, foreign nations generally wanted to trade with the U.S. to acquire dollars for reserve purposes. This meant other nations were more sensitive to the U.S. economy. Second, the U.S. was a mostly closed economy as trade had little impact on GDP.



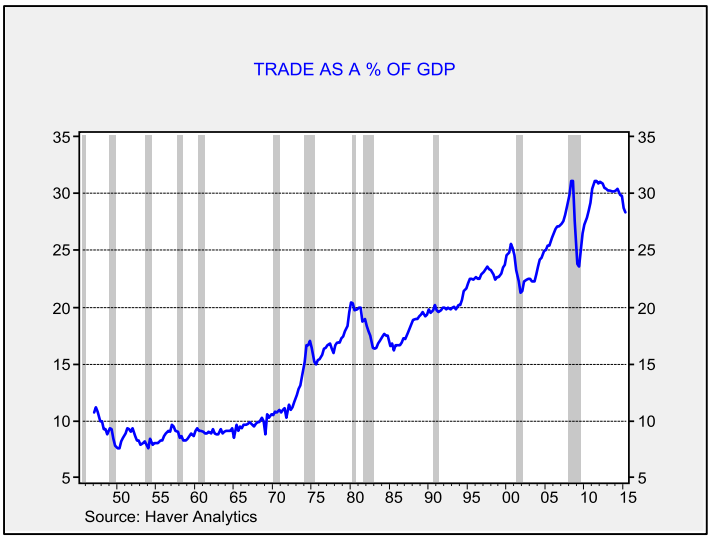


The chart on the left shows the U.S. share of global GDP, with forecasts from the IMF for 2015-2020. Near the end of WWII, the U.S. represented almost 35% of world GDP. That number is projected to fall to 15% by 2020. The expansion of China and the growth of other emerging economies are reducing the relative size of the American economy.

While the relative size of the U.S. economy is falling, trade has become increasingly important.

The chart on the right shows total U.S. trade (imports plus exports) as a percentage of GDP. Until the 1970s, the U.S. economy was mostly closed. Trade rose in the 1970s but mostly because of rising oil prices. Total trade has steadily increased since the end of the Cold War, although it tends to contract sharply during recessions.

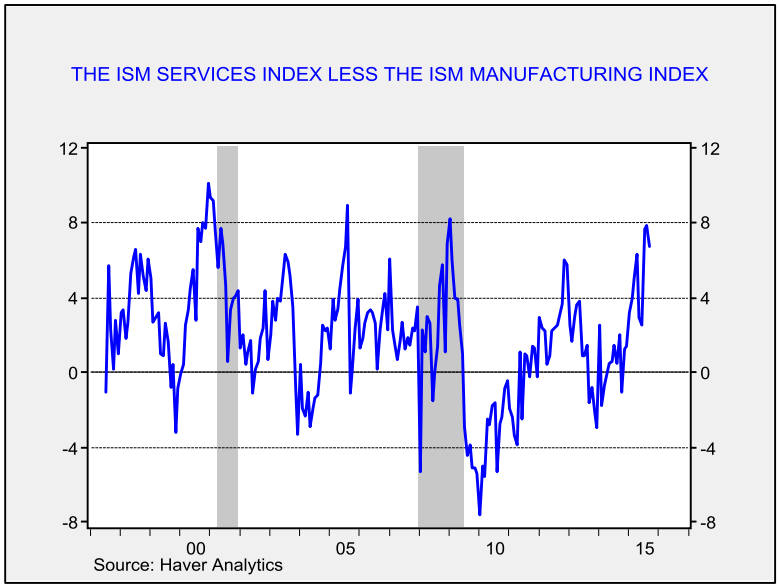
A relatively smaller U.S. economy that is increasingly dependent on trade suggests that the U.S. is becoming more sensitive to foreign economic developments. Policymakers could be surprised by this change; most congressional leaders and

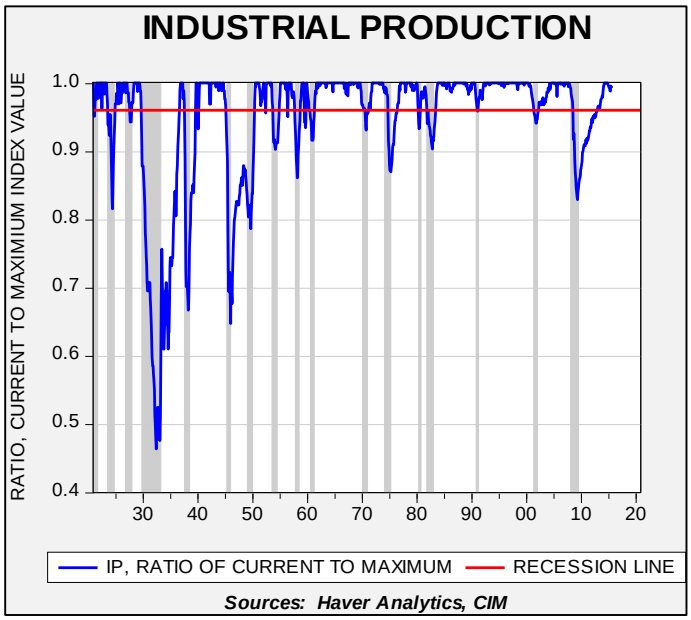


members of the FOMC grew up in an age when the U.S. was mostly independent of the rest of the world. That is no longer the case.

