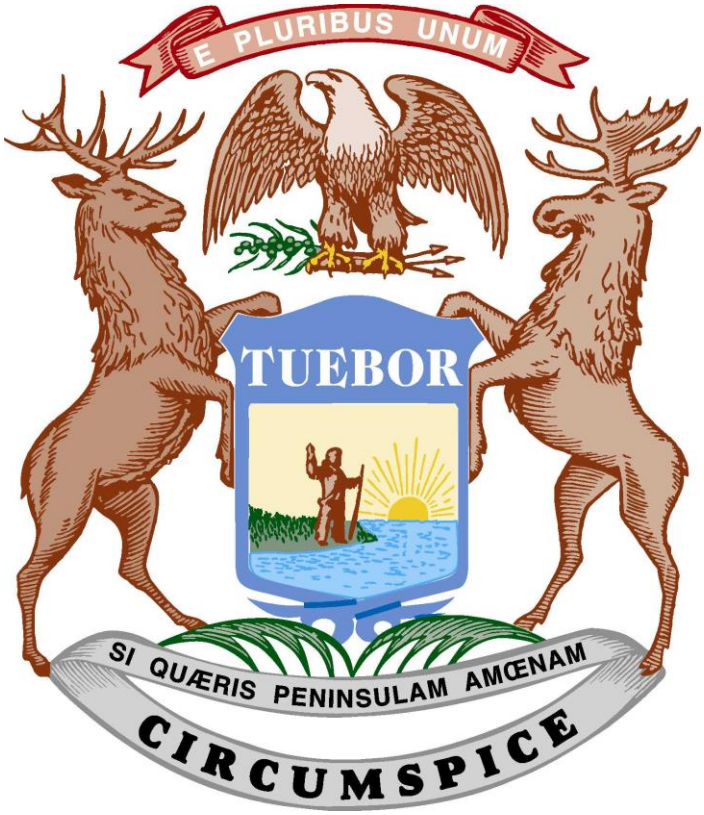
Administration Estimates Michigan Economic and Revenue Outlook



FY 2015-16, FY 2016-17 and FY 2017-18

Michigan Department of Treasury
Nick A. Khouri, State Treasurer

Office of Revenue and Tax Analysis
Jay Wortley, Director
Andrew Lockwood, Senior Economist
Thomas Patchak-Schuster, Senior Economist

January 14, 2016

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Revenue Review and Outlook

- FY 2015 GF-GP revenue totaled $10,034.4 million, an 11.3 percent increase from FY 2014. FY 2015 SAF revenue totaled $11,747.1 million, a 1.7 percent increase from FY 2014.

- FY 2016 GF-GP revenue is forecast to decrease 0.8 percent to $9,959.4 million, up $77.6 million the May 2015 Consensus estimate. FY 2016 SAF revenue is forecast to increase 3.7 percent to $12,181.4 million, down $61.5 million from the May 2015 Consensus estimate.

- FY 2017 GF-GP revenue is forecast to increase 3.9 percent to $10,347.9 million, up $226.4 million the May 2015 Consensus estimate. FY 2017 SAF revenue is forecast to increase 3.2 percent to $12,571.5 million, down $27.3 million from the May 2015 Consensus estimate.

- FY 2018 GF-GP revenue is forecast to increase 3.5 percent to $10,714.3 million. FY 2018 SAF revenue is forecast to increase 2.9 percent to $12,934.3 million.

2016, 2017 and 2018 U.S. Economic Outlook

- After increasing 2.2 percent in 2012, real gross domestic product (GDP) grew 1.5 percent in 2013. Real GDP rose 2.4 percent in 2014 and also increased 2.4 percent in 2015. Economic growth is forecast to accelerate to 2.9 percent in 2016. Real GDP is expected to grow 2.9 percent in 2017 and then slow to 2.5 percent in 2018.

- U.S. wage and salary employment rose 1.7 percent in 2013 and grew 1.9 percent in 2014. National employment increased 2.1 percent in 2015. U.S. employment is expected to increase 1.9 percent in 2016, 1.8 percent in 2017 and 1.3 percent in 2018, marking the eighth consecutive annual increase in U.S. employment.

- The U.S. unemployment rate is forecast to decline each year over the forecast horizon. The unemployment rate averaged 7.4 percent in 2013 and 6.2 percent in 2014. The unemployment rate dropped to 5.3 percent in 2015. The national unemployment rate is forecast to fall to 4.8 percent in 2016, 4.4 percent in 2017 and 4.3 percent in 2018.

- Housing starts increased 11.6 percent in 2015. Housing starts are forecast to continue to increase with starts rising 16.1 percent in 2016, 10.9 percent in 2017 and 3.6 percent in 2018. In 2014, housing starts rose above 1.0 million units for the first time since 2007. In 2018, starts are expected to total 1.49 million units.

- In 2013, light vehicle sales increased to 15.5 million units – marking the first year that sales topped 15.0 million units since 2007. Sales rose to 16.4 million units in 2014 and to 17.39 million units in 2015, slightly exceeding the previous record sales level of 17.35 million units set in 2000. Light vehicle sales are forecast to rise to a new record high of 18.1 million units in 2016. Sales are then expected to decline slightly to 18.0 million units in 2017 and 17.8 million units in 2018.

- Consumer prices increased 1.5 percent in 2013 and rose 1.6 percent in 2014. In 2015, sharply lower fuel prices slowed consumer price inflation to 0.1 percent. Inflation is expected to accelerate to 1.6 percent in 2016, 2.2 percent in 2017 and 2.5 percent in 2018.

2016, 2017 and 2018 Michigan Economic Outlook

- After falling each year from 2001 to 2010, Michigan wage and salary employment has increased each year since 2011. State employment increased 2.3 percent in 2011, 2.1 percent in 2012, 1.9 percent in 2013 and 1.7 percent in 2014. In 2015, Michigan employment rose by an estimated 90,700 jobs (2.2 percent). Michigan wage and salary employment is forecast to increase 1.3 percent in 2016, 1.4 percent in 2017 and 1.0 percent in 2018.

- The Michigan unemployment rate has dropped each year since 2010. After peaking at 13.7 percent in 2009, the jobless rate fell steadily and was down to 7.3 percent in 2014. In 2015, the rate declined substantially (1.9 percentage points) to 5.4 percent. The Michigan unemployment rate is forecast to continue to decline each year with the rate falling to 4.9 percent in 2016, 4.7 percent in 2017 and 4.6 percent in 2018.

- After dropping 8.3 percent in 2009 (the largest percent decline since 1945), Michigan wages and salaries increased 1.6 percent in 2010, grew 5.4 percent in 2011, rose 4.1 percent in 2012 and increased 2.8 percent in 2013. Michigan wages and salaries increased 4.9 percent in 2014 and grew 4.2 percent in 2015. Michigan wages and salaries are forecast to increase 4.7 percent in 2016, 4.0 percent in 2017 and 3.8 percent in 2018.

- Michigan personal income fell 5.1 percent in 2009 – marking the first annual Michigan personal income drop since 1958 and the largest annual decline since 1938. Income increased 2.8 percent in 2010 and rose 6.1 percent in 2011. Personal income increased 3.6 percent in 2012 and rose 1.5 percent in 2013. In 2014, Michigan personal income increased 4.1 percent and rose an additional 4.1 percent in 2015. Michigan personal income is forecast to increase 4.6 percent in 2016, 4.5 percent in 2017 and 4.3 percent in 2018.

- On a fiscal year basis, Michigan disposable income rose 2.3 percent in FY 2014 and increased 3.6 percent in FY 2015. Disposable income is forecast to grow 4.5 percent in FY 2016, 4.2 percent in FY 2017 and 4.0 percent in 2018. Wages and salaries increased 4.0 percent in FY 2014 and rose 4.3 percent in FY 2015. Wages and salaries are forecast to increase 4.9 percent in FY 2016, 4.1 percent in FY 2017 and 3.8 percent in FY 2018.

Forecast Risks

- Slower than expected economic growth across Asia, particularly China, could have a negative impact on the U.S. economy.

- Europe's weak financial and economic recovery from its massive financial crises leaves the Continent vulnerable to still slower economic growth, which would have negative financial and economic impacts on the U.S. economy.

- A stronger (weaker) housing market would boost (depress) the economy more than forecast.

- The Great Recession may have a longer negative effect on confidence than assumed. In particular, the after effects could lead businesses and consumers to react more negatively to an economic slowdown or mild decline than before the Great Recession.

- Uncertainty surrounds the pace at which the Federal Reserve will raise the federal funds rate. It is possible the Fed will raise the rate at a rate faster/slower than the assumed 0.25 of a point per quarter pace.

- Division among federal policymakers could substantially weaken consumer and investor confidence. Polarization could also substantially limit the federal government's ability to respond to negative financial and macroeconomic shocks.

- International geopolitical tensions (and household and investor concerns about these tensions) have grown since the May 2015 Consensus Conference. Heightened geopolitical and military conflicts (and concerns about those conflicts) could boost oil prices and have a substantial negative impact on consumer and financial markets and the U.S. economy as a whole.

- Adverse weather could disrupt economic activity.

ECONOMIC REVIEW AND OUTLOOK
January 14, 2016

Current U.S. Economic Situation

Overall Economic Growth

The current U.S. economic expansion is more than six years old. According to the Institute for Supply Management, the overall U.S. economy expanded for its 79th straight month in December 2015. **Real Gross Domestic Product (GDP)** has grown in all but two quarters since the end of the Great Recession.

In 2014, real GDP grew at a rate of 2.4 percent, however, the pace of growth was not steady during the year. After falling at a 0.9 percent annual rate in 2014Q1, the U.S. economy rebounded sharply with real GDP expanding at a 4.6 percent annual rate in 2014Q2 and a 4.3 percent annual growth rate in 2014Q3. However, growth slowed to a 2.1 percent annual rate in 2014Q4. 2015 got off to a rough start as growth slowed further to a 0.6 percent annual rate in 2015Q1. The 2015Q1 deceleration was substantially attributable to temporary factors including an extremely harsh winter and West Coast port disruptions. Growth then accelerated to 3.9 percent in 2015Q2 before slowing to 2.1 percent in 2015Q3. A drop in inventory accumulation, weak foreign economies and a stronger U.S. dollar played significant roles in slowing growth in the third quarter.

Employment

Between early January 2015 and early February 2015, the four-week average of seasonally adjusted **initial unemployment claims** trended downward. The four-week average then increased over the next month and rose above 300,000 for the first time since September 2014. The average trended downward between mid-March 2015 and mid-May 2015. The average then trended higher between mid-May 2015 and mid-July 2015, when the average rose to 282,500 initial claims. Over the next month, the average fell to 266,000 claims in early August. Then, over the balance of August and the first week of September, the average rose slightly to 275,800. The four-week average then declined over the balance of September into late October. In late October, the four-week average of initial unemployment claims dropped to 259,300 – the lowest four-week average of initial unemployment claims in over 40 years. Over the balance of 2015, the average trended upward slightly. In late December, the four-week average stood at 277,000 initial unemployment claims. The average has been below 300,000 initial claims for 40 consecutive weeks. The last time the average had been below 300,000 for 40 weeks (or more) was in late July 2000, when the average had been below 300,000 for 51 straight weeks. (U.S. Department of Labor)

Since October 2009 when the **U.S. unemployment rate** rose to 10.0 percent (the highest monthly unemployment rate since mid-1983), the U.S. unemployment rate has steadily declined. In April 2015 (the most recent month of data available prior to the May 2015 Consensus Conference), the national unemployment rate dropped to 5.4 percent – the lowest U.S. monthly

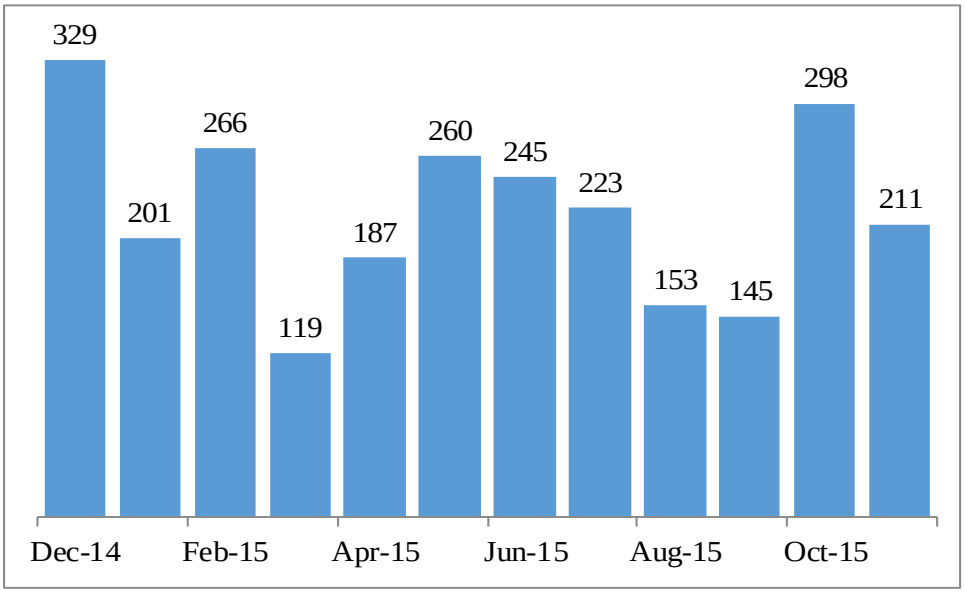
rate since April 2008. In the seven months of data newly available since the May 2015 Conference, the unemployment rate continued trending downward. By October 2015, the rate fell to 5.0 percent (the lowest U.S. monthly unemployment rate since February 2008), and remained at 5.0 percent in November 2015 and December 2015.

