2017

Economic Forecast

United States

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Gross Domestic Product

Gross Domestic Product (GDP) is one of the most closely examined and discussed economic factors around the world. Great debates have been waged over tenths of points in this one number. While the majority of attention is placed on the next month or quarter, less attention is placed on the history of the number and what the country has experienced over the past several decades.

Expectations for 2017, and the next several years, appear to be focusing on GDP levels that would be considered exceptional in every previous decade except for the period between 1934 and 1943 when the average change in GDP was 10.5%. During this period the country moved out of The Depression where unemployment had reached 25%. Since that time, only the period from 1964 to 1973 experienced a GDP level above 4.0% when it reached an average of 4.4%.

Prior to that time, the decade between 1944 and 1953, the unemployment rate only reached an average of 2.3% followed by 2.8% for the decade between 1954 and 1963. Every decade since then has posted an average GDP growth rate of 3.5% or less.

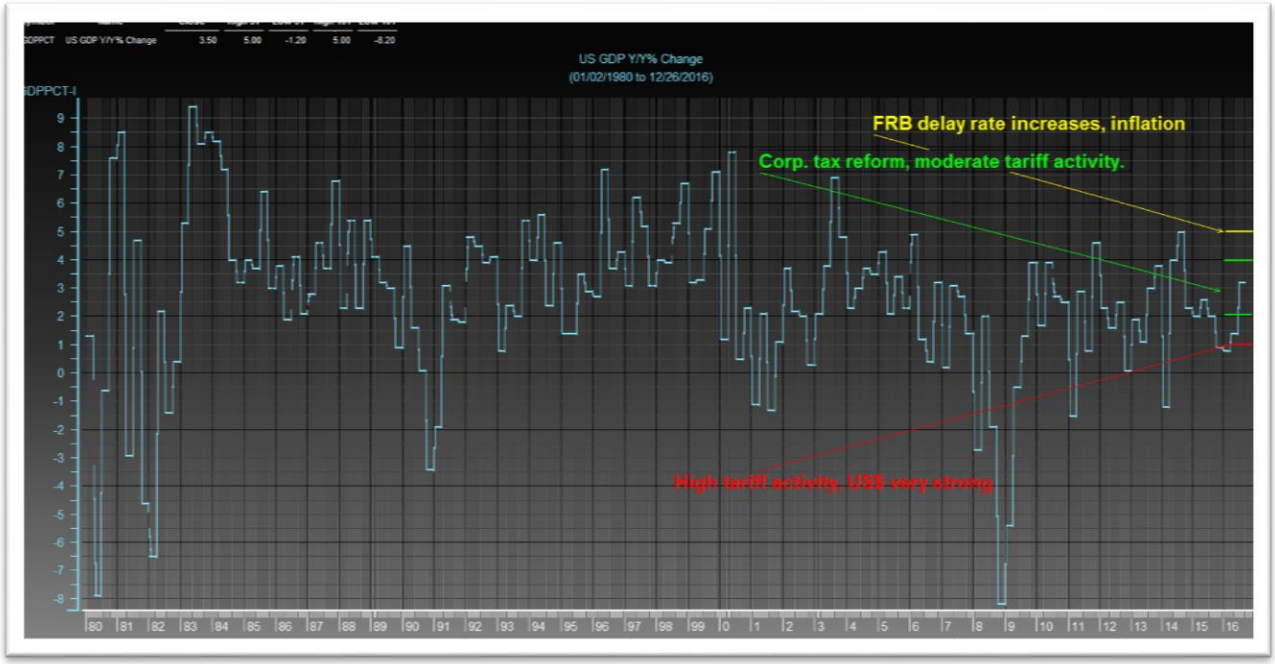

Figure 1: U.S. GDP Forecast 2017 & History: 1980 to 2016

Between 1974 and 1983 the average growth rate was 2.3%, followed by 3.5% between 1984 and 1993. Even most recently between 2004 and 2013, the average growth rate has been a slow 1.7%.

The recently revised value for GDP in the third quarter of 2016 was at 3.5%. It is not outside of the scope of possibilities that the next several quarters could reach 4.0%. We have been experiencing solid improvements for the past several years. Successful efforts to lower the American corporate tax rate to a rate that is

more in line with global corporate tax rates would certainly improve the retention of domestic enterprises within the American borders, maybe even a few foreign enterprises and corresponding employment. This result could potentially give the economy a boost to push GDP upward to 4.5%.

Increasing the potential for higher GDP does not come easily and involves a balancing act with other related economic activities. Some of the activities associated with corporate tax reform also include efforts involving "equality" within

the global marketplace, or what some like to call "a level playing field". Equality is usually obtained through the use of tariffs, and/or corresponding currency adjustments. Tariffs are dangerous because they need to be used cautiously. If not managed delicately, they can form challenging conditions where equalization becomes elusive and never achieved.

Our most likely view for 2017 is one where there is enough reduction in corporate income tax that American enterprises delay efforts to move overseas through a merger, acquisition or relocation, and remain in-country to see what permanent results might be achieved over the next several years. This view has a 65% probability of occurring. We also think this will instill a more favorable outlook generating higher more favorable expectations in both corporations and individuals.

We believe tariffs will be used in an effort to "equalize" global trade conditions. We think that is inevitable. Our expectation is that the reaction will be political verbal outrage, but not result in an actual all-out tariff war. There will be no shortage of name calling and forecasts of global trade doom. However, in the end, the desire to move beyond slow global expansion will win out over thoughts of punishing the other side. Every country needs the other country to make global purchases. Each country, large and small, can complain about the inequality of trade conditions, but without the other side, global trade can quickly slip away along with domestic growth.

Our higher side forecast expects a higher GDP short term, but a less than successful outcome in the medium or long term. If domestic economic growth moves ahead at a rate above 4%, the Federal Reserve Bank will need to continue with their move back to normal interest rates. For a central banker, normal rates are 3.0%; they are currently 0.5%. While the number may appear to be small, the increase of 2.5 percentage points is sizable in Fed-world terms. Inflation will certainly be the outcome of higher levels of expansion. It should remain tame unless the Fed delays too long with additional increases due to fear of stalling a fragile, long-awaited expansion.

Unfortunately, this could result in a rapid increase in inflation with the Fed now behind the curve. American history is full of occasions where the Fed attempted to "control" inflation using large adjustments in interest rates. In 1980, the Fed increased interest rates to 20% only to find they were getting whip-sawed.

If GDP moves to the yellow mark on the chart in Figure 1, we may begin to experience destructive inflation. Nominal GDP may post a good number but, real GDP in 2018 could be lower than 2016.

Our pessimistic forecast, which has a 15% potential chance of occurring, includes a round of retaliatory tariff actions taken across the globe. We do not believe the impact would be such that it derails the U.S. economy, but it

