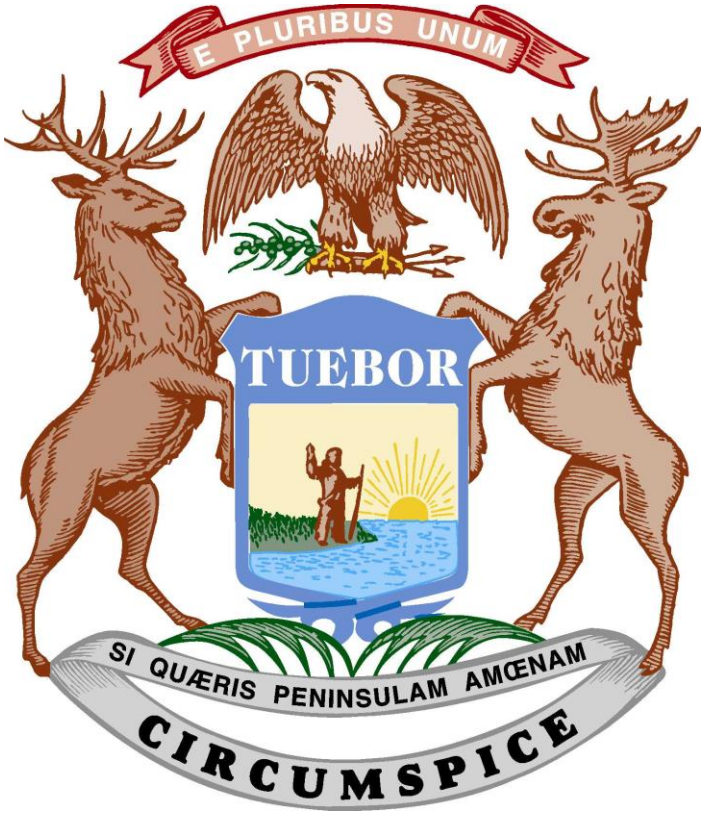
Administration Estimates Michigan Economic and Revenue Outlook



FY 2014-15, FY 2015-16 and FY 2016-17

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
May 15, 2015

Table of Contents

List of Tables

ADMINISTRATION ESTIMATES
EXECUTIVE SUMMARY
May 15, 2015

Revenue Review and Outlook

- FY 2015 GF-GP revenue is forecast to increase 7.8 percent to $9,720.2 million, up $218.8 million from the January 2015 Consensus estimate. FY 2015 SAF revenue is forecast to increase 3.3 percent to $11,897.2 million, up $8.1 million from the January 2015 Consensus estimate.

- FY 2016 GF-GP revenue is forecast to increase 1.6 percent to $9,874.7 million, up $161.5 million the January 2015 Consensus estimate. FY 2016 SAF revenue is forecast to increase 3.4 percent to $12,301.9 million, up $38.2 million from the January 2015 Consensus estimate.

- FY 2017 GF-GP revenue is forecast to increase 2.5 percent to $10,117.6 million, up $117.0 million the January 2015 Consensus estimate. FY 2017 SAF revenue is forecast to increase 3.2 percent to $12,699.3 million, up $58.4 million from the January 2015 Consensus estimate.

2015, 2016 and 2017 U.S. Economic Outlook

- After increasing 1.6 percent in 2011, real gross domestic product grew 2.3 percent in 2012. Real GDP rose 2.2 percent in 2013 and increased 2.4 percent in 2014. Economic growth is forecast to accelerate to 2.8 percent in 2015 and 3.1 percent in 2016. Real GDP growth is then expected to slow slightly to 3.0 percent in 2017.

- U.S. wage and salary employment rose 1.7 percent in 2012 and grew an additional 1.7 percent in 2013. National employment increased 1.9 percent in 2014. U.S. employment is expected to increase 2.2 percent in 2015, 1.8 percent in 2016 and 1.6 percent in 2017, marking the seventh 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 8.1 percent in 2012 and 7.4 percent in 2013. The unemployment rate dropped to 6.2 percent in 2014. The national unemployment rate is forecast to fall to 5.3 percent in 2015, 5.1 percent in 2016 and 5.0 percent in 2017.

- Housing starts increased a sharp 28.2 percent in 2012 and grew 18.5 percent in 2013. Housing starts increased 8.5 percent in 2014. Housing starts are forecast to continue to increase with starts rising 12.8 percent in 2015, 16.8 percent in 2016 and 10.7 percent in 2017. In 2014, housing starts rose (slightly) above 1.0 million units for the first time since 2007. In 2017, starts are expected to total 1.46 million units.

- Light vehicle sales are expected to post significant growth across the forecast. In 2013, vehicle sales increased to 15.5 million units – marking the first year that sales topped 15.0 million units since 2007. Sales totaled 16.4 million units in 2014. Sales are forecast to rise to 16.8 million units in 2015, 17.1 million units in 2016 and 17.2 million units in 2017, which would mark the second highest annual light vehicle sales total on record.

