Outlook and Market Review – Fourth Quarter 2016

The economy continues to expand at a very slow pace. The revised fourth quarter real GDP growth was 1.9%, the same as the initial estimate. For all of 2016 the real GDP growth rate was 1.7%. Job creation remains strong but an increase in the labor force participation rate to 62.9% was largely responsible for a higher unemployment rate of 4.8% in January. As wages slowly begin to improve in 2017, more workers will seek jobs making it harder to achieve lower unemployment rates. Capacity utilization remains about 5% below the full employment threshold suggesting low inflation pressure from bottlenecks and supply constraints. Global competition and a strong dollar are keeping import prices low, offering additional relief from inflation pressures. The consumer price index (CPI) all-items index increased 2.1% in 2016 and the personal consumption expenditure index (PCE) all-items index increased only 1.6% for the year. Pressure on the Fed to raise rates now is low since inflation is below the 2% PCE target and the economy is not yet at full employment. Nevertheless, it is possible that the Fed sees the economy on a path to exceed these targets later in the year, especially if infrastructure spending, tax reform, deregulation, and the surrounding elements of a pro-growth strategy come to fruition. A preemptive move by the Fed is likely in June with a modest 25 basis point increase.

Financial markets are thriving due to the combination of low interest rates and expectations of higher after-tax cash flows from the pro-growth initiative of the new administration. All three equity market indexes are at or near record highs indicating a broad market move across small, intermediate, and large capitalization stocks. Equity markets have priced expectations of cash flows enhanced by policies that will take time to materialize, raising concerns that the markets may have overreacted to the pro-growth scenario. Political opposition in tandem with the generally sluggish way tax reform and infrastructure investment takes place may have been underestimated, leading to overestimated prices. Under the best of conditions, actual improvement in after-tax earnings and consumer disposable income will not occur until late in 2017. Markets will pull back if roadblocks and delays in implementation mount.

Professional forecasters are generally upbeat about growth prospects in 2017 and believe the economy has a chance of reaching full employment by the end of the year. Even so, real GDP growth is likely to be only 2.4% for the year and the PCE inflation index should reach the Fed's target rate of 2%. Forecaster views are consistent with two or three increases in the Fed Fund rate by the end of the year, depending on the pace of approval and implementation of pro-growth initiatives. Even with higher Fed Fund rates and less bank liquidity, long-term interest rates should stay below 3%. Low interest rates abroad, a strong dollar, and a chronic current account deficit support a healthy demand for U.S. dollar denominated U.S. Treasuries to keep bond prices high and yields low.

Fed Rate Hikes – How Many and When?

The Federal Reserve Bank will raise the Fed Fund rate, the rate banks charge each other for short-term liquidity, several times in 2017. Gradualism calls for 25 basis point increases at each decision point unless there is a significant change in expected inflation. Low fourth quarter growth in 2016 linked with the recent uptick in the unemployment rate to 4.8% suggests that the Fed will pause again in March and wait until June to raise rates. Inflation measured by the PCE remains below 2% while an improved labor force participation rate is making it more difficult to lower the unemployment rate. Capacity utilization rates remain well below full employment benchmarks. While job growth remains robust, wages have been slow to improve, leaving stock and home appreciation (two very interest sensitive assets) as the key drivers of higher consumer spending. Investment spending should emerge from its dormant state if significant tax reform takes place and if shovel ready infrastructure spending becomes a reality.

Given the uncertainties, it may be premature for the Fed to raise rates in March. Most analysts call for at least two interest rate increases in 2017. The 10-year Treasury yield, the anchor for long-term rates, is likely to remain under 3% even with Fed tightening in 2017. Longer-term rates depend largely on expected inflation combined with market forces linked to the demand for the U.S. dollar. Expected inflation of 2% and the combination of a strong dollar and low interest rates abroad should keep long-term rates from rising above 3% from the current 2.4% level.

Favorable Conditions to Start the Year

Financial Stress - The Federal Reserve Bank of St. Louis tracks the degree of financial stress in U.S. markets with an index constructed from 18 weekly data series. Each series represents a unique aspect of financial stress based on yield spreads, rates, and equity market returns. An index of zero represents normal financial market conditions. When the index falls below zero financial stress is low. Financial stress has been low and stable since the 2008-2009 recession. Figure 1 shows the pattern for the Financial Stress Index over the past decade.

Figure 1. Financial Stress Index

Source: Federal Reserve Bank of St. Louis (FRED data)

Household confidence and spending should benefit from low financial stress in the markets and rising housing prices. Household wealth accumulation helps offset low wage increases to allow continued expansion of spending. The S&P CoreLogic Case-Shiller Home Price Index increased for 24 straight months by the end of 2016 and is closing in on an all-time high. The Black Knight House Price Index is just 0.3% below its prior peak. Rising housing prices combined with strong stock market performance and rising wages provide a more promising outlook for consumer spending in the first half of 2017.

Household Debt Service - Household debt service burdens are now as low as they have been in almost 50 years, as the figure below illustrates. Low debt burdens offer added cushion for consumer spending going forward. Savings rates remain low but they should recover somewhat with added wealth accumulation and an eventual rebound in wages as the labor market tightens.

Figure 2. Household Debt Service as a Percent of Disposable Income

Source: Federal Reserve Bank of St. Louis (FRED data)

Risks Still Exist - While the conditions for better growth in 2017 are promising, risks to this outlook are significant. All three equity market indexes are at or near all-time highs. Financial markets appear to have priced in the pro-growth initiatives of the new administration, but the inevitable timing lags and ferocity of political maneuvers to kill these initiatives may not be fully recognized. Markets will withdraw somewhat if the approval and implementation of growth plans are bogged down. If pro-growth initiatives do go forward rapidly, the Fed will likely tap on the brakes a bit harder as a proactive move to keep inflation pressures from building.