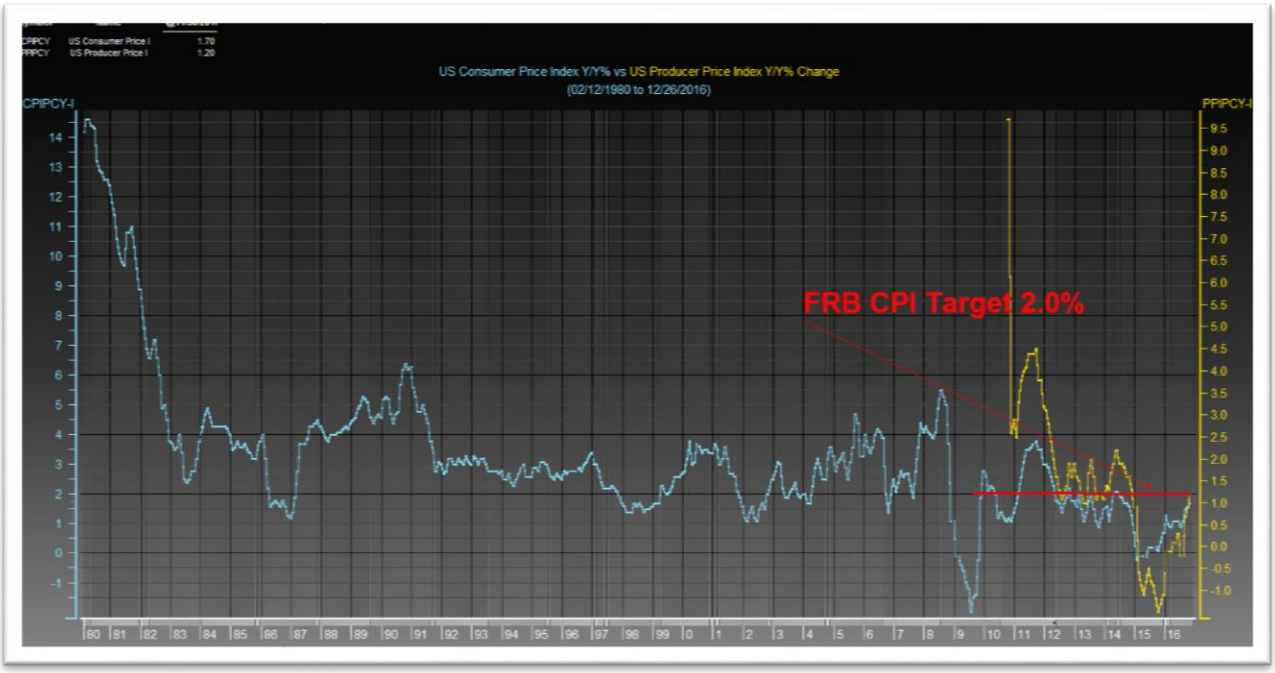

Figure 2: U.S. Inflation Target with Historical CPI and PPI Percent Change Year-over-Year

You hear the two terms, nominal and real GDP used throughout discussions on the economy. A rational question is, why would anyone use anything but the real number? I don't know why economists want to use the term "real" because it is a bit unsettling. Nominal GDP is as real as it gets because it is the actual number that measures the economic output of the country. If you want to determine the size of the number after inflation you would want to use "real" GDP. Both nominal and real GDP are useful numbers. One is not more real than the other. One is just adjusted for the impact higher or lower prices have on the actual economic output.

would place large doubts on the willingness of enterprises to expand both here and abroad. The US$ would be so strong that selling abroad would be cost prohibitive in marginal markets. Another round of wait-and-see on the economy would become common which may take more than 3 years to resolve.

Consumer Price Index

Consumer Price Index (CPI) is the average change over time in prices paid by urban consumers for a market basket of consumer goods and services. The data is compiled from over 38 geographic areas and includes 211 items

in various categories. The CPI is a good measure of inflation.

Inflation has been the main item missing for the Federal Reserve Board to increase interest rates since 2008 and the most recent month, November has not helped in the situation. Overall inflation only increased by 0.2% in November bringing the annual number up to 1.7%. The Fed has targeted 2.0% as the value they are seeking.

The 2.0% target is reasonable target. There have only been four periods since 1980 that inflation has been below the 2.0% target level. The first was April 1986 thru February 1987, then again in October 1997 until June 1999, and November 2001 thru October 2002. The last time was May 2003 until April 2004. The most current period of inflation below 2.0% started in May 2012 thru the current time period which was the longest length of time inflation has been below a 2.0% level.

There is nothing magical about the selection of 2.0% by the Fed. There have been targets for inflation since the central bank was created. The targets will vary depending upon the economic conditions at the time plus relative money supply activity. It is unusual that inflation has been so low for so long and each time it was a different component of inflation that is low (Energy, Autos, Housing, etc.).

Several years ago energy and gasoline were the items keeping inflation down but, now they are the items experiencing the highest increases. Gasoline is up 2.7% in November while energy overall is up 1.2%. Apparel and airline fares are items that actually fell during the month.

Since 1989 many of the increases have come from health care related areas such as hospital services and doctor visits. Both items are up over 150% since 1989. However, the largest increase has been in college tuition which is up over 300%.

Many analysts argue against using CPI as a gauge for measuring inflation, including the current Federal Reserve Chairman, Ms. Yellen. The argument is that construction of the index understates the true inflation rate. It is easy to blame the measurement when it does not give you the right number. Regardless of the view at the time, CPI has a long history which can be used to compare market conditions. Switching indicators may make analysts feel better in regards to the robustness of the measurement, but a great deal of historical comparatives are lost in the process.

We expect inflation at both the consumer and producer levels to increase moderately over the next 12 months. The consumer has a high probability of experiencing inflation rates nearing 3.0% within the next twelve months as a result of higher economic activity and more expensive products brought about by a strengthening U.S. dollar. Producers currently appear to be able to get increases to stick more readily than over the past 10 years. With an emphasis on earnings, most producers will welcome the relief some higher pricing structures will bring about.

Money Supply

Money supply (M1, M2) are measurements of the amount of money within a country that is held by individuals and businesses that can be used to make payments or hold as short term investments. M1 and M2 are two universally common measurements of money supply. M1 includes all the money in circulation and deposits at banks, savings and loans and credit unions as well as deposits at the Federal Reserve Bank. As financial deposits expanded into savings accounts, money market accounts at banks and money market funds at mutual fund enterprises a broader measure was needed in order to capture the vast majority of readily available money to complete transactions. M2 was created to include everything from M1 plus, savings deposits and money market accounts.

Money supply has always been considered to have a strong relationship with inflation. Only recently have central bankers and economists started to discount the relationship between the two variables. Figure 3 above demonstrates the relationship between the two variables that has existed for decades globally. This relationship has existed not just in the United States but, in most every developed part of the world. The relationship appears to be valid whether the central bank is employing a normal interest rate philosophy or applying experimental negative interest rate protocols. Sometimes I wonder if central bankers discard or redefine variables