- Inflation is expected to remain moderate. Consumer prices increased 2.1 percent in 2012 and also rose 1.5 percent in 2013. In 2014, consumer prices increased 1.6 percent. Prices are forecast to rise 0.2 percent in 2015, 2.0 percent in 2016 and 2.4 percent in 2017.

2015, 2016 and 2017 Michigan Economic Outlook

- Michigan employment increased 2.3 percent or 88,500 jobs in 2011 – marking the first increase since 2000. Employment grew again in 2012, by 2.1 percent or 81,500 jobs. In 2013, employment increased 76,000 jobs (1.9 percent). In 2014, Michigan wage and salary employment grew by 70,400 (1.7 percent). State wage and salary employment is forecast to increase 2.1 percent in 2015, 1.4 percent in 2016 and 1.2 percent in 2017.

- The Michigan unemployment rate dropped from 12.6 percent in 2010 to 10.4 percent in 2011. The rate declined sharply in 2012 to 9.1 percent before falling to 8.9 percent in 2013. In 2014, the Michigan unemployment rate fell to 7.3 percent. The Michigan unemployment rate is forecast to continue to decline each year with the rate falling to 5.8 percent in 2015, 5.4 percent in 2016 and 5.0 percent in 2017.

- 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 4.2 percent in 2012 and 2.9 percent in 2013. Michigan wages and salaries increased 4.3 percent in 2014. Michigan wages and salaries are forecast to increase 4.6 percent in 2015, 3.6 percent in 2016 and 3.5 percent in 2017.

- Michigan personal income fell 4.4 percent in 2009 – marking the first annual Michigan personal income drop since 1958 and the largest annual decline since 1938. Income increased 2.3 percent in 2010 and rose 5.9 percent in 2011. Personal income increased 3.9 percent in 2012 and rose 1.4 percent in 2013. In 2014, Michigan personal income increased 4.0 percent. Michigan personal income is forecast to increase 4.6 percent in 2015, 4.5 percent in 2016 and 4.3 percent in 2017.

- On a fiscal year basis, Michigan disposable income rose 1.9 percent in FY 2013 and increased 2.3 percent in FY 2014. Disposable income is forecast to grow 4.1 percent in FY 2015, 4.3 percent in FY 2016 and 4.1 percent in 2017. Wages and salaries increased 3.4 percent in FY 2013 and rose 3.6 percent in FY 2014. Wages and salaries are forecast to increase 4.6 percent in FY 2015, 3.9 percent in FY 2016 and 3.5 percent in FY 2017.

Forecast Risks

- 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.

- Higher than forecast oil prices would lower consumers' discretionary income, increase many businesses' costs and depress economic activity.

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

- A severe drop in stock values would pose a substantial drag on the macroeconomy.

- Continued and strong job growth remains central to sustaining recent gains across the economy and to combating dampening factors such as weak consumer confidence.

- 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 when the Federal Reserve will begin raising the federal funds rate from the rate's current 0.00-0.25 percent range. It is possible the Fed will begin raising the rate later in 2015 or the beginning of 2016.

- 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.

ECONOMIC REVIEW AND OUTLOOK
May 15, 2015

Current U.S. Economic Situation

Summary

The current U.S. economic expansion is nearly six years old. According to the Institute for Supply Management, the overall U.S. economy expanded for its 71st straight month in April 2015. **Real Gross Domestic Product (GDP)** has grown in all but two quarters since the end of the Great Recession. However, the current recovery remains uneven and tepid.

After falling at a 2.1 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 5.0 percent annual growth in 2014Q3 – its fastest growth since 2003Q3. However, growth slowed to a 2.2 percent annual rate in 2014Q4. Growth slowed further to a 0.2 percent annual rate in 2015Q1 according to advance estimates. The deceleration in 2015Q1 was broad-based with slowing consumption and investment and declining exports contributing to the slowdown. The 2015Q1 deceleration may be attributable to temporary factors including an extremely harsh winter and West Coast port disruptions.

U.S. wage and salary employment has risen each month since October 2010 with a cumulative gain of 11.1 million jobs over the past 55 months. In April 2015 (the most recent month for which data are available), a net 223,000 jobs were added. Consequently, April 2015 employment was 3.0 million jobs higher than the pre Great Recession peak employment level.