The 2/10/17 Survey of Professional Forecasters – Slightly more Upbeat

The Survey of Professional Forecasters report, released on February 10, 2017, provides a slightly more optimistic view of the economy than in the report three months ago. Nevertheless, forecasters do not see GDP growth approaching the long-term trend growth of 3% anytime soon. Economists in the survey expect first quarter 2017 growth to be only 2.2% on an annual basis followed by 2.3% growth in the second quarter. Long-term forecasts for GDP growth remain modest with growth of 2.3% for 2017, 2.4% in 2018, and 2.6% in 2019. The good news is that the consensus calls for continued expansion but the bad news is that the expansion remains slow.

The consensus (median) forecast of the 42 economists in the survey signals stability in the unemployment rate from the current 4.8% in February to 4.6% by the end of 2017. Forecasters expect unemployment to ease to 4.5% in 2018 and 2019. Forecasters also expect average monthly job gains of slightly more than 180,000 jobs for 2017, compared to earlier forecasts of 173,600. Payrolls expanding by 100,000 per month would just keep up with a growing population. These expectations offer a slightly brighter look for the labor market than prior forecasts. The table below summarizes expected growth and unemployment estimates by the forecasters.

Table 1. Median Forecasts for GDP Growth, Unemployment, and Payrolls

	Real DGP Forecasts		Unemployment Forecasts		Monthly Payroll Gain	
	Prior Real GDP (%)	Recent Real GDP (%)	Prior Unemployment Rate (%)	Recent Unemployment Rate (%)	Prior Payroll (000s)	Recent Payroll (000s)
Q1 2017	2.2	2.2	4.8	**4.7**	161	**184.3**
Q2 2017	2.2	**2.3**	4.7	**4.6**	179.2	167.0
Q3 2017	2.2	**2.4**	4.7	**4.6**	166.2	**168.9**
Q4 2017	2.2	**2.4**	4.7	**4.6**	166.0	160.3

Source: Survey of Professional Forecasters (Philadelphia Federal Reserve Bank)

Forecasters raised inflation expectations compared to their forecasts three months ago. With inflation measured on a fourth-quarter-to-fourth-quarter basis, forecasters expect inflation (measured by the CPI) to average 2.4% in 2017 and 2.3% in 2018. The Federal Reserve Banks's preferred measure of inflation, the personal consumption expenditure rate (PCE), is lower by about 40 basis points. Forecasters suggest that inflation will close in on the Fed's target of 2% inflation for the PCE in 2017. Headline inflation will be slightly above core inflation, which excludes volatile food and energy prices, but the gap should narrow. The table below summarizes the consensus forecasts from the survey for both the CPI and PCE inflation measures.

Table 2. Prior and Recent Inflation Estimates

	Headline CPI		**Core CPI**		**Headline PCE**		**Core PCE**	
	Prior	Recent	Prior	Recent	Prior	Recent	Prior	Recent
Q1 2017	2.2	**2.5**	2.2	**2.4**	1.8	**2.0**	1.8	1.8
Q2 2017	2.2	**2.3**	2.2	2.2	1.9	**2.0**	1.8	**1.9**
Q3 2017	2.2	**2.3**	2.2	2.1	1.9	**2.0**	1.9	1.9
Q4 2017	2.2	**2.5**	2.2	2.2	2.0	**2.1**	1.9	1.9

Source: Survey of Professional Forecasters (Philadelphia Federal Reserve Bank)

The Survey of Professional Forecasters provides a set of long-run projections once a year in the first quarter survey. Overall, forecasters see higher GDP growth, higher productivity growth, higher stock market returns, higher 10-year Treasury bond yields, and no change from prior forecasts of the T-bill yield. The table below summarizes the most recent 10-year forecasts along with the forecasts made one year ago.

Table 3. Long-Term (10-year) Estimates of Growth, Stock Returns, and Treasury Yields

	First Quarter 2016 Forecast	First Quarter 2017 Forecast
10-Year Real GDP Growth (%)	2.28	**2.45**
10- Year Productivity Growth (%)	1.40	**1.60**
10- Year Stock Returns (S&P500) (%)	5.37	**6.0**
10-Year Treasury Bond Yield (%)	3.39	**3.86**
3-Month Treasury Bill Yield (%)	2.50	2.50

Source: Survey of Professional Forecasters (Philadelphia Federal Reserve Bank)

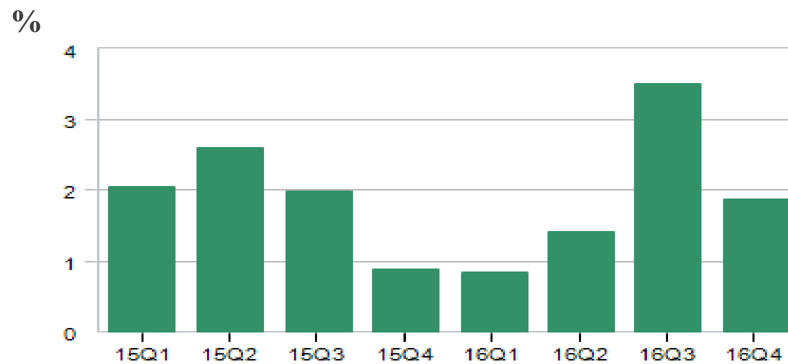
The forecast for annual average real rate of growth in GDP over the next 10 years increased to 2.45% from 2.28% with productivity growing at 1.6% compared to the earlier estimate of 1.4%. Forecasts for the return on the S&P 500 increased from 5.37% to 6.0%. The 10-year Treasury bond yield forecast increased by almost fifty basis points to 3.86%, which is still almost 150 basis points below the long run average. The Treasury bill yield forecast of 2.5% remained almost 100 basis points below the long run average. Nevertheless, the forecasters were excessively high on their interest rate forecasts last year and are likely to be too high again this year.

