Outlook and Market Review – Second Quarter 2017

The U.S. economy continues to grow at a slow but steady pace with low inflation, low interest rates, and healthy job growth. The Bureau of Economic Analysis announced a revised second quarter GDP growth rate of 3% following a 1.2% growth rate in the first quarter. The trend continues for a 2.4% GDP growth rate on an annual basis. Inflation rates remain lower than the Fed's target of 2% with little pressure from wages or excess demand. Higher import prices linked to a weaker dollar appears to be the only factor capable of pushing prices higher in the third quarter. The aftermath of hurricanes Harvey and Irma resulted in disruption causing temporary price pressures that are not likely to last through the year. The Fed is expected to raise the short-term Fed Fund rate another 25 basis points before the end of the year and announced balance sheet adjustments will put some upward pressure on intermediate and long-term rates. Even so, the 10-year Treasury yield of 2.3% is about 300 basis points below the long run average. Job growth around 190,000 jobs per month remains healthy and the unemployment rate is 4.4%, which is either at or near full employment. The labor force participation rate remains low with 62.9% of the workforce participating in the job market.

The U.S. expansion is the third longest on record but it is also the slowest. Growth continues to trend below the long-term average of 3.2%. Nevertheless, the expansion is now broad-based with fewer drags left over from the financial crisis. Deleveraging at both the consumer and business levels is complete. Only the government sector continues to follow debt expansion policies. Concerns over the European debt crisis and debt restructuring in China are easing. Global tension remains with more bluster from Korea and increased commitment by the Soviets in Syria.

Consumer balance sheets and net worth are healthy, allowing room for consumers to continue spending. Equity market values, home values, and job growth support consumer optimism. Credit continues to be available and corporate profits are improving. The global economy is on track for higher growth in all major economies. While there are factors pointing to improved growth in the U.S., forecasters continue to see GDP growth for the remainder of the year to be around 2.4%. A more pessimistic outlook likely stems from major political roadblocks to pro-growth initiatives and pending drains from the Affordable Healthcare Act that are not likely to be fixed in the near term. Interest rate increases should be modest but debt service payments on revolving credit and higher short-term financing costs will dampen demand for durable goods somewhat.

The Federal Reserve's recent announcements mark the beginning of a quantitative contraction based on a slow but steady normalization of its balance sheet and what appears to be one 25 basis point increase in the Fed fund rate this year followed by as many as three next year. The Fed will need to reduce holdings of Treasury securities and Mortgage Backed Securities by about 1.5 trillion dollars over time in order to reach the pre-recession balance sheet holdings. Analysts estimate an increase in the 10-year Treasury yield of about 30 basis or less.

SURVEY OF PROFESSIONAL FORECASTERS

The Federal Reserve Bank of Philadelphia maintains a Quarterly Survey of Professional Forecasters. The survey provides macroeconomic views of 39 professional experts. The Survey of Professional Forecasters offers a consensus (median) view of the 39 estimates. The most recent August report offered a slightly more pessimistic view on growth with lower estimates of inflation.

U.S. Growth

In the August report, forecasters provided a weaker view of the U.S. economy than in the prior report in May. The consensus (median) forecast for real GDP growth calls for a 2.6% annual growth rate in the third quarter and 2.3% rate in the final quarter of 2017. Longer-term forecasts remain in place with 2.4% growth in 2018, 2.2% in 2019, and 2% in 2020. Forecasters appear to believe that pro-growth initiatives will not be able to get through congress, or if they do, that there will be little stimulation to growth.

Unemployment

Forecasters took a slightly more pessimistic view of unemployment in the recent survey. The unemployment rate forecast calls for a 4.4% rate over the rest of 2017 followed by a 4.2% rate in 2018 and a slightly higher 4.3% rate in 2019. Overall, unemployment should remain in the full employment rage. Forecasters expect 180,000 monthly job gains in 2017, which is slightly less than the prior forecast. Forecasters expect job gains in 2018 to be slightly higher with 165,600 monthly jobs created.

Inflation

Forecasters revised downward their forecasts for Inflation, measured on a fourth-quarter over fourth-quarter basis. The All Items Consumer Price Index (CPI) forecast calls for an average inflation rate of 1.7 % in 2017 followed by a 2.2 % rate in 2018, and 2.3% rate in 2019. Forecasts for the All Items Personal Consumption Expenditure (PCE) measure of inflation are lower overall with a 1.5 % rate for 2017 followed by 1.9 % for 2018, and 2.0 % rate for 2019. The PCE is the Fed's preferred inflation measure and forecasters do not see it exceeding a 2 % target rate anytime soon.

