

## 2019 Outlook: Red Sky at Morning

### Summary:

1. Economy grows at 2.7%.
2. Expansion makes a new duration record; no recession expected in 2019, although the risk of a downturn will be increasing.
3. Core inflation max is 2.5% next year.
4. Dollar weakens, although the direction is mostly dependent on administration trade policy. We expect preparations for the 2020 elections will lead to a less aggressive trade policy compared to 2018.
5. S&P earnings for 2019 will be \$160.93 on an S&P basis (6.25% of GDP); using the Thomson/Reuters methodology, the reading would be \$171.20.
6. Assuming a P/E of 18.6x, using the S&P earnings projection, our expectation for the S&P is 2994.04.
  - a. The key to this forecast will be the P/E.
  - b. The multiple has been weakening on trade fears.
7. If we underestimate the S&P next year, it will likely be due to the election cycle; the year before the election tends to be most favorable, with the usual gain up 16%.
8. Mid-caps are unusually cheap and would be most favored. Small caps have also suffered recently and are favored as well, although less than mid-caps.
9. Growth has greatly outperformed value, a trend that has been mostly driven by multiple expansion. If the multiple stabilizes as we expect, value should be equally weighted.
10. International is favored on our assumption that the dollar weakens.
11. Our terminal expectation for fed funds is 3.00% to 3.25%.
12. We expect the 10-year yield to peak at 3.25% next year.
13. Investment grade bond spreads should stabilize; high yield bonds are overvalued and should be underweighted.
14. Commodities should do better next year if our dollar forecast is correct.

### Risks to the Forecast:

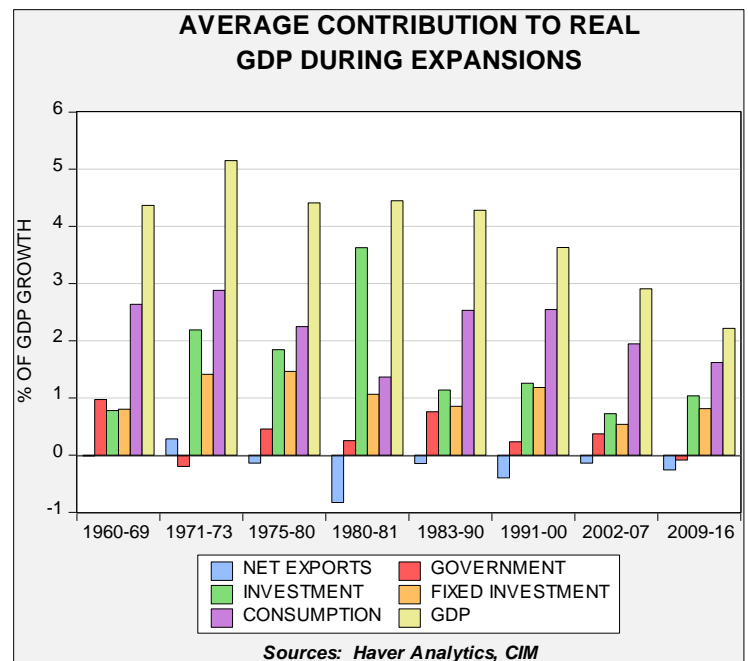
1. **Primary risk: Fed policy mistake.** The Fed raises rates in excess of our expectation and triggers a recession.
2. **Italy brings down the Eurozone.** Italy refuses to control its deficits, leading to a financial crisis in the Eurozone.
3. **Trade war with China.** In reaction to continued tariff pressure, the PBOC pushes the CNY lower, which triggers capital flight and a debt crisis in China, bringing a global downturn.
4. **Inflation expectations become unanchored.** Although the least likely of the risks, it would be the most devastating, leading to higher interest rates, falling P/Es and a weaker dollar. If the Fed remains independent, cash would become the best performing asset class. If the Fed's independence is undermined, gold, real estate and commodities will have the best performance. We do expect this event to occur somewhere in the next 10-20 years.

Although our base case calls for no recession, moderate inflation and continued modest gains in equities, there are growing risks of recession. We will detail the four "known/unknowns" near the conclusion of this report.

## The Economy

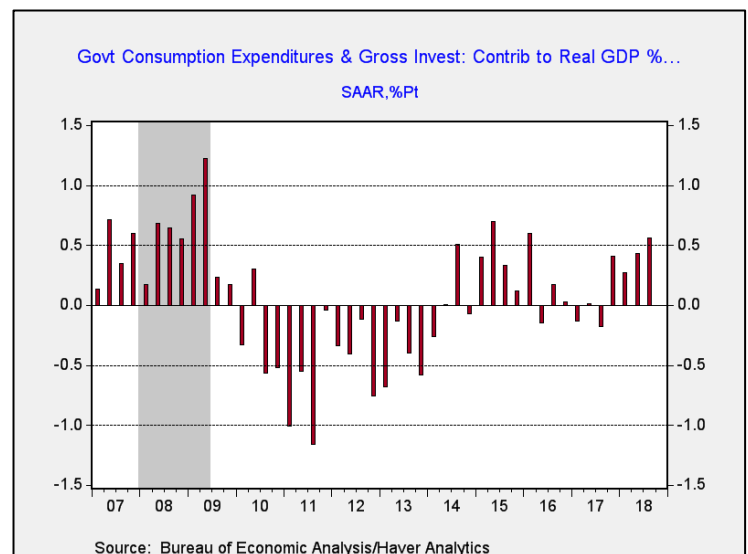
Our base case for the economy in the upcoming year is 2.7% GDP growth. Rising interest rates are putting a damper on some key sectors of the economy, such as housing and consumer durables. However, with rising wages and generally manageable household debt, we expect consumption to be strong enough to offset weakness in investment and net exports. Government spending, which has been remarkably weak in this expansion, is becoming a steady contributor to the expansion.

This chart shows how the primary components of GDP have, on average, contributed to the current expansion. As the chart shows, this expansion has been slower than normal. On average, government spending has actually had a negative impact on economic growth.<sup>1</sup> The only other expansion since 1960 that had a negative contribution from government was the 1971-73 expansion, which was affected by the demobilization from the Vietnam War. In the current expansion, state and local government spending were reduced due to falling tax revenues and the sequester reduced federal spending. However, in recent quarters, we have seen an increase in government spending which is supporting growth.



Over the past four quarters, government spending has added 42 bps to GDP growth. We expect at least the current level of spending to continue and, if an infrastructure bill gains acceptance, we could see even stronger spending.

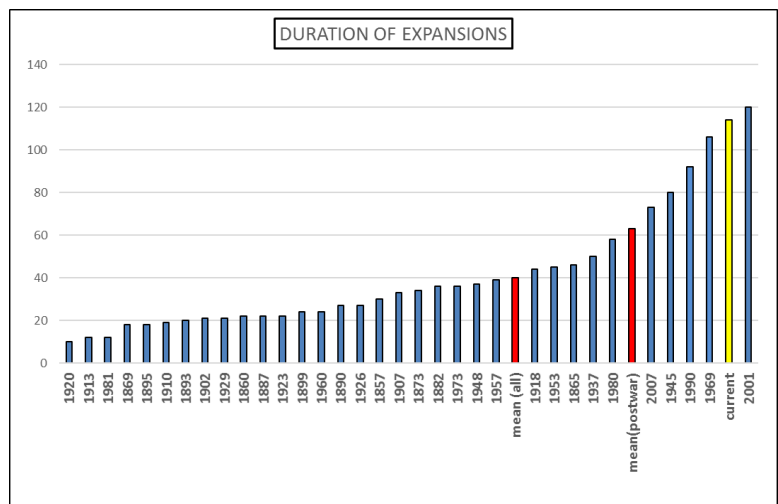
Slower than normal growth has likely extended the life of this expansion, which is currently the second longest on record.



<sup>1</sup> It should be noted that in the National Income Accounts data used to calculate GDP, the only government spending that counts is when the government buys things. Transfer payments, which are part of government spending, get counted in other parts of GDP. For example, social security payments get counted in GDP when a recipient buys something.

If our forecast is correct then the current expansion will be the longest in history, crossing that threshold in the first half of next year.

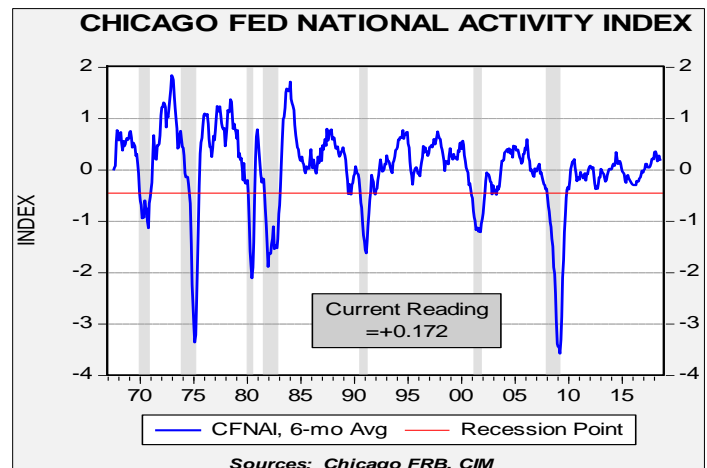
There is little in the current data that raises concerns about the economy. One of our favorite indicators of the economy is provided by the Chicago Federal Reserve Bank (FRB), which is a broad-based monthly indicator of the economy. It is showing that the economy is nowhere near levels that would be consistent with recession.



(Sources: NBER, CIM)

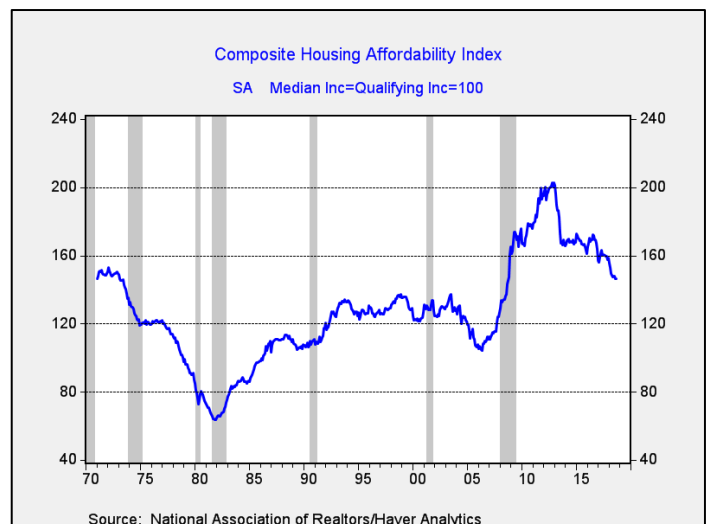
We smooth the index with a six-month moving average. The index compares the economy against its long-term trend. A reading above zero suggests an economy growing above trend. As the data shows, this expansion has been less robust than earlier cycles. Currently, the index is above trend but coming off its highs, which is consistent with our projection of slowing growth for next year. At the same time, we are well above the recession line, which is at -0.45. This shows a recession isn't imminent.

One concern about the expansion is rising interest rates, which tend to have a negative effect on the economy. For consumers, the concern mostly centers on housing and consumer durables. Housing affordability has declined, for example.