The national unemployment rate averaged 5.3 percent in 2015. The annual unemployment rate dropped from 9.6 percent (a 28-year record annual high) in 2010 to 8.9 percent in 2011, 8.1 percent in 2012, 7.4 percent in 2013 and 6.2 percent in 2014. 2015 marked the fifth straight decline in the annual U.S. unemployment rate.

Between February 2008 and December 2009, **U.S. wage and salary employment** fell every month, declining 8.6 million jobs to its lowest level since August 1999. With the exception of February 2010 and the months June 2010 through September 2010, wage and salary employment has risen each month since January 2010. On net, employment rose 13.2 million jobs between January 2010 and November 2015. Compared to a year ago, November 2015 employment was up 2.6 million jobs (1.9 percent).

At 142.9 million jobs, the November 2015 employment level represents the all-time high monthly U.S. employment level. Compared to April 2015 (the last month available prior to the May 2015 Conference), employment is up 1.5 million jobs. Through the first eleven months of 2015, average year-to-date U.S. wage and salary employment was up 3.0 million jobs (2.1 percent) compared with average employment in the first eleven months of 2014. Thus, 2015 is expected to represent the fifth straight year in which U.S. wage and salary employment has increased. The overall annual U.S. employment level rose 1.2 percent in 2011, increased 1.7 percent in both 2012 and 2013 and rose 1.9 percent in 2014.

U.S. Payroll Employment
2.6 Million Jobs Added in Past Year
(Monthly Change in Thousands)



Source: Bureau of Labor Statistics, U.S. Department of Labor.

Manufacturing sector employment rose in each of the past four calendar years with increases of 1.7 percent both in 2011 and 2012, 0.8 percent in 2013 and 1.4 percent in 2014. In addition, through the first eleven months of 2015, average manufacturing employment was up 1.2 percent.

Between March 2010 and November 2015, manufacturing sector employment increased from the prior month in 55 of the 69 months. However, manufacturing employment has decreased in three of the past four most recent months (August 2015-November 2015). Since April 2015 (the last month reported prior to the May Consensus Conference), manufacturing employment has fallen a net 9,000 jobs. Compared to a year ago, November 2015 manufacturing employment was up just 36,000 jobs – the smallest year-over-year (y-o-y) sector increase in nearly two years. Year-over-year manufacturing employment increases have shrunk each month since January 2015, when monthly employment was up 216,000 jobs from January 2014.

Since the end of the Great Recession (June 2009), manufacturing employment has increased a net 592,000 jobs. However, November 2015 manufacturing employment was still down 1.4 million jobs from the start of the recession (December 2007).

Between January 2015 and November 2015, **construction sector employment** was up 4.2 percent. Thus, 2015 is expected to be the fifth annual increase in construction employment following increases of 0.3 percent in 2011, 2.0 percent in 2012, 3.7 percent in 2013 and 4.8 percent in 2014.

Compared to a year ago, November 2015 construction employment was up by 259,000 jobs – marking the 54th consecutive month that year-over-year construction employment has increased. Construction employment is up by 480,000 jobs since the end of the recession (June 2009) but is still down by 1.0 million jobs (-13.4 percent) compared to December 2007.

Housing Market

House Construction and Sales

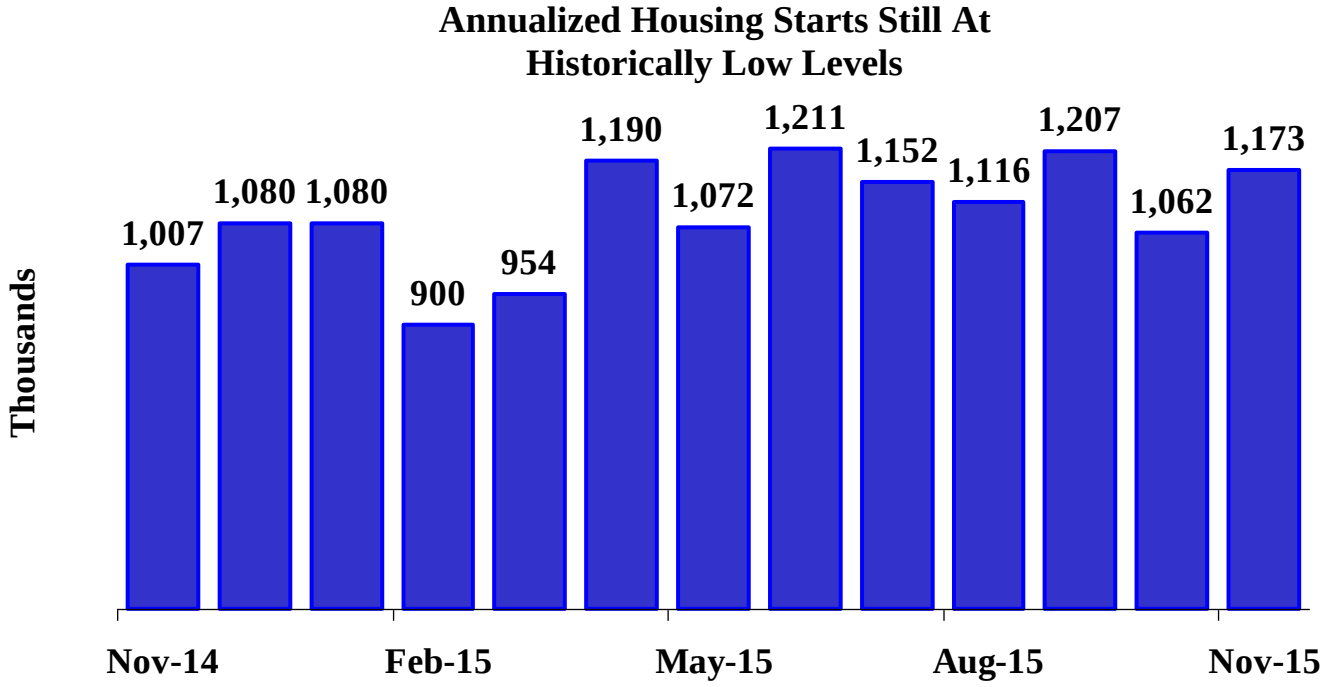
The housing market has strengthened, but still remains at a historically low level. In each year from 2008-2013, housing starts totaled fewer than 1.0 million units. Prior to 2008, starts had never fallen below 1.0 million units since at least 1959. However, after falling to a record low (554,000 units) in 2009, housing starts have risen each year from 2010 to 2014. In 2014, total starts rose very slightly above 1.0 million to 1,003,300 units. Through the first 11 months of 2015, housing starts at a seasonally adjusted annual rate averaged 1.1 million units – up 10.9 percent from first 11 months of 2014 average, 98.8 percent higher than its 2009 record annual low, but 46.7 percent below the record annual high 2.1 million units starts in 2005 and 19.7 percent fewer than average housing starts in the 1990s (pre-boom).

In April 2015 (the last month of data available at the May 2015 Consensus Conference), the **National Association of Home Builders (NAHB) sentiment** index stood at 56. (A reading above 50 indicates that more builders viewed conditions as favorable compared with the number who viewed conditions as unfavorable). While the NAHB index fell to 54 in May 2015, the

index rose to 60 in June 2015 and has remained at or above 60 in each month through November 2015. The index had last remained at or above 60 for six straight months in November 2005.

Actual new home sales in the first 11 months of 2015 exceeded 400,000 units and exceeded actual new home sales in all of 2014. Thus, 2015 marked the third straight year in which new home sales exceeded 400,000 as well as the fourth straight year of increasing new home sales. Through November 2015, the seasonally adjusted annualized sales rate was up 13.9 percent compared to the first 11 months of 2014. Thus, 2015 very likely marked the third year out of the most recent four years in which new home sales saw a double-digit percent increase. New home sales increased 21.0 percent in 2012, 16.3 percent in 2013 and 2.3 percent in 2014. (U.S. Census Bureau).

The annualized **existing home sales** rate reported year-over-year increases each month from July 2011 and October 2013. The existing home sales market then hit a slight lull. Between November 2013 and September 2014, existing home sales were down compared to a year earlier. Further, annualized existing home sales fell below 5.0 million units in November 2013 and remained below 5.0 million units through May 2014. In June 2014, annualized existing home sales rose above 5.0 million units, where they remained through October 2014. Between October 2014 and October 2015, existing home sales were up compared to a year ago. However, in November 2015, existing home sales fell below 5.0 million units at an annual rate – marking the first sub 5.0 million unit rate in any month since February 2015. Further, at 4.8 million units, November 2015 existing home sales were down 3.8 percent from November 2014 – marking the first year-over-year decline since September 2014. After rising 9.2 percent in calendar year 2013, existing home sales fell 2.9 percent in 2014. Through the first 11 months of 2015, the annualized sales rate averaged 5.2 million units, up 6.2 percent from the average annualized sales rate for the first 11 months of 2014. (National Association of Realtors)



Source: U.S. Census Bureau. Seasonally adjusted annual rate (thousands).

House Prices

House prices have grown in recent months.

- Between October 2014 and October 2015, the **Core Logic Home Price Index** increased 6.8 percent (including distressed sales) and 6.4 percent (excluding distressed sales). Furthermore October 2015 marked the 44th consecutive month of year-over-year home price gains (including distressed sales). However, the October 2015 level remained 6.8 percent below the index's peak (April 2006).

- In 2014, the **Census Bureau's median new home sales price** reported its fifth straight annual price increase – rising 5.2 percent from 2013. Over the five years, the median new home sales price rose 30.5 percent. At $282,200, the 2014 annual median price represents the highest annual median new home sale price on record. Between December 2014 and May 2015, the monthly median new home sale price fell in all but one month (February). The median price then rose in all but one month (October) between June 2015 and November 2015. On net, the November 2015 median new home sale price was up very slightly (0.8 percent) from November 2014.

- In 2014, the **median existing-house price** rose 5.6 percent from 2013. In the first eleven months of 2015, year-over-year median existing house price increases ranged between 4.6 percent and 8.5 percent. The median existing-house sale price rose 6.3 percent between November 2014 and November 2015 -- marking the 45th consecutive month of year-over-year price gains. (National Association of Realtors)

Foreclosures and Mortgage Rate

In November 2015, **foreclosures** were down seven percent from a year earlier. November 2015 marked the fifth straight month that **foreclosure starts** were down compared to a year ago. As a result, foreclosure starts fell to their lowest level since May 2005. (RealtyTrac)

In October 2015, there were 37,000 **completed foreclosures** in the U.S. October 2015 foreclosures were down 12.3 percent from September 2015 and down 27.1 percent from a year ago. Further, the October 2015 **rate of serious delinquencies** dropped to 3.4 percent, the lowest rate since December 2007. Through October 2015, the **number of loans in the foreclosure process** has fallen for 48 straight months. (CoreLogic)

In 2015Q3, **homeowner real estate equity** rose to its highest level since 2006Q4. Compared to a year ago, 2015Q3 real estate equity was up $1.3 trillion. At 56.7 points, the 2015Q3 homeowner equity rate was 19.6 points higher than its all-time low (2009Q1). Over the past year, the equity rate rose by 2.5 percentage points. (Federal Reserve Bank, *Flow of Funds Accounts of the United States*).

At 3.67 percent, the **30-year fixed mortgage rate** in April 2015 represented the lowest rate since May 2013. (Federal Reserve). The mortgage rate rose each month between May 2015 and July 2015, inclusive. The three monthly gains increased the mortgage rate a combined 0.38 of a percentage point. The rate then fell over the next three months – declining a combined 0.25 of a percentage point. The rate then rose 0.14 of a percentage point in November 2015. On net, the rate has risen a net 0.27 of a percentage point since April 2015 inclusive – rising to 3.94 percent in November 2015. Despite lower mortgage rates and higher median family income between October 2014 and October 2015, housing affordability worsened due to higher home prices. The **National Association of Realtors composite housing affordability index** fell 2.3 points between October 2014 and October 2015.

Monetary Policy

In December 2008, the Federal Open Market Committee (FOMC) lowered the target federal funds rate to 0.00 to 0.25 percent (a record low range). The Committee maintained the 0.00 to 0.25 percent range for seven straight years. In December 2015, the FOMC raised the target range 25 basis points to 0.25 percent to 0.50 percent. The December 2015 rate increase represented the Committee's first rate increase since June 2006. The FOMC stated that the path of future rate changes will be gradual. The Committee observed that the employment picture improved substantially over the past year with marked dissipation of labor underutilization. The FOMC projected that gradual rate increases will allow the labor market to continue tightening. The Committee acknowledged that the inflation rate continues to remain below its target 2 percent rate. However, the FOMC attributed the current sub-2 percent inflation rate to the "transitory effect" of recent considerable reductions in energy prices and import prices. With the dissipation of the transitory effects and continued labor market tightening, the Committee projects that the inflation rate will rise to the 2 percent target rate in the "medium term." Given that monetary policy affects the economy with a lag, the FOMC judged it prudent to raise rates in anticipation of higher inflation, rather than run the risk of beginning rate hikes too late and risk overheating. Future rate changes depend upon "realized and expected economic conditions relative to its objectives of maximum employment and 2 percent inflation" and will likely remain well below long-term target rates for a considerable length of time.

Beginning in 2008, the Fed engaged in several rounds of quantitative easing (injecting substantial liquidity into financial markets by purchasing large amounts of longer term Treasury and agency mortgage-backed securities). Between September 2012 and December 2014, the FOMC added $85 billion to its long term asset holdings each month. Beginning in January 2014, the Fed slowed the size of its monthly additions to its assets by $10 billion at each of its first six FOMC meetings of 2014 (January, March, April, June, July and September). While ending its quantitative easing program in October 2014, the FOMC continues to reinvest principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction. In its December 2015 statement, the FOMC indicated that it would continue reinvesting and rolling over securities well into the future. Doing so, the Committee stated, "should help maintain accommodative financial conditions."