In general, the impact of these global factors is more likely to greatly affect the industrial and manufacturing sectors compared to the service sector. This appears to be the current situation.

The ISM services index is running nearly seven points higher than the manufacturing index. Unfortunately, we don't have a long history for the services index but a wide spread does catch our attention as it suggests manufacturing is lagging the rest of the economy.





Industrial production has been slowing as well, but remains above usual recession levels.

This chart shows the ratio of the raw industrial production index compared to the most recent maximum level. In an expansion, industrial production is usually making a new high each month, which would yield a value of one on this chart. While not a perfect indicator, recessions are usually underway when the ratio falls to 0.96. We are currently well above this level (0.994), although the pullback bears watching.

With China's economy clearly slowing, disinflation evident in much of the developed world and global debt problems, there is a chance that a slowing world economy might drag the U.S. into a recession. If this is going to happen, it will probably be most apparent in the industrial and manufacturing sectors. At the time of this writing, we don't see a recession signal from industrial production but further weakness would be a concern.

Known Unknown #3—The Upcoming Election: Election years always increase uncertainty. To analyze the history of election cycles, we use the S&P 500 weekly close data beginning in 1928 and begin the cycle in the election year.

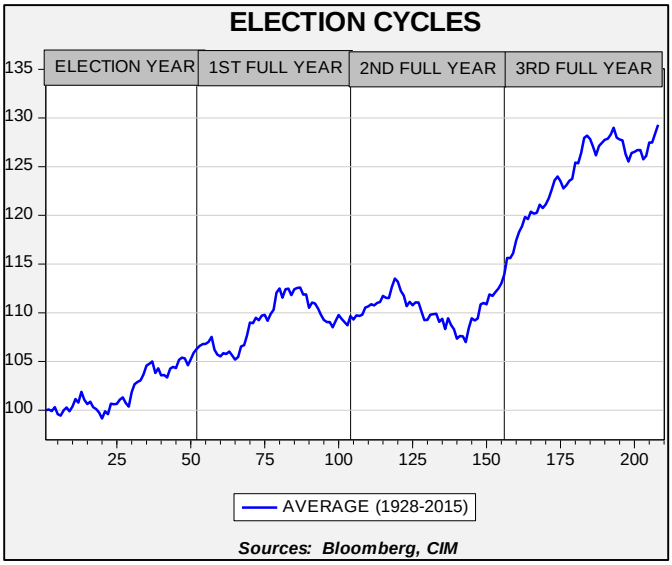
During the election year, equity prices tend to move sideways through autumn and rally into year's end. This is most likely because the uncertainty surrounding the election results weighs on sentiment. In most elections, the outcome is pretty well known by autumn and the market rallies as uncertainty diminishes. This rally continues into the summer before stalling. The president actually takes office in January of the first year. This is when a president, especially in his first term, has the most power. Fear of policy change likely raises concerns among investors and leads to a flat market. By late in the second year, the president has exhausted his political capital and new policy changes become less likely. This loss of power also means greater policy certainty and tends to lift investor sentiment, leading to a strong rally in the third year.

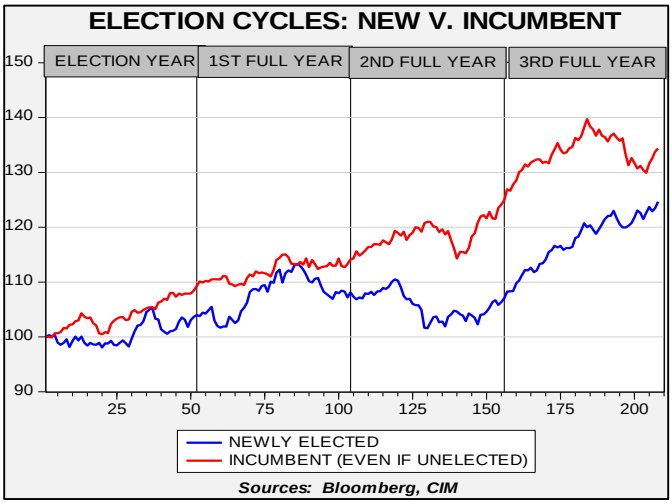
As one would expect, equity markets like incumbents more than new presidents.