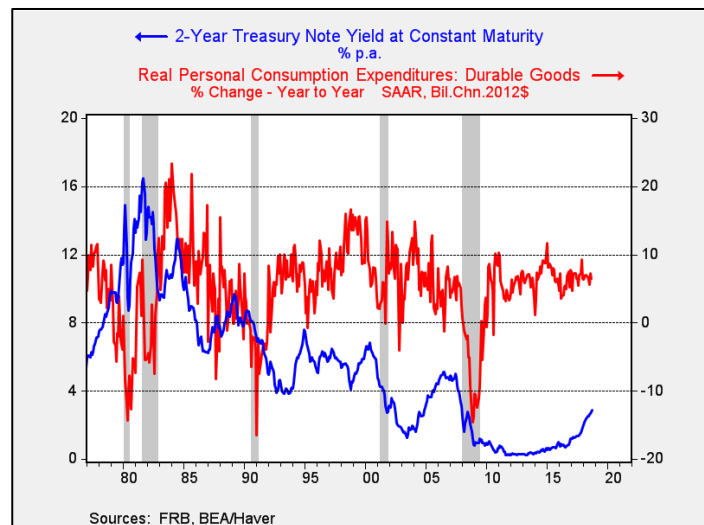
Sources: Chicago FRB, CIM

Housing affordability is an index that includes home prices, average incomes and mortgage rates. Rising home prices and mostly stable incomes have reduced the affordability index from its 2012 peak; recent weakness appears to be due to the lift in mortgage rates. Although the decline is a concern, we note that the level of the index remains well above the pre-2008 recession levels, suggesting the housing market should not severely pressure the economy but probably won't be a significant positive contributor to growth, either.

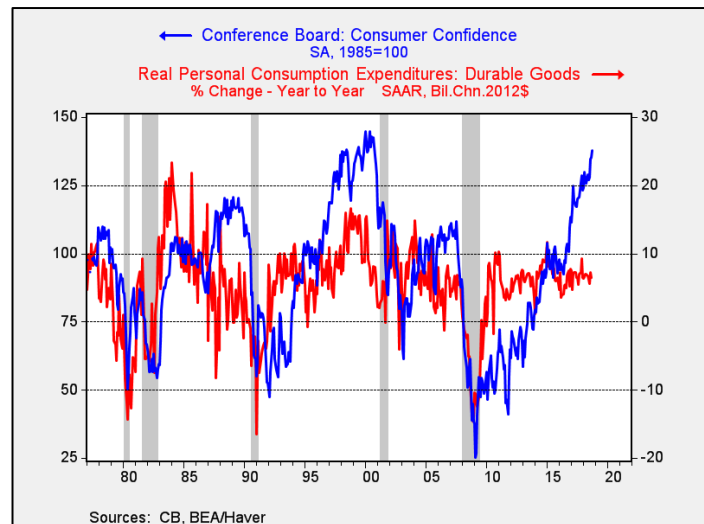


Source: National Association of Realtors/Haver Analytics

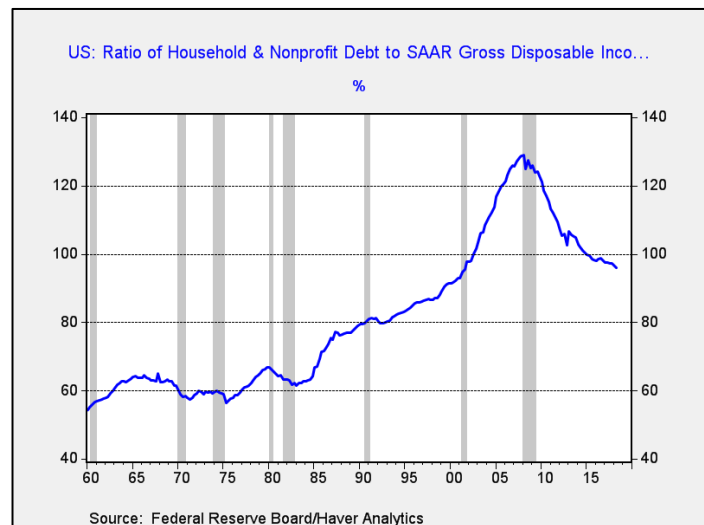
History shows that consumer durables spending tends to hold up until a threshold level of interest rates is reached. The problem for policymakers is that it is almost impossible to know beforehand exactly what level will trigger a change in consumer behavior.



It does appear that as long as consumer confidence remains elevated, the impact of higher rates will likely not severely undermine durables spending. Consumer confidence tends to track the unemployment rate. As long as the unemployment rate remains low, we would expect consumption to remain strong.



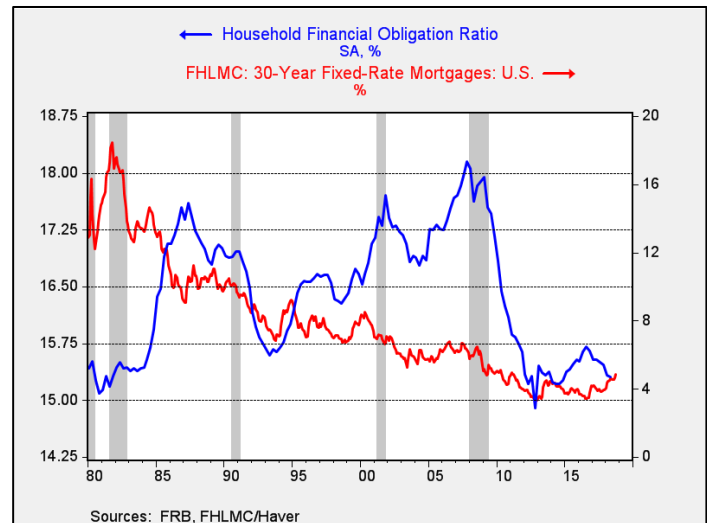
Another unusual feature of this expansion is that it has occurred with household deleveraging.



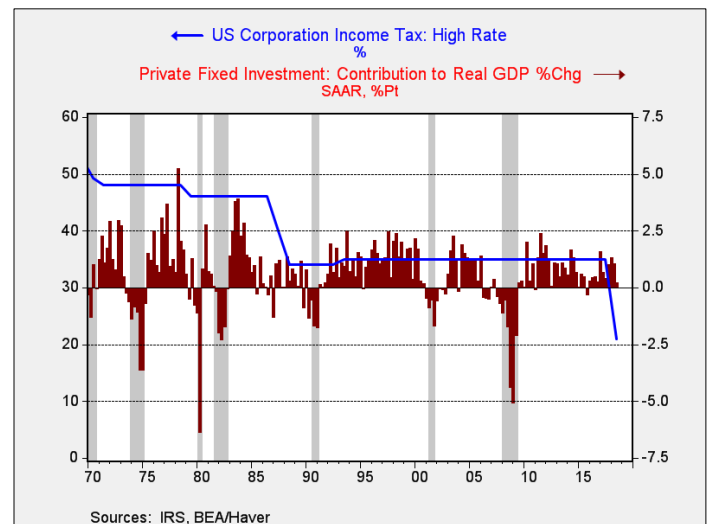
This chart shows household debt as a percentage of after-tax income. Note the strong rise in indebtedness after the 1981-82 recession; this debt-fueled spending acted as a tailwind to growth and offset the impact of increasing income inequality. However, since the 2008 Financial Crisis, households have been reducing their debt relative to income which has acted as a drag on growth. The good news is that the impact of rising rates on household spending should be less of a factor in the coming year.

In 2007, 6% mortgage rates translated into a financial obligations ratio<sup>2</sup> of just over 18%. Currently, that ratio is 15.3%. Thus, households should be better able to cope with rising rates than they were a decade ago.

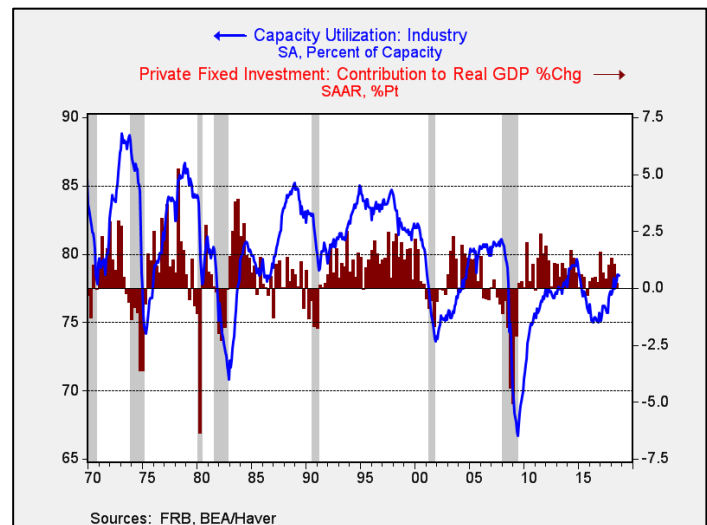
Last year's tax cuts were expected to boost corporate investment. Although investment did increase initially, it has cooled in Q3. The history of the relationship between tax rates and investment isn't all that clear.



The blue line on the middle chart shows the highest level of the corporate tax rate; the bars show the contribution of non-residential fixed investment. Clearly, the business cycle has a much more important impact on investment. The last major decline in corporate taxes occurred in the mid-1980s. There was a lift in investment after the reform but it should be noted that investment declined before the law changed; likely, firms delayed investment during the tax law negotiations. Thus, the impact may not have been solely due to the tax law change. In fact, the most impressive rise in investment occurred during the 1991-2001 expansion and *that investment rise occurred after a tax increase*. Although investment is affected by tax changes, other factors also play an important role.



This bottom chart shows the level of capacity utilization and the business investment contribution to GDP. Note that readings above 80% tend to lead to higher levels of investment. When capacity utilization is less than 80%, the average contribution to GDP from non-residential fixed investment is 20 bps. If capacity utilization exceeds 80%, the contribution of GDP growth is 80 bps. Given the current low level of capacity utilization, the effectiveness of tax code changes on investment would be limited. Adding to this problem were years of low interest rates; the low level of rates ensured that any investment



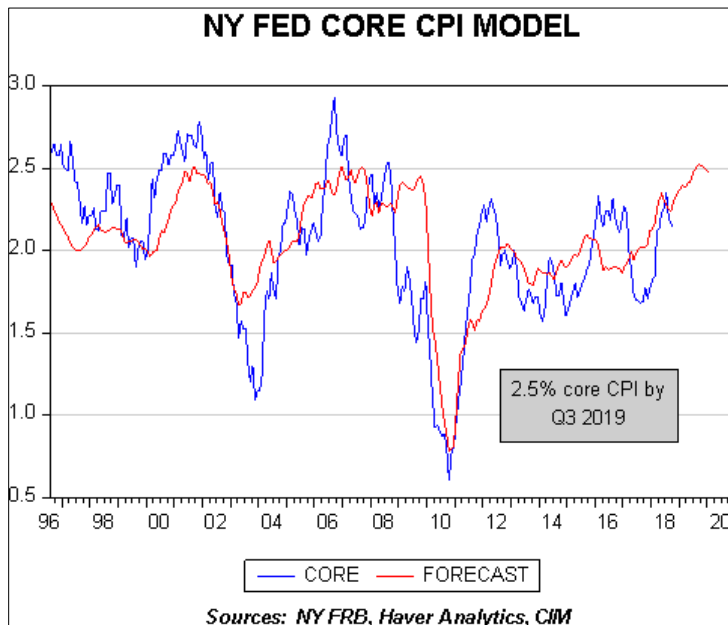
<sup>2</sup> The ratio of debt service costs, rent, auto lease payments, property tax and homeowners' insurance to after-tax income.

project a firm was contemplating had a low hurdle rate. Thus, we would not expect strong investment to lift the economy. At the same time, rising rates probably won't affect investment much, either.