Housing Market

House Construction and Sales

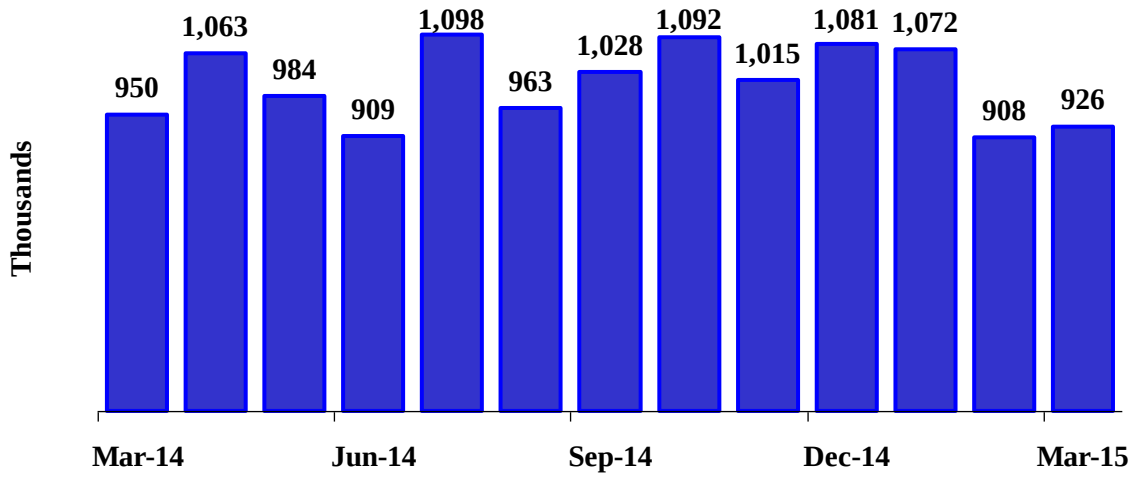
The housing market remains historically weak, but the market has strengthened. In each year between 2008-2013, inclusive, housing starts totaled fewer than 1.0 million units. Prior to 2008, starts had never fallen below 1.0 million units since at least 1959. However, after falling to a record low (554,000 units) in 2008, housing starts have risen each year between 2010 and 2014, inclusive. In 2014, total starts rose very slightly above 1.0 million to 1,003,300 units – up 8.5 percent from 2013, 81.1 percent higher than its 2009 record low, but 51.5 percent below the record high 2.1 million units starts in 2005 and 26.8 percent fewer than average housing starts in the boom 1990s (pre-boom).

In December 2014 (the last month of data available at the January 2015 Consensus Conference), the **National Association of Home Builders (NAHB) sentiment** index stood at 58. (A reading above 50 indicates that more builders viewed conditions as favorable compared with the number who viewed conditions as unfavorable). While the index fell from the prior month in each of the

first three months of 2015, the index remained above 50. In addition, the index rose from 52 in March 2015 to 56 in April 2015. The index has remained above 50 each month since July 2014. In 2014, **new home sales** remained below 500,000 units for the seventh straight year. Prior to 2008, new home sales last totaled fewer than 500,000 units in 1982. However, at 437,000 units, 2014 did represent the second year in which new home sales exceeded 400,000 units since 2008. New home sales rose 1.9 percent in 2014 -- marking the third consecutive annual increase. The 2014 increase was substantially smaller than increases in 2012 (20.3 percent) and 2013 (16.6 percent). In January 2015, new home sales rose above a 500,000 unit annual rate for the first month since May 2008. New home sales rose further in February 2015, but fell in March – dropping to a 481,000 unit annual rate. (U.S. Census Bureau).

The annualized **existing home sales** rate reported year-over-year increases each month between July 2011 and October 2013, inclusive. 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. Since October 2014, existing home sales have been up compared to a year ago. After rising 9.2 percent in calendar year 2013, existing home sales fell 2.9 percent in 2014. Existing homes dropped below 5.0 million units this January and remained below 5.0 million units in February. In March, existing home sales rose above 5.0 million units. At 5.2 million units, the March 2015 annual rate represented the highest sales rate since September 2013. (National Association of Realtors)

Annualized Housing Starts Still At Historically Low Levels



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

House Prices

House prices have grown in recent months.

- Between March 2014 and March 2015, the **Core Logic Home Price Index** increased 5.9 percent. Furthermore March 2015 marked the 37th consecutive month of year-over-year home price gains. However, the March 2015 level remained 11.0 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 $277,400, the 2014 annual median price represents the highest annual median new home sale price on record. The monthly median new home sale price fell from the prior month in each month between December 2014 and March 2015, inclusive. As a result, the March 2015 median new home sale price was down 1.7 percent from March 2014.

- In 2014, the median existing-house price rose 5.7 percent from 2013. The **median existing-house price** rose 7.8 percent between March 2014 and March 2015 -- marking the 37rd consecutive month of year-over-year price gains. (National Association of Realtors)

Repercussions

After falling to a 104-month low in February 2015, **foreclosures** rose 20 percent in March 2015. As a result, March 2015 foreclosures were up compared to a year ago – marking the first year-over-year increase in foreclosures since September 2010. Despite the sharp jump in March, 2015Q1 foreclosures still were still down eight percent from 2014Q1 – dropping to their lowest quarterly level since 2007Q1. Further, RealtyTrac characterizes the sharp rise in March foreclosures as the result of the "continued cleanup of distress still lingering from the previous housing crisis; not the beginning of a new crisis by any means." (RealtyTrac)

In February 2015, there were 39,000 **completed foreclosures** in the U.S. February 2015 foreclosures were down 11.6 percent from January 2015 and down 15.7 percent from a year ago. Further, the February 2015 **rate of serious delinquencies** dropped to 4.0 percent, the lowest rate