Natural Rate of Unemployment

The recent Survey of Professional Forecasters provides an estimate of the natural rate of unemployment, which is the rate the economy reaches in equilibrium full employment. Attempts to reduce unemployment below the natural rate are inflationary. Forecasters provided estimates that ranged from a low of 3.5% to a high of 5%. The consensus (median) estimate of the natural rate is 4.5%, just above the current rate of 4.4%.

THE FED REVERSES COURSE ON QUANTITATIVE EASING

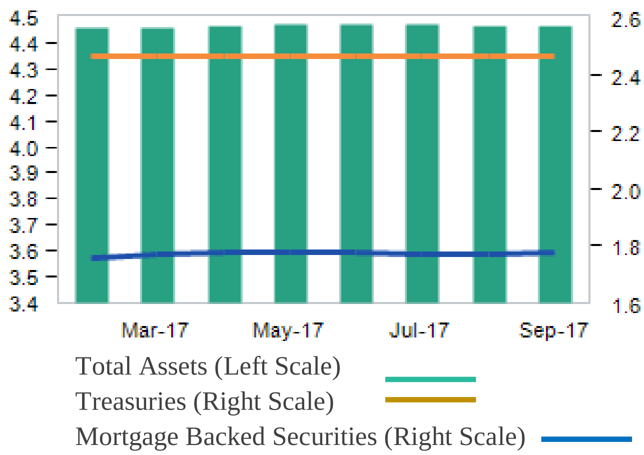
The Fed Fund Rate

The markets are now expecting a modest increase in the Fed Fund rate by 25 basis points in December and as many as three increases in 2018. The current Fed Fund rate is 125 basis points with expectations that it will reach 1.5% by year-end and ultimately reach the Fed's long run equilibrium rate of 2.8% (recently revised down from 3%) in 2019. The Fed fund rate increases to date have not influenced the longer-term Treasury yields, which have a more direct link to longer-term investment decisions. For example, the 10-year Treasury yield is 2.3 % today, which is lower than when the Fed started the incremental creep in the Fed Fund rate. This flattening of the Treasury yield curve is likely to reverse now that the Fed is entering another policy initiative that will take aim at longer-term rates.

Normalization of the Balance Sheet Equals Quantitative Contraction

Apart from the continued incremental increases in the Fed Fund rate, the Fed officially announced that it will "normalize" its balance sheet on a monthly basis over time. Normalization of the balance sheet is another way of announcing the reversal of quantitative easing used to stimulate the economy and respond to the financial crisis. The massive easing in the pre and post financial crisis era resulted in a bloated Fed balance sheet from purchases of longer-term Treasuries and Mortgage Backed Securities. The Fed now has about $4.5 trillion of these assets, which is well beyond normal. Figure 1 below illustrates the Fed's holdings of Treasuries and Mortgage Backed Securities.

Figure 1. Federal Reserve Balance Sheet (Trillions of Dollars)



A reversal of quantitative easing is now officially a policy linked to retirement of the Fed's excess security holdings. This new policy is quantitative contraction, since allowing the securities to mature is equivalent to selling them with a resulting drawdown of private banking reserves.

Quantitative contraction is to start in October 2017 with a gradual increase in the caps on maturing securities. The initial cap is only $10 billion in the first month, with $6 billion of Treasuries and $4 billion of mortgage backed securities. This monthly cap will increase every three months until the cap reaches a fully phased level. For Treasuries, the cap increases by $6 billion over a 12-month period until it reaches $30 billion per month. The mortgage-backed securities cap will increase in increments of $4 billion over 12 months until it reaches $20 billion per month. The total final cap of $50 billion per month will continue until the Fed reaches what it believes to be a balance sheet with no more assets than it needs to conduct normal monetary policy. This amount is likely to be about $3 trillion, which will require about three years to reach.

The Federal Reserve Bank of New York estimated that balance sheet normalization will ultimately reduce bank excess reserves from the current level of $2.1 trillion to $500 billion. The corresponding increase in the 10-year Treasury yield estimated by the New York Fed is only about 20 basis points, but this seem low.

Hurricanes and Fed Policy

Recent hurricane devastation in Texas, Florida and the Caribbean will not alter Fed policy or the timing of either the Fed Fund rate increase or quantitative contraction plan. Recent statements recognize the short-term effects of these hurricanes but the Fed expects the medium-term course of the economy to stay on track. The Fed’s reaction to Hurricane Harvey, Irma, and Maria is likely to be much like the response to Hurricane Katrina. In that case, the Fed raised interest rates shortly after Hurricane Katrina and did not alter the pre-Katrina plan.