Overall, we expect the economy to exhibit modest growth in 2019; although there is a rising consensus for recession either next year or in 2020, we expect the political cycle will play a role in extending the expansion. In the areas where the president has influence, such as trade and fiscal policy, we expect some moderation in policy, favoring modest fiscal support and a less aggressive trade policy. A recession in 2019 will greatly increase the odds of a different president in 2020. This factor is why the third year in the presidential cycle tends to be good for financial markets. The party in power wants to avoid a downturn. Thus, the primary risks to the economy come from the areas where the White House has limited influence—the Federal Reserve and foreign nations.

## Inflation

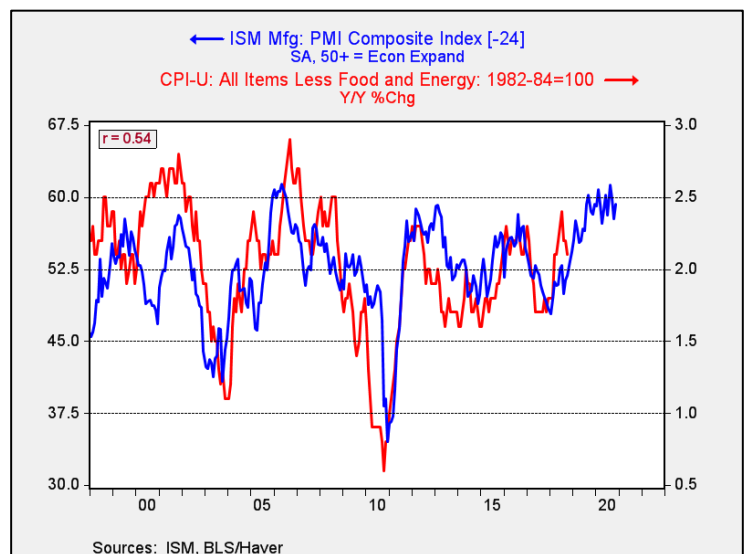
We do expect a rise in inflation next year, but nothing that would be a serious problem.



This chart shows a core CPI model based off the New York FRB inflation forecast. It suggests that core CPI (CPI less food and energy) will likely tick toward the 2.5% level. That forecast is above the Federal Reserve's policy target of 2%, but not so high as to lead to "panic tightening."

Another indicator of core CPI is the ISM manufacturing index.

Since the mid-1990s, the manufacturing index tends to lead core CPI by about two years. The current level of the ISM index, in the 60s, suggests that core CPI will rise to around 2.5% over the next couple of years.



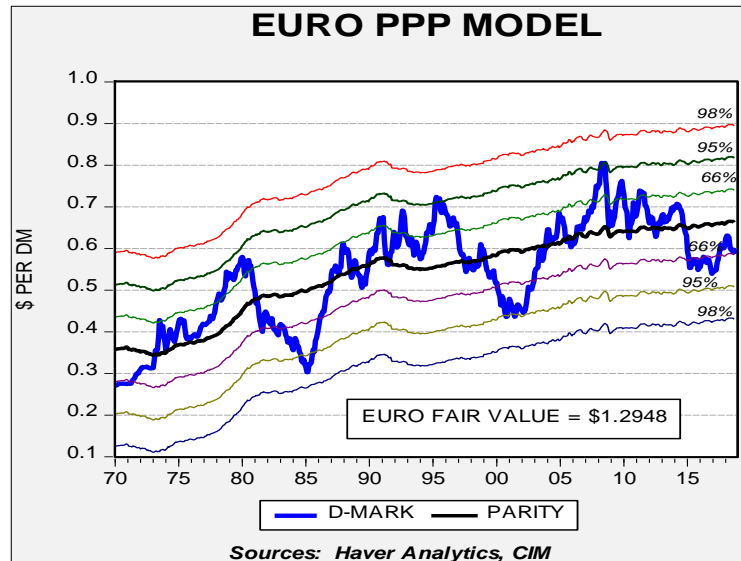


## The Dollar

Currency forecasting is a difficult exercise. There are a number of reasons for this difficulty. First, the dollar, being the reserve currency, dominates the foreign exchange markets and policy actions by the U.S. can dominate exchange rate behavior. Second, fundamental analysis of exchange rates involves the economic activity of at least two nations; in the case of the Eurozone, the relationship is affected by multiple countries. Our analysis of currencies is mostly centered on purchasing power parity. It is the oldest theory of exchange rate valuation and argues that the exchange rate should act to offset inflation differences between nations. The theory contends that a nation with higher inflation compared to another nation will have a weaker exchange rate.

The theory isn't perfect (none are), but when valuations are at extremes it usually signals a reversal is in the offing. Using German inflation as a proxy for the Eurozone, the EUR is currently undervalued. Most other major currencies are also undervalued based on this methodology.

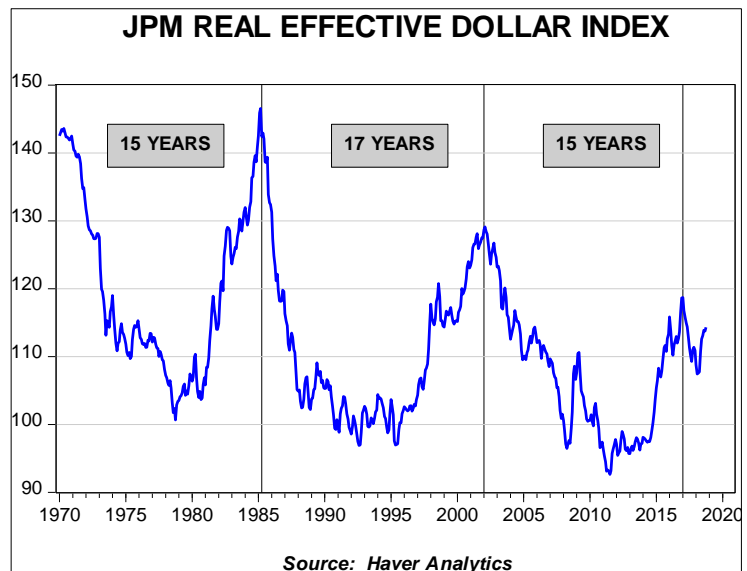
In the previous dollar bull markets, the level of undervaluation reached the second standard error level. The current dollar bull market did see a drop below the level of one standard error; the dollar started to weaken but has rallied this year. We discuss the reasons below.



It should also be noted that dollar bull markets have occurred on a 15- to 17-year cycle. We are at the point where the current bull market would be considered extended.

Although the pattern could be merely a coincidence, in general, a stronger dollar acts as a policy tightening. We suspect that a few years of dollar tightening causes a reaction which leads to a reversal of policies and sentiment, leading to a weaker dollar.

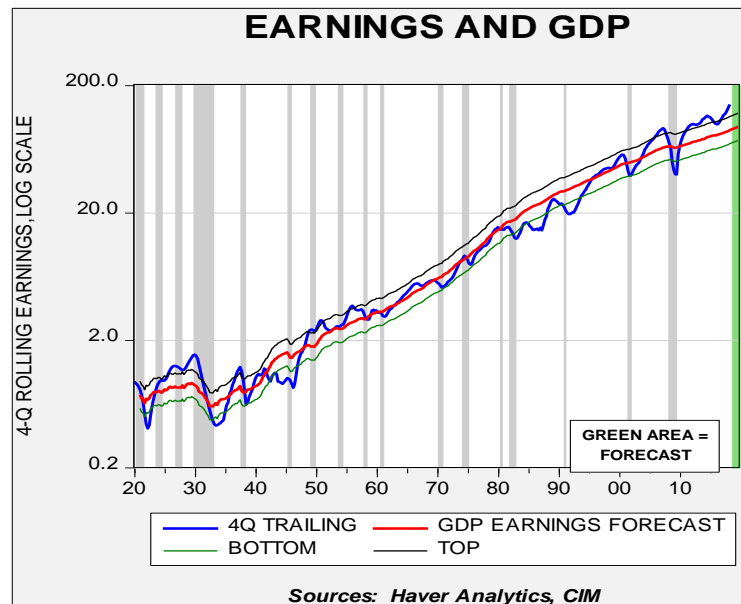
So, why did the dollar rebound in 2018? There were two reasons. First, the FOMC has been raising rates when the rest of the major central banks have been continuing to apply policy stimulus. Although this is a well-known factor, the markets have been raising expectations of policy tightening, which has supported the greenback. Second, trade impediments tend to lead the targets of tariffs to depreciate their exchange rates in order to maintain export competitiveness. We are expecting dollar weakness to develop in the second half of next year. We expect monetary policy tightening to pause by mid-year and that the White House will try to moderate its trade stance to avoid recession. This latter factor could be supported by a divided Congress intent on slowing the pace of trade policy adjustments. A EUR around \$1.250 by the end of 2019 would be a reasonable target, up from the current \$1.1400.



## The Base Case for Equities

We use a purely top-down method for forecasting equity levels. The first step is to determine our expectations for GDP<sup>3</sup>; from there, we determine margin. In other words, we first estimate how much of GDP will come from S&P earnings. The final component is the multiple; we attempt to estimate how much investors will pay for each dollar of earnings.

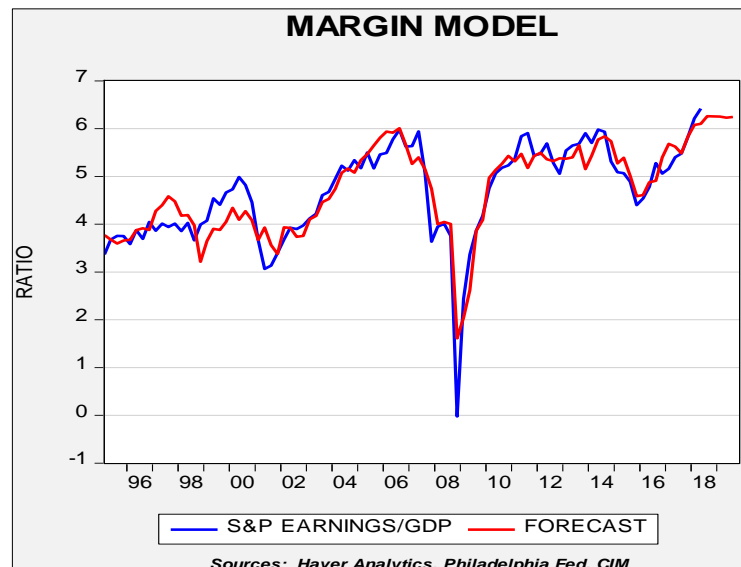
This chart shows S&P 500 earnings regressed by GDP. Essentially, it shows the level of earnings explained by overall economic activity, which is the red line on the chart. Companies are expanding margins when the blue line, actual earnings, is above the red line. During the last three business cycles, we have seen steadily expanding margins and the tax law changes have triggered further margin expansion.