Fiscal Policy

In December 2015, Congress passed and the President signed legislation that funded the federal government through September 2016. The legislation passed by wide margins in the House (316-113) and the Senate (65-33). The legislation, which passed with considerable support from Democrats as well as Republicans, averted a government shutdown due to occur on December 23, 2015. The $1.15 trillion fiscal year 2016 spending package was combined with $622 billion in tax cuts. The tax cut package made permanent numerous tax cuts due to expire. In addition, several tax cuts that had lapsed were re-enacted retroactively and made permanent. The legislation suspended the excise tax on medical devices for 2016 and 2017 and delayed the "Cadillac tax" on high-cost employer sponsored health insurance. In addition, the legislation lifted the 40-year ban on oil exports from the U.S.

Inflation

In March 2015 (the most recent month for which monthly oil price data were available prior to the May 15, 2015 Consensus Revenue Estimating Conference), the price of oil averaged $47.82 per barrel. The price of oil rose in the following three months with the price rising to $59.82 per barrel in June 2015. The price of oil decreased in both July and August with the price falling to $42.87 per barrel in August. With monthly price increases in the following two months, the price of oil rose to $46.22 per barrel in October 2015. However, in November 2015, oil prices fell to $42.39 per barrel – the lowest price since February 2009. Compared to a year ago, the price of oil in November 2015 was down $33.40 per barrel (44.1 percent).

Looking at the three month average of the price of oil (which helps to account for oil prices' volatility), the three month average in November 2015 ($44.70 per barrel) represented the lowest three month average price since March 2009. (Federal Reserve Bank of St. Louis).

In April 2015, the most recent month for which gasoline prices were available prior to the May 2015 Consensus Conference, the monthly average price of regular gasoline in the U.S. stood at $2.47 per gallon. The average price of regular gasoline rose in both May 2015 and June 2015, but then fell in each of the following five months. As a result, the monthly average price of regular gasoline in November 2015 fell a net 31 cents since the May 2015 Consensus Conference. Compared to a year ago, the price of gasoline in November 2015 was down 75 cents. The three month average price of regular gasoline in November 2015 ($2.27 per gallon) represented the lowest three month average price since May 2009.

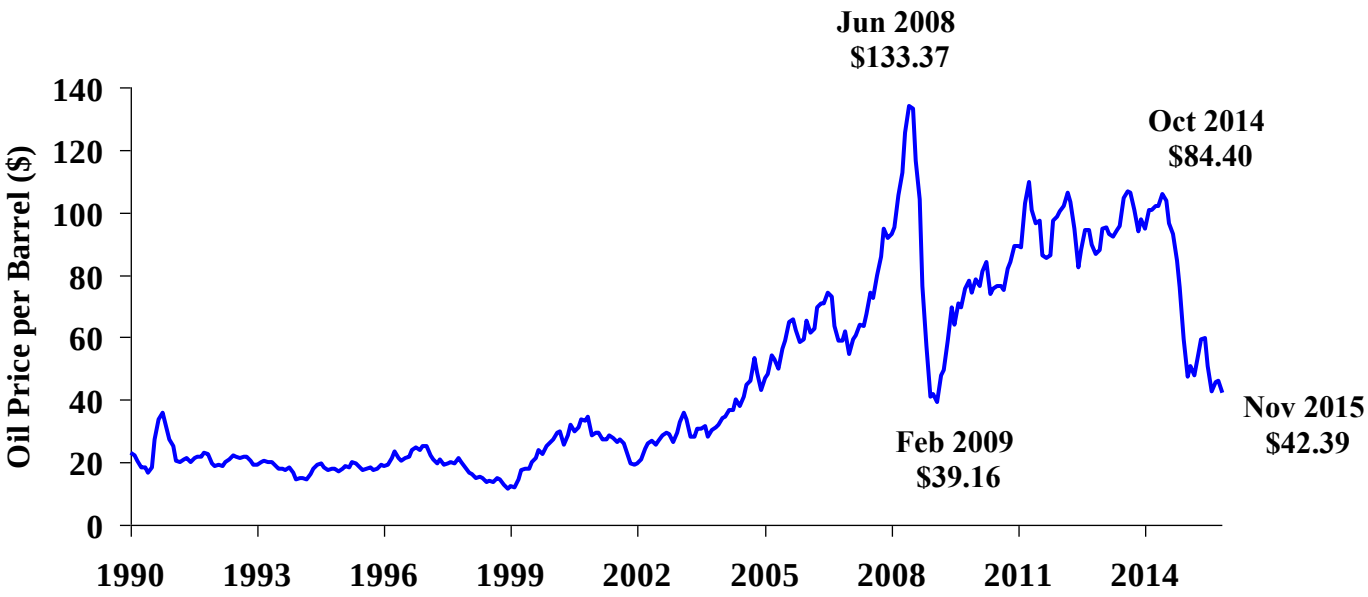
In recent years and months, price inflation has remained mild. In 2014, **consumer prices** increased 1.6 percent. The increase follows a 0.4 percent decline in 2009, a 1.6 percent increase in 2010, a 3.2 percent rise in 2011, a 2.1 percent rise in 2012 and a 1.5 percent increase in 2013. Through November 2015, consumer prices have averaged just 0.1 percent above prices in the first 11 months of 2014.

Through November 2015, **core consumer prices** (excluding food and energy) have averaged 1.8 percent higher than in the first 11 months of 2014. This follows annual core price inflation ranging from 1.0 percent to 1.8 percent from 2010 to 2014. Throughout 2015, core consumer

price inflation, as measured by year-over-year growth, has been accelerating gradually from 1.6 percent in January to 2.0 percent in November. (U.S. Bureau of Labor Statistics)

Producer prices rose 3.8 percent in 2011, due primarily to increases in fuel prices. Producer prices then increased 1.9 percent in 2012, 1.3 percent in 2013 and 1.6 percent in 2014. Through November 2015, producer prices were *down* 0.8 percent. Core producer prices rose 1.4 percent in 2013 and increased 1.8 percent in 2014. Through the first 11 months of 2015, core producer prices are up 0.9 percent from a year ago. (Bureau of Labor Statistics)

Oil Prices Down Sharply from Last Year



Source: Federal Reserve Bank of St. Louis

Major Economic Indicators

Since the May 2015 Conference, eight additional months of **ISM manufacturing index (PMI)** data have been released (May 2015-December 2015). After rising in May 2015 and June 2015, the PMI fell each month between July 2014 and December 2015, inclusive. Further, the index fell below 50.0 in November 2015 to 48.6 and thus indicated a contracting manufacturing sector for the first month in three years. The index then fell in December to 48.2, down 6.9 points from a year ago. However, the December 2015 PMI continued to signal an expanding *overall* economy for the 79th consecutive month. In December 2015, the **ISM non-manufacturing**

index (NMI) at 55.3 was down 1.2 points from December 2014. However, December 2015 marked the 71st straight month of an expanding service sector.

The most recent data available before the May 2015 Consensus Conference pointed to growing, but slowing, industrial production. Through the first eleven months of 2015, **industrial production** increased 1.6 percent from 2014. This year-to-date data strongly suggests that 2015 will mark the sixth straight year of annual growth, but will represent the slowest annual growth across the past six years. Between November 2014 and November 2015, industrial production fell 1.2 percent – the first year-over-year decrease in industrial production since December 2009.

Year-to-date 2015 data indicate that the annual **capacity utilization rate** changed little between 2014 and 2015. Between 2010 and 2014, inclusive, the capacity utilization rate had increased each year. Through the first 11 months of 2015, the capacity utilization rate has averaged 0.1 of a point lower than the first 11 months of 2014. Compared to a year ago, the November 2015 capacity utilization rate was down 2.1 points. Since May 2015, the monthly capacity utilization rate was down compared to a year ago. Thus, November 2015 marked the seventh straight month of year-over-year declines in the capacity utilization rate. In addition, November's year-over-year decline of 2.1 points represented the largest year-over-year point decline since November 2009.

The **three-month moving average for new durable goods orders** declined from the prior month from September 2014 through February 2015. However the three-month average then trended upward through August 2015. The average fell slightly in both September 2015 and October 2015, but then rose in November 2015. Compared to a year-ago, the November 2015 average was down 0.3 percent. The November decline did mark the 10th straight month in which the three-month average was down compared to a year ago. However, the 0.3 percent drop is a substantially smaller than the declines from a year ago in July 2015, August 2015 and September 2015 (-9.3 percent, -9.2 percent, and -9.3 percent, respectively).

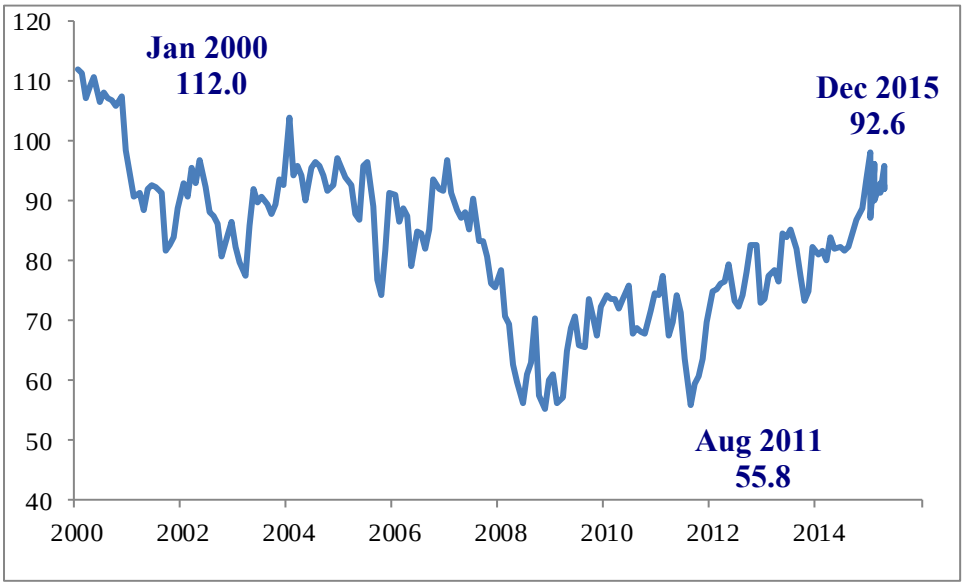
Beginning in December 2009, the **three-month moving average for retail sales** has increased every month from the year-ago level. Over this period, the median y-o-y percent increase has been 4.3 percent. After poor weather conditions slowed y-o-y increases to 2.1 percent in February 2014, growth accelerated in each of the next four months and rose to 4.5 percent in June 2014. The rate of increase rose haltingly with two slight monthly increases and two months of no change. In part the result of poor weather, the rate of change decelerated in each month between December 2014 and April 2015 with the rate slowing from 4.7 percent and 1.8 percent. Between May 2015 and October 2015, the rate of change became more volatile. Through the first 11 months of 2015, retail sales are up 2.1 percent compared with average retail sales between January 2014 and November 2014.

Since the April 2015 (the last month for which final data were available for the May 2015 Consensus Conference), the **University of Michigan index of consumer sentiment** has decreased a net 3.3 points. The sentiment index dropped a sharp 5.2 points in May 2015. The sentiment index rose sharply (5.4 points) in June. The index fell in each of the following three months (July, August and September) – dropping a combined 8.9 points. However, consumer sentiment has risen in each of the three most recent months (October, November and December)

– rising a combined 5.4 points. At 92.6, the December 2015 index reading was down one point from a year ago.

At 92.9, the 2015 consumer sentiment index represented its highest average annual level since 2004 when the index averaged 95.2. The 2015 average is up substantially (29.1 points) from the index's average in 2008 of 63.8, but is 14.7 points down from the average's peak of 107.6 in 2000. Compared to the 2014 average, the 2015 average sentiment index was up 8.8 points.

Consumer Sentiment Up Substantially from August 2011 Trough But Well Below January 2000 Peak



Source: University of Michigan Survey of Consumers.

In each of the nine most recent quarters of **Conference Board Measure of CEO Confidence Index** readings available prior to the May 2015 Consensus Conference (2003Q1 through 2005Q1) the index reported net positive readings (over 50) with five of these quarters posting readings at or above 60. While the 2005Q1 reading remained above 50, it declined from the year ago level, marking the first year-over-year decline in two years. Each of the two newly available readings (2015Q2 and 2015Q3) were also down from a year ago. The 2015Q2 reading was down four points from a year ago and the 2015Q3 reading was off 11 points from 2014Q3. Further, in 2015Q3, the index fell below 50 for the first time in 11 quarters.

The **Conference Board index of leading economic indicators (LEI)** rose 0.6 percent in October 2015 and increased 0.4 percent in November 2015. The two solid gains in the LEI follow three months of essentially no change in the index in three prior months. The level of the index has trended upward since the Great Recession.

Stock prices decreased since the May 2015 Consensus Conference. Between the end of April 2015 and the end of December 2015, the **stock market (Wilshire 5000)** fel1 3.0 percent. Over the past four months, the index, compared to the end of April 2015, has been up no more than 0.5 percent in early November but down as much as 9.8 percent in late September. Compared to a year ago, the month-end December 2015 index was down 1.5 percent.

Since mid-August 2015, the **Economic Cycle Research Institute (ECRI) weekly leading index growth rate** has been negative (pointing to an economic contraction in the near future). After bottoming out at -3.7 percent in late October, the growth rate improved each week through mid-December, when the rate of decline slowed to -0.5 percent. The growth rate worsened to -0.9 percent in late December.