Summary of Recent Economic Data

***Gross Domestic Product** – U. S. GDP grew at a modest 1.9% in the fourth quarter. GDP growth for 2016 was a disappointing 1.7%, the lowest since 2011. Consumer and investment spending were the key drivers of growth, but high inventory spending may lead to lower investment in 2017. Final sales, which exclude the impact of inventories on GDP, rose a scant 0.9% after rising 3% in the third quarter. International trade was a drag on growth, largely due to a strong dollar. The weak GDP growth numbers may well prevent the Fed from raising the Fed Fund target in March.*

- The economy continues to expand, although at a very slow rate. Quarterly growth was volatile with a strong third quarter, but the overall growth was only 1.6% for 2016. Figure 3 below shows the quarterly growth rates for 2015 and 2016. The economy has not yet matched the long run trend annual growth rate of 3% in any year since the recession.

Figure 3. Annualized Real GDP (I Quarter 2015 through IV Quarter 2016)



Source: Bureau of Economic Analysis

- Consumer spending continues to be the primary growth component followed by fixed investment. The only drag on growth was net exports. The table below shows the growth pattern in GDP components since the second quarter of 2015.

Table 1. Gross Domestic Product and Components (percentage Annual Growth Rates)

	IV Q 2016	III Q 2016	II Q 2016	I Q 2016	IV Q 2015	III Q 2015	II Q 2015
Real GDP Growth	1.90	3.2	1.41	0.83	0.87	1.99	2.61
Implicit Price Deflator	2.12	1.38	2.29	0.46	0.91	1.22	2.25
Consumption	1.70	1.89	2.88	1.11	1.53	1.81	1.94
Fixed Investment	0.67	-0.15	-0.18	-0.15	-0.03	0.92	0.70
Residential	0.37	-0.17	-0.31	0.29	0.40	0.43	0.49
Nonresidential	0.30	0.02	0.12	-0.44	-0.43	0.49	0.21
Inventories	1.00	0.49	0.18	0.01	-0.45	-0.52	-0.08
Net Exports	-1.70	0.87	0.18	0.01	-0.45	-0.52	-0.08
Government	0.21	0.05	-0.30	0.28	0.18	0.34	0.57

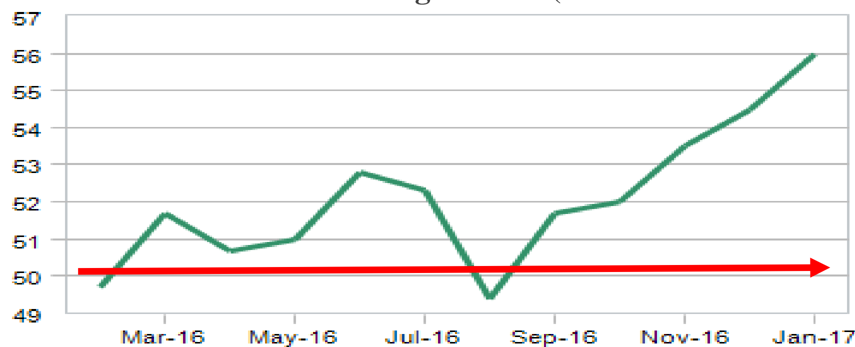
Bureau of Economic Analysis (First Revision)

Production, Manufacturing and Sales – *Both the nonmanufacturing and manufacturing sectors are expanding and should improve in 2017. Capacity utilization improved slightly but remains well below full employment utilization rates. Threats to a manufacturing expansion include a strong dollar and potential disruption of trade by protection policies, but domestic demand should remain strong. Low labor productivity continues to be a significant drag on growth.*

- The ISM nonmanufacturing index reached 56.5 in January. The index suggests continued expansion (index > 50) and is well above the fourth quarter 2016 average. The index signaled expansion in the nonmanufacturing sector for the last 85 consecutive months. The nonmanufacturing segment of the economy accounts for 88% of nominal GDP.

- The ISM manufacturing index rose from a revised 54.5 in December to 56 in January. The production index rose 2 points to 61.4 and the employment index rose from 52.8 to 56.1. The Figure below illustrates the strong advance of the ISM manufacturing index since October.

Figure 4. ISM Manufacturing Index (Index > 50 Indicates an Expansion)



Source: Institute of Supply Management

- Factory orders rose 1.3% in December, but outside of defense, orders increased 2.4%. Core capital goods posted gains for three months in a row in December.

- Business equipment production increased 0.7%, but revised growth for November turned negative. Weak investment in business equipment leading to a low capital to labor ratio is a contributing factor in low productivity growth. Increased business investment is a necessary component of a higher growth trend.

- Consumer goods production increased 1.1% in December, reversing course from prior losses.