To forecast margin, we have a model that estimates S&P 500 earnings compared to GDP. The model includes unit labor costs, net exports, fed funds, credit spreads, GDP profit data, non-financial corporate cash flow, the dollar and oil prices. Our model projects that the S&P 500 earnings will represent about 6.25% of GDP next year.

Assuming this margin, S&P earnings for next year should be \$160.97.<sup>4</sup> Our estimate for 2018 is \$154.44 (or a Thomson/Reuters number of \$165.25), meaning the growth rate of earnings will slow to 4.2%. This is consistent with a slowdown in GDP without a further rise in margins.

Which leads us to the other important element for forecasting the S&P, the P/E ratio. An important trend variable in determining the P/E ratio is the misery index, the sum of the yearly change in CPI and the unemployment rate.

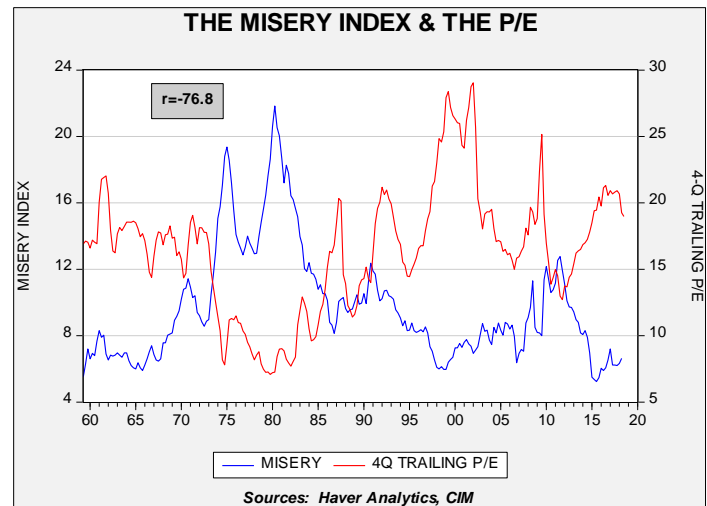


<sup>3</sup> Our estimates of GDP come from the Philadelphia FRB Survey of Professional Economists.

<sup>4</sup> This earnings number is an estimate generated from the methodology of Standard and Poor's for determining S&P earnings. Another, more oft-quoted source of earnings estimates comes from the Thomson/Reuters I/B/E/S survey. In recent years, the estimate from this source has been about 7% higher than from S&P. Thus, a comparable estimate for Thomson/Reuters would be \$171.20.

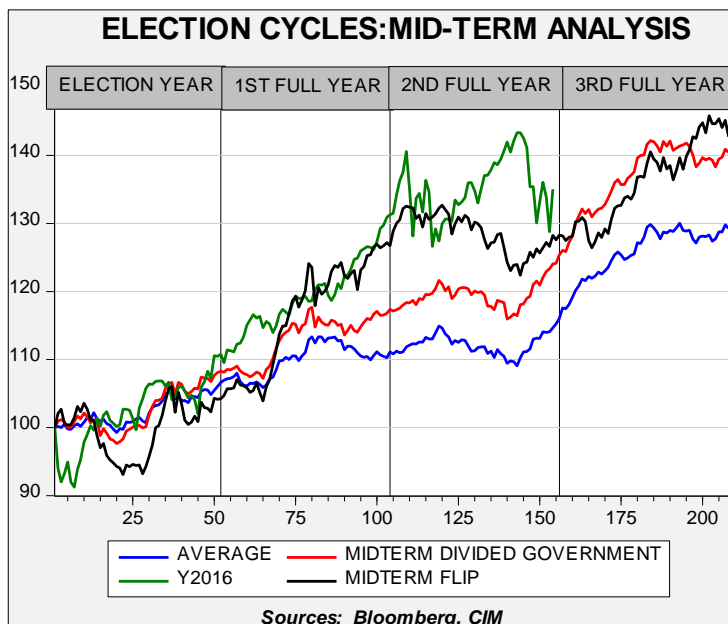
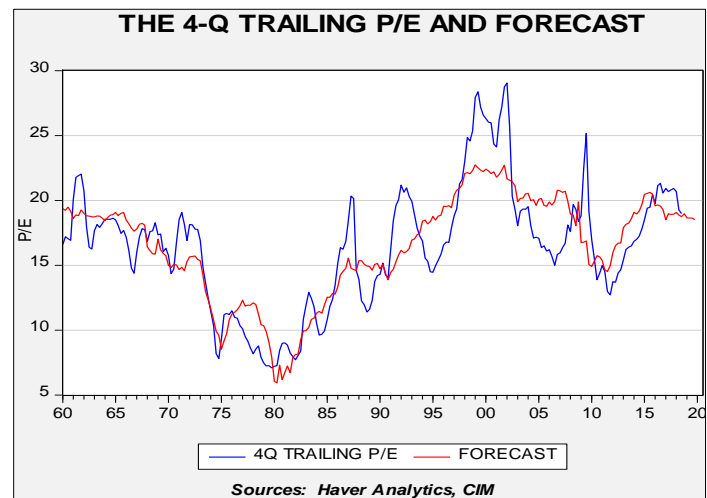


This chart shows the four-quarter trailing P/E and the misery index; since 1960, the two series correlate at a negative 76.8%. To model the trend in the relationship, we add the fiscal balance, the percentage of the population between the ages of 35 to 54 (the high-saving cohort) and fed funds.<sup>5</sup> The model is shown below on the middle chart.



The forecast P/E for next year is 18.6x. **Thus, given our earnings forecast, our base case for 2019 for the S&P 500 is 2994.04.**

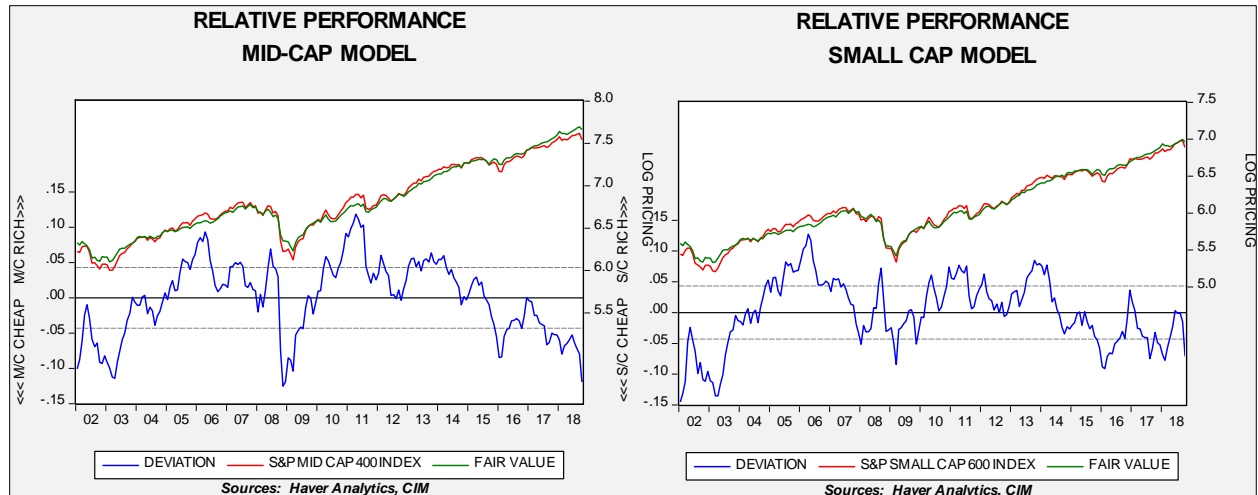
What about the third year of the presidential cycle effect? Since 1928, the average gain from the midterms into the summer before the election year is about 20%. In years when the midterms result in a divided government, the overall rally is stronger but the summer stall also tends to occur. On the other hand, when control of Congress “flips,” leading to divided government, there is a tendency to rally past the summer stall.



Although such studies should be treated with some degree of caution (a recession or geopolitical event cannot be contained in such analysis), the usual pattern does offer some degree of optimism for at least the first half of next year. If the S&P is going to exceed our forecast, the most likely reason would be multiple expansion.

<sup>5</sup> As we will discuss below, we are projecting a terminal fed funds rate of 3.25% by the end of 2019.

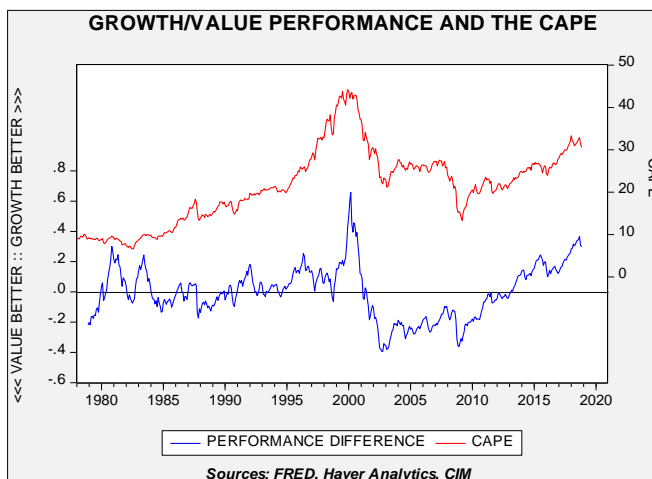
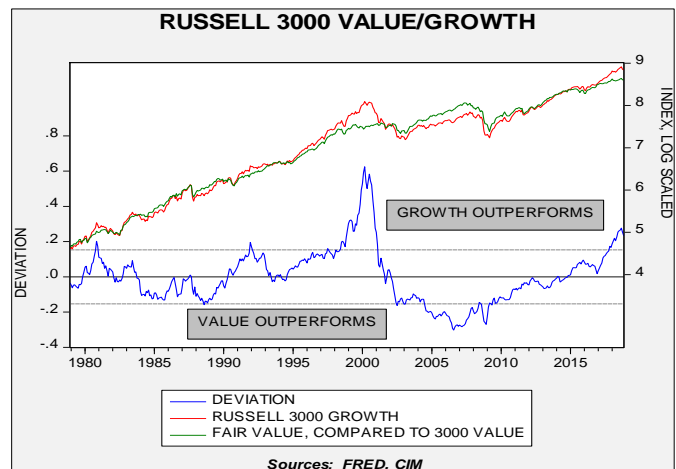
**Capitalization:** To measure the relative value of capitalization, we compare the S&P 500 against its small cap and mid-cap variants. We log-transform the data and use a trend adjustment for both models. Both small and mid-caps are “cheap” compared to large caps.



Small caps did narrow the relative performance gap earlier this year but that difference has reversed. In general, dollar strength and monetary policy affect relative performance. A stronger dollar and tighter monetary policy tend to boost large cap performance relative to the smaller capitalization indices. Since we expect a Fed pause and a weaker dollar in the second half of 2019, we favor both small and mid-caps, especially in the second half of next year.

**Growth/Value:** Growth has been outperforming value for nearly three years. However, there are signs, at long last, that value is starting to gain on growth.