Vehicle Sales and Production

The vehicle sector has shown substantial growth over the past six years. **U.S. light vehicle sales** totaled slightly over 10.4 million units in 2009 – the worst annual sales year since 1982 when sales came in just under 10.4 million units. However, in 2010, sales rose to 11.6 million units and, in 2011, light vehicle sales increased to 12.7 million units. Sales grew to 14.4 million units in 2012 and rose to 15.5 million units in 2013. In 2014, light vehicle sales rose to 16.4 million units.

In 2015, light vehicle sales rose to a new record high of 17.39 million units – slightly exceeding the previous record of 17.35 million units set in 2000. In 2015, light vehicle sales were up 5.8 percent from 2014 sales. Since 2009, light vehicle sales have risen by 67 percent.

In December 2015, light vehicle sales have exceeded a 15.0 million unit annual rate in each of the past 38 months. Light vehicle sales have exceeded a 16.0 million unit rate in each of the past 22 months. In addition, light vehicle sales have exceeded a 17.0 million unit rate in each of the past six months. Prior to December 2015, the light vehicle sales rate last exceeded 17.0 million units for six straight months in June 2000.

A large increase in light truck sales more than accounted for the 2015 increase in light vehicle sales as light truck sales were up 12.7 percent while auto sales were *down* 2.1 percent. As a result, light truck sales accounted for 56.7 percent of 2015 sales – up 3.5 percentage points from light truck sales share in 2014. The 56.7 percent year-to-date light truck share exceeds the pre-2015 record high annual light truck share (55.6 percent set in 2006) by 1.1 percentage points. While bringing vehicle makers higher profitability per unit, the likely record high 2015 light truck sales share exposes makers to greater downward risks from economic slowdowns and higher fuel prices.

U.S. vehicle production declined each year from 2003 to 2009. During these years, U.S. vehicle production decreased 6.4 million units or 52.6 percent. Production began to increase again in 2010 and by 2014, production was up 106.2 percent from 2009. In 2015, through November, U.S. vehicle production is up very slightly (0.5 percent) from the year-ago level.

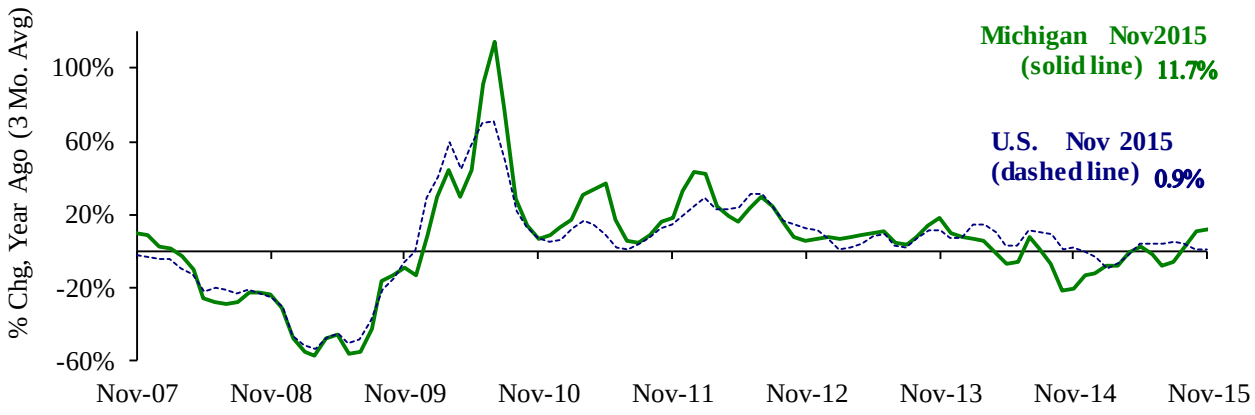
Current Michigan Economic Conditions

Vehicle Production

In 2013, **Michigan vehicle production** rose to 2.47 million units - Michigan's highest vehicle production level since 2005. However, State vehicle production fell 4.7 percent in 2014 to 2.36 million units. Much of this reduction was due to certain facilities being shut down for significant re-tooling. In the 17 quarters between 2010Q1 and 2014Q1, inclusive, quarterly Michigan vehicle production was up from a year ago. In the next five quarters (2014Q2-2015Q2, inclusive), Michigan vehicle production fell from a year earlier. Through the first 11 months of calendar year 2015, Michigan vehicle production was down 0.7 percent compared with the State production between January 2014 and November 2014. However, Michigan vehicle production in 2015Q3 did rise 3.1 percent from a year ago. During the first two months of 2015Q4, production was up 8.7 percent. In addition, FY 2015 Michigan vehicle production in FY 2015 was up 92.0 percent compared with FY 2009 State production.

In 2013, **Michigan's share of U.S. vehicle production** rose to 22.3 percent –the State's highest production share since 2003. However, in 2014, the State's share of U.S. vehicle production fell 2.4 percentage points to 19.9 percent. Through the first eleven months of 2015, Michigan vehicle production accounted for 19.4 percent of national vehicle production – down 0.2 of a percentage point from a year ago.

Michigan Vehicle Production Rising from Year Ago



Source: Automotive News and Michigan Department of Treasury.

Employment

In 2014, **Michigan wage and salary employment** rose for a fourth straight year with 1.7 percent growth, ranking 17th among U.S. states. At 4.2 million jobs, 2014 Michigan wage and salary employment represented the State's highest employment level since 2007. Rising by a combined 316,400 jobs between 2010 and 2014, Michigan wage and salary employment increased 8.2 percent (the 10th fastest percent growth among U.S. states). Michigan employment increased 2.3 percent in 2011, 2.1 percent in 2012 and 1.9 percent in 2013.

Directly prior to the four recent annual increases, Michigan employment had fallen each year from 2001 to 2010 by a total of 813,100 jobs. Thus, Michigan's 2014 wage and salary employment level of 4.2 million jobs remained 496,700 jobs (10.6 percent) below the State's record high annual employment level of 4.7 million jobs set in 2000.

From January 2015 through November 2015, Michigan's 2015 average employment level was up 2.1 percent from the employment in the first 11 months of 2014 (ranking 14th among all states). As a result, CY 2015 represents the fifth consecutive year of Michigan annual employment growth and that annual Michigan employment growth accelerated from 2014.

Manufacturing employment in Michigan increased each year from 2010 to 2014 with gains of 2.3 percent in 2010, 7.6 percent in 2011, 5.5 percent in 2012, 3.4 percent in 2013 and 3.6 percent in 2014. Over the past four years, manufacturing employment increased by 102,000 jobs. Thus, manufacturing employment accounted for 32.3 percent of the overall State employment increase over the past four years, even while comprising only 12.3 percent of the overall *level* of 2010 Michigan wage and salary employment.

Through the first 11 months of 2015, average Michigan manufacturing employment was up 3.9 percent compared with average State manufacturing employment over the first 11 months of 2014. November 2015 Michigan manufacturing employment was up by 19,700 compared with November 2014 State manufacturing employment. Thus, the State's manufacturing employment increase accounted for 32.0 percent of the Michigan's overall 61,600 year-over-year employment increase.

Most recently, Michigan manufacturing employment rose 2,400 jobs in November 2015, following a 3,700 jobs increase in September and a 1,700 jobs decline in October.

In 2014, Michigan construction employment rose 5.8 percent after increasing 3.0 percent in 2011, 2.3 percent in 2012 and 4.1 percent in 2013. Compared to a year ago, November 2015 Michigan construction employment was up by 10,200 jobs; however, most of these jobs were created earlier in the year. During the first 11 months of 2015, average construction employment is up 8.2 percent from the comparable period in 2014.

Michigan's wage and salary employment has increased 11.5 percent since the end of the Great Recession (June 2009) and this is the 11th strongest growth rate among all U.S. states. Over the past year between November 2014 and November 2015, Michigan employment has risen 2.1 percent, ranking 21st among U.S. states.

In 2009, **Michigan's unemployment rate** rose to 13.7 percent – the State's highest rate since 1983 when the rate stood at 14.4 percent. However, in each year between 2010 and 2014, inclusive, the State's unemployment rate decreased. Over the past five years, Michigan's unemployment rate dropped a combined 6.4 percentage points with the largest share of the decline (-2.2 points) occurring in 2011. Michigan's 2014 unemployment rate stood at 7.3 percent, the State's lowest annual unemployment rate since 2007.

Between September 2013 and March 2015 (the most recent month for which state unemployment data were available prior to the May 2015 Consensus Conference) Michigan's unemployment rate fell 2.9 percentage points to 5.6 percent. Since March, Michigan's unemployment rate fell 0.5 percentage point 5.1 percent.

In September 2015, Michigan's unemployment rate fell to 5.0 percent – the State's lowest unemployment rate in over 14 years (June 2001). The State's unemployment rate remained at 5.0 percent in October 2015 and then rose to 5.1 percent in November 2015. Compared to a year ago, Michigan's November 2015 unemployment rate was down 1.4 percentage points.

Michigan's unemployment rate peaked at 14.9 percent in 2009, which was 5.4 percentage points above the U.S. unemployment rate. By November 2015, this gap between the Michigan and U.S. unemployment rates had essentially been eliminated.

Michigan household employment fell in each month between September 2005 and November 2009 with household employment falling a combined 581,500 persons (12.2 percent). Since December 2009, household employment has trended upward and has regained a net 343,000 persons. Since November 2014, Michigan household employment is up by 81,100 persons. Since March 2015 (the last month available prior to the May 2015 Consensus Conference), Michigan household employment was up a net 40,100 persons.

Michigan's labor force fell every year between 2006 and 2012, inclusive. Over the seven years, the State's calendar year labor force dropped a combined 411,900 persons. The State's annual labor force increased 1.2 percent in 2013 and rose 0.5 percent in 2014 with the annual labor force rising a combined 79,100 persons.

Between November 2014 and November 2015, **Michigan household unemployment** fell 65,400 persons (21.1 percent). Compared to household unemployment at the end of the Great Recession, November 2015 unemployment is 493,500 persons lower. Compared to the *outset* of the Recession, November 2015 unemployment is 192,100 persons lower. In September 2015, the number of Michigan unemployed fell to its lowest level since January 2001. However, the Michigan unemployment level rose in both October 2015 and November 2015.

Housing Market

Despite not being one of the major participants in the housing boom, Michigan was hit disproportionately hard by the housing bust due to sharply declining employment. Nevertheless, the State's housing market has recently seen signs of improvement.

In 2014, annual **Michigan housing unit authorizations** increased 1.1 percent. Although slight, the 2014 increase marked the fifth straight year State authorizations increased. Nationally, authorizations increased 5.6 percent. The 2014 increase followed increases greater than 25 percent in 2010, 2012 and 2013. Year-to-date through November 2015, Michigan authorizations are up a sharp 41.3 percent. Thus, 2015 will mark the sixth straight year that Michigan authorizations have increased. Nationally, year-to-date authorizations were up 13.4 percent between 2014 and 2015.

From 2009 and 2014, Michigan authorizations (15,933 units) rose 131.4 percent from 2009, compared with a 79.5 percent increase nationally. However, 2014 Michigan authorizations were still 69.2 percent below the State's 1996-2005 annual average (51,688 units). Total U.S. authorizations in 2014 were 39.3 percent below the national average from 1996-2005. As a result, while accounting for an average of 3.0 percent of overall U.S. authorizations between 1996 and 2005, Michigan authorizations accounted for only 1.5 percent of U.S. authorizations in 2014. Year-to-date through November 2015, Michigan authorizations accounted for 1.9 percent of U.S. authorizations.

In October 2015, according to **Case-Shiller house price measures** (seasonally adjusted), the Detroit MSA recorded a 5.3 percent year-over-year house price increase, compared to a 5.5 percent average increase for the 20 U.S. metro areas surveyed for the measure. Detroit's 5.5 percent year-over-year increase ranked 13th among the 20 metro areas. According to CoreLogic, Michigan had the highest number of **completed foreclosures** for the 12 months ending October 2015 with 50,000 completed foreclosures. However, Michigan had the 8th smallest **percent of homes in foreclosure**.

The **share of mortgage properties underwater (negative equity)** in Michigan is higher than the national average. In 2015Q3, 8.1 percent of residential properties with mortgages were underwater nationally. In Michigan, 10.4 percent of such properties were underwater –ranking Michigan 8th highest among the fifty states behind Nevada (19.0 percent), Florida (17.8 percent), Arizona (14.6 percent), Rhode Island (12.3 percent), Maryland (12.1 percent), Illinois (11.9 percent), and Ohio (11.1 percent). (CoreLogic)

Personal Income

Michigan annual personal income growth accelerated from 1.5 percent in 2013 to 4.1 percent in 2014. Michigan's 4.1 percent income growth in 2014 ranked 27th among U.S. states. Nationally, personal income growth sped from 1.2 percent in 2013 to 4.4 percent in 2014 with 49 of the 50 states reporting accelerating growth in 2014. Michigan's 2014 per capita income increase (3.9 percent) ranked 14th among U.S. states. (Bureau of Economic Analysis)

Michigan's quarterly personal income grew from the prior year in all but one quarter between 2010Q1-2015Q3 (the latest quarter available). Most recently, in 2015Q3, Michigan personal income was up 4.6 percent from a year ago (ranking 18th among U.S. states).