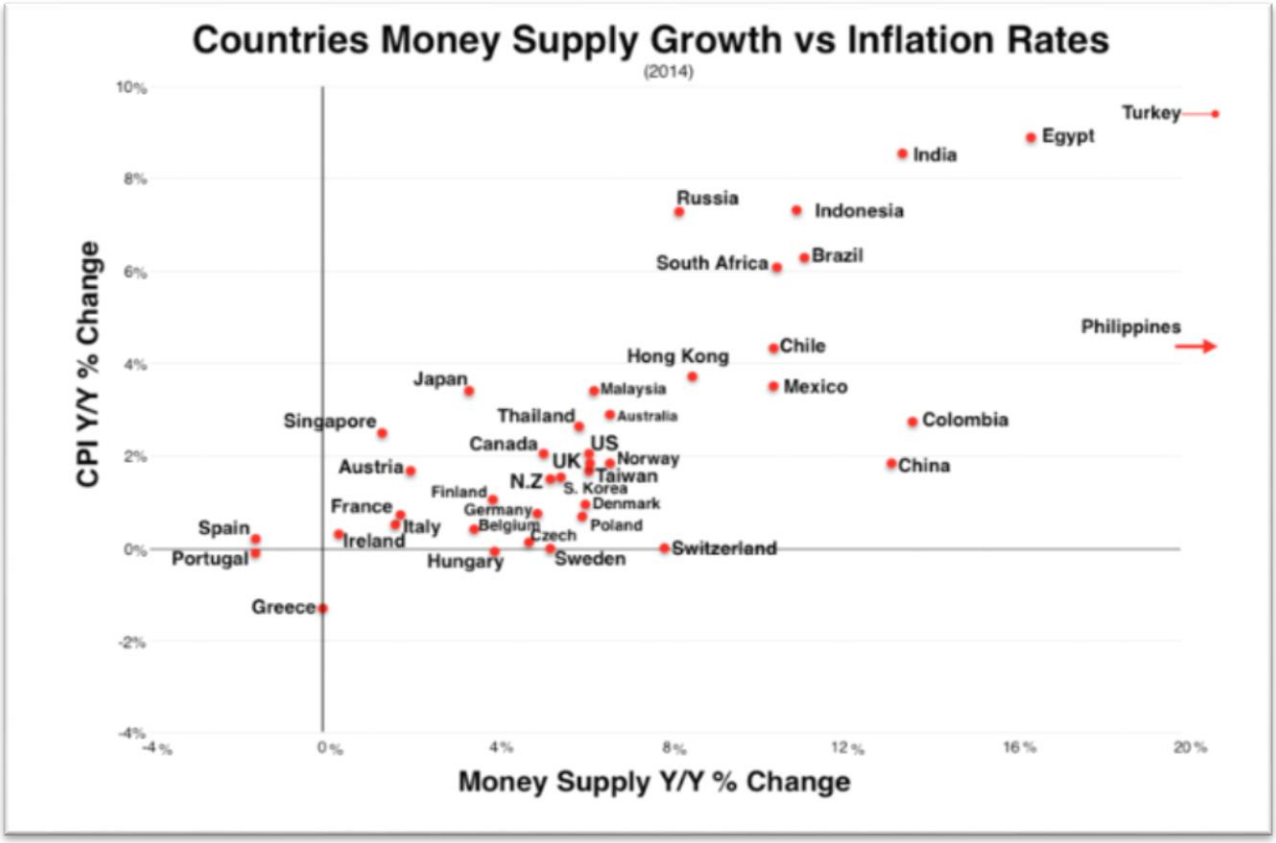

Figure 3: Major Countries Relationship Between Money Supply and Inflation

because the variable no longer supports the direction the central bankers wish to seek?

The chart in Figure 4, shows both M1 and M2 for the United States along with the velocity of the money supply. There are several interesting observations that can be readily identified from the chart. First, is the difference between M1 and M2 over the period. Prior to 1992 M1 and M2 moved in concert with one another until levels in savings deposits and money market accounts slowed for about two years. Starting around 1995, this activity reversed and M2 grew faster than M1 until mid-2008. There is an argument that individuals and business enterprises were using highly liquid deposits at a faster rate because investment income was significantly lower. Since 2008, M1 has grown faster than M2 possibly indicating a returning level of financial strength even without higher income producing interest rates.

The velocity of money has declined significantly over this time. This may be an indication that individuals and business enterprises are not yet comfortable, or confident that the future will bring about a level of security needed to invest longer term.

Money supply has expanded significantly since 2009 but, the velocity has declined as well from the peak of September 1997 when it reached

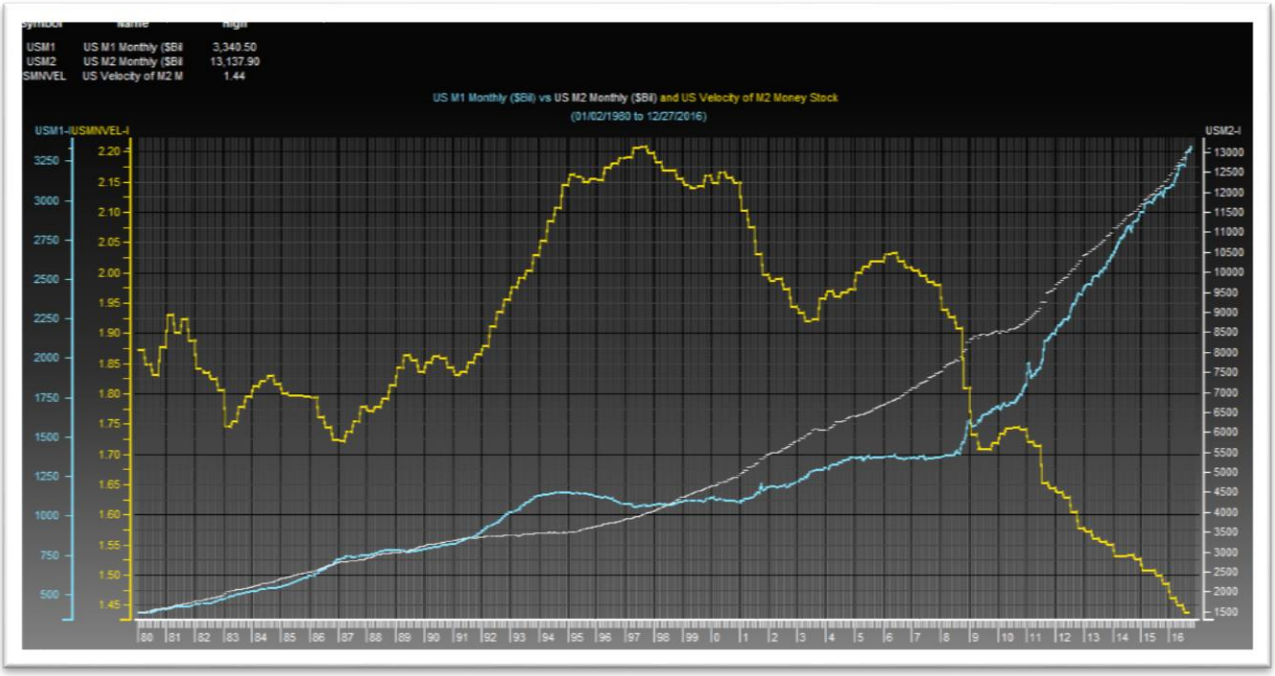

Figure 4: U.S. Money Supply (M1 & M2) with Velocity

2.20. There has been a decline since that period to a new low of 1.44 today. There were only two changes in the downward direction since 2000. Once in 2006 when the velocity reached 2.03 and again in 2010 when 1.74 was reached. Otherwise, money supply has experienced a significant drop in velocity. Even through there has been a significant increase in the overall supply of money brought about through numerous programs of quantitative easing by the central bank, the drop in velocity has reduced the impact of the overall effect to about half of what it was in the late 1990's.

The Federal Reserve does not have a target for money supply that is shared with the outside world. There are targets for the economic factors that are impacted by money supply such as inflation and the Fed Funds Rate. The Fed expects inflation in 2017 to be at 1.9, just short of their target of 2.0 and they expect the Fed Fund Rate to be at 1.4 with a range of 0.8 to 2.2 according to the individual OMC member survey.

Once inflation starts, we are concerned as to whether the Fed and global central bankers can pull money out of circulation fast enough to avoid a rapid increase in inflation. If the current level of money supply remains intact, and if the velocity of money increases due to a higher level of confidence, inflation could easily become the new animal to tame. Efforts to contain rapidly increasing prices can be difficult and the Fed does not have a good track record in such matters. Maybe we should get our WIN (Whip Inflation Now) buttons out from years past?

Figure 5: Whip Inflation Now (WIN) button from 1974

We are also concerned about the combination of rising inflation triggering increases in the Fed Funds Rates which will strengthen the U.S.$ to the level of creating a disjoint relationship with world currencies. With these considerations in mind we have a 60% probability rating on inflation, as measured by the CPI, to reach 2.0% within the next 12 months. There is a 20% probability that inflation will be greater than 2.0% and a 20% probability that inflation will remain contained at below 2.0%. There is a 10% probability that inflation could ramp up to exceed 3.0% by combining an increase in the velocity of money with increases in energy prices. Such a combination could become difficult for the Fed to contain.