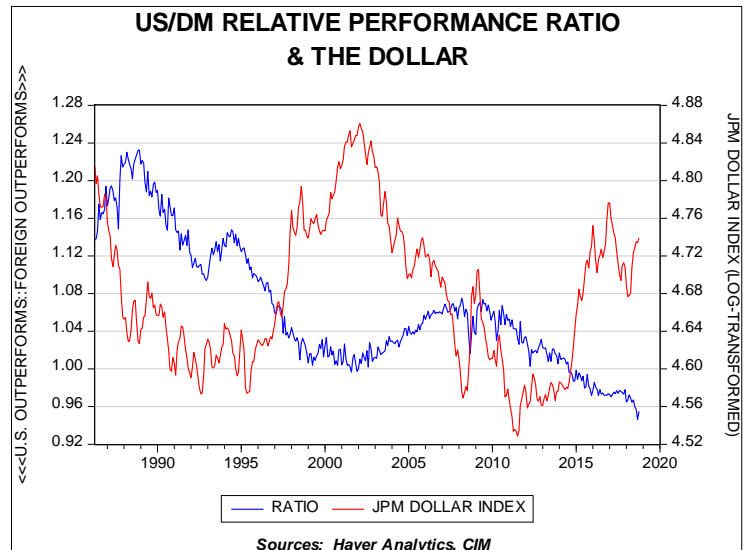
Outsized growth outperformance appears to be a function of multiple expansion.



This chart to the left shows the deviation line from the Growth/Value chart along with the Cyclically Adjusted P/E from Robert Shiller’s analysis. Note that high P/E levels coincide with periods of growth outperformance. Since we assume a generally steady P/E multiple next year, we would expect value to mostly hold its own against growth in 2019. From a positioning perspective, an equal weight is probably warranted.

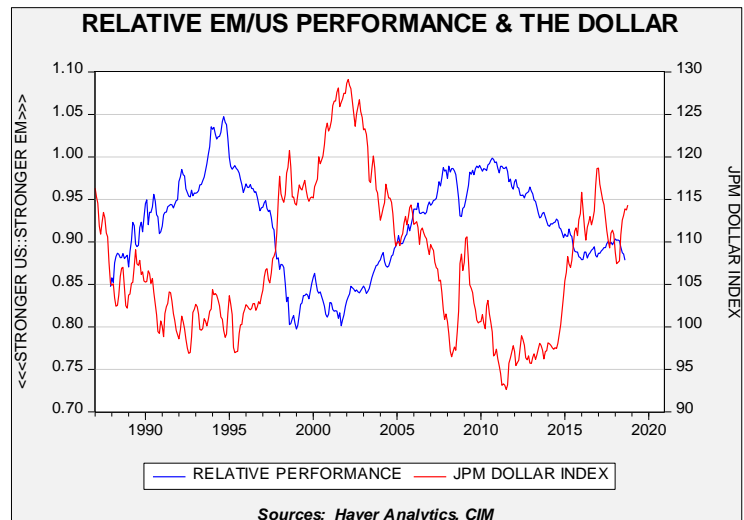
**International:** To observe relative performance, we calculate a ratio of U.S. and non-U.S. developed market equity indices. We log-transformed the two indices from the post-1987 period. Since 1995, one of the key factors in relative performance has been the dollar, although it has been far from perfect.

As the dollar began to rally in 1995, foreign developed market equities underperformed U.S. stocks. As the dollar peaked in 2002 and declined, foreign equities did better. However, since 2008, foreign stocks have been relative underperformers and this weakness has been exacerbated due to dollar strength. ***We would expect foreign outperformance if the dollar weakens as we expect, with the most likely gains coming in the second half of next year.***



**Emerging markets:** We use a similar process to analyze emerging markets. We created a log-transformed ratio of the relevant indices to show relative performance and then examine the impact of the dollar. The dollar effect is quite high with the relative performance of emerging markets; essentially, a rising dollar is bearish for emerging market equities.

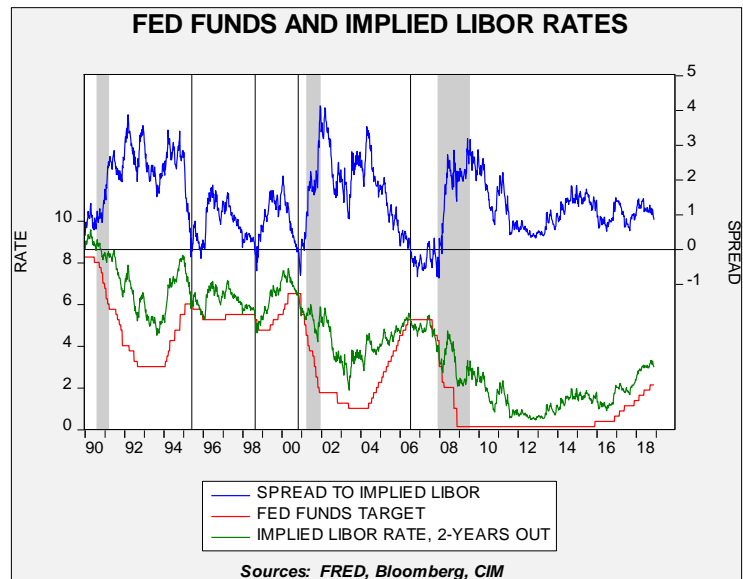
***As noted above, we expect the dollar to weaken next year. If that occurs, emerging market equity performance should improve relative to U.S. equities.***



## Fixed Income

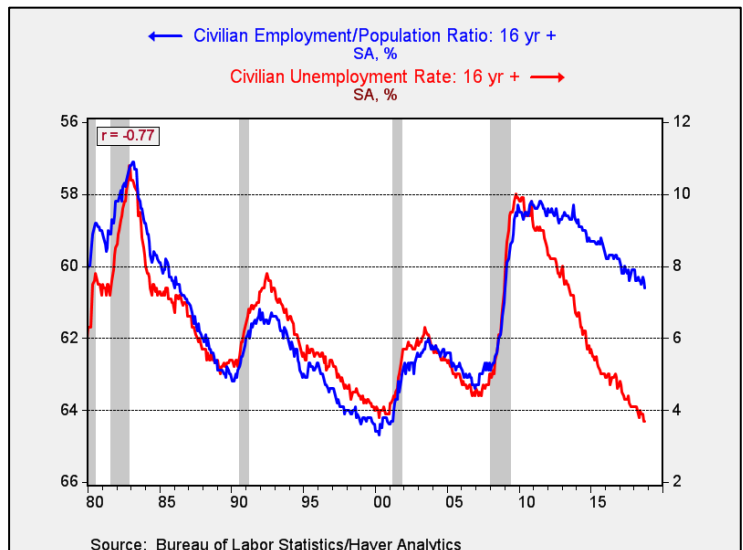
In our analysis, the starting point for fixed income begins with monetary policy. We use two different methods to estimate the direction of future policy. First, we compare the fed funds target to the three-month implied LIBOR rate from the two-year deferred Eurodollar futures contract. In the past, this rate has not only offered the market's expectations about the terminal policy rate, but policymakers appear to pay attention to the relationship, whether deliberately or by coincidence.

This chart shows the implied LIBOR rate on the lower part of the graph along with the fed funds target. The gray bars indicate periods of recession. We have also placed lines where the spread falls to zero or below. Since the early 1990s, the FOMC has tended to stop raising rates when the spread between the implied LIBOR rate and fed funds declines below zero. The current spread is around 84 bps, suggesting the financial markets expect a similar increase in the terminal rate between 75 bps and 100 bps, or 3.00% to 3.25%.



Second, we assume the FOMC uses a Phillip's Curve framework; this curve assumes there is a relationship between inflation and unemployment, or that inflation tends to rise when there is less slack in resource utilization in the economy. John Taylor, a Stanford economist, developed a rule around this relationship, called the "Taylor Rule," that uses core CPI<sup>6</sup> and the spread between actual and potential GDP. Another economist by the name of Greg Mankiw, this one from Harvard, argued that the latter measure is difficult to determine because potential GDP can only be estimated, not actually ascertained. In his "Mankiw Rule," he replaced that measure of slack with the unemployment rate. We have created three other variations of the Mankiw Rule using other measures of the labor market to determine slack. The three variations include the percentage of the workforce engaged in involuntary part-time employment, wage growth for non-supervisory workers and the employment/population ratio. The reason for adding these variations is that the unemployment rate may not be the best measure of available slack in the economy.

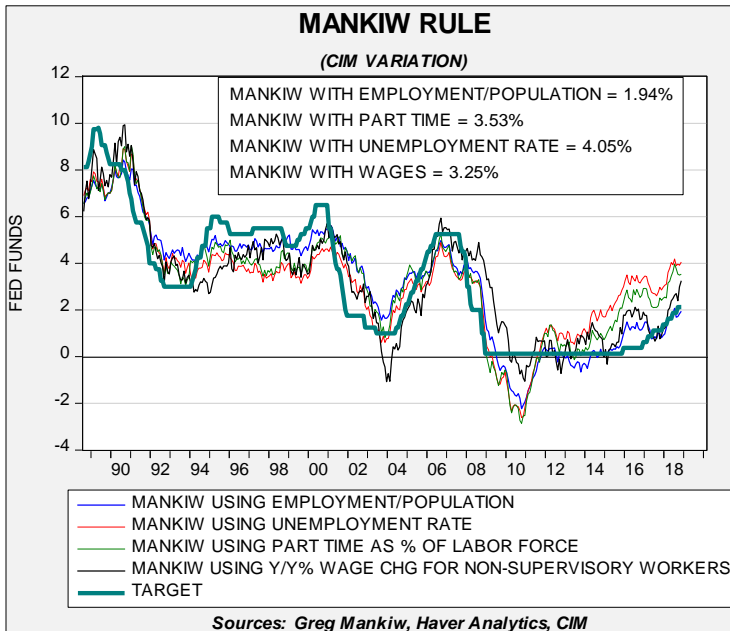
This chart shows the relationship between the unemployment rate and the employment/population ratio. We have inverted the scale of the latter. From 1980 to 2009, the two series were correlated at the -94% level. That correlation has declined to the -77% level. If the series had maintained the previous relationship, an additional 8.9 million workers would be employed. Some of this change since 2009 is due to retiring baby boomers; the scourge of opioid addiction is playing a role as well. But, it is also possible that the employment/population ratio reflects additional workers that may be available to the labor force. If so, there is much more slack in the economy than the unemployment rate would indicate.



<sup>6</sup> CPI without energy or food prices.

The chart below shows the results of the differing variations of the Mankiw Rule.