- Overall, production increased 1.5% on a year-ago basis. Industrial production rose 0.8% in December, but November's growth numbers had a downward revision from -0.4% to -0.7%. Manufacturing added 0.2% in December. Manufacturing production is now up 0.2% on year-

ago basis. Utilities output added a strong 6.6% in December, but the change for November was revised downward from -4.4% to -4.6%. Production in mining was flat, leaving it down 2.8% from a year earlier. Table 2 shows the monthly percent change in production and manufacturing for the last two quarters of 2016.

Table 2. Monthly Percentage Change in Production

	Dec. '16	Nov. '16	Oct. '16	Sept. '16	Aug. '16	July '16
Industrial Production	0.8	-0.7	0.2	-0.2	-0.1	0.3
Manufacturing	0.2	-0.1	0.3	0.2	-0.5	0.3
Mining	0.0	-0.7	3.5	-0.4	0.0	0.7
Utilities	6.6	-4.6	-2.7	-2.7	2.8	0.3

Source: *Federal Reserve Bank of St Louis (FRED)*

- Capacity utilization rose 0.6 % in December but remains well below its historical trend. Manufacturing capacity utilization gained 0.1%. Table 3 below shows the monthly change in capacity utilization over the last half of 2016. Utilization rates remain well below full employment capacity benchmarks of approximately 81%.

Table 3. Capacity Utilization Rates (Production and Manufacturing)

	Dec. '16	Nov. '16	Oct. 16	Sept. '16	Aug.'16	July '16
Production Capacity Utilization (%)	75.5	74.9	75.4	75.4	75.6	75.7
Manufacturing Capacity Utilization (%)	74.8	74.7	74.9	74.8	74.7	75.2

Source: Federal Reserve Bank of St. Louis (FRED) *(Red represents a decline in utilization)*

- Productivity improved in the second half of 2016 but it remains low. Productivity rose 1.3% at an annual rate in the fourth quarter following a 3.5% gain in the third quarter. Unit labor costs increased 1.7% at an annual rate in the fourth quarter. On a year-ago basis, unit labor costs increased 1.9% in the fourth quarter. The table below summarizes the compensation, productivity, and unit labor cost data for the past six quarters.

Table 4. Productivity, Compensation, and Productivity (Annual Percentage Change)

	IVQ 2016	IIIQ 2016	IIQ 2016	IQ 2016	IVQ 2015	IIIQ 2015
Nonfarm Business						
Output per Hour	1.3	3.5	-0.2	-0.6	-2.4	2.0
Compensation per Hour	3.0	3.7	6.1	-0.9	3.1	2.9
Unit labor Costs	1.7	0.2	6.2	-0.3	5.7	0.8
Manufacturing						
Output per Hour	0.7	0.0	-0.5	1.4	-1.1	3.7
Compensation per Hour	4.1	3.4	8.0	-4.8	8.2	4.4
Unit Labor Cost	3.3	3.3	8.5	-6.1	9.5	0.7

Source: Bureau of Labor Statistics

- Unit labor costs generated low inflation pressure overall, but not in the manufacturing sector where compensation per hour has been higher and output per hour has been lower. Job creation has been healthy but improved labor productivity is an essential component of getting back on a trend growth path. Economic growth is the product of labor productivity and growth in the employed labor force.

- Retail sales gained 0.6% in December. Without gasoline and auto sales, growth would have been negative. Even so, for the fourth quarter as a whole, core sales without autos and gasoline increased 3.8%. The table below shows the growth in retail sales on a one-year-ago basis by month for the last half of 2016. Overall, sales growth is improving.

Table 5. Retails Sales on a One-Year Ago Percent Change Basis (Last Two Quarters of 2016)

	Dec.	Nov.	Oct.	Sept.	Aug.	July
Retail & Food & Services	4.1	3.9	4.2	3.3	2.2	2.4
Excluding Autos	3.4	3.9	4.0	3.1	2.1	2.1
Excluding Autos & Gas	3.1	4.0	4.2	3.7	3.5	3.6

Source: U. S. Census Bureau

***Unemployment and Labor –** The U-3 unemployment rate ticked up to 4.8% in January as the labor force participation rate improved to 62.9%. The U-9 rate, adjusted for temporary and chronic unemployment was 9.8%. Job creation was strong in January with 227,000 new jobs, but wages continue to lag job creation. Job creation should be strong in 2017 but an increased labor participation rate will make it more difficult to reach full employment.*

- The unemployment rate (U-3) increased to 4.8% in January as the labor force participation rate increased to 62.9% and the employment to population ratio increased to 59.9%, offsetting strong job gains. The U-6 unemployment rate is 9.4%, which is still above the 9% "full employment rate" analysts often use. Further gains in the unemployment rates will be more difficult as wages begin to grow leading to an increase in the participation rate among prime-age workers. Overall, full employment is not likely in 2017. The graph below shows the long run unemployment history for U-3, U-5, and U-9.

Figure 5. Unemployment History 1994 through January 2017

U6 = 9.4%

U5 =

Source: Bureau of Economic Analysis

- Good weather helped job growth in January. Payrolls increased by 227,000 while the private sector added 237,000. This is well above the revised figures for November of 164,000 and for December of 157,000. To keep up with work force expansion, jobs must grow 100,000 a month.

- The four-week moving average for jobless claims increased to 248,000 at the end of January, but the data are volatile. Recent data are consistent with a healthy labor market.

- Average hourly earnings grew only 0.1% following a 0.2% gain in December. As a result, year-over-year growth in hourly earnings fell from 2.5% to 2.8% at the end of 2016.