Unemployment Rate

The unemployment rate is one of the most widely known and recognized measurements of the economy. Everyone understands the measurement. It has been used to describe good and bad times. Most everyone knows of the disastrous Great Depression where 25% unemployment rates were reached. While usually used as a fear factor it can also represent some of the best periods in the economy. Currently, the unemployment rate stands at 4.6%. This is a tremendous improvement from the Fall of 2009 when unemployment reached 10.0%. Unemployment has only been better than the current level for a brief period in 2000 and again in the latter part of 2006. We have

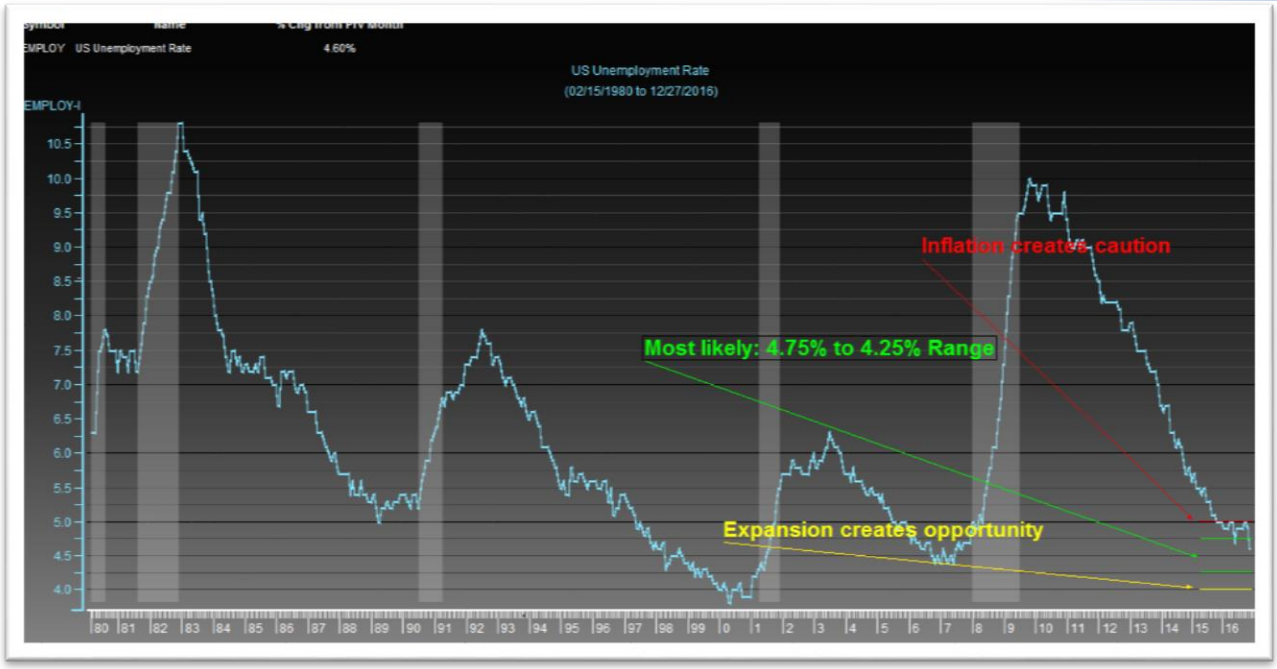

Figure 6: U.S. Unemployment Rate 1980 thru Current

experienced a steady improvement in the rate since 2009. The most important question facing investors now is how low can the unemployment rate go? Our estimate is that it is

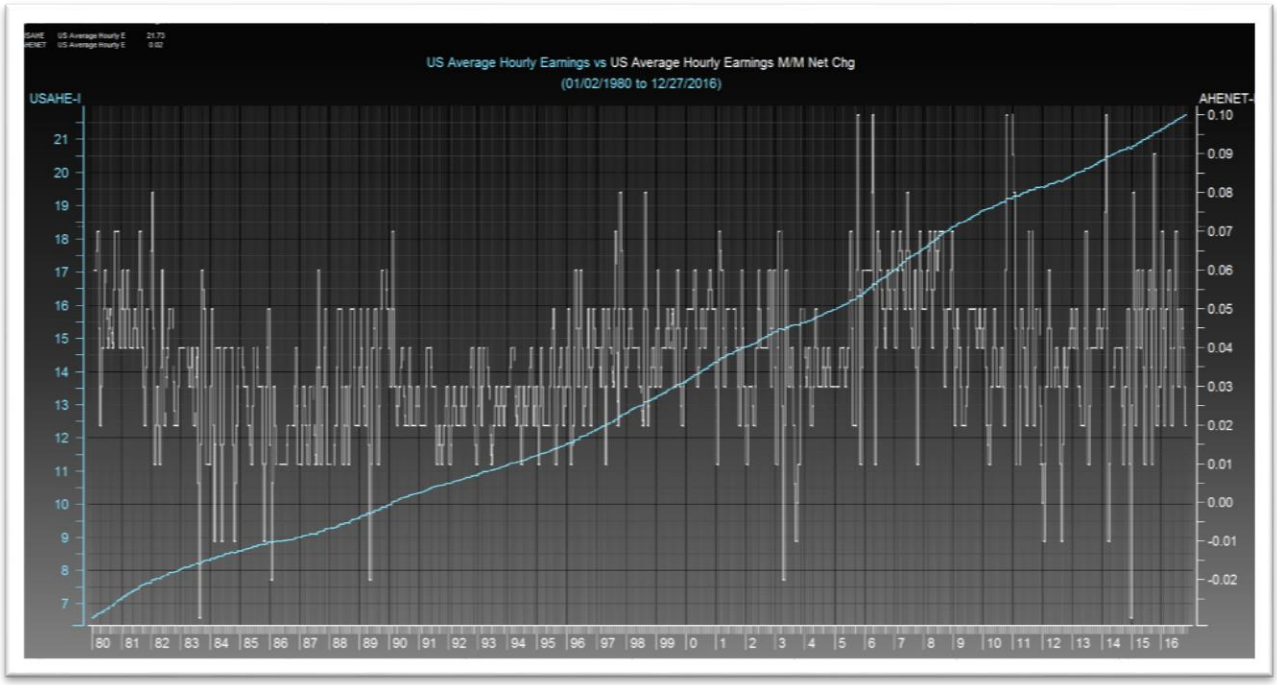

Figure 7: U.S. Hourly Earnings both Value and % Change

very close to the lowest level achievable given current market conditions. Given the reluctance of employers to take on additional long term expenses an additional drop in the unemployment rate would bring about increases in wages and other related employment costs. Higher employment costs would reduce the willingness to increase employment levels such that continued reduction in the unemployment rate would become increasingly harder to achieve. On the other side of the argument, an increase in inflation would increase the cost of employment thereby reducing employment levels such that the unemployment rate could rise above the current rate and possibly reach 5.0%.

We believe the unemployment rate will remain between 4.25% and 4.75% for 2017 because there will be a balance between the desire to expand the business enterprise and the cost of scarce resources. This balance will keep the employment market from running too hot and creating a wage inflation crisis. This scenario has a 75% probability of occurring. The tighter labor market where the unemployment rate drops to below 4.0% holds a 20% probability of occurring, with the probability of an increasing rate above 5.0% holding a 5% probability.