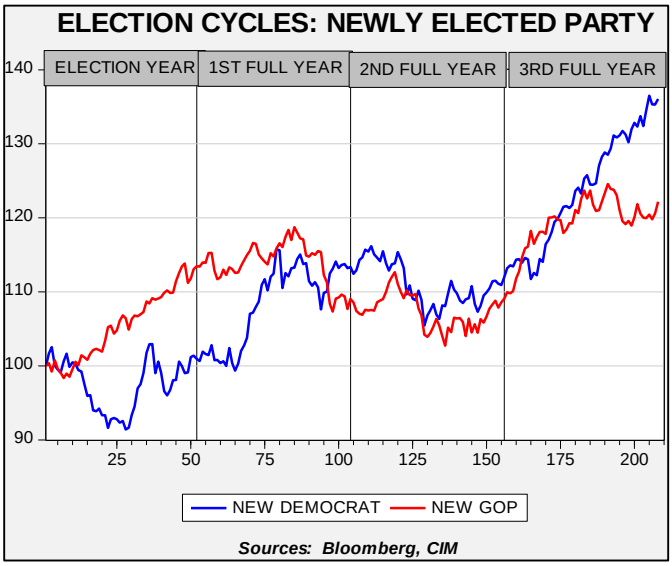
Equity markets tend to prefer new GOP presidents when compared to new Democratic Party presidents.

The data suggests that the market behaves poorly when it discounts that a new Democratic Party president will be elected, suffering a nearly 10% average decline during the election year. This drop usually proves to be a good buying opportunity as the market tends to recover by the time the new president takes the oath of office.

For 2016, since the incumbent can't run, the key graph is the last one. If the Republicans appear to be winning, we would expect a rally; if the Democrats lead, investors shouldn't be surprised by market weakness. It doesn't appear that the







weakness persists, however, and by next autumn, if the Democratic Party candidate seems destined for the White House, a buying opportunity is probably in the offing. ***If anything, given the undercurrent of populist versus establishment opposition that has been the key feature of this primary season thus far, the election will probably result in greater volatility. Populist presidential candidates are rare in American history. Political parties are primarily vehicles of the establishment and they tend to nominate "one of their own." However, the political polarization of the country, the tensions caused by the uncertainty surrounding U.S. hegemony and rising income inequality have led to a plethora of anti-establishment populists in the nominating process for president. Although we still expect an establishment figure to win, we cannot fully eliminate the possibility that a populist could become president. A populist would likely roll back the policies of globalization and deregulation, the primary factors keeping inflation under control. If these policies change, interest rates will rise, P/Es will fall and financial stress will likely increase. As we like to say, "If your portfolio could talk, it would tell you to vote for an establishment figure."***

Known Unknown #4—Geopolitics: We will publish our 2016 geopolitical outlook on December 14, where we will offer much more detail on this topic than in this report. Nevertheless, the key issue going forward is how the U.S. will manage the superpower role. Our concern is that the U.S. is reducing its influence in the Middle East and Europe but increasing its activity in the Far East. By default, Germany is becoming a reluctant regional hegemon in Europe, while Saudi Arabia, Turkey and Iran jockey for dominance in the Middle East. The odds are low that the U.S. will be successful in its attempt at "offshore rebalancing" in the Middle East. At the same time, the U.S. is becoming more aggressive in trying to contain China's ability to project power.

The danger is that China may react to America's actions militarily. Although we doubt the leadership of either the U.S. or China wants a war, nationalist sentiments are running high in China and a ship moving near one of the man-made islands in the South China Sea may trigger an unexpected response, for example. Similarly, the regions of lesser attention could flare up as well. Dangers are increasing and require close observation.

Conclusion

We contend that our base case is the highest probability outcome for 2016. This assumes that policymakers avoid major errors, the global economy does not drag the U.S. economy into recession, the uncertainty surrounding the election isn't enough to cause serious economic disruption and a major geopolitical event is avoided. Thus, we recommend investors prepare for the base case with a watchful eye on the four "known unknowns" we have detailed above. Simply put, 2016 should be a good, but not great, year for investors.

Bill O'Grady, *Chief Market Strategist*
Mark Keller, *CEO and Chief Investment Officer*

November 30, 2015

This report was prepared by Bill O'Grady and Mark Keller of Confluence Investment Management LLC and reflects the current opinion of the authors. It is based upon sources and data believed to be accurate and reliable. Opinions and forward looking statements expressed are subject to change. This information does not constitute a solicitation or an offer to buy or sell any security.