- Wage growth improved over the past two years, but at a very low rate. Overall, wages continue to lag growth in the labor market. On a year-ago basis, average hourly earnings were up 2.5%, compared with 2.8% in December and identical to the gain in January 2015.

Figure 6. Average Hourly Earnings for Private Workers (Percent Change One-Year-Ago)

Source: Bureau of Labor Statistics

Income, Consumption, and Savings *– Consumer spending for 2017 should remain healthy, supported by improved wages and lower taxes. Wages should slowly catch up to employment gains and wealth gains from rising housing prices and stronger asset values. Personal disposable income growth with low debt service will leave more room for consumers to spend. The personal saving rate remains close to 5%.*

- Personal income grew 3.5% in 2016 following a 4.4% increase in 2015.

- Growth in real disposable income, income available for spending and saving, slowed to only 1.5% in the fourth quarter from a 2.6% growth in the third quarter. For the year, real disposable

income increased 3.8% in 2016, matching the growth rate in 2015. The graph below shows the history of real disposable income since 2006 using an index equal to 100 in 1982.

Figure 7. Real Disposable Income Index = 100 in 1982

Source: St Louis Federal Reserve Bank (FRED)

- Personal consumption expenditures, the value of goods and services purchased by persons residing in the U.S., increased 3.8% in 2016 following a 3.5% increase in 2015.

- The saving rate slipped to 5.6% at the end of 2016. As the graph below shows, the saving rate has been falling since the 1970s. While the rate is volatile from month to month, the savings rate is well below the 10 to 15% rate that financial planners often tout as a necessary goal for a good retirement.

Figure 8. Monthly Personal Saving Rate

Source: Federal Reserve Bank of St. Louis (FRED)

- Consumer credit rose by $14.2 billion in December, which is well below the prior month increase of $25.2 billion.

- Revolving credit balances rose by $2.4 billion in December. The December revolving credit gain was less than half the average gain in the six months leading up to December.

- Nonrevolving credit balances advanced by $11.8 billion in December, a moderate deceleration from November. This figure is also lower than the average in the previous six months. Overall, nonrevolving balances have not decreased since April 2011.

- Overall, household debt service as a percentage of personal disposable income remains low. As the graph below illustrates, households have been lowering debt since the last recession and are now at very low levels of debt service relative to disposable income.

Figure 9. Household Debt Service as a Percentage of Personal Disposable Income

Source: Board of Governors of the Federal Reserve System

***Inflation** – The Consumer Price Index (CPI) measure of inflation was 2.1% in 2016. The Personal Consumption Expenditure (PCE) Index increased 1.6% on a year-over-year basis while the core PCE increased 1.7%. Inflation remains tame and below the Fed's 2% target for PCE inflation, but prospects for higher inflation could be in the making if the combination of fiscal spending on infrastructure and tariffs materialize.*

- For the fourth quarter of 2016, the PCE index increased 2.2%, up from 1.5% growth in the third quarter. Excluding food and energy, PCE inflation was 1.3% in the fourth quarter, down from 1.7% the prior quarter.

- The annualized PCE inflation rate for December was 1.9%, while the inflation rate for PCE, excluding food and energy was 1.3%. On a year-over-year basis, the PCE index grew 1.6% and the core PCE increased 1.7%. Table 6. Summarizes the PCE and core PCE annual and monthly inflation rates.

Table 6. Personal Consumption Expenditure by Month and 12-Month Annual Rate

	Dec. '16	Nov. '16	Oct. '16	Sept. '16	Aug. '16
PCE One Month Annual Rate	1.9	0.6	3.1	2.6	1.9
Core PCE One Month Annual Rate	1.3	0.2	1.5	1.3	2.4
PCE 12-month Annual Rate	1.6	1.4	1.4	1.2	1.0
Core PCE 12-month Annual Rate	1.7	1.6	1.8	1.7	1.7

Source: Bureau of Labor Statistics

- The implicit price deflator, used to adjust nominal GDP to get real GDP, increased 2.12% in the fourth quarter of 2016. However, the deflator can be volatile from quarter to quarter, as the table below illustrates.

Table 7. GDP Implicit Price Deflator by Quarter for 2016

	IV Q '16	III Q '16	II Q '16	I Q '16
Implicit Price Deflator	2.12	1.41	2.29	0.46

Source: Bureau of Economic Analysis

- On a year-ago basis the core consumer price index (CPI) rose 2.1% in December, which was the largest gain since May of 2014. The core CPI, which excludes the volatile energy and food segments, was 2.2% higher on a year ago basis.

- For December, the CPI rose 0.3%, following a 0.2% gain in November. The energy CPI rose only 1.5% in December and food prices remained tame with no change in prices. The core CPI, which excludes food and energy, rose 0.2% in December.

- The headline CPI grew at a 3.4% annualized rate over the last quarter, which is much stronger than that in the first half of 2016. The core CPI was up 2.1% at an annualized rate over the last quarter. The table below shows the month-by-month percentage change in the CPI and core CPI as well as the year-ago growth rates.

Table 8. Consumer Price Index by Month and Year-ago Percentage Change

	Dec. '16	Nov. '16	Oct. '16	Sept. '16	Aug. '16
CPI, % change	0.3	0.2	0.4	0.3	0.2
Core CPI, % change	0.2	0.2	0.1	0.1	1.3
CPI, % Change Year-ago	2.1	1.7	1.6	1.5	1.1
Core CPI, Change Year-ago	2.2	2.1	2.2	2.2	2.3

Source: Bureau of Labor Statistics

- The producer price index picked up in the last few months of 2016, suggesting higher pressure on consumer prices in 2017. Nevertheless, the level of inflation remains moderate.