Summary of Current Economic Data

GDP – *The U. S. economy continues to grow at a low annual rate near 2.1%. Stronger 3% growth in the second quarter of 2017 offset weak 1.2% first quarter growth. The overall view remains centered on annual growth of about 2.1%, consistent with the post-recession record. The expansion since 2009 is the third longest on record. Business investment is beginning to make positive contributions to growth and the expansion now has a broader base overall.*

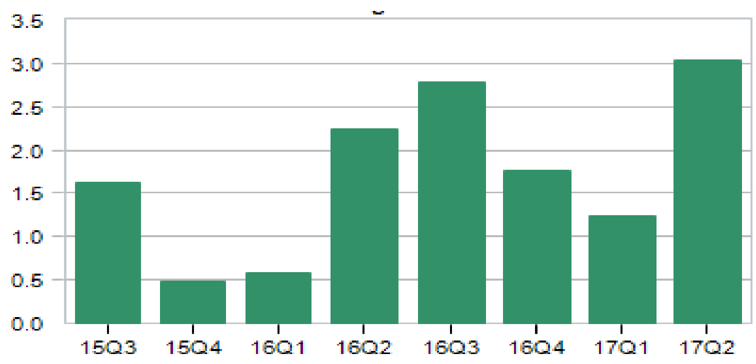
- According to the second estimate by the Bureau of Economic Analysis, U.S. real gross domestic product (GDP) increased at an annual rate of 3.0% in the second quarter of 2017. First quarter growth was only 1.2%. Second quarter growth benefitted from strong personal consumption expenditures, improved exports, federal government spending, and private inventory investment. Drags on GDP came from residential fixed investment, exports, and state and local government. Year-over-year GDP growth picked up from 2% in the prior quarter to 2.2% in the second quarter.

- Consumer spending was an important driver of growth, contributing 2.3% to GDP growth in the second quarter compared to only 1.3% in the first quarter. Fixed investment contributed 0.6%, but residential investment fell. Growth in exports outweighed growth in imports, providing a small contribution to growth.

- Consumer spending favored housing, utilities, nondurable goods, and communication services. The increase in business investment had a broad base with increases from equipment, intellectual property products, and structures

- Figure 2 below illustrates the quarterly increase in GDP over the last 8 quarters.

Figure 2. GDP Growth over the last Eight Quarters (Annual Percentage Change)



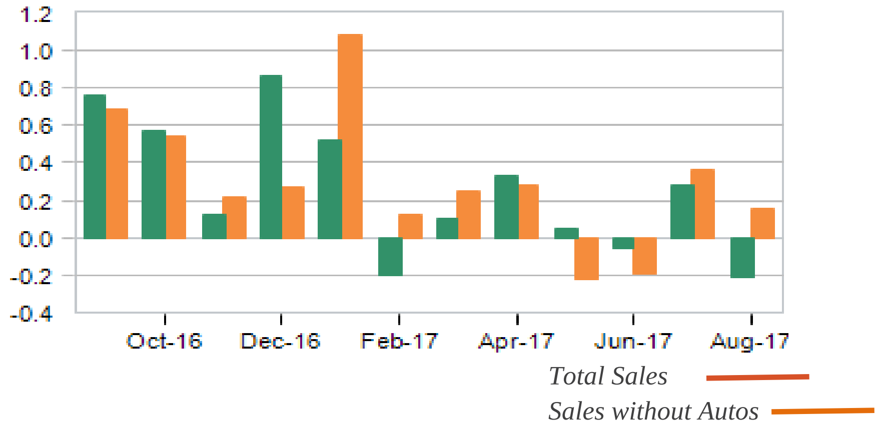
Source: Bureau of Economic Analysis

- Second quarter business inventories played a neutral role in GDP growth following a significant drag on growth during the first quarter. Final sales, which exclude the impact on GDP from inventories, rose 3% after gaining 2.7% in the first quarter.

- Gross domestic income, an alternative measure of the economic performance, rose 2.9% after advancing 2.7% the prior quarter.

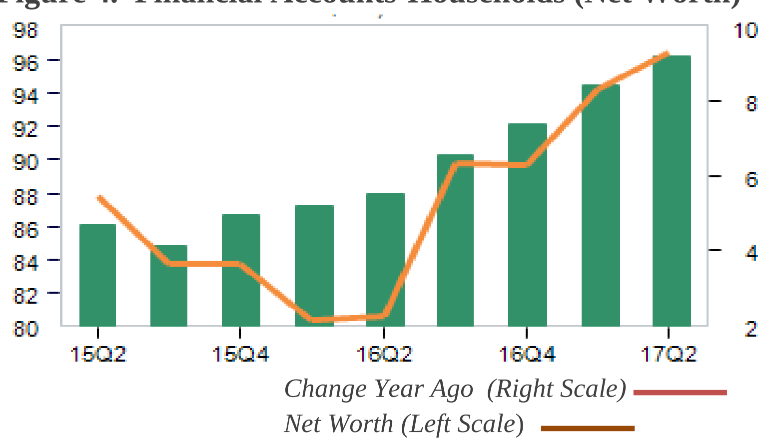
- Retail sales moderated in August, partly due to Hurricane Harvey. Retail sales fell 0.2% following a 0.3% gain in July. Autos were a drag, as sales dropped 1.6%. Excluding autos, retail sales rose 0.2% in August. Overall, August retail sales were not good and recent hurricanes may affect spending over the next few months. Figure 3 illustrates the monthly percentage change in retail sales with and without autos.