Each quarter between 2010Q2 and 2015Q3, **Michigan wage and salary income** rose from a year ago with increases ranging from 0.9 percent and 8.2 percent. After accelerating in the last

two quarters of 2014 to 4.8 percent in 2014Q3 and 5.6 percent in 2014Q4, year-over-year wage and salary growth slowed to 3.9 percent in 2015Q1. State wage and salary y-o-y growth accelerated to 4.0 percent in 2015Q2 and 4.9 percent in 2015Q3. At 4.9 percent, Michigan's 2015Q3 y-o-y wage and salary growth ranked 21st among the 50 states. Nationally, wage and salary income rose 5.1 percent between 2014Q3 and 2015Q3.

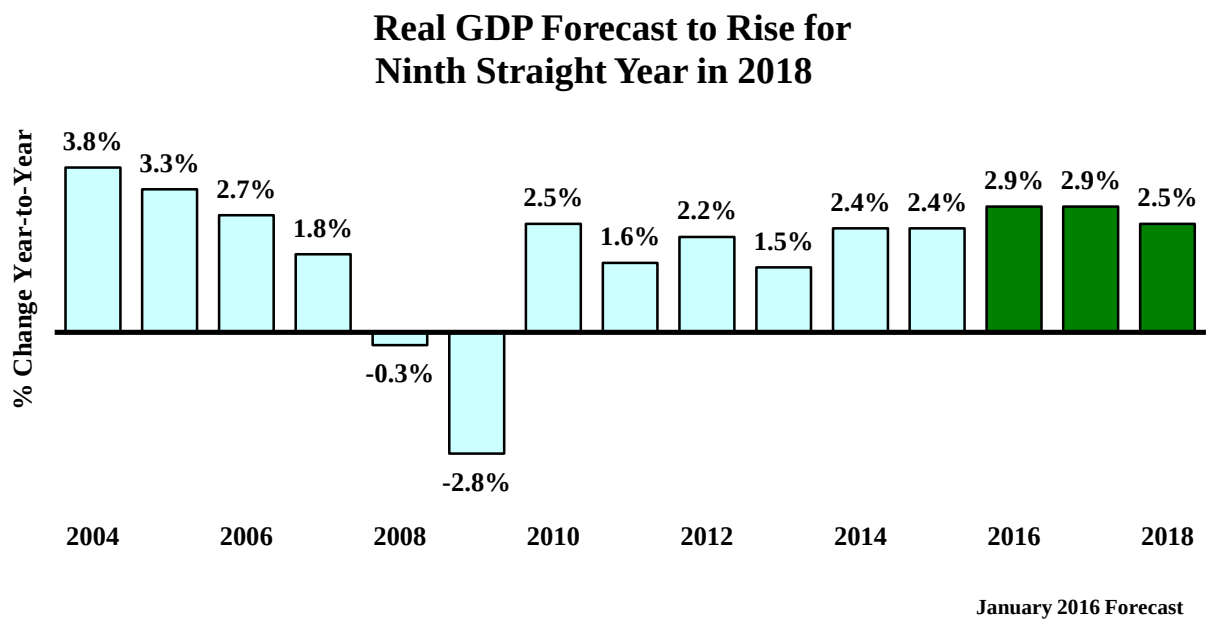
After year-over-year declines in 12 straight quarters from 2007Q2 to 2010Q1, **Michigan manufacturing wages and salaries** has experienced 22 consecutive quarters of y-o-y increases. Between 2010Q1 and 2014Q4, Michigan manufacturing wages outpaced overall U.S. manufacturing sector wages for 20 straight quarters. However, national y-o-y wage growth outpaced Michigan y-o-y wage growth by 1.2 percentage points in 2015Q1, 3.2 percentage points in 2015Q2 and 2.4 percentage points in 2015Q3.

With the recent dramatic slowing in y-o-y Michigan manufacturing wage growth, the share of Michigan's overall y-o-y wage increase attributable to the manufacturing sector has fallen substantially. The manufacturing sector accounted for 34.0 percent of overall Michigan wage growth between 2012Q3 to 2013Q3, even while accounting for only 17.6 percent of overall level of Michigan wages in 2012Q3. Between 2013Q3 and 2014Q3, the manufacturing sector accounted for 19.0 percent of the increase in overall Michigan wages – slightly more than the manufacturing sector's 18.1 percent share of the level of Michigan wages in 2013Q3. In addition, the increase in manufacturing wages accounted for only 5.8 percent of the increase in overall Michigan wages growth -- a substantially smaller share than manufacturing wages 18.2 percent of 2014Q3 overall Michigan portion.

2016, 2017 and 2018 U.S. Economic Outlook

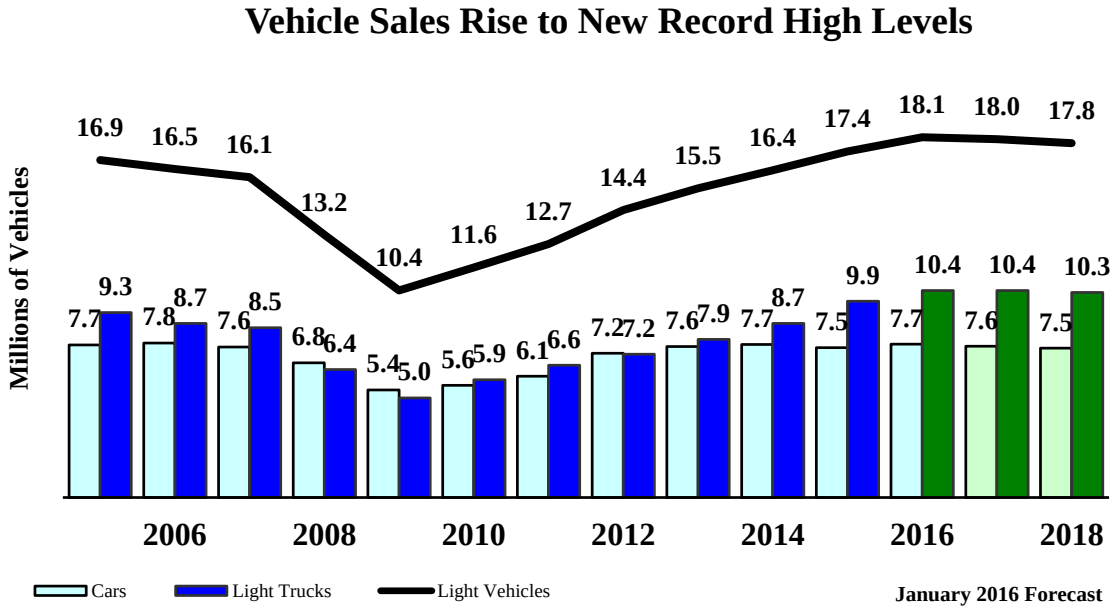
Summary

Inflation adjusted GDP rose 2.4 percent in 2014, marking the fifth straight year of annual growth. In 2015, real GDP grew an estimated 2.4 percent. Real GDP is forecast to rise 2.9 percent in 2016, 2.9 percent in 2017 and 2.5 percent in 2015.



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, January 2016.

Light vehicle sales totaled 14.4 million units in 2012 and increased to 15.5 million units in 2013. -- marking the first year in which light vehicle sales had exceeded 15.0 million units since 2007. In 2014, light vehicle sales totaled 16.4 million units and an estimated 17.4 million units in 2015 – slightly above the previous record of 17.3 million units in 2000. Annual light vehicle sales are expected to increase to a new record high 18.1 million units in 2016. Sales are expected to fall slightly in both 2017 and 2018, declining to 18.0 million units in 2017 and decreasing to 17.8 million units in 2018.



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, January 2016.

The U.S. unemployment rate has fallen in each of the past five years with the unemployment rate dropping from a near post-World War II record high 9.6 percent in 2010 to an estimated 5.3 percent in 2015. The national unemployment rate is forecast to fall to 4.8 percent in 2016 and to 4.4 percent in 2017. In 2018, the unemployment rate is expected to fall to 4.3 percent, which would be the lowest annual U.S. unemployment rate since 2000.

U.S. wage and salary employment has increased in each of the past five years with national employment rising 1.2 percent in 2011, 1.7 percent in both 2012 and 2013 and 1.9 percent in 2014. National employment rose an estimated 2.1 percent in 2015. U.S. employment is then forecast to rise 1.9 percent in 2016, 1.8 percent in 2017 and 1.3 percent in 2018. U.S. wage and salary employment in 2014 rose above the previous national peak employment level set in 2007. With employment increases forecast in 2016, 2017 and 2018, calendar year 2018 national employment is expected to be 8.1 percent above the prior 2007 peak employment level.

In 2013, U.S. consumer price inflation slowed to 1.5 percent, but rose 1.6 percent in 2014. U.S. consumer price inflation slowed sharply to an estimated 0.1 percent in 2015. Inflation is forecast to accelerate across the forecast horizon with overall annual consumer price increases of 1.6 percent in 2016, 2.2 percent in 2017 and 2.5 percent in 2018. The personal consumption inflation rate is projected to accelerate from an estimated 0.3 percent in 2015 to 2.0 percent in 2018.

The short-term Treasury bill rate averaged 0.1 percent each year between 2010 and 2013, inclusive. The rate fell below 0.1 percent in 2014 and remained below 0.1 percent in 2015. As a result of increases in the federal funds rate, the short-term Treasury bill rate is forecast to average 0.9 percent in 2016 and 1.9 percent in 2017. In 2018, the short-term Treasury bill rate is projected to increase to 2.8 percent – which would be the highest short-term Treasury bill rate since 2007.

After rising to 4.2 percent in 2013, the corporate Aaa bond rate held steady in 2014. Corporate rates fell to an estimated 3.9 percent in 2015. Corporate interest rates are forecast to rise each year, increasing to 4.3 percent in 2016, 4.5 percent in 2017 and 4.8 percent in 2018.

The 30-year fixed mortgage rate fell to 3.7 percent in 2012 and then rose to 4.0 percent in 2013 and 4.2 percent in 2014. Mortgage rates dropped to an estimated 3.9 percent in 2015. Mortgage rates are forecast to rise to 4.3 percent in 2016, 4.6 percent in 2017 and 5.0 percent in 2018.

Throughout the forecast horizon, the housing market is expected to strengthen and housing starts are forecast to increase each year. Consequently, housing starts in 2018 (1.49 million units) will be 48.7 percent higher than starts in 2014. Nevertheless, 2018 starts will remain below the average 1.7 million annual starts in the ten years before the housing bust.

Assumptions

The forecast expects real (inflation-adjusted) federal government expenditures to increase 1.6 percent in both calendar year (CY) 2016 and CY 2017 and then rise 1.4 percent in CY 2018.

In 2015, oil prices per barrel averaged an estimated $50 per barrel – down nearly 50 percent from average oil prices in 2014. Average annual oil prices are expected to remain essentially unchanged in 2016. Oil prices are then forecast to rise to an average of $55 per barrel in 2017 and increase to an average of $64 per barrel in 2018.

The Fed began raising the federal funds rate in late 2015. The forecast assumes that the Fed continues to increase the federal funds rate gradually throughout the forecast horizon with quarter point increases each quarter. As a result, the federal funds rate will rise from an average of 0.20 percent in 2015Q4 to 3.30 percent in 2018Q4.

The level of real state and local government expenditures is expected to increase in each year of the three-year forecast horizon. Real state and local government expenditures are expected to rise 2.1 percent in 2016, 1.5 percent in 2017 and 1.4 percent in 2018.

Over the forecast horizon, the savings rate is assumed to decline modestly from an estimated 4.8 percent in 2015. The rate is expected to fall to 4.6 percent in 2016, 4.5 percent in 2017 and 4.4 percent in 2018.

After slowing to an estimated 1.7 percent in 2015, rest-of-world growth is assumed to accelerate moderately to 2.2 percent in 2016, 2.4 percent in 2017 and 2.5 percent in 2018.

Table 1
Administration Economic Forecast

January 2016

	Calendar 2014 Actual	Calendar 2015 Forecast	Percent Change from Prior Year	Calendar 2016 Forecast	Percent Change from Prior Year	Calendar 2017 Forecast	Percent Change from Prior Year	Calendar 2018 Forecast	Percent Change from Prior Year
United States									
Real Gross Domestic Product (Billions of Chained 2009 Dollars)	$15,962	$16,351	2.4%	$16,825	2.9%	$17,313	2.9%	$17,746	2.5%
Implicit Price Deflator GDP (2009 = 100)	108.7	109.8	1.0%	111.4	1.5%	113.4	1.8%	115.8	2.1%
Consumer Price Index (1982-84 = 100)	236.736	236.922	0.1%	240.711	1.6%	246.120	2.2%	252.362	2.5%
Consumer Price Index - Fiscal Year (1982-84 = 100)	236.009	236.742	0.3%	239.500	1.2%	244.720	2.2%	250.723	2.5%
Personal Consumption Deflator (2009 = 100)	109.1	109.4	0.3%	111.0	1.4%	112.9	1.7%	115.2	2.0%
3-month Treasury Bills Interest Rate (percent)	0.03	0.04		0.9		1.9		2.8	
Aaa Corporate Bonds Interest Rate (percent)	4.2	3.9		4.3		4.5		4.8	
Unemployment Rate - Civilian (percent)	6.2	5.3		4.8		4.4		4.3	
Wage and Salary Employment (millions)	139.023	141.932	2.1%	144.630	1.9%	147.230	1.8%	149.140	1.3%
Housing Starts (millions of starts)	1.003	1.119	11.6%	1.299	16.1%	1.441	10.9%	1.492	3.6%
Light Vehicle Sales (millions of units)	16.4	17.4	5.8%	18.1	4.1%	18.0	-0.6%	17.8	-1.1%
Passenger Car Sales (millions of units)	7.7	7.5	-2.1%	7.7	2.3%	7.6	-1.3%	7.5	-1.3%
Light Truck Sales (millions of units)	8.7	9.9	12.7%	10.4	5.5%	10.4	0.0%	10.3	-1.0%
Big 3 Share of Light Vehicles (percent)	44.3	44.0		44.7		44.8		44.9	
Michigan									
Wage and Salary Employment (thousands)	4,180	4,270	2.2%	4,326	1.3%	4,386	1.4%	4,430	1.0%
Unemployment Rate (percent)	7.3	5.4		4.9		4.7		4.6	
Personal Income (millions of dollars)	$403,726	$420,279	4.1%	$439,612	4.6%	$459,394	4.5%	$479,148	4.3%
Real Personal Income (millions of 1982-84 dollars)	$182,036	$192,073	5.5%	$197,720	2.9%	$201,937	2.1%	$205,572	1.8%
Wages and Salaries (millions of dollars)	$204,476	$213,064	4.2%	$223,078	4.7%	$232,001	4.0%	$240,817	3.8%
Detroit Consumer Price Index (1982-84 = 100)	221.784	218.812	-1.3%	222.340	1.6%	227.494	2.3%	233.080	2.5%

Forecast Risks

As with any economic forecast, the current recovery faces some risks.