Table 9. Producer Price Index Annual Percentage Change by Month

	Dec. '16	Nov. '16	Oct. '16	Sept. '16	Aug. '16
PPI % Change Year Ago	1.6	1.2	0.9	0.7	0.0

Source: Bureau of Labor Statistics

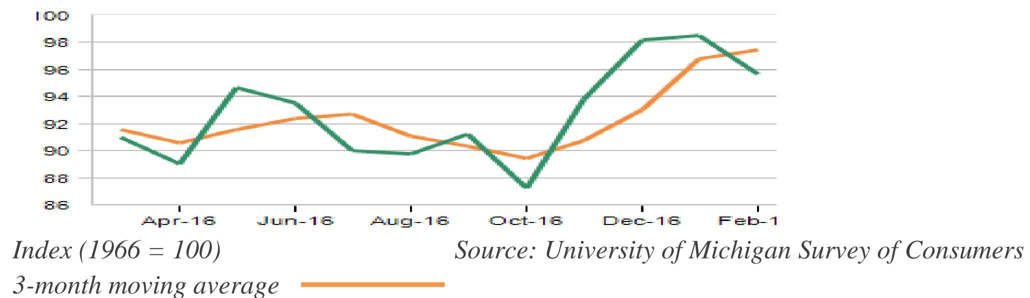
***Sentiment and Confidence** – Confidence and sentiment indexes all weakened somewhat in the first months of 2017 but they continue to be at high levels, suggesting optimism. The political environment and uncertainty surrounding support for a pro-growth agenda make it difficult to project optimism too far into the future.*

- The University of Michigan consumer sentiment index declined in February by 2.8 points. The decline in February was the first since October of 2016. The key weakness in the index came from lower consumer expectations for their near-term finances.

- Even with the softening in February the current conditions component of the Michigan Sentiment Index remains near a decade high. Stocks provided a lift to consumer wealth with consumers reporting higher assets than last month. Household finances are better than five years ago for 64% of respondents.

- The figure below shows the movement of the Michigan index and the three-month moving average. On a year-over-year basis in February, the index increased 4.4%.

Figure 10. University of Michigan Consumer Sentiment Index (1966 Index = 100)

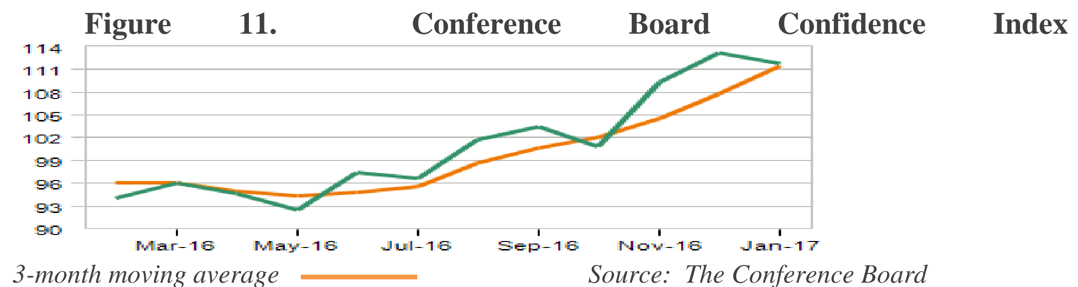


Index (1966 = 100) *Source: University of Michigan Survey of Consumers*

3-month moving average

- The Consumer Confidence index followed a pattern similar to the University of Michigan Sentiment Index. Consumer confidence fell 1.5 points in January following healthy gains in December. Softening expectations provided the primary driver of the decline. Overall, confidence remains strong and the three-month moving average is at a 15-year high.

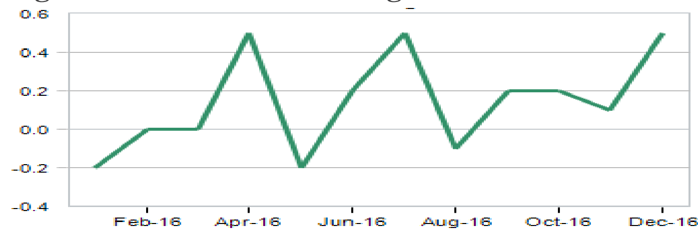
Figure 11. Conference Board Confidence Index



3-month moving average *Source: The Conference Board*

- The Conference Board index of leading indicators rose 0.6% in January, the fastest pace since June 2015. The improvement was broad-based, led by the interest rate spread, building permits, and average weekly initial claims for unemployment insurance. The index has been volatile, as the figure below illustrates, but a modest trend has developed since October. A sustained trend predicts a faster economic expansion.