One of the most interesting employment factors that indicates how much pressure is building in the wage area is the average hourly earnings measure and the size of the change from month to month. Figure 7 shows this factor with both the absolute value and percent change. In 1980, the average hourly earnings level was under $7.00; today it is $21.73. While that is a sizable increase, it has developed over 36 years in stable increments of 0.04 per month. Currently, the monthly increase stands at 0.02 dropping from 0.07. The rate of monthly increase has remained

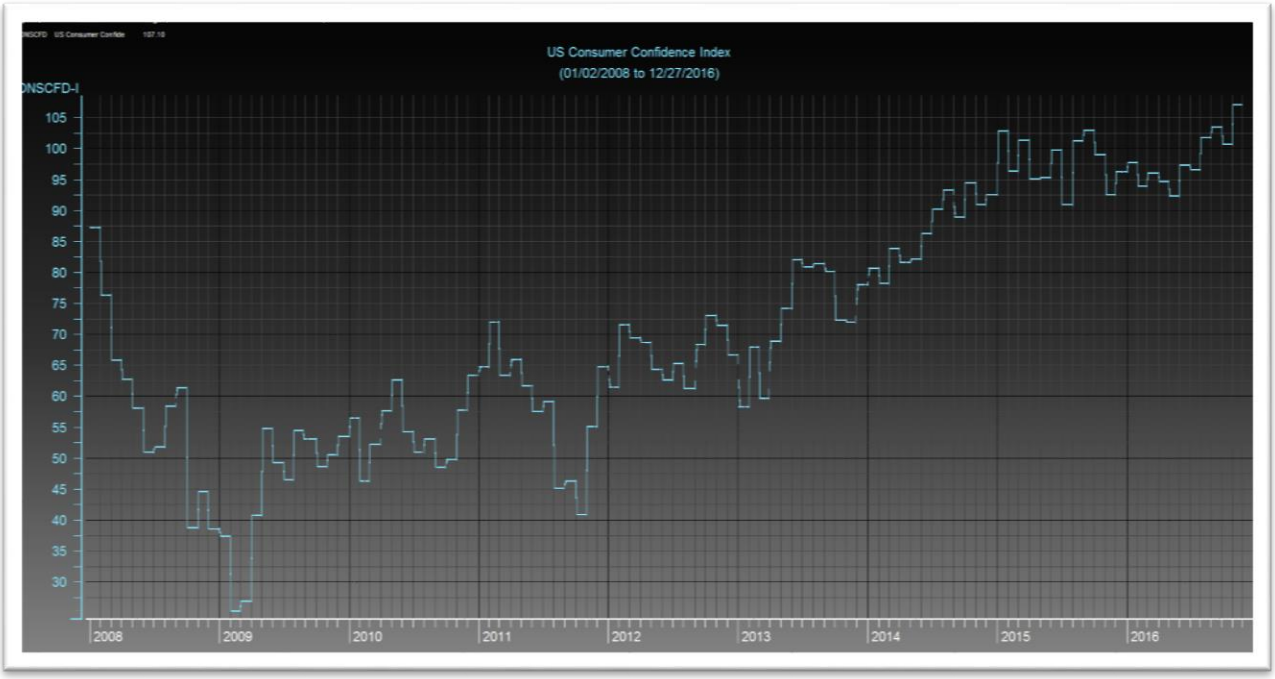

Figure 8: U.S. Consumer Confidence 2008 to current

stable over the past 36 years showing very little probability that wage pressure is increasing.

The constant increase in average earnings and a lower unemployment rate, may be part of the reason why consumer confidence is improving. We take a look at consumer confidence in the next section.

Consumer Confidence

Consumers have been concerned over the past several decades as they weathered dot.com in 2001, September 11th attack, the mortgage crisis and The Great Recession. Consumer confidence moved to the lowest point in early 2009 reaching 25.3. Since that time expectations have improved. Today, the confidence measurement has reached a high at 107.1 and we expect it to continue to improve throughout the year.

Personal Income

Personal income is an interesting and valuable indicator. It is the combined income for individuals generated from wages and interest income. There was a steady increase in personal income from 1945 up to 2008. After 2008 the ups and downs resulted in a rather flat result. Some of the flat result was from a steep decline that started in May 2008 and continued through May 2009. The drop was significant and resulted in a year-over-year decline of 5.9%. This was recovered throughout 2010 and part of 2011 only to see another decline take place into 2013.

The net result since 2008 has been close to a zero increase in personal income. The median personal income is currently $30,240.

While everyone would enjoy an increase in personal income the result of the current condition is only light pressure on wage

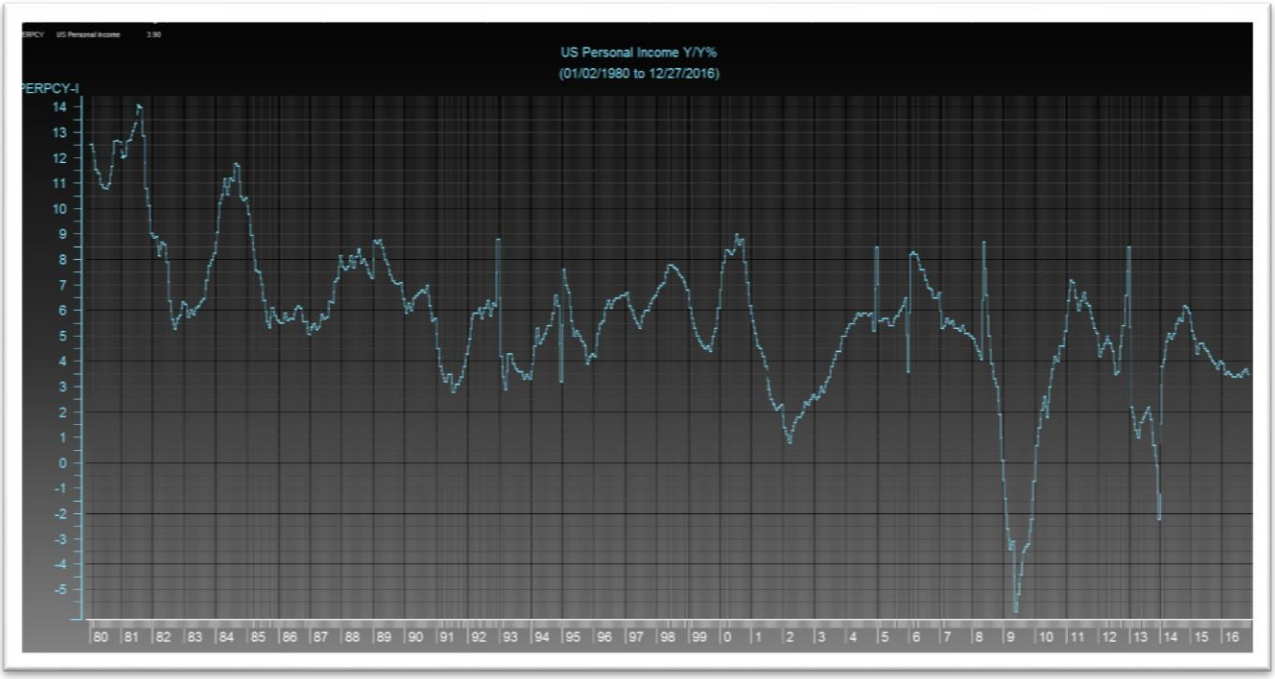

Figure 9: U.S. Personal Income Changes Month-to-Month 1980 thru Current

increases. This provides a higher degree of comfort for expansion without incurring wage pressure in the inflation number.

Housing

Housing in America is a multi-facetted economic statistic that has five very important parts: existing home sales, new home sales, new construction, permits for future starts and selling prices. Each of these factors provides a view into how the housing market is developing. In general, building permits should increase before housing starts, you need a permit before you start building, and housing starts should increase before the house can be sold. Additionally, the balance between new home sales and existing home sales can help us understand whether the housing market is healthy or activity is isolated to a specific area. The sales price is a good indicator as to the willingness of buyers to pay more for housing, or not.

It is also important to examine housing activity with the understanding that during the late 1990's until 2008 there was a strong initiative from all avenues, Congress and banking, to make sure every American had an opportunity to own their home. This enthusiasm created a market that was overly exuberant. The activity was unsustainable and eventually reality returned with a thud.