Weak Foreign Economies. Europe's ongoing economic recovery has been slow and tenuous. In addition, Asian economies and financial markets (notably in China) have weakened considerably in recent months. In addition U.S. financial markets have grown more concerned about financial and economic weakness abroad. International geopolitical and military tensions have also heightened recently – along with concerns about those tensions' impact on the U.S. economy.

Fiscal Policy. Recently enacted federal legislation funds the U.S. government through the end of fiscal year 2016. The legislation was the product of substantial compromises across party lines and may indicate at least some lessening of divisions and partisanship. The lessening may improve the federal government's ability to address financial and macroeconomic issues. However, substantial uncertainty surrounds the outcome of the November 2016 Presidential and Congressional elections and the elections' impact on the federal government's ability to craft and implement legislation to address unexpected negative economic events.

Oil Prices. Two major uncertainties surround oil price's impact on the U.S. and Michigan economies:

- The direction and magnitude of changes in oil prices. Over the last year, oil prices and retail gasoline prices have fallen substantially. Over the forecast horizon, oil prices are projected to rise moderately. Geopolitical concerns, increased demand, or a major supply disruption could raise oil prices well above the assumed range. In addition, stronger/weaker foreign economies than predicted will raise/lower oil prices above the assumed price levels.

- The net impact of oil price's more immediate impact on capital investment and financial markets and oil price's impact on consumer spending and household investment. To date, lower oil prices, which have had a negative impact on the economy and financial markets, reduced the level of investment in new wells and lowered oil stocks' equity value. Lower oil prices have increased household discretionary income and consumer sentiment, but in general have not boosted consumer spending. To the extent to which oil prices' impact on consumers operates with a longer lag, the overall economy will be weaker than forecast and conversely.

As oil prices remain low, consumers are expected to spend more of their gasoline savings. If this does not occur, economic growth will be slower than expected.

Monetary Policy. In December 2015, the Fed lowered the federal funds rate by 0.25 of a percentage point. The Fed's recent action removes the uncertainty that had surrounded when the Fed would begin to raise interest rates. However -- especially given that the Fed's has indicated that its future actions will be highly data dependent -- uncertainty surrounds the timing and size of future rate increases. On the one hand, there is concern that the Fed will raise rates too

quickly and risk stalling economic growth. To the extent to which inflation remains below the Fed's target 2.0 percent rate, deflation and its contractionary impacts remains a concern. On the other hand, there is concern that the Fed will raise rates too slowly and risk "overheating" financial/economic markets.

The FOMC continues to reinvest principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction. Given the FOMC's most recent statement, the Committee is unlikely to make any substantial changes in its level of its holdings over the forecast horizon.

Housing Market. Projected 2018 starts are nearly 50 percent higher than 2014 housing starts. If the housing market fails to grow as forecasted, the U.S. and Michigan economies would be weaker than expected. Higher than expected mortgage rates could severely curtail housing market growth. However, despite the large projected increases, forecasted 2018 starts total 1.5 million units – significantly below average starts in the ten years prior to the housing bust (1.7 million units). A stronger than forecasted housing market would boost the overall economy.

Great Recession. The Great Recession did serious damage to household balance sheets and psyches, and significantly tightened credit conditions. Recent economic data suggest that the Great Recession's negative impacts are softening in most respects. Nevertheless, substantial uncertainty surrounds the recession's negative impact on consumer and investor sentiment.

Light Vehicle Sales. According to the forecast, light vehicle sales will see their three highest annual sales levels in history in 2016, 2017 and 2018. In addition, light trucks' historically large share of light vehicle sales likely heightens the severity of the negative impact higher oil prices and a weaker economy will have on light vehicle sales. On the other hand, as a share of the vehicle buyer population, projected light vehicle sales appear to be at reasonable levels.

Weather. The current El Nino weather system has already made a substantial impact in the central U.S. with record-high flood waters. El Nino may also heighten the severity of this year's hurricane season. Taken together, the current El Nino could have a substantial negative impact on the U.S. and international economies.

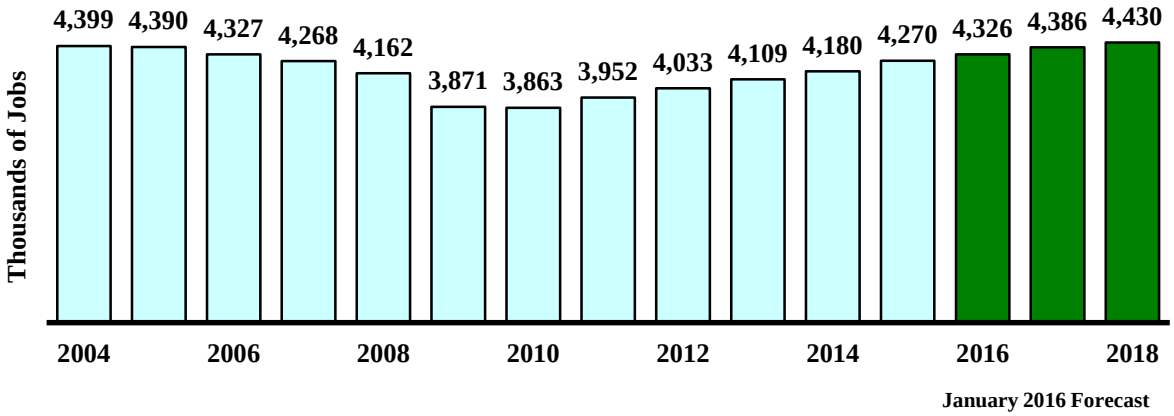
2016, 2017 and 2018 Michigan Economic Outlook

Following ten straight annual declines between 2001 and 2010, inclusive, Michigan wage and salary employment reported its fifth straight annual employment increase in 2015. In 2015, Michigan employment increased an estimated 2.2 percent. State employment is forecast to grow in each of the next three years: 1.3 percent in 2016, 1.4 percent in 2017 and 1.0 percent in 2018. At 4.4 million jobs, the forecasted Michigan employment level in 2018 would represent the State's highest employment level since 2002. However, forecasted 2018 Michigan employment would remain 246,100 jobs (5.3 percent) below the State's peak annual employment set in 2000 (4.7 million jobs).

In 2015, private non-manufacturing employment rose an estimated 71,700 jobs. Private non-manufacturing employment is forecast to gain a net 47,400 jobs in 2016, 57,900 jobs in 2017 and 48,200 jobs in 2018.

In 2015, State manufacturing employment rose an estimated 3.8 percent. Michigan manufacturing employment growth is forecast to slow substantially in 2016 to 1.7 percent and then decelerate to 0.9 percent in 2017. In 2018, State manufacturing employment is predicted to fall very slightly (-0.1 percent). Between 2016 and 2018, manufacturing employment is projected to rise by a net 15,200 jobs.

Michigan Wage and Salary Employment Continues to Rise



Source: Michigan Department of Labor and Economic Growth, U.S. Bureau of Labor Statistics, and January 2016 Administration Forecast.

Michigan transportation equipment employment increased at an estimated 7.8 percent rate in 2015. However, the sector's employment is forecast to decelerate over the forecast horizon with increases slowing to 3.5 percent in 2016, 1.6 percent in 2017 and 0.2 percent in 2018. Forecasted 2018 transportation equipment employment of 196,700 jobs remains down 42.2 percent from the sector's CY 2000 employment of 346,100 jobs.

The Michigan unemployment rate is estimated to have dropped substantially to 5.4 percent in 2015 from 7.3 percent in 2014. The State's rate is expected to continue to decline modestly across the forecast horizon -- falling to 4.9 percent in 2016, 4.7 percent in 2017 and 4.6 percent in 2018.

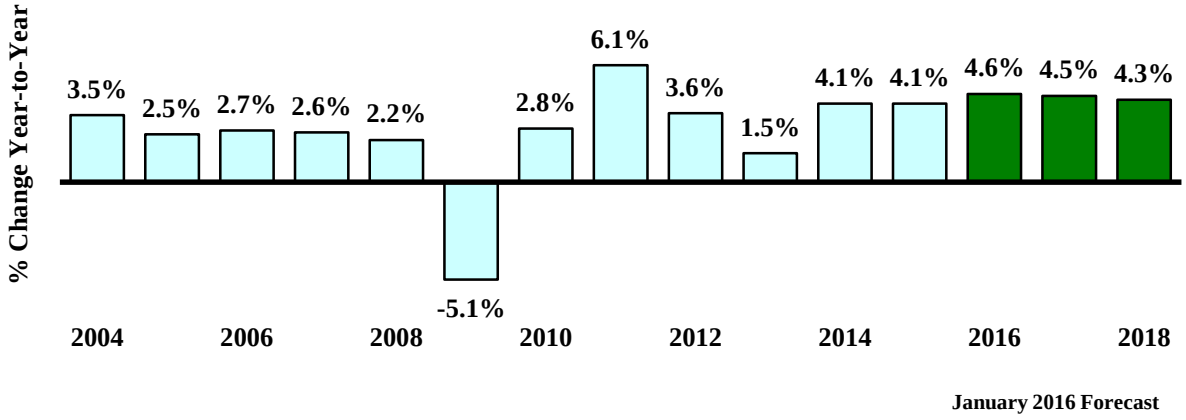
In 2015, wages and salaries rose an estimated 4.2 percent. Wages and salaries are forecast to rise each year of the forecast with increases of 4.7 percent in 2016, 4.0 percent in 2017 and 3.8 percent in 2018.

In 2015, Michigan personal income rose an estimated 4.1 percent. State personal income is forecast to rise 4.6 percent in 2016, 4.5 percent in 2017 and 4.3 percent in 2018.

The overall price level, as measured by the Detroit CPI, increased 1.0 percent in 2014, but declined an estimated 1.3 percent in 2015, marking the first year of annual deflation since 2009 and the largest annual Detroit CPI index percent decline since 1939. The overall price level is forecast to rise each year over the forecast with increases of 1.6 percent in 2016, 2.3 percent in 2017 and 2.5 percent in 2018.

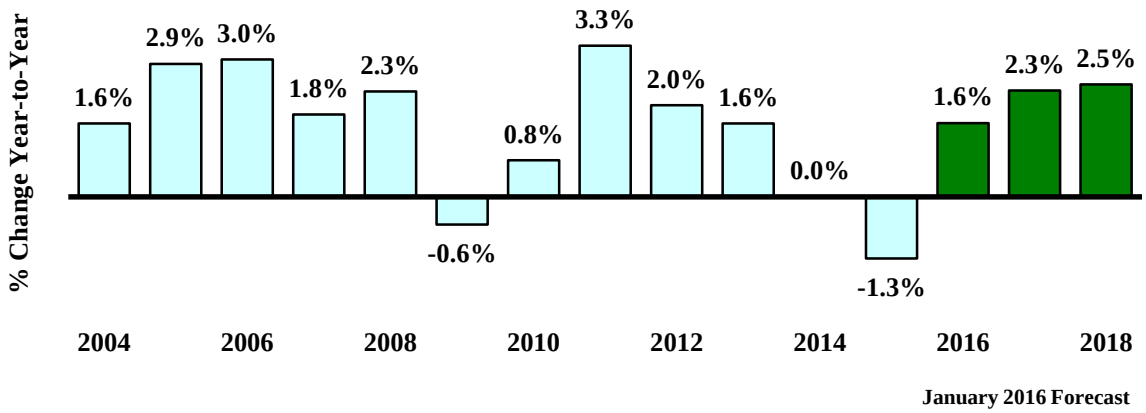
With a 1.3 percent decline in the Detroit CPI, real (inflation adjusted) Michigan personal income growth accelerated from 3.0 percent in 2014 to 5.5 percent in 2015 – the largest annual percent increase in real Michigan personal income since 1984. Real Michigan personal income growth is forecast to slow to 2.9 percent in 2016, 2.1 percent in 2017 and 1.8 percent in 2018.

Michigan Personal Income Reports Solid Growth



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, January 2016.