Figure 3. Retail Sales (Percentage Change)



- U.S. household wealth continues to improve. The net worth of households and nonprofits rose to $96.2 trillion during the second quarter of 2017 with net worth up 9.3% on a year-ago basis. Household liabilities edged higher in the second quarter because of increases in mortgages and consumer credit. Figure 4 shows the percentage change in net worth over the past two years.

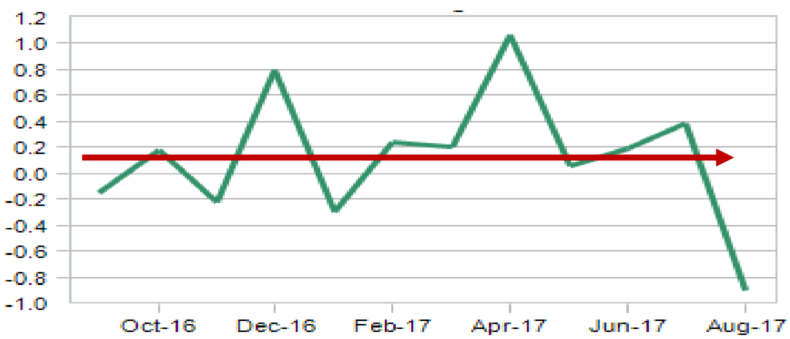
Figure 4. Financial Accounts-Households (Net Worth)



Production and Manufacturing – *Production slipped in August, partly due to Hurricane Harvey. On a year-ago basis, production grew 1.5% but the month-to-month data are erratic. Auto production is slumping as inventories remain high. Third quarter production is likely to be slow.*

- Industrial production fell 0.9% in August, which is the largest monthly decline since April 2009. Hurricane Harvey disruptions contributed to slower production problems in August. Overall, production increased 1.5% on a year-ago basis (red arrow in Figure 5 below).

Figure 5. Industrial Production Annual Percent Change



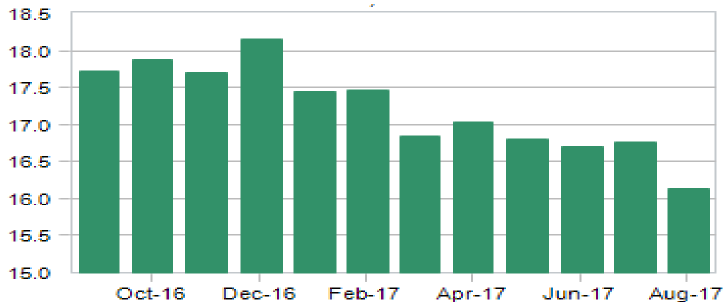
Source: Board of Governors of the Federal Reserve

- Manufacturing output fell 0.3% in August but improved overall in recent months. Manufacturing production increased 1.5% on a year-ago basis.

- Autos and autos parts dealers face a difficult second half of 2017. Inventories grew in the first two quarters as sales slowed. Production cutbacks are in place, even though hurricane related increases in sales in Texas and Florida will cushion the blow from bloated inventories in the near term. Nevertheless, longer-term demand for autos is likely to slow as banks reduce subprime auto lending and lending rates rise later in the year.

- The figure below shows auto sales over the past year. Sales of new vehicles fell 6.3% on a year-over-year basis in August. August sales reached the lowest rate since February 2014.

Figure 6. Auto Sales in Millions of Units (Seasonally Adjusted Annual Rate)

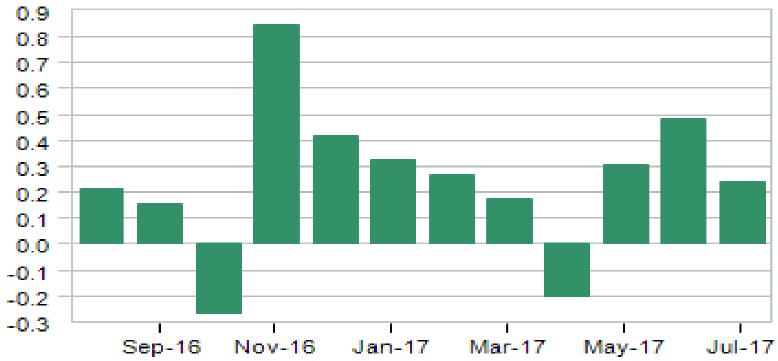


Source: Bureau of Economic Analysis

- Capacity utilization fell 0.8% in August. Manufacturing capacity utilization remains below its historical long-run average, suggesting slack that should prevent price pressures. Excess capacity normally discourages new investment spending. However, much of the existing capital is dated and modernization will spur productivity enhancing investment.