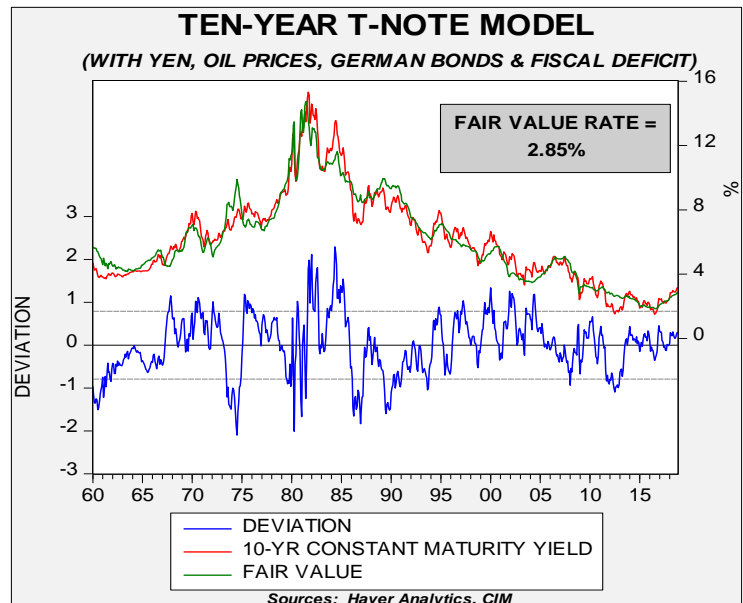
The dispersion of potential neutral policy rates (rates that are neither stimulative nor restrictive) is rather wide.



If the unemployment rate is the proper measure of slack, then the FOMC is well behind the curve and needs to be raising rates rapidly. If the employment/population ratio is the more appropriate measure, then the Fed has achieved neutral and should stop raising rates now. Policymakers clearly don't know which measure is most appropriate but they seem to be leaning toward caution, more closely tracking the non-supervisory wage growth and employment/population ratio variations. Recent wage strength has lifted the non-supervisory wage growth variation to the 3.08% level. ***Combining the above Eurodollar relationship and the wage growth variation leads us to conclude that the terminal fed funds rate for this tightening cycle is likely 3.00% to 3.25%.***

Using this forecast, we can move on to projecting our outlook for the 10-year Treasury.

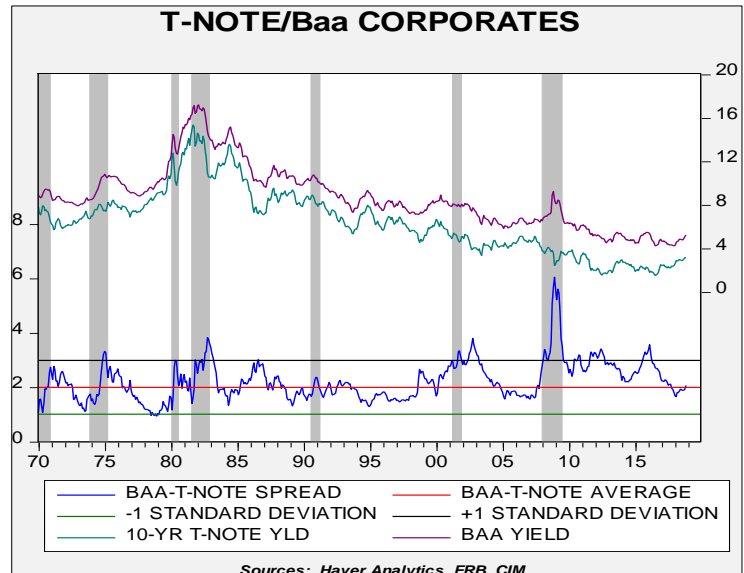
Our basic T-note model estimates the current fair value yield at 2.85%. However, that fair value doesn't take into account the projected level of fed funds. Assuming a 3.25% fed funds, inflation expectations of 2.1%, a 112.50 ¥/\$ exchange rate, German 10-year sovereign yields at 45 bps, \$58 WTI and a deficit of 4% of GDP, ***the projected yield on the 10-year next year is 3.25%.***



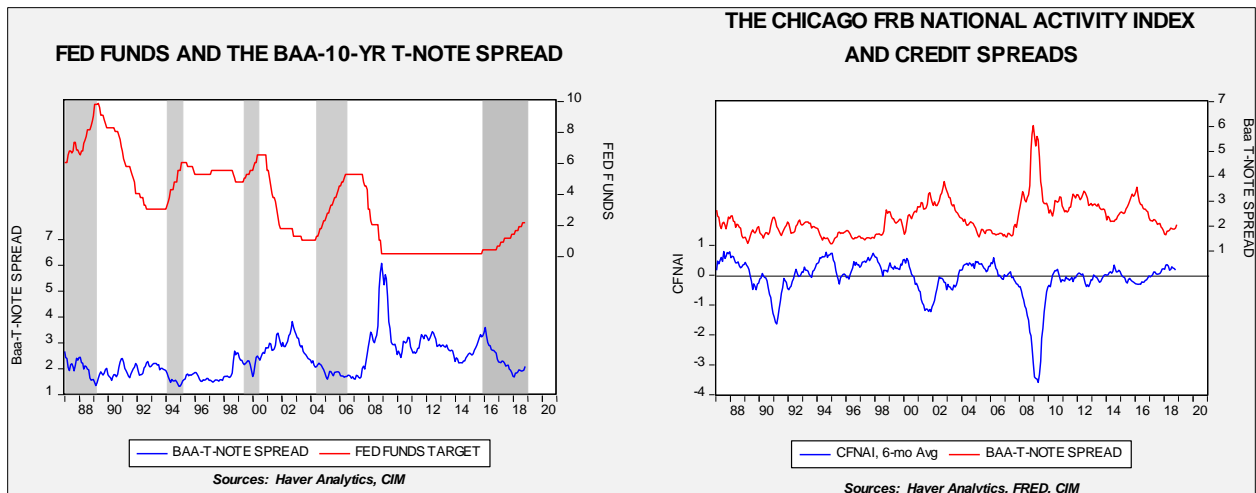
Obviously, if we are correct in our fed funds and 10-year Treasury forecasts, then the yield curve will come very close to flattening. This is a clear risk we will be following next year and something we will discuss at the end of this report in the section regarding risks to the forecast.

**Investment grade:** Current investment grade yields have widened recently but are still around their long-term averages.

This shows the 10-year T-note against the similar term Baa corporate yield. We calculate the average spread and standard deviation lines from 1970 to the present. Note that the current spread has been widening recently but has essentially recovered to average.



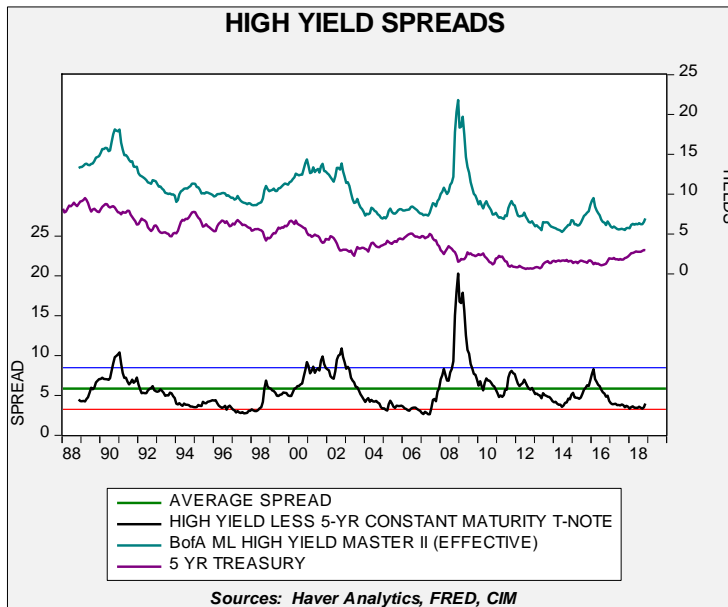
Although there has been some concern expressed in the financial media that tighter monetary policy may lead to widening credit spreads, history shows that policy tightening actually leads to narrowing spreads. On the other hand, economic weakness plays a much greater role in widening spreads.



The chart above on the left shows the fed funds target and the T-note/Baa spread. We have applied gray bands during periods of policy tightening. Note that spreads tend to narrow when the Fed tightens; this is because tightening tends to occur when the economy is doing well and a strong economy reduces defaults. The chart on the right shows the same credit spread compared to the Chicago FRB National Activity Index; the index measures the overall economy relative to trend. When the economy is growing faster than trend, the index exceeds zero. There is a -72% correlation between the two series, suggesting that widening credit spreads are more a function of a weakening economy rather than policy tightening. Still, if the Fed moves rates too high and triggers a recession, we would expect credit spreads to widen. Since that isn't our base case, ***we continue to see value in investment grade corporates.***

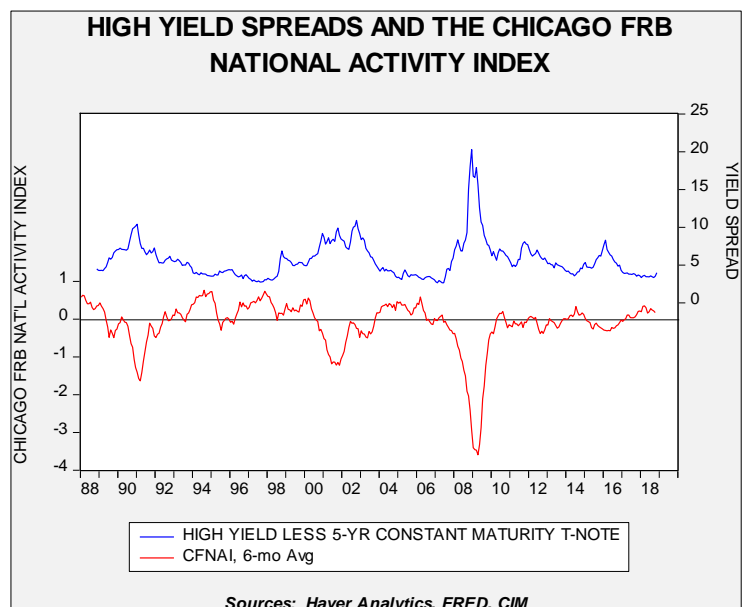


**High yield:** Unlike investment grade, high-yield spreads have become overly narrow.



Although the spread has recently moved off the lower standard deviation line, it remains well below average. Like investment grade, it most closely tracks the economy.