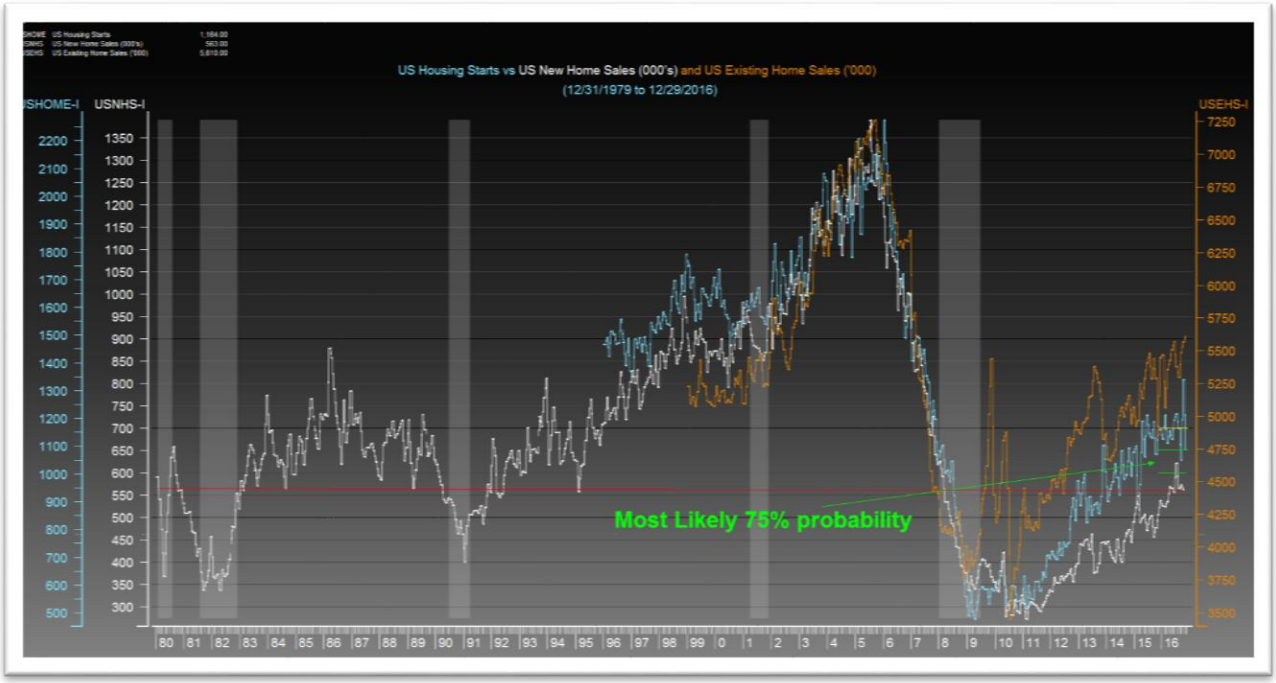

Figure 10: U.S. Housing Starts, Existing Home Sales & New Home Sales

When we examine the current housing market and consider the future, we want to keep an eye on reality and not succumb to wishful thinking that somehow the American housing market will return to pervious high levels. If you look at Figure 10 you can see a market for new home sales that moved on a consistent basis between 350,000 and 800,000 with a general average

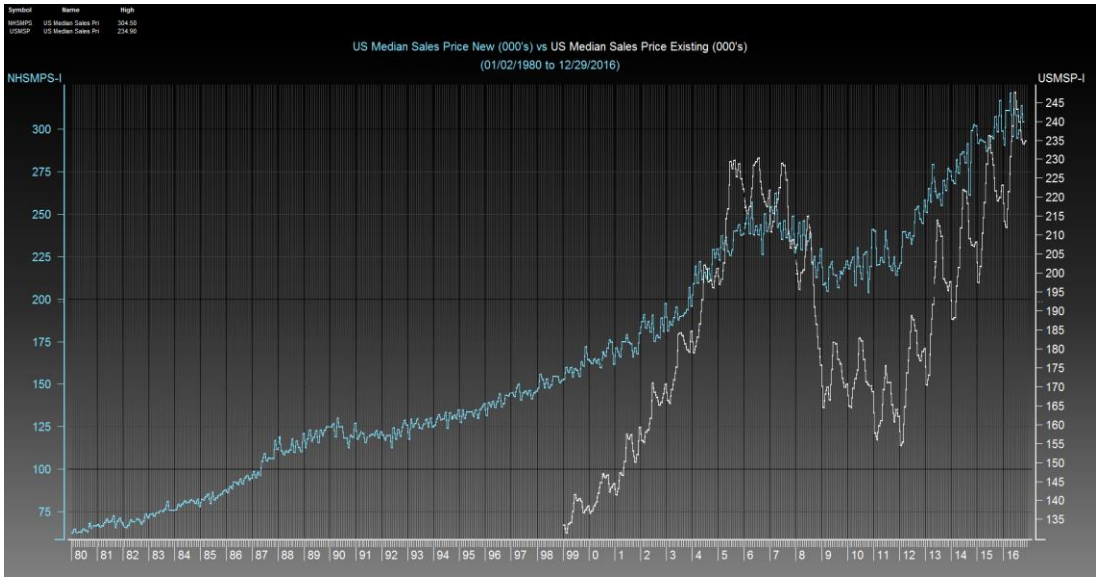

Figure 11: Median Sales Price New & Existing Homes

Currently, both the median price on new houses and existing houses are on the rise. The median price for a new house is at $304,500 and an existing house is at $234,900. Both are up significantly since 2010. We do not believe the rate of increase is excessive and reflects a lower supply than normal. Supply should begin to increase as builders become more optimistic and are willing to invest capital.

around 650,000. If you consider that the time period after 1997 until 2006 was artificially created, the current level of 563,000 is actually a healthy and normal activity level.

Given the strength in all three areas, housing starts, new construction and existing home sales we believe the current housing market has the ability to continue to strengthen and stay in the upper areas of a normal market. This places U.S. new home sales in the range of 600,000 to 650,000. If the upper ranges of our overall forecast start to materialize we could possibly see a 700,000 level in housing, but we would also see a rapid increase in housing related costs. We only see a 5% probability that housing will stagnate and stay in the range of current activity, 580,000 houses.

Housing prices are no different than any other product or service that is purchased in an open market. Higher prices equates to higher demand relative to the available supply. Lower prices equates to either low demand relative to supply or possibly oversupply. It is that simple.

Retail Sales

Retail sales activity helps gauge the strength of the economy and trend or path toward expansion or contraction. As a leading macroeconomic indicator, increasing retail sales statistics generally indicate a positive direction in the economy.

Retail sales figures are reported by the Census Bureau and the Department of Commerce. The report captures in-store sales as well as catalog and other out-of-store sales. The results are often reported in two versions: with and without auto sales because a car purchase carries a high purchase price adding extra volatility to the monthly data.

Over time retail sales have generally increased each year between 2.5% and 7.5%. We believe that in 2009 one of the great foundations of economic expansion is the willingness of the consumer to take on debt. This cornerstone was deflated when house values collapsed. Housing was always thought of being an asset that would increase in value. This was true on a national level. However, anyone that lived on the coast of Florida in the 1970's or around Boston during the high-tech decline knows that housing can create uncertainty. Housing values crashed during the mortgage crisis and The Great Recession. Anyone who was a working adult during that time has a different view about housing as a stable asset than before. Most consumers are more cautious now and less willing to take on unnecessary debt. Consumer spending now is more in line with current income increases than previously. Consumer confidence is improving which should translate into higher levels of retail sales. We expect them to grow at a rate above 2.0%.

Our forecast shows a range for retail sales for the next year that grows between 2.0% and 3.5%. This is a healthy rate that will improve overall retail activity but not such that it becomes inflationary. This may seem conservative given the recent increase in overall retail sales of 4.0%.

We believe that any large purchase items have been or will be bought in the first quarter of 2017 as expectations for higher interest rates increase because of the recent Fed interest rate increase in December. Expectations for higher retail sales could be the result of consumers wanting to get major purchases completed before rates go any higher. The second and third quarter may see a much lower retail sales growth activity than the first quarter. As activity might slow down in the 3rd and 4th quarter of 2017, discounts will surface, especially in the auto industry, resulting in higher volume but, lower dollar values.