After 2015 Decline, Overall Price Level Rises in 2016, 2017 and 2018
Detroit CPI



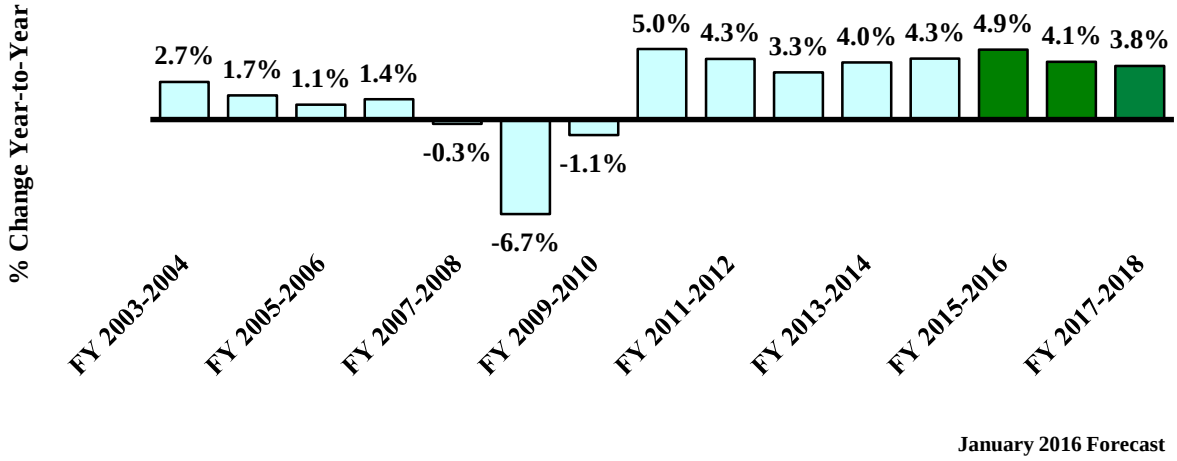
Source: U.S. Bureau of Labor Statistics and Administration Forecast, January 2016.

Fiscal Year Economics

Michigan's largest taxes are the individual income tax ($10.7 billion in FY 2015), which includes refunds, and sales and use taxes (8.8 billion). Income tax withholding is the largest income tax component of the income tax. Withholding ($8.7 billion) is most affected by growth in wages and salaries. Michigan wages and salaries rose 3.3 percent in FY 2013, increased 4.0 percent in FY 2014 and rose 4.3 percent in FY 2015. State wages and salaries are forecast to increase 4.9 percent in FY 2016, 4.1 percent in FY 2017 and 3.8 percent in FY 2018.

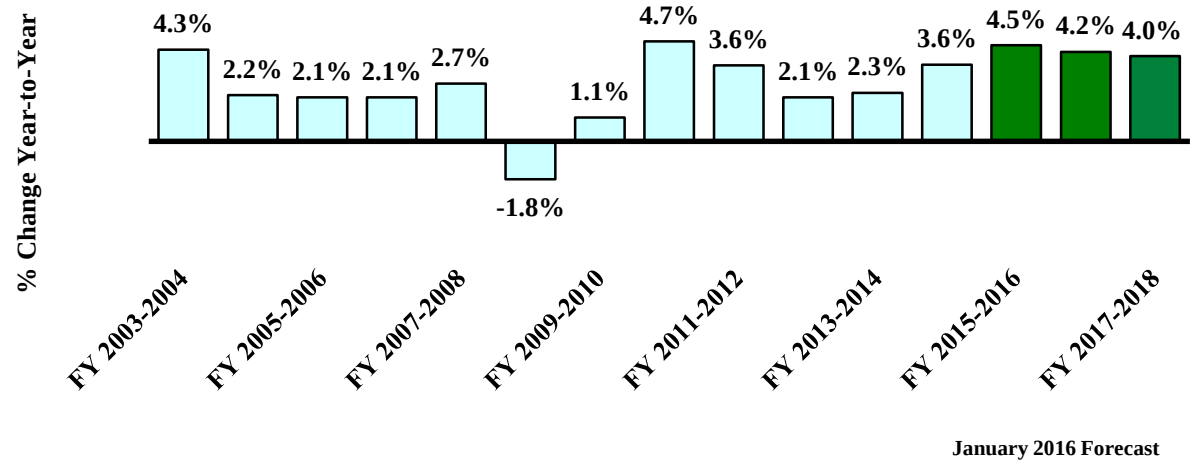
Sales and use taxes depend primarily on Michigan disposable (after tax) income and inflation. Having risen 2.1 percent in fiscal year 2013, disposable income increased 2.3 percent in FY 2014 and rose 3.6 percent in FY 2015. Disposable income is projected to increase 4.5 percent in FY 2016, 4.2 percent in FY 2017 and 4.0 percent in FY 2018. Prices, as measured by the Detroit CPI, rose 1.9 percent in FY 2013 and then increased 1.1 percent in FY 2014. However, the Detroit CPI fell 1.1 percent in FY 2015. The Detroit CPI is forecast to rise 1.0 percent in FY 2016, to increase 2.2 percent in FY 2017 and to rise 2.4 percent in FY 2018.

Michigan Wages and Salaries Rise Throughout Forecast
Basis for Income Tax Withholding Collections



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, January 2016.

Michigan Disposable Income Increases
Basis for Sales and Use Tax Collections



Source: Research Seminar in Quantitative Economics, University of Michigan, and Administration Forecast, January 2016.

ADMINISTRATION REVENUE ESTIMATES
January 14, 2016

Revenue Estimate Overview

The revenue estimates presented in this section consist of baseline revenues, revenue adjustments, and net revenues. Baseline revenues provide an estimate of the effects of the economy on tax revenues. For these estimates, FY 2015 is the base year. Any non-economic changes to the taxes occurring in FY 2016, FY 2017 and FY 2018 are not included in the baseline estimates. Non-economic changes are referred to in the tables as "tax adjustments". The net revenue estimates are the baseline revenues adjusted for tax adjustments.

This treatment of revenue is best illustrated with an example. Suppose tax revenues are $10.0 billion in a given year, and that based on the economic forecast, revenues are expected to grow by 5.0 percent per year. Baseline revenue would be $10.0 billion in Year 1, $10.5 billion in Year 2, and $11.0 billion in Year 3. Assume a tax rate cut is in place that would reduce revenues by $100 million in Year 1, $200 million in Year 2, and $300 million in Year 3. If Year 1 is the base year, the revenue adjustments for Year 1 would be $0 since the tax cut for this year is included in the base. The revenue adjustments for Year 2 would be $100 million, and the revenue adjustments for Year 3 would be $200 million, since the revenue adjustments are compared to the base year.

In the example above, the baseline revenues would be $10.0 billion, $10.5 billion, and $11.0 billion, for Years 1 through 3, respectively. The revenue adjustments would be $0 in Year 1, $100 million in Year 2, and $200 million in Year 3. The $200 million in Year 3 represents the tax cuts since Year 1. Net revenue would be $10.0 billion in Year 1, $10.4 billion in Year 2, and $10.8 billion in Year 3.

The following revenue figures are presented on a Consensus basis. Generally speaking, the Consensus estimates do not include certain one-time budget measures, such as withdrawals from the Budget Stabilization Fund, the sale of buildings, and so on. The figures also do not include constitutional revenue sharing payments to local governments from the sales tax. In addition, the estimates only include enacted legislation and do not include the effects of any proposed changes. The School Aid Fund estimates consist of taxes plus the transfer from the State Lottery Fund.

FY 2015 Revenue Outlook

FY 2015 GF-GP revenue totaled $10,034.4 million, an 11.3 percent increase compared to FY 2014. The FY 2015 GF-GP total is $309.4 million above the May 2015 Consensus estimate. SAF revenue totaled $11,747.1 million, a 1.7 percent increase compared to FY 2014. The FY 2015 SAF total is $136.1 million below the May 2015 Consensus estimate (see Table 2).

Table 2

FY 2014-15 Preliminary Final Revenue

(millions)

	Preliminary FY 2015 Amount	Growth	Change from May 2015 Consensus
General Fund - General Purpose			
Baseline Revenue	$10,660.5	8.9%	
Tax Cut Adjustments	($626.1)		
Net Resources	$10,034.4	11.3%	$309.4
School Aid Fund			
Baseline Revenue	$11,780.9	1.9%	
Tax Cut Adjustments	($33.8)		
Net Resources	$11,747.1	1.7%	($136.1)
Combined			
Baseline Revenue	$22,441.4	5.1%	
Tax Cut Adjustments	($660.0)		
Net Resources	$21,781.5	5.9%	$173.3

Prepared By: Office of Revenue and Tax Analysis, Michigan Department of Treasury

FY 2016 Revenue Outlook

FY 2016 GF-GP revenue is estimated to be $9,959.4 million, a 0.7 percent decrease compared to FY 2015. The FY 2016 GF-GP revenue estimate is $77.6 million above the May 2015 Consensus estimate. SAF revenue is forecast to be $12,181.4 million; representing a 3.7 percent increase compared to FY 2015. The FY 2016 SAF estimate is $61.5 million below the May 2015 Consensus estimate (see Table 3).

Table 3

FY 2015-16 Administration Revenue Estimates

(millions)

	Administration January 14, 2016		Change from May 2015
	Amount	Growth	Consensus
General Fund - General Purpose			
Baseline Revenue	$11,101.2	4.1%	
Tax Cut Adjustments	($1,141.8)		
Net Resources	$9,959.4	-0.7%	$77.6
School Aid Fund			
Baseline Revenue	$12,172.0	3.3%	
Tax Cut Adjustments	$9.3		
Net Resources	$12,181.4	3.7%	($61.5)
Combined			
Baseline Revenue	$23,273.3	3.7%	
Tax Cut Adjustments	($1,132.5)		
Net Resources	$22,140.8	1.6%	$16.0

Prepared By: Office of Revenue and Tax Analysis, Michigan Department of Treasury

FY 2017 Revenue Outlook

FY 2017 GF-GP revenue is estimated to be $10,347.9 million, a 3.9 percent increase compared to FY 2016. The FY 2017 GF-GP revenue estimate is $226.4 million above the May 2015 Consensus estimate. SAF revenue is forecast to be $12,571.5 million; representing a 3.2 percent increase compared to FY 2015. The FY 2017 SAF estimate is $27.3 million below the May 2015 Consensus estimate (see Table 4).

Table 4

FY 2016-17 Administration Revenue Estimates

(millions)

	Administration January 14, 2016		Change from May 2015
	Amount	Growth	Consensus
General Fund - General Purpose			
Baseline Revenue	$11,470.8	3.3%	
Tax Cut Adjustments	($1,122.9)		
Net Resources	$10,347.9	3.9%	$226.4
School Aid Fund			
Baseline Revenue	$12,550.2	3.1%	
Tax Cut Adjustments	$21.3		
Net Resources	$12,571.5	3.2%	($27.3)
Combined			
Baseline Revenue	$24,021.0	3.2%	
Tax Cut Adjustments	($1,101.6)		
Net Resources	$22,919.4	3.5%	$199.1

Prepared By: Office of Revenue and Tax Analysis, Michigan Department of Treasury

FY 2018 Revenue Outlook

FY 2018 GF-GP revenue is estimated to be $10,714.3 million, a 3.5 percent increase compared to FY 2017. SAF revenue is forecast to be $12,934.3 million; representing a 2.9 percent increase compared to FY 2017.

Table 5

FY 2017-18 Administration Revenue Estimates

(millions)

	Administration January 14, 2016	
	Amount	**Growth**
General Fund - General Purpose		
Baseline Revenue	$11,797.1	2.8%
Tax Cut Adjustments	($1,082.9)	
Net Resources	$10,714.3	3.5%
School Aid Fund		
Baseline Revenue	$12,924.5	3.0%
Tax Cut Adjustments	$9.8	
Net Resources	$12,934.3	2.9%
Combined		
Baseline Revenue	$24,721.6	2.9%
Tax Cut Adjustments	($1,073.1)	
Net Resources	$23,648.6	3.2%

Prepared By: Office of Revenue and Tax Analysis, Michigan Department of Treasury

Constitutional Revenue Limit

Article IX, Section 26, of the Michigan Constitution establishes a limit on the amount of revenue State government can collect in any given fiscal year. The revenue limit for a given fiscal year is equal to 9.49 percent of the State's personal income for the calendar year prior to the year in which the fiscal year begins. For example, FY 2014 revenue is compared to CY 2012 personal income. If revenues exceed the limit by less than 1 percent, the State may deposit the excess into the Budget Stabilization Fund (BSF). If the revenues exceed the limit by more than 1 percent, the excess revenue is refunded to taxpayers.

FY 2014 revenues were $8.5 billion below the revenue limit. State revenues will also be well below the limit for FY 2015 through FY 2018. FY 2015 revenues are expected to be $7.8 billion below the limit, FY 2016 revenues $8.9 billion below the limit, FY 2017 revenues $9.4 billion below the limit, and FY 2018 revenues $9.9 billion below the limit (See Table 6).

Table 6

Administration Revenue Limit Calculation

(millions)

	FY 2014 Final June 2014	FY 2015 Admin Jan 2016	FY 2016 Admin Jan 2016	FY 2017 Admin Jan 2016	FY 2018 Admin Jan 2016
Revenue Subject to Limit	$27,442.5	$28,854.8	$29,376.9	$30,509.2	$31,775.3
Revenue Limit	**CY 2012**	**CY 2013**	**CY 2014**	**CY 2015**	**CY 2016**
Personal Income	$378,443	$386,471	$403,726	$420,279	$439,612
Ratio	9.49%	9.49%	9.49%	9.49%	9.49%
Revenue Limit	$35,914.2	$36,676.1	$38,313.6	$39,884.5	$41,719.2
Amount Under (Over) Limit	**$8,471.7**	**$7,821.3**	**$8,936.6**	**$9,375.3**	**$9,943.9**

Budget Stabilization Fund Calculation

The Management and Budget Act contains provisions for calculating a recommended deposit or withdrawal from the BSF. The calculation looks at personal income net of transfer payments. The net personal income figure is adjusted for inflation. The change in this figure for the calendar year determines whether a pay-in or pay-out is recommended. If the formula calls for a deposit into the BSF, the deposit is made in the next fiscal year. If the formula calls for a withdrawal, the withdrawal is made during the current fiscal year.