- Business inventories grew 0.2% in July following a 0.5% increase in June. Sales also increased 0.2% in July leaving the inventory-to-sales ratio unchanged at 1.38. Figure 7 shows the monthly inventory growth over the past year.

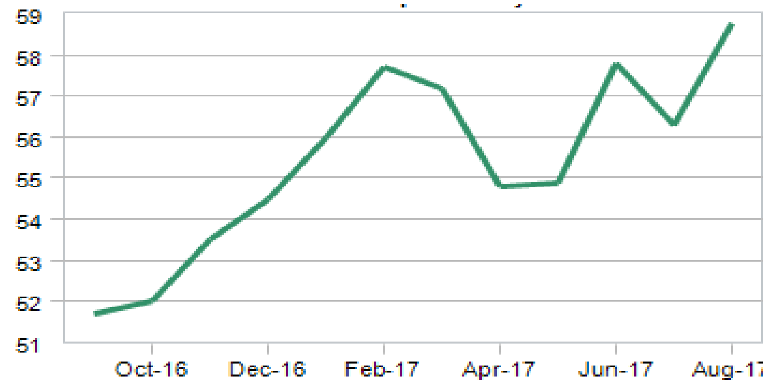
Figure 7. Monthly Percentage Change in Business Inventories over the Last Year



Source: U.S. Bureau of the Census

- The ISM Purchasing Manager's Index improved from 56.3 in July to 58.8 in August, signaling better performance in the second half of 2017. An index above 50 represents expansion. New orders were above 60 for the third straight month and the production index moved up from 60.6 to 61. An increase in inventories suggest stockpiles will add to GDP growth in the third quarter. U. S. exports look more promising due to improved global growth and a slightly weaker dollar. Figure 8 illustrates the monthly ISM index movement.

Figure 8. Monthly ISM Purchasing Manager's Index over the Last Year



Source: Institute of Supply Management Survey

Employment and the Labor Market – *The labor market continues to be at or near full employment with a 4.4% unemployment rate. The labor force participation rate remains low but monthly job creation is healthy. Wage growth should improve but wages and hours worked remain relatively low for full employment. About 7.1 million workers are officially unemployed and about 24% of those are in the long-term unemployment category, which is difficult to reduce.*

- In August, the unemployment rate edged up to 4.4%. The unemployment rate has hovered between 4.3% and 4.4% since April.

- Total nonfarm payroll employment increased by 156,000 in August. Payroll increases for 2017 are averaging 176,000 per month thus far this year, which is in line with the average monthly gain of 187,000 in 2016.

- The labor force participation rate remained unchanged at 62.9% in August with little movement over the past year. The employment-population ratio remained unchanged at 60.1%.

- The number of unemployed remained at 7.1 million in August. The long-term unemployed (27 or more weeks) remained at 1.7 million, which is 24.7% of the unemployed.

- The number of involuntary part-time workers (employed part time for economic reasons) in August was 5.3 million, about the same as in prior months

- There were 1.5 million marginally attached people in the labor force in August, which is about the same as a year ago. Marginally attached people want work and looked for a job sometime in the prior 12 months. They are not counted as unemployed because they had not searched for work in the 4 weeks preceding the survey.

- The average workweek for employees on private nonfarm payrolls fell to 34.4 hours in August. For manufacturing, the workweek declined to 40.7 hours. Overtime was unchanged at 3.3 hours.

- In August, average hourly earnings for all employees on private nonfarm payrolls increased by 3 cents to $26.39 following an increase of 9 cents in July. Over the past year, average hourly earnings increased by 65 cents, or 2.5%.

- Low labor productivity is keeping wage growth low. Nonfarm productivity increased only 1.5% at an annual rate in the second quarter. On a year-ago basis, productivity was up 1.3% in the second quarter. On a year-ago basis, unit labor costs fell 0.2% in the second quarter. The table below summarizes the quarterly movements in productivity, compensation, and unit labor costs.