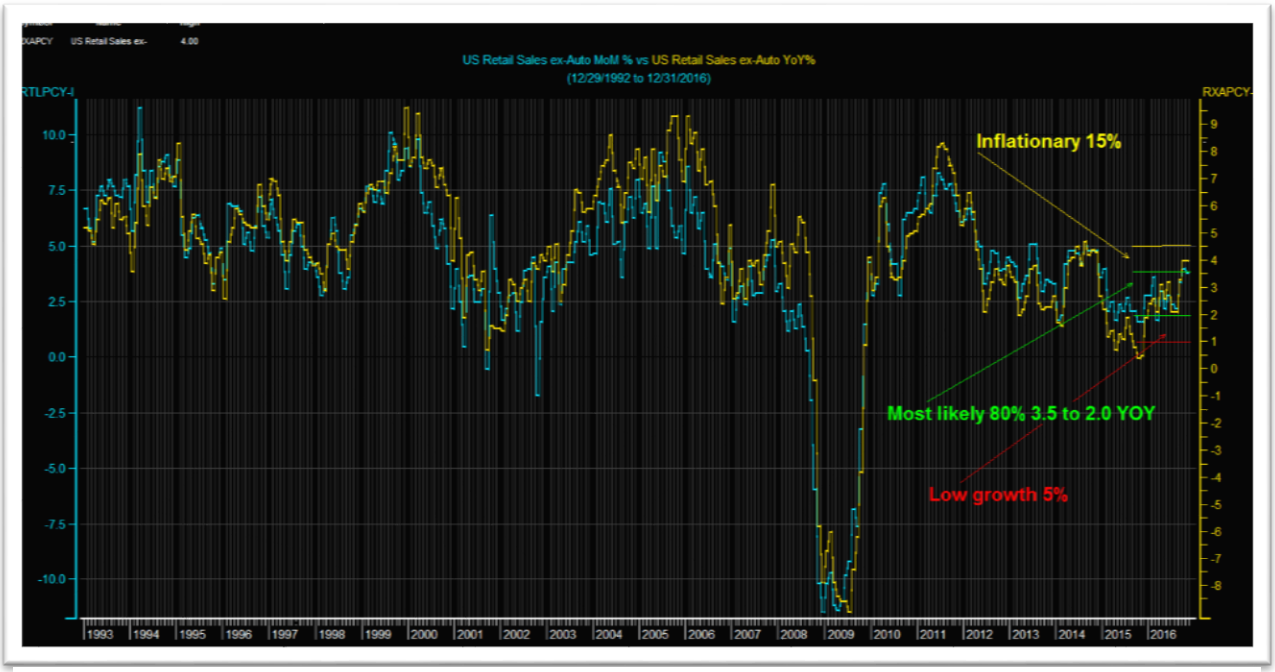

Figure 12U.S. Retail Sales % Change Year-Over-Year both with and without autos.

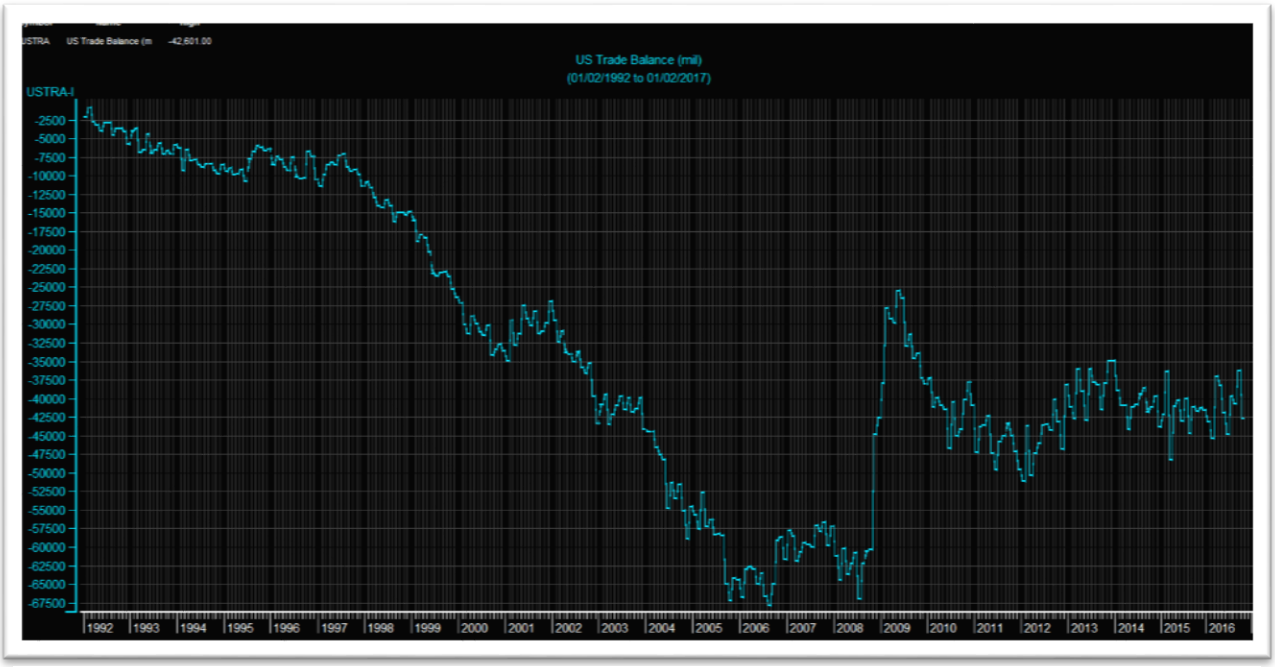

Figure 13: U.S. Trade Balance

Trade Balance

The country's trade balance is either a surplus or deficit value. When the U.S. exports more than it imports, the result is a surplus. When imports exceed exports a deficit is created. As you can see from Figure 13 the U.S. has created a rather large deficit with the rest of the world that was $42 billion in October. So far this year, the U.S. has exported a combined $1.209 trillion while importing $1.810 trillion creating a cumulative deficit for 2016 of $601 billion.

During the period of 1992 until 2008 there was a great deal of concern that the deficit would become overwhelming. There are many unknows regarding the impact trade imbalances create and how long they can last. Many heated arguments have ensued over the years encouraging governments to manage trade, but then the tactics taken by governments in an open market can soon be declared manipulation by the injured trading partner.

Currency values come into play when trade balances are concerned. Stronger currencies have a tendency to make it more difficult to export while importing becomes easier. Unfortunately, for the U.S. a stronger U.S.$ exacerbates the already high deficit. Unfortunately, 2017 expectations are for further increases in the deficit.

Industrial Production

Industrial production is a measure of output of the industrial sector of the economy. The industrial sector includes manufacturing, mining, and utilities. This area of the economy has been well below the long-term average for some time now. The current rate of (0.42) is 0.6% lower than just 12 months ago.

Capacity utilization is also well below the long-term average of 80%. Currently, utilization rates are running just around 75%. Unfortunately, utilization rates have been dropping steadily for the past two years.

This is a major challenge for the U.S. economy. It is a frustrating condition because global economic activity has not been robust for several years which reduces the demand for products manufactured in America while global competitiveness increases to the point of oversupply. Pricing becomes a major problem as many foreign manufacturers can produce at lower prices to gain sales.

American manufacturing is faced with many challenges on a global basis while utilization rates continue to decline presenting excess capacity. The incoming administration will have a large project in front of it by attempting to regain some of the activity that has moved offshore. This will most likely be complicated by a stronger dollar.

We expect industrial production to move back into positive territory for 2017 while capacity utilization improves slightly moving into the 75% to 77% range. Positive economic growth will help manufacturing move forward, but the stronger dollar will reduce American manufacturing competitiveness overseas.