If real personal income grows by more than 2 percent in a given calendar year, the fraction of income growth over 2 percent is multiplied by the current fiscal year's GF-GP revenue to determine the pay-in for the next fiscal year. If real personal income declines, the percentage

deficiency under zero is multiplied by the current fiscal year's GF-GP revenue to determine the withdrawal available for the current fiscal year. If the change in real personal income is between 0 and 2 percent, no pay-in or withdrawal is indicated.

Real calendar year personal income for Michigan is expected to increase 2.5 percent in 2015. Thus, the formula has a pay-in for FY 2016 of $250.9 million (See Table 7). In 2015, real calendar year personal income for Michigan is forecast to increase 2.5 percent, so the formula 7calls for a pay-in of $229.1 million for FY 2017 (See Table 8). In 2017, real calendar year personal income for Michigan is forecast to increase 2.5 percent, so the formula calls for a pay-in of $51.7 million in FY 2017 (See Table 9). Based on the personal income numbers, there is no pay-out in FY 2018 (See Table 10).

Table 7

Budget and Economic Stabilization Fund Calculation Based on CY 2015 Personal Income Growth Administration Calculation

	CY 2014	CY 2015
Michigan Personal Income	$ 403,726 [1]	$ 420,279 [1]
less Transfer Payments	$ 86,899 [1]	$ 91,444 [1]
Income Net of Transfers	$ 316,827	$ 328,835
Detroit CPI	2.210 [2]	2.195 [2]
for 12 months ending	(June 2014)	(June 2015)
Real Adjusted Michigan Personal Income	$ 143,336	$ 149,811
Change in Real Adjusted Personal Income		4.5%
Excess over 2%		2.5%
GF-GP Revenue Fiscal Year 2014-2015		$ 10,034.4

	FY 2015-2016
BSF Pay-In Calculated for FY 2016	$ 250.9
	FY 2014-2015
BSF Pay-Out Calculated for FY 2015	NO PAY-OUT

Notes:

[1] Personal Income and Transfer Payments, Administration Forecast, January 2016.

[2] Detroit Consumer Price Index, Administration Forecast, January 2016.

Table 8

Budget and Economic Stabilization Fund Calculation Based on CY 2016 Personal Income Growth Administration Calculation

	CY 2015	CY 2016
Michigan Personal Income	$ 420,279 [1]	$ 439,612 [1]
less Transfer Payments	$ 91,444 [1]	$ 95,358 [1]
Income Net of Transfers	$ 328,835	$ 344,254
Detroit CPI	2.195 [2]	2.203 [2]
for 12 months ending	(June 2015)	(June 2016)
Real Adjusted Michigan Personal Income	$ 149,811	$ 156,289
Change in Real Adjusted Personal Income		4.3%
Excess over 2%		2.3%
GF-GP Revenue Fiscal Year 2015-2016		$ 9,959.4

	FY 2016-2017
BSF Pay-In Calculated for FY 2017	$ 229.1
	FY 2015-2016
BSF Pay-Out Calculated for FY 2016	NO PAY-OUT

Notes:

[1] Personal Income and Transfer Payments, Administration Forecast, January 2016.

[2] Detroit Consumer Price Index, Administration Forecast, January 2016.

Table 9

Budget and Economic Stabilization Fund Calculation Based on CY 2017 Personal Income Growth Administration Calculation

	CY 2016	CY 2017
Michigan Personal Income	$ 439,612 [1]	$ 459,394 [1]
less Transfer Payments	$ 95,358 [1]	$ 99,601 [1]
Income Net of Transfers	$ 344,254	$ 359,793
Detroit CPI	2.203 [2]	2.246 [2]
for 12 months ending	(June 2016)	(June 2017)
Real Adjusted Michigan Personal Income	$ 156,289	$ 160,187
Change in Real Adjusted Personal Income		2.5%
Excess over 2%		0.5%
GF-GP Revenue Fiscal Year 2016-2017		$ 10,347.9

	FY 2017-2018
BSF Pay-In Calculated for FY 2018	$ 51.7
	FY 2016-2017
BSF Pay-Out Calculated for FY 2017	NO PAY-OUT

Notes:

[1] Personal Income and Transfer Payments, Administration Forecast, January 2016.

[2] Detroit Consumer Price Index, Administration Forecast, January 2016.

Table 10

Budget and Economic Stabilization Fund Calculation Based on CY 2018 Personal Income Growth Administration Calculation

	CY 2017	CY 2018
Michigan Personal Income	$ 459,394 [1]	$ 479,148 [1]
less Transfer Payments	$ 99,601 [1]	$ 104,313 [1]
Income Net of Transfers	$ 359,793	$ 374,835
Detroit CPI	2.246 [2]	2.300 [2]
for 12 months ending	(June 2017)	(June 2018)
Real Adjusted Michigan Personal Income	$ 160,187	$ 163,005
Change in Real Adjusted Personal Income		1.8%
Between 0 and 2%		0.0%
GF-GP Revenue Fiscal Year 2017-2018		$ 10,714.3

	FY 2017-2018
BSF Pay-Out Calculated for FY 2018	NO PAY-OUT

Notes:

[1] Personal Income and Transfer Payments, Administration Forecast, January 2016.

[2] Detroit Consumer Price Index, Administration Forecast, January 2016.

School Aid Fund Revenue Adjustment Factor

The School Aid Fund (SAF) revenue adjustment factor for the next fiscal year is calculated by dividing the sum of current year and subsequent year SAF revenue by the sum of current year and prior year SAF revenue. For example, the FY 2015 SAF revenue adjustment factor is calculated by dividing the sum of FY 2014 and FY 2015 SAF revenue by the sum of FY 2013 and FY 2014 SAF revenue. The SAF revenue totals are adjusted for any change in the rate and base of the SAF taxes. The year for which the adjustment factor is being calculated is used as the base year for any tax adjustments. For FY 2017, the SAF revenue adjustment factor is calculated to be 1.0321 (See Table 11). For FY 2018, the SAF revenue adjustment factor is calculated to be 1.0304 (See Table 12).

Table 11

Administration School Aid Revenue Adjustment Factor

For Fiscal Year 2017

	FY 2015	FY 2016	FY 2017
Baseline SAF Revenue	$11,780.9	$12,172.0	$12,550.2
Balance Sheet Adjustments	($33.8)	$9.3	$21.3
Net SAF Estimates	$11,747.1	$12,181.4	$12,571.5
Subtotal Adjustments to FY 2017 Base	$55.1	$12.0	$0.0
Baseline Revenue on a FY 2017 Base	$11,802.2	$12,193.3	$12,571.5

School Aid Fund Revenue Adjustment Calculation for FY 2017

Sum of FY 2015 & FY 2016	$11,802.2	+	$12,193.3	=	$23,995.6
Sum of FY 2016 & FY 2017	$12,193.3	+	$12,571.5	=	$24,764.8

FY 2017 Revenue Adjustment Factor	**1.0321**

Table 12

Administration School Aid Revenue Adjustment Factor

For Fiscal Year 2018

	FY 2016	FY 2017	FY 2018
Baseline SAF Revenue	$12,172.0	$12,550.2	$12,924.5
Balance Sheet Adjustments	$9.3	$9.3	$9.8
Net SAF Estimates	$12,181.4	$12,559.5	$12,934.3
Subtotal Adjustments to FY 2017 Base	$0.5	($11.5)	$0.0
Baseline Revenue on a FY 2017 Base	$12,181.9	$12,548.1	$12,934.3

School Aid Fund Revenue Adjustment Calculation for FY 2018

Sum of FY 2015 & FY 2016	$12,181.9	+	$12,548.1	=	$24,729.9
Sum of FY 2016 & FY 2017	$12,548.1	+	$12,934.3	=	$25,482.4

FY 2018 Revenue Adjustment Factor	**1.0304**

Note: Factor is calculated off a FY 2018 base year.

Revenue Detail

The estimated tax and revenue totals include the effects of all enacted tax changes except sales tax savings resulting from reductions in revenue sharing payments to local units. The revenue totals by tax are presented separately for GF-GP and for the SAF (See Tables 13 and 14). Tax totals for the income, sales, use, CIT/MBT, tobacco and casino taxes for all funds are also included (See Table 15).

Table 13

Administration General Fund General Purpose Revenue Detail

(millions)

	FY 2016		FY 2017		FY 2018	
	Amount	**Growth**	**Amount**	**Growth**	**Amount**	**Growth**
GF-GP Tax Amounts						
Income Tax	$6,689.4	3.5%	$6,926.0	3.5%	$7,122.9	2.8%
Sales	$1,203.1	7.5%	$1,236.2	2.8%	$1,281.9	3.7%
Use	$867.3	-9.5%	$649.0	-25.2%	$645.2	-0.6%
Cigarette	$187.1	-0.5%	$184.8	-1.3%	$181.6	-1.7%
Beer & Wine	$53.2	13.9%	$54.2	1.9%	$54.7	0.9%
Liquor Specific	$50.6	2.0%	$51.6	2.0%	$51.6	0.0%
Single Business Tax	$0.0	NA	$0.0	NA	$0.0	NA
Insurance Co. Premium	$312.5	-3.1%	$326.3	4.4%	$341.3	4.6%
CIT/MBT	$77.2	-82.4%	$396.8	414.0%	$531.6	34.0%
Telephone & Telegraph	$40.7	-2.6%	$39.7	-2.5%	$39.2	-1.3%
Oil & Gas Severance	$30.4	0.0%	$32.7	7.6%	$35.7	9.2%
Essential Services Assess.	$55.0	NA	$73.1	NA	$79.2	NA
GF-GP Other Taxes	($6.4)	NA	($4.1)	-35.9%	($19.3)	370.7%
Total GF-GP Taxes	$9,560.1	-0.8%	$9,966.3	4.2%	$10,345.6	3.8%
GF-GP Non-Tax Revenue						
Federal Aid	$35.0	-9.1%	$35.0	0.0%	$35.0	0.0%
From Local Agencies	$0.1	NA	$0.1	0.0%	$0.1	0.0%
From Services	$8.0	11.1%	$8.0	0.0%	$8.0	0.0%
From Licenses & Permits	$13.0	13.0%	$13.0	0.0%	$13.0	0.0%
Miscellaneous	$10.0	127.3%	$10.0	0.0%	$10.0	0.0%
Driver Responsibility Fees	$68.7	-2.8%	$50.0	-27.2%	$36.0	-28.0%
Interfund Interest	($2.0)	-600.0%	($3.0)	50.0%	($5.0)	66.7%
Liquor Purchase	$197.0	1.2%	$199.0	1.0%	$202.0	1.5%
Charitable Games	$6.0	-6.3%	$6.0	0.0%	$6.0	0.0%
Transfer From Escheats	$63.5	-1.1%	$63.5	0.0%	$63.5	0.0%
Other Non Tax	$0.0	0.0%	$0.0	0.0%	$0.0	0.0%
Total Non Tax	$399.3	0.3%	$381.6	-4.4%	$368.6	-3.4%
Total GF-GP Revenue	$9,959.4	-0.7%	$10,347.9	3.9%	$10,714.3	3.5%

Table 14
Administration School Aid Fund Revenue Detail

	FY 2016		FY 2017		FY 2018	
	Amount	**Growth**	**Amount**	**Growth**	**Amount**	**Growth**
School Aid Fund						
Income Tax	$2,628.3	4.3%	$2,722.0	3.6%	$2,801.2	2.9%
Sales Tax	$5,526.4	5.0%	$5,731.1	3.7%	$5,934.1	3.5%
Use Tax	$481.8	1.1%	$515.0	6.9%	$528.2	2.6%
Liquor Excise Tax	$50.2	2.2%	$51.2	2.0%	$51.2	0.0%
Cigarette & Tobacco	$358.2	-1.6%	$351.4	-1.9%	$342.6	-2.5%
State Education Tax	$1,873.1	0.8%	$1,919.9	2.5%	$1,976.8	3.0%
Real Estate Transfer	$274.0	6.0%	$288.0	5.1%	$305.0	5.9%
Industrial Facilities Tax	$36.0	3.7%	$37.0	2.8%	$38.0	2.7%
Casino (45% of 18%)	$110.5	-0.3%	$111.1	0.5%	$111.3	0.2%
Commercial Forest	$3.4	9.7%	$3.4	0.0%	$3.4	0.0%
Other Spec Taxes	$28.5	17.8%	$28.5	0.0%	$29.0	1.8%
Subtotal Taxes	$11,370.4	3.7%	$11,758.6	3.4%	$12,120.8	3.1%
Lottery Transfer	$811.0	3.4%	$812.9	0.2%	$813.5	0.1%
Total SAF Revenue	$12,181.4	3.7%	$12,571.5	3.2%	$12,934.3	2.9%

Table 15
Administration Major Tax Totals

	FY 2016		FY 2017		FY 2018	
	Amount	**Growth**	**Amount**	**Growth**	**Amount**	**Growth**
Major Tax Totals (Includes all Funds)						
Income Tax	$9,318.5	3.8%	$9,648.8	3.5%	$9,924.9	2.9%
Sales Tax	$7,594.1	4.8%	$7,873.8	3.7%	$8,152.8	3.5%
Use Tax	$1,445.5	0.8%	$1,544.9	6.9%	$1,584.5	2.6%
CIT/MBT	$77.2	-82.4%	$396.8	414.0%	$531.6	34.0%
Cigarette and Tobacco	$948.8	-0.5%	$936.4	-1.3%	$919.3	-1.8%
Casino Tax	$110.5	1.6%	$111.1	0.5%	$111.3	0.2%