Figure 12. Index of Leading Economic Indicators



Source: Conference Board

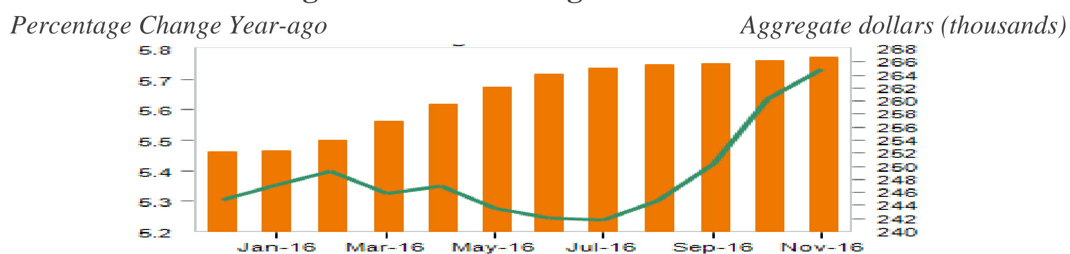
***Housing** – Home prices are climbing, primarily due to a tight inventory of existing homes for sale with a slight strengthening of demand. The recovery in housing prices is widespread overall but prices in the Midwest are showing weaker improvement. While a stronger economy will help sustain a housing recovery, less accommodative monetary policy will weigh on both credit availability and higher mortgage rates. Nevertheless, interest rates remain very low in relation to history and in relation to other market prices, suggesting that there is room for improvement in housing prices.*

- The S&P CoreLogic Case-Shiller Home Price Index posted its 24th straight monthly increase in December with a 0.8% increase. The index is closing in on its all-time high and is currently at its highest level since May 2007. Year-over-year growth accelerated to 5.6% in November, the fastest pace in nearly two years.

- The Black Knight House Price Index rose 5.7% in November on a year-ago basis. The Black Knight index is just 0.3% below its prior peak.

Figure 13. Black Knight Home Price Index

Percentage Change Year-ago *Aggregate dollars (thousands)*



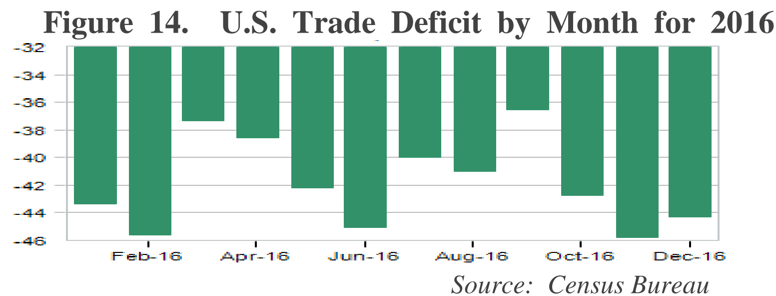
Source: National Association of Realtors

- Pending home sales reversed course in December to recover nearly November's entire sharp decline. The pending home sales index is now 0.3% above its year-ago level but is still down somewhat from its level in mid-2016.

Balance of Trade – *The U.S. continues to run chronic current account deficits largely due to deficits in the trade account. Basic forces shape a chronic deficit that will only correct through a combination of higher U.S. savings in relation to investments and a lower level of government spending relative to tax revenue.*

- The U.S. nominal trade deficit narrowed in December from $45.7 billion in November to $44.3 billion. Figure 14 illustrates the monthly changes in the nominal trade deficit for 2016. The goods deficit narrowed by $1.2 billion and the services surplus gained $257 million.

Figure 14. U.S. Trade Deficit by Month for 2016



Source: Census Bureau

- The accumulated deficit climbed to $502 billion in 2016 from $500 billion in 2015, a 0.4% increase. Exports decreased $51.7 billion, or 2.3%, and imports fell $49.9 billion, or 1.8%.

- The U.S. has a chronic current account deficit as illustrated in the figure below. The U.S. current account deficit has been increasing as a percentage of gross domestic product (GDP) since the early 1990s, with the present deficit exceeding 6% of GDP. The offset to the current account deficit is a capital account surplus, where the excess dollars earned through the current account by foreign countries flows into dollar denominated assets rather than goods or services. As current account deficits grow over time, the net international investment position of the United States (difference between U.S.-owned assets abroad and foreign-owned assets in the United States) makes up the difference.

Figure 15. U. S. Total Current Account as Percent of GDP

Source: Federal Reserve Bank of St. Louis (FRED data)

***Global Issues** – Global growth has posted a modest rebound since spring 2016. Key factors contributing to global growth include easy money conditions and a delayed impact of Chinese stimulus measures taken early in 2016. Stable commodity prices have also helped growth. Global growth may fade somewhat unless fiscal stimulus takes place in the U.S. with infrastructure investment. Business investment remains dormant due to uncertain political directions, anti-globalism sentiment, and increased tensions from developments in the Middle East or the Ukraine. Businesses in emerging markets have relied heavily on dollar-denominated debt, and an appreciating dollar could make servicing these obligations difficult.*

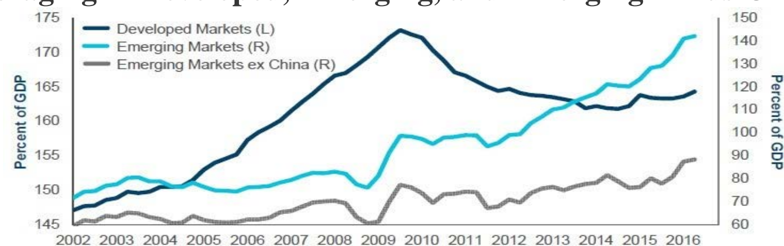
Eurozone - European financial markets are adjusting to less accommodative monetary policy by the European Central Bank, even though inflation is yet to materialize. Higher energy prices are likely to stimulate higher core inflation in 2017. The direction of European economies may change depending on outcomes in six key elections in Europe this year.

Japan - The Bank of Japan changed its monetary policy in September 2016 to target stable and positive longer-term yields. The new direction will likely help control the appreciation of the yen.

China - China continues to follow an expansionary fiscal policy initiated early in 2016. Problem areas include rising corporate debt loads concentrated in state-sponsored firms and an increasing amount of nonperforming loans in its banking system.