Table 1. Productivity and Costs (Annual Percentage Change)

	Q2 2017	Q1 2017	Q4 2016	Q3 2016	Q2 2016	Q1 2016
Output per Hour	1.5	0.1	1.3	2.5	0.8	-1.2
Compensation per Hour	1.8	4.9	-4.5	2.5	4.8	-3.8
Unit Labor Costs	0.2	4.8	-5.7	0.1	3.9	-2.7

Source: Bureau of Labor Statistics

- Real disposable income grew 3.2% in the second quarter following a gain of 2.9% in the first quarter. Personal saving remains low with a 3.7% rate in the second quarter following a 3.9% rate in the prior quarter. Real consumer spending grew only 0.2% in July, matching the upwardly revised June rate.

- Initial claims for unemployment insurance benefits fell 23,000 from the previous week's revised level to 259,000 in the week ended September 16. The four-week moving average rose 6,000 from the previous week's revised average to 268,750, its highest level since June 4, 2016.

***Inflation** – U.S. inflation, measured by the Personal Consumption Expenditure index, remains below the Fed target of 2%. Second quarter inflation measures were much lower than the first quarter. Other indexes also suggest that inflation is low with little price pressure going into the second half of 2017. Inflation will have to reaccelerate to exceed the Fed's 2% target this year.*

- The Consumer Price Index (CPI) CPI was 1.9% on a year-ago basis in August following a 1.7% rate in July. The core CPI, excluding food and energy, remained stable with a

1.7% year-ago increase over the last four months. Table 2 below illustrates the year-ago inflation rates for the past six months.

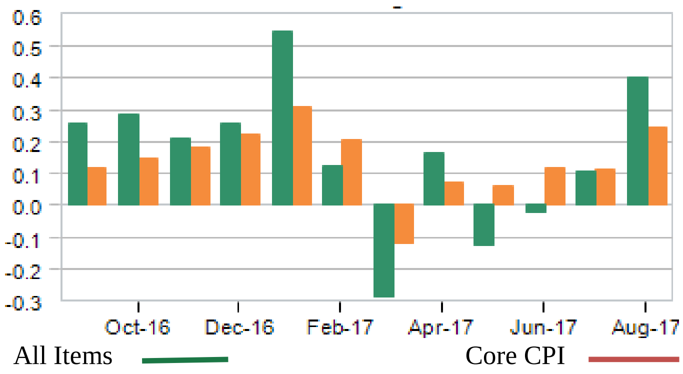
Table 2. U.S. Consumer Price Index (Year-ago Percent Change)

	August 2017	July 2017	June 2017	May 2017	April 2017	March 2017
CPI – All Items	1.9	1.7	1.6	1.9	2.2	2.4
CPI - Core	1.7	1.7	1.7	1.7	1.9	2.0

Source: Bureau of Labor Statistics

- The monthly percent change in the CPI data appear in Figure 9. Inflation pressures eased from the end of 2016 to the first two quarters of 2017. On the other hand, the monthly CPI change in August is the highest since January of this year.

Figure 9. Monthly Percentage Change in the Consumer Price Index



- The CPI rose 0.4% in August following a 0.1% gain in July. The Bureau of Labor Statistics noted that Hurricane Harvey had a very small effect on survey response rates in August.

- The CPI for energy increased 2.8% between July and August. Gasoline prices increased 6.3% after being unchanged in July. Some of the gain in the CPI for gasoline is likely attributable to Hurricane Harvey, but Harvey's impact is more likely to show up in September.

- Excluding food and energy, the core CPI rose an above-trend 0.1% in August. August's gain leaves the core CPI up only 1% annualized over the prior six months.

- The headline PCE deflator, the preferred measure of inflation by the Fed, increased 0.1% in July after being unchanged in June. The PCE deflator was flat over the past three months.

- For the second quarter of 2017, the PCE index grew 0.3% compared to 2.2% in the first quarter. The Table below provides the monthly year-ago percent change in the PCE index for both the all-items and core measures.

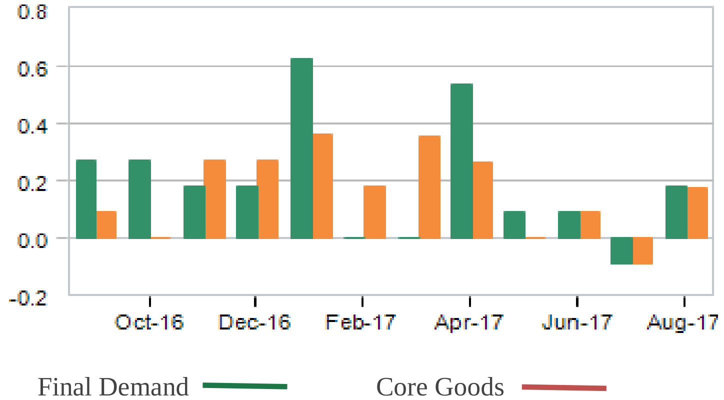
Table 3. Personal Consumption Expenditure Price Index (Year-ago Percent Change)

	August 2017	July 2017	June 2017	May 2017	April 2017	March 2017
PCE – All Items	1.4	1.4	1.5	1.7	1.8	2.2
PCE - Core	1.4	1.5	1.5	1.6	1.6	1.9

Source: Bureau of Economic Analysis

- The producer price index (PPI) increased 0.2% in August after falling 0.1% in July. Overall, the PPI suggests that there is not a significant amount of price pressures in the pipeline. Figure 10 illustrates the annual percentage change in the PPI over the last year.