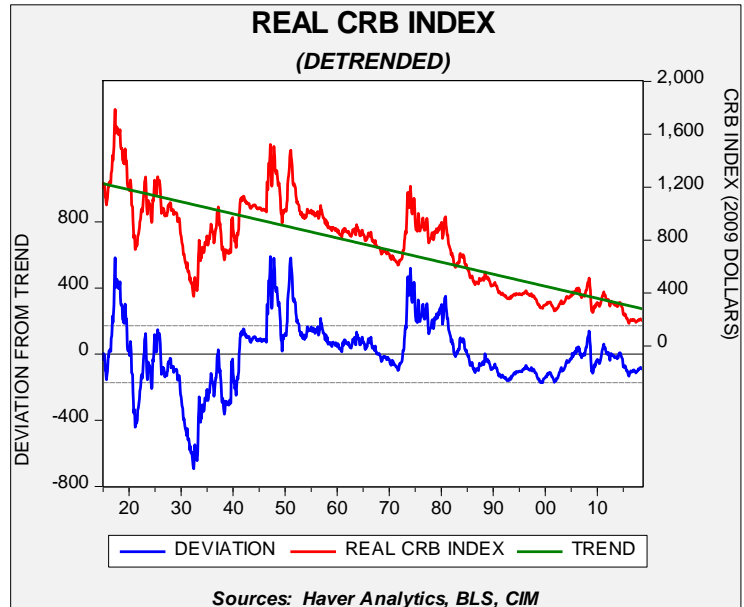
The two series are inversely correlated at the 85% level. The narrow level of the spread suggests it probably won't narrow further, while any slowdown in the economy would lead to a significant widening. For this reason, ***we would recommend an underweight position in high yield in 2019 as the risk/reward balance is simply not attractive.***



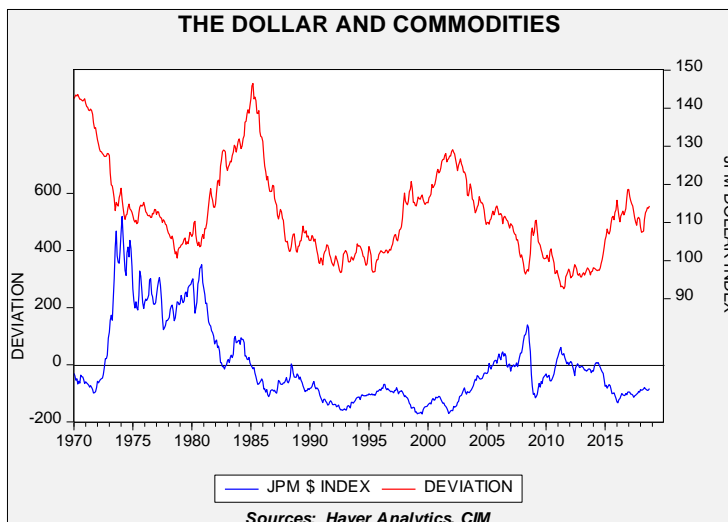
## Commodities

In the long run, commodity prices generally decline. This is mostly because technology constantly improves, allowing both consumers and producers to consume and produce with ever greater efficiency. Consequently, over time, commodity prices tend to fall relative to consumer inflation.

This chart shows the CRB, deflated by CPI, starting in 1915. We have regressed a time trend through the data. Note that the long-term trend declines, which means that, over time, commodity prices lag consumer inflation. However, there are periods when commodity prices clearly rose above trend. There are two factors that lead to a rise in commodity prices over trend—war and high inflation. In fact, the latter would also include inflation expectations becoming unanchored; this means households and firms begin to believe that prices will rise at rapid rates continually and thus react with anticipatory purchases and hoarding.



The dollar also has an impact on real commodity prices.



The dollar bear market in the 1970s coincided with a major commodity bull market; the dollar weakness then was part of the end of the Bretton Woods system. On the other hand, the dollar bear market from 1985 to 1995 did little to boost commodity prices and the dollar bear from 2003 to 2010 was somewhat supportive, although that commodity bull market was mostly driven by China's economic expansion. A weaker dollar is supportive for commodity prices but would probably not lead to a 1970s-type commodity bull market. We are moderately supportive of gold and oil in 2019 but mostly as a hedge against geopolitical risk.<sup>7</sup>

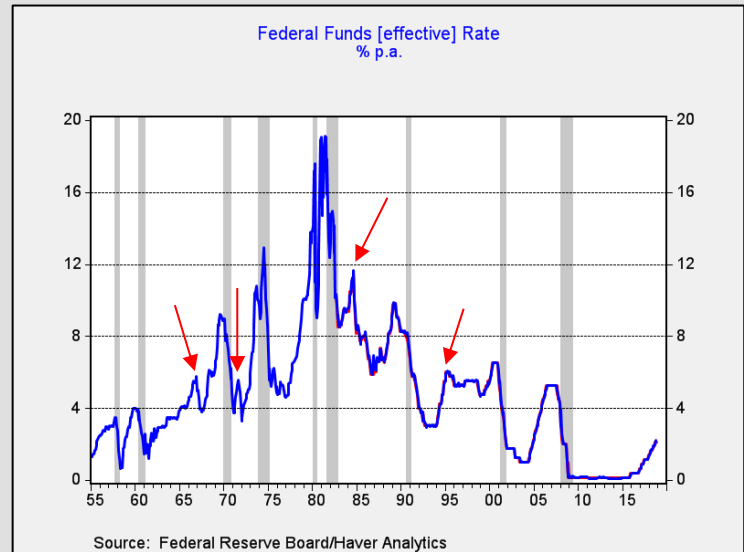
<sup>7</sup> For our geopolitical outlook please, see the "2019 Geopolitical Outlook," to be published on 12/17/18.

## Red Sky at Morning

Although it is customary to detail risks to any outlook, in this year's report, we want to highlight four key factors that could lead to recession. We are doing so, in part, because the current expansion is approaching record length and thus the mere age of the cycle plays a role. In addition, we are in a tightening cycle and there are two overseas risks of note. So, here are the four events that could trigger an end to this expansion and usher in a bear market.

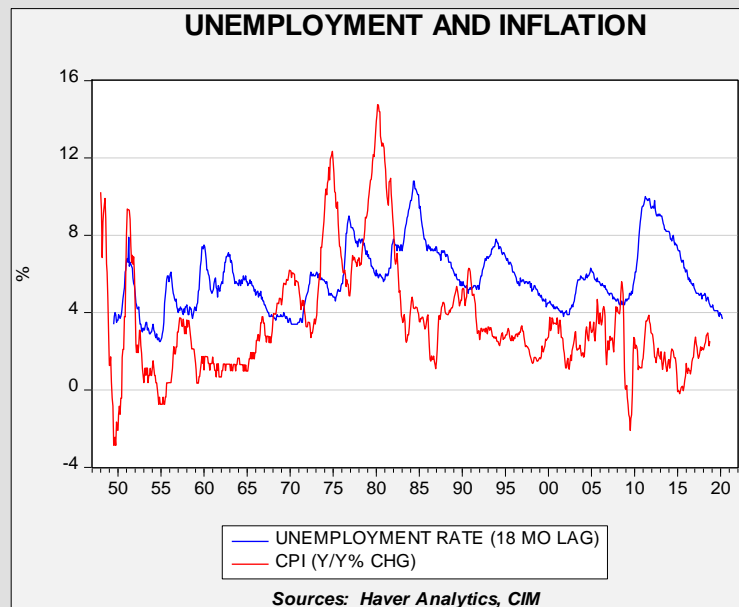
**Policy error:** Although the Federal Reserve doesn't purposely cause recessions, history shows that most recessions are preceded by a tightening cycle.

This chart shows fed funds with recessions indicated by the gray bars. We have placed arrows at tightening cycles that didn't trigger recessions. These are known as "soft landings" and, as the chart shows, they are rather rare. There have been nine recessions since 1955, when the Fed became effectively independent. There have only been four times when monetary policy tightened without triggering a recession, but all the recessions were preceded by the Fed raising rates. Thus, whenever monetary policy begins to tighten, the risks of a policy mistake increase.

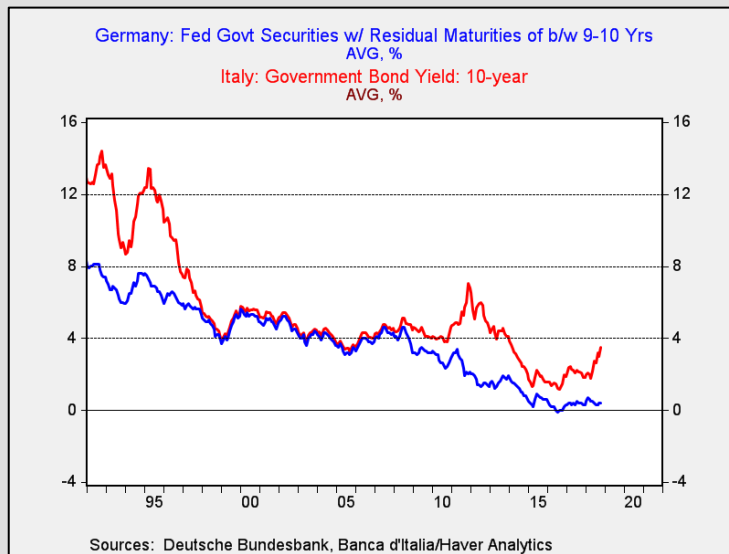


One factor that may help the FOMC avoid overtightening this time around is that policymakers have become increasingly jaded with the Phillips Curve, the relationship between unemployment and inflation. In the past, policymakers tended to raise rates as the labor markets improved. However, globalization and deregulation have tended to weaken the inflation impulse that comes from tighter labor markets and so policymakers do not necessarily need to lift rates as quickly to contain inflation.

The relationship between inflation and the unemployment rate (with an 18-month lag) was correlated at the 64% level from 1914 until 1987. Since then, the relationship is only correlated at 14%. For the generation of policymakers trained in the 1970s, the belief that falling unemployment would eventually trigger a rise in inflation was deeply embedded. However, that relationship is much less important now, and as the FOMC becomes younger the impulse to overtighten as unemployment falls should decline. Thus, there is still a risk that the Fed will make a policy mistake, but the odds may be declining and the chances that a soft landing may occur are probably higher than normal. Still, tighter monetary policy is a risk that must be acknowledged.



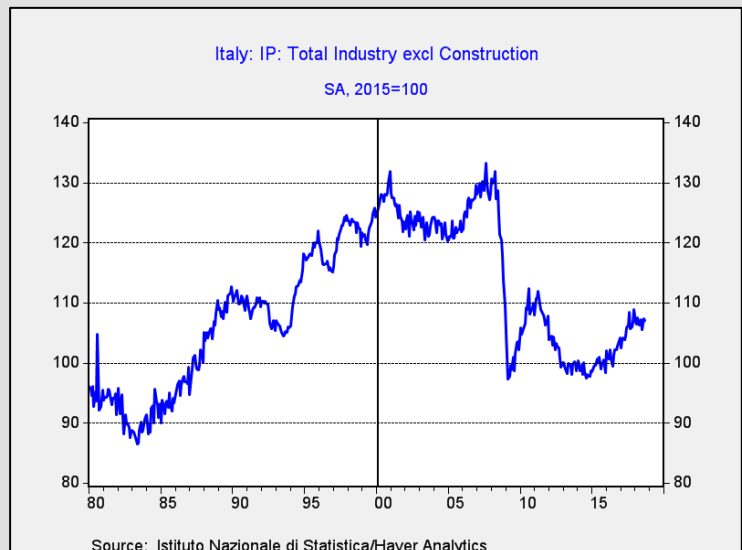
**European crisis:** Because the Eurozone is structurally flawed, the potential for a crisis out of Europe is a chronic risk. However, that risk may be heightened for 2019. The primary worry is Italy.



This chart shows German and Italian 10-year sovereign yields. As the euro was introduced in the late 1990s, financial markets assumed that all sovereigns in the Eurozone had equivalent credit risk. Previously, Italian yields had been significantly higher than German yields due to the perceived riskiness of owning Italian debt. Italy had operated under persistently higher inflation and currency depreciation to maintain competitiveness within Europe. Joining the Eurozone removed those “props” but, in return, Italians could now borrow at lower rates.

However, starting with the Great Financial Crisis and continuing during the “PIIGS”<sup>8</sup> problems, Italian debt was seen as risky again. As a result, Italy not only had higher borrowing costs, but it had also lost the benefits of currency depreciation and higher inflation.