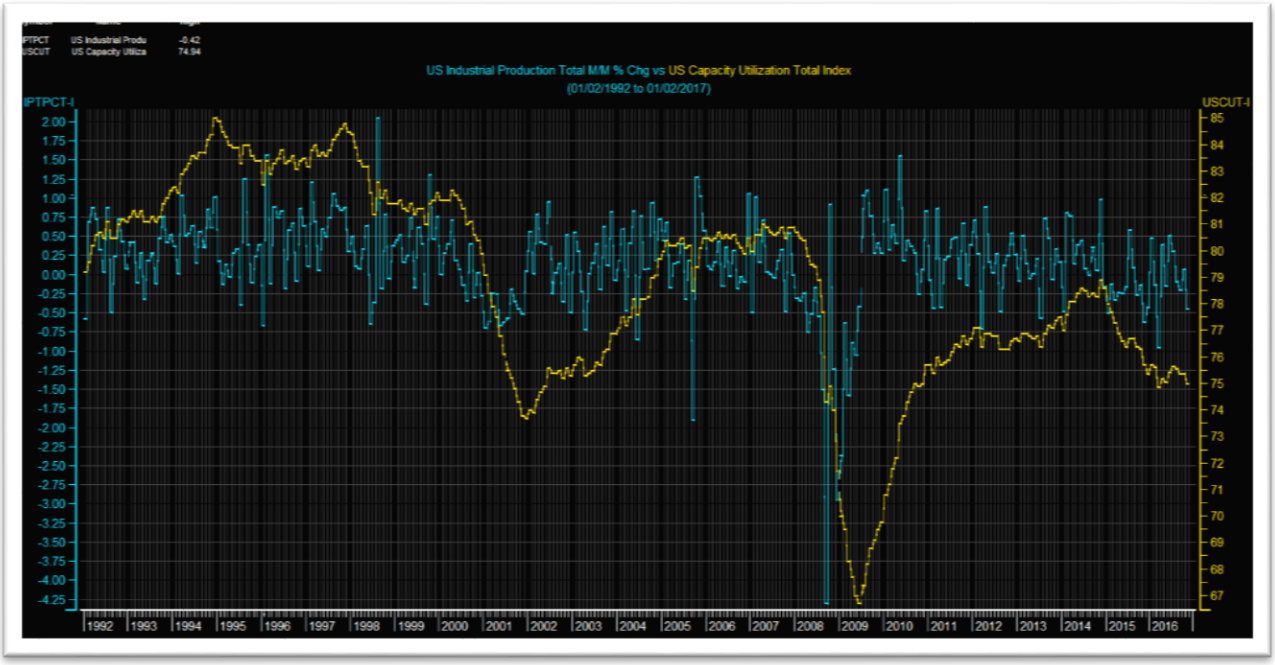

Figure 14: U.S. Industrial Production and Capacity Utilization

Corporate Profits

Corporate profits change year-over-year (YOY) has been tame for the past several years moving generally between +/- 10%. There was a downward movement that took place between 2014 and most of 2015 that reversed in early 2016. This modest trend should continue to improve as economic activity improves. We believe the increased economic activity

combined with moderate dollar strength and calm inflationary fears, will improve corporate profits in 2017. The increase will range from 5% to 10% YOY.

rapidly with advances in shale extraction and horizontal drilling technological.

On the other hand, the consumer has

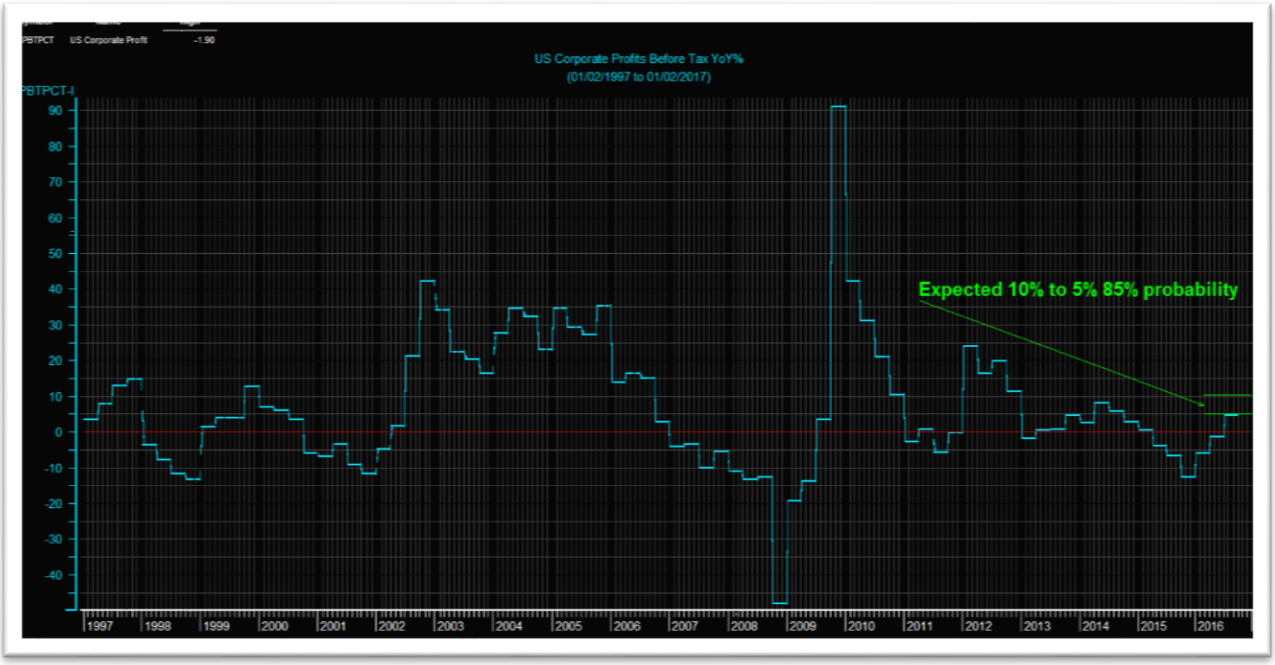

Figure 15: U.S. Corporate Profits Change After Tax YOY%

Distribution of dividends had slowed along with corporate profitability until recent where there has been a similar increase in distributions to shareholders through dividends. We expect this to continue into 2017 as corporate profitability improves.

Energy

America's participation in oil production has taken a varied path throughout the years but, global oil production has exhibited greater stability. U.S. oil production was increasing through most of the 1980's peaking just after 1985. At that point production started a slow but continual decline all through the 1990's and well into early 2000's. After the Great Recession domestic oil production started to increase

experienced a roller-coaster ride at the gasoline pump. At many times the rapid changes and direction seemed illogical. However, when global production, domestic production and the retail price of gasoline are placed in the same reference such as in Figure 16, the movements become rational.

While American oil production was dropping, global production was increasing and the consumer was experiencing a general increase in retail prices. When global production stopped increasing and domestic production continued to decline, the retail price started an upward march to over $4/gallon. As the price reached $3/gallon production was not increasing and the consumer continued to demand more product.

The big question for suppliers was to determine the price where consumers would slow their purchases for fuel.

The move to $4/gallon was an interesting exercise by the energy industry to find out how elastic the demand curve was for the retail product.

Interestingly, as the recovery started post Great Recession retail gasoline prices moved back close to the all-time high as production attempted to catch up with increasing demand. Additionally, American production started to look like it would return to 1980's production levels. Domestic production growth was on an accelerated rate and much faster than global production increases. Supply quickly exceeded demand and prices started to drop in 2014. Shortly afterwards production started to slow as more expensive producers started to leave the market. Unfortunately, in oil production some suppliers (countries) need the revenue for operating cashflow demands and continue to produce for a period of time, even while being unprofitable. Eventually this sorts out and production starts to seek a level to match the current price/demand.

We believe oil production will continue to slow down for the next 12 months while prices return to $2.50 $3.00 / gallon. After that, if the global economy is continuing on a slow growth path, production will increase again as the higher cost producers come back into the market.

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