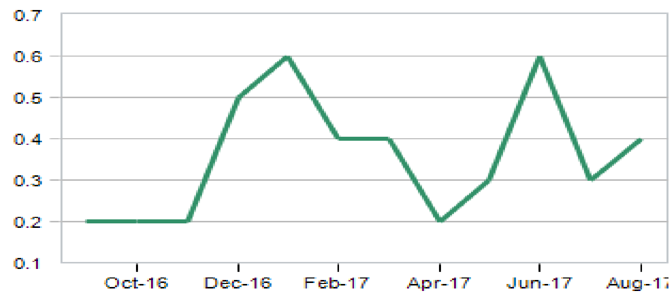
Figure 10. Producer Price Index (Annual percentage Change)



***Sentiment and Confidence** – Sentiment and confidence measures suggest continued moderate expansion but there is little breakout news supporting a stronger expansion in the second half of 2017. Inflation expectations remain low and a "more of the same" outlook seems in order.*

- The Conference Board's Leading Indicators Index rose 0.4% in August following a 0.3% increase in July. The index has not provided a sustained picture of economic improvement. Falling index numbers occurred in the first half of the year. Key drivers of the improved index include building permits, the yield spread, and consumer expectations for business conditions. Jobless claims were the primary negative component. The Figure below illustrates the percentage change in the Leading Indicator Index over the last year.

Figure 11. Index of Leading Economic Indicators (Percent Change)

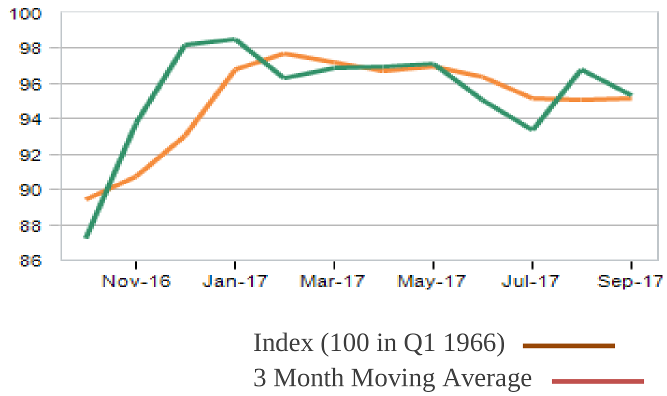


- The University of Michigan preliminary consumer sentiment index fell 1.5 points in September following a gain of 3.4 points in the previous month. For the year, the index is a few points lower but the overall reading is good.

- Current economic conditions component of the Michigan index increased 3 points this month, rising to 113.9, the highest level for this index since 2000. The economic expectations component of the index fell by 4.3 points in September.

- Inflation expectations in the Michigan index increased with the median 12-month inflation expectation of 2.7% and a median five-to-10-year inflation expectations of 2.6%. Figure 12 illustrates the movement of the Michigan Consumer Sentiment Index over the past year.

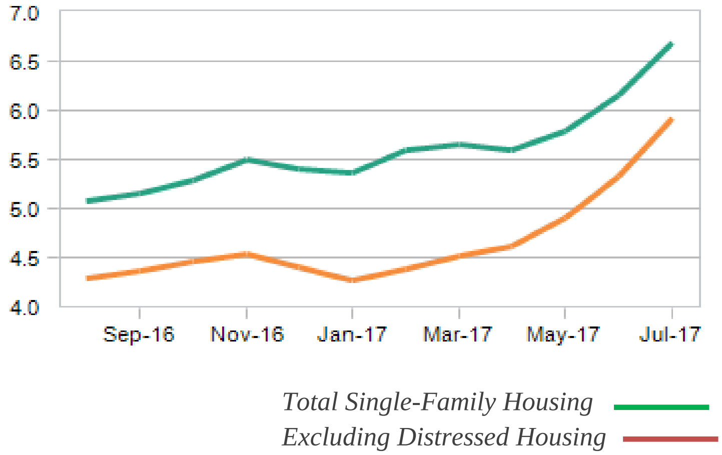
Figure 12. University of Michigan Consumer Sentiment Index