Emerging Economies - Emerging economies are deleveraging from loans taken during expansionary monetary policies in developed countries. The figure below illustrates how deleveraging in developing economies have lagged the overall deleveraging taking place in developed economies.

Figure 16. Deleveraging in Developed, Emerging, and Emerging minus China Markets



Sources: Bank for International Settlements

Central Asia and East Europe - Growth in the Central Asia and East Europe region gained 0.5% in 2016 to reach 1.2%. A key to higher regional growth was Russia's improvement due to more stable oil prices. Russia was a drag on growth in 2016, but less of a drag than in 2015. Without Russia, regional growth would have slowed to 2.4% in 2016 from 3.5% in 2015.

Latin America and Caribbean - Low commodity prices and slow domestic demand in larger countries in the region hurt growth in the Latin America and Caribbean region. The World Bank estimates that output in Latin America and the Caribbean contracted 1.4% in 2016 following negative growth in 2015. GDP contracted 2.8% in South America, largely due to weak commodity exports. Economic Activity slowed in Mexico and Central America in 2016 but growth was 2.3% overall. GDP growth fell to 3.2% in the Caribbean.

Middle East and North Africa - Growth in the Middle East and North Africa depends heavily on a rebound in oil prices. The World Bank economists believe oil prices bottomed out in 2016 and an acceleration of prices will slowly continue through 2018. For oil-exporting economies, a key issue will be the degree of production capacity constraints. Key threats in the area continue to revolve around political conflicts.

South Asia - For the South Asia area as a whole, growth was an estimated 6.8% in 2016. India had the strongest growth aided by low oil prices and needed structural reforms. Regional growth without India was an estimated 5.3% in 2016 with large differences within the region based on domestic policies, reliance of remittance flows, and security issues.

The World Bank estimates growth for the South Asia region to average 7.3% in 2017-19. Key drivers include continued benefits from policy reforms and strong domestic demand. Headwinds will most likely come from low growth in key export markets, weak private investment, and security challenges. Reform setbacks and political turmoil represent important threats to the forecast.

Saharan Africa - The World Bank estimated growth for the region to be 1.5% in 2016, which is the lowest growth in over two decades. Low commodity prices are largely to blame for slower growth in the region. Regional GDP per capita fell by 1.1% with South Africa and oil exporters accounting for most of the slowdown. World Bank economists expect growth to rebound to 2.9% in 2017. Downside risks come from tighter financial conditions and a continued slump in commodity prices.

IMF World Economic Outlook – Table 10 provides the IMF's most recent estimates of economic growth for key countries and regions. IMF forecasts for the U.S. are close to the forecasts provided by the Survey of Professional Forecasters with 2.3% growth in 2017 for both the IMF and professional forecasters and 2.5% growth in 2018 according to the IMF compared to a 2.4% projection by professional forecasters. Countries and regions with expected recessions in 2016 are marked in red.

Forecasters see easing deflation with advanced economies approaching 2% inflation with higher rates in emerging and developing economies. Finally, IMF forecasters see short-term LIBOR rates on the Euro remaining negative for 2017 and 2018, a zero Yen LIBOR rate, and a rising dollar LIBOR rate.

Table 10. International Monetary Fund's World Economic Outlook

	2016 Estimate	2017 Projection	2018 Projection
World Economies	3.1	3.4	3.6
Advanced Economies	1.6	1.9	2.0
United States	1.6	2.3	2.5
Euro Area	1.7	1.6	1.6
Germany	1.7	1.5	1.5
France	1.3	1.3	1.6
Italy	0.9	0.7	0.8
Spain	3.2	2.3	2.1
Japan	0.9	0.8	0.5
United Kingdom	2.0	1.5	1.4
Canada	1.3	1.9	2.0
Other Advanced Economies	1.9	2.2	2.4
Emerging Market and Developing Economies	4.1	4.5	4.8
Commonwealth of Independent States	-.01	1.5	1.8
Russia	-.06	1.1	1.2
Excluding Russia	1.1	2.5	3.3
Emerging and Developing Asia	6.3	6.4	6.3
China	6.7	6.5	6.0
India	6.6	7.2	7.7
ASEAN-5 6/	4.8	4.9	5.2
Emerging and Developing Europe	2.9	3.1	3.2
Latin American and the Caribbean	-0.7	1.2	2.1
Brazil	-3.5	0.2	1.5
Mexico	2.2	1.7	2.0
Middle East, North Africa, Afghanistan & Pakistan	3.8	3.1	3.5
Saudi Aribia	1.4	0.4	2.3
Sub –Saharan Africa	1.6	2.8	3.7
Nigeria	-1.5	0.8	2.3
South Africa	0.3	0.8	1.6
Consumer Prices			
Advanced Economies	0.7	1.7	1.9
Emerging Market and Developing Economies	4.5	4.5	4.4
LIBOR			
Six Month U.S. $	1.0	1.7	2.8
Six Month Euro Deposit	-0.3	-0.3	-0.2
Six Month Yen Deposit	0.0	0.0	0.0

While the information contained in this document is believed to be reliable, no guarantee is given that it is accurate or complete. Vantage Consulting Group, Inc. and its directors and employees disclaim all liability of any kind whatsoever in respect of any error or omission or misstatement, whether or not negligent, contained in this document and any person receiving this document should rely and act on it only on that basis and entirely at his/her own risk. Questions and inquiries may be directed to Jerry L. Stevens, Professor of Finance, David Meade White Endowed Chair, E.C. Robins School of Business, University of Richmond, jstevens@vantageconsultinggroup.com