The chart on the right shows Italian industrial production; we have placed a vertical line to mark the formal introduction of the euro. Since joining the Eurozone, the economy has stagnated. In fact, Italy has not recovered since the Great Financial Crisis.



Years of weak growth have led to political rebellion in Italy. The governing coalition is formed with two populist parties. Italy has submitted a budget that has violated EU deficit rules. Although we expect a “fudge” to get the budget approved, there is no evidence that Italy can enjoy any growth and remain a member of the Eurozone. At some point, we expect Italy to leave the single currency. When it does so, it could cause a disruption large enough to completely undermine the single currency bloc and trigger a major financial crisis. This event may not occur in 2019, but there is a possibility that it might.

The other two areas of concern in Europe are the U.K. and Germany. The former is trying to leave the EU and continues to struggle with a process that will allow the country to exit and still maintain important ties to the continent. If this process fails, the U.K. will face a deep downturn. Fortunately, the U.K. may not be large enough to trigger a broader problem. But, the U.K. is important enough that financial markets could be disrupted. In Germany, Chancellor Merkel has stepped down from her leadership of the CDU/CSU.

<sup>8</sup> Portugal, Italy, Ireland, Greece and Spain. These nations faced debt problems in 2011-12.

Fortunately for Merkel, her preferred candidate, Annegret Kramp-Karrenbauer (AKK), won party leadership. For the time being, Merkel will remain chancellor; however, AKK's margin of victory was narrow, which means she may face leadership challenges in the future.

**China and trade:** U.S. relations with China are a long-term risk. China represents a rising power, threatening the hegemony of the U.S., the established power. This creates the classic "Thucydides Trap" first described by the Greek historian of the same name. Thucydides discussed the rise of Athens that threatened Sparta and triggered the Peloponnesian War. The "trap" describes the dynamic between a rising and established power.<sup>9</sup> We view the rise of China as more akin to the dynamic between Germany and Britain from 1870 to 1914 and less like the tensions between the U.S. and the Soviet Union because of the close economic ties between the U.S. and China. Thus, we expect China/U.S. relations to represent a long-term risk to the global economy and to geopolitical stability.

In the long run, the issues between China and the U.S. are probably not resolvable without major changes in policy for both nations. China is rapidly entering the period in its development where it is facing industrial overcapacity. There are essentially four ways that this issue gets addressed. The first is a massive revaluation of the excess capacity through a debt crisis. That is how the U.S. addressed this issue; we refer to it as the Great Depression. Japan addressed the same problem by slowly adjusting debt (and the underlying asset values) and has endured over three decades of economic stagnation. The second method is mass war; this either utilizes the excess capacity or sees it destroyed. The third is value chain improvement. In this method, the economy shifts to higher value products, which allows the higher value new capacity to keep the economy intact while the lower value capacity is either closed or rebuilt. Germany did this from the mid-1960s into the mid-1980s (think Volkswagen to Mercedes). The fourth way is through imperialism, where the nation acquires colonies, allowing it to force its excess production on a conquered client state. This was the preferred method in the 19<sup>th</sup> century; present-day examples include the Eurozone (Germany colonizing the rest of Europe) or China's "one belt, one road" project.

China, under no shape or form, wants to use the first method, and likely wants to avoid the second. It is trying to move up the value chain (the "China 2025" project), thus deploying the third method, and is clearly also trying to implement the fourth approach. The U.S. is attempting to thwart both efforts by preventing China from acquiring U.S. technology (likely necessary to move up the value chain) and by offering alternatives to the "one belt, one road" program. China needs the U.S. to allow it to move up the value chain, which would, of course, put the U.S. and China at trade competition in areas the U.S. currently dominates, such as high tech, aerospace, etc. China also needs the U.S. to allow it to dominate its region so it can utilize its excess industrial capacity through forced exports to the weaker nations in the Far East and Middle East, forcing America to cede its influence in the Pacific. The U.S. isn't going to allow this to happen willingly. If China isn't allowed to implement options three and four, it will be forced into option one or two, neither of which looks attractive.

For 2019, we are focusing on a specific risk, the risk of a trade conflict. At some point next year, it is quite possible that the Trump administration will increase the rate and scope of tariffs on Chinese imports. This outcome isn't certain because the U.S. is heading into the year before presidential elections and a recession in 2019 would seriously undermine President Trump's chances of reelection. Thus, we may see the trade issue postponed; this was the outcome from the G-20 meeting in Argentina.

If the trade war resumes, China has a number of responses. It can retaliate by applying its own tariffs (which it has demonstrated already), but because the U.S. imports much more from China, the effectiveness of this policy is lessened. It can offer subsidies to its exporters to support their businesses. It can stimulate its economy but,

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<sup>9</sup> Allison, Graham. (2017). *Destined for War: Can America and China Escape Thucydides's Trap?* New York, NY: Houghton Mifflin Harcourt Publishing Company. Also see our review: <https://www.confluenceinvestment.com/research-news/reading-list/>

given the high level of indebtedness, there may be limits to the effectiveness of this policy as well. A persistent fear is that China will retaliate by “dumping” Treasuries, which we believe is unlikely.<sup>10</sup>

However, there is a “textbook” response to tariffs—the nation facing the tariff threat allows its currency to depreciate which reduces the cost of its exports and offsets some or all of the tariff. So far, the Xi government has been reluctant to allow the CNY to depreciate. There are numerous reasons for holding the currency’s exchange rate stable. In China’s history, political instability tends to track inflation increases and a weaker currency tends to lift import prices and thus overall inflation. In the past, fears of depreciation have led to capital flight. But, the most recent concern has been triggered by the rapid expansion of dollar-denominated debt in China. It is estimated that the Chinese private sector has borrowed \$3.0 trillion in dollar-denominated instruments, with borrowers taking advantage of low interest rates.<sup>11</sup> However, FOMC tightening and a stronger dollar have boosted debt service costs. If the government were to cause a decline in the CNY to offset tariffs, it could trigger a debt crisis in China with global ramifications, perhaps even triggering the “Great Depression.” We expect the Xi government to try to hold the line on the exchange rate; however, there is a risk that if the Trump administration follows through on tariffs then the logical outcome would be currency weakness which may have broad ramifications.

***Rising inflation expectations:*** Although we don’t expect inflation to become a problem, there is a difference between actual inflation and expectations. When policymakers talk about inflation expectations becoming “unanchored,” they mean that when firms and households expect higher prices in the future they begin to hoard goods and shun financial assets. We do expect this factor to become a problem at some time in the future. Policymakers are taking steps to address inequality which, by design, will make the economy less efficient. We describe these long-term events as the “equality/efficiency cycle.” For example, from 1932 to 1978, there was a concerted effort to keep inequality contained. The U.S. economy was mostly isolated from the world; the economy was heavily regulated which created monopolies and oligopolies that extracted economic rent from consumers that was then shared with unions under collective bargaining agreements. Technological change occurred slowly. The goal was to create a wide road to the American middle class.

This equality cycle was reversed to address a serious inflation problem that developed from 1965 to 1982. The new approach, which we call the efficiency cycle, was characterized by deregulation and globalization. These twin policies expanded the productive capacity of the economy, the supply side, at the cost of higher inequality.

We believe, and have been saying so for some time, that we are in the early stages of a reversal toward equality. Recent trends bear this out:

- The move to impede trade is an element of deglobalization. Although the most visible element would be the Trump administration’s tariffs, the fact is that neither party has been all that supportive of free trade. It is important to note that neither Donald Trump nor Hillary Clinton endorsed the Trans-Pacific Partnership (TPP) during their campaigns. Reversing globalization will reduce productive capacity and lead to higher inflation, but, all things held equal, it will also lead to greater employment in the U.S.
- The technology sector is facing calls for regulation from both sides of the political spectrum. Until recently, the technology sector was seen as “cool.” Now, its leaders are increasingly being seen as pariahs. Regulating technology will reduce or end this sector’s ability to disrupt the economy, leading to greater stagnation but greater job stability.

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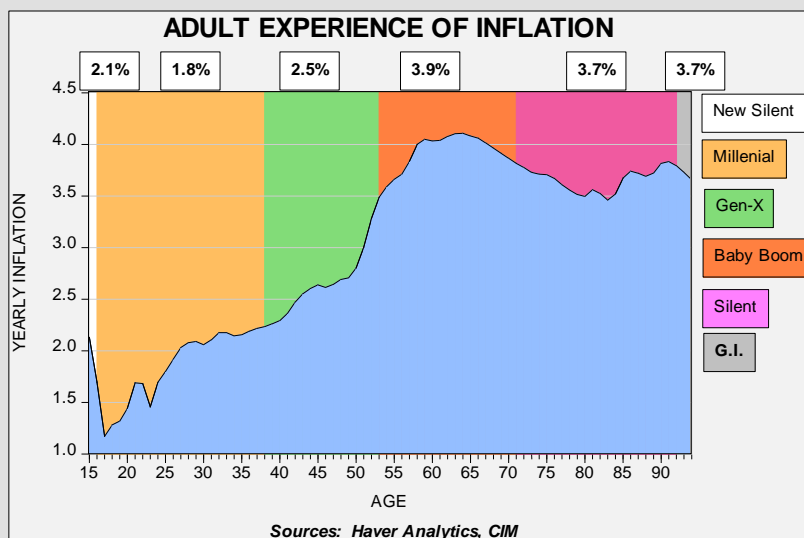
<sup>10</sup> We examined this issue earlier this year and concluded this threat was empty. See WGRs, China’s Foreign Reserves: [Part I](#) (6/4/2018); [Part II](#) (6/11/2018); and [Part III](#) (6/18/2018).

<sup>11</sup> <https://www.scmp.com/economy/china-economy/article/2173461/china-underestimating-its-us3-trillion-dollar-debt-and-could>



The key issue is whether these trends are developed enough to have a significant impact in 2019. They are probably not, but the direction is clear—if it isn't 2019, it could be 2020 or 2025, but it does appear this is where society is heading. The fact that an increasing part of the population now sees socialism as a viable alternative is an indication that views are changing. Part of the reason attitudes are shifting is because fewer Americans remember the high inflation years; essentially, those who remember high inflation or how communism really worked are “aging out.”

This chart shows the adult experience of inflation for Americans by age. We start adulthood at 16 years old. Although the thought of such an early start to adulthood is somewhat humorous in the present day, for the population at the right end of the chart adult responsibilities were taken on at a much earlier age. Note that the baby boom has the highest lifetime experience of inflation, an average of 3.9%. The aggressive anti-inflation policies that began in 1978 successfully lowered inflation, so successfully, in fact, that now a large contingent of Americans see no issue with inflation. For adult Americans under the age of 50, the average inflation rate has been 2.1%; older than 50, it has been 3.7%. Thus, it makes sense that there is less fear of causing inflation by undermining supply-favoring policies as there are simply fewer Americans that have experience of high inflation.



These four factors are the ones we believe have the highest potential to trigger a recession next year. Obviously, other events could occur but we think the odds they bring a downturn in the economy are too low to be of major concern. We still think our base case is the most likely outcome, but the four factors described in this section are the “guideposts” investors can watch next year.

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 Confluence Investment Management

December 14, 2018

*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.*