***Housing** – The housing market remains tight and the trend of higher prices continues. Prices increased for 66 straight months ending in August. Both existing home sales and housing starts were weak in July, keeping the market tight. Housing prices in July reached levels of the housing bubble in 2008.*

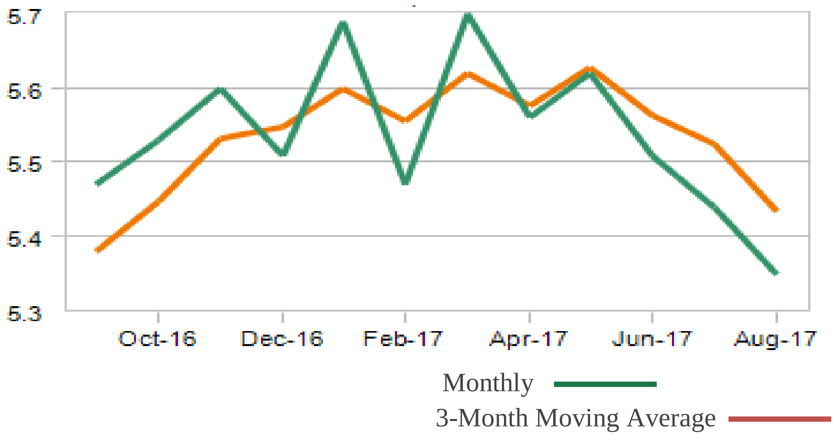
- The CoreLogic Home Price Index increased 6.7% in July on a year-over-year basis. Home prices are now about equal to the peak reached during the housing bubble. Figure 13 shows the year-over year percentage change in index over the past year.

Figure 13. CoreLogic House Price Index (Percentage Change One Year Ago)



- August's existing-home sales fell 1.7% from July but sales are still 0.2% above August 2016 sales. Single-family homes sales led the decline with a slight increase in condo sales. Home listings also fell in August resulting in a relatively tight market even with lower sales. Figure 14 shows the monthly home sales over the past year.

Figure 14. Existing Home Sales (Millions, Seasonally Annual Adjusted Rate)

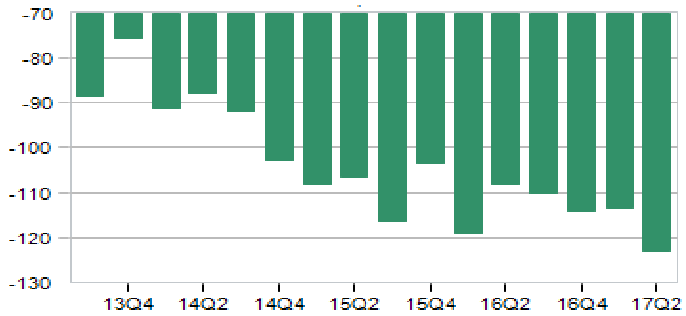


- Housing permits increased in August and are well above their year-ago level, indicating that starts and completions will increase in the short term to help alleviate the tight housing market.

U.S. Trade – *The U. S. trade deficit widened in the second quarter of 2017 reaching 2.4% of GDP. Going forward the deficit may improve as the dollar weakens, making U.S. exports cheaper and U.S. imports more expensive. The weaker dollar will help the trade account but could lead to higher domestic inflation.*

- The U.S. deficit in the current account grew worse in the second quarter. Figure 15 below shows the quarter-by-quarter current account balance since the third quarter of 2013. The deficit grew by $9.6 billion to $123.1 billion in the second quarter. As a share of GDP, the current account deficit increased to 2.6% from a revised 2.4% in the first quarter.

Figure 15. U. S. Current Account Balance (Billions of Dollars)



- Prospects for improved trade balances look good. The improvement of global growth should help stimulate demand for U.S. goods. The U.S. dollar has stalled encouraging higher U.S. exports and discouraging imports

- Prices of imports to the U.S. increased 0.6% in August and is the largest gain since June 2016. Fuel prices contributed to the higher prices of imports with a 4.2% increase.

Global Growth – *Global growth is picking up as many advanced economies emerge from recession and rising commodity prices fuel higher growth in emerging economies.*

- While global GDP growth is picking up, it is not likely to reach the pre-2008 period in the next few years. Global growth was 3.2% in 2016 with expected growth in 2017 of 3.5%. Emerging markets are the key driver of global economic growth with as much as 74% of the world's real GDP expansion, according to *Euromonitor International*.

- Figure 16 illustrates the growth paths of emerging, developed, and total global growth. Up until to the 2000s the growth paths of developed and emerging economies were similar. Since 2000 emerging economies growth has been much higher, largely due to the growth in China and India. Nevertheless, growth in emerging and developed countries is highly correlated.

Figure 16. Global Growth since 1985 with Projections for 2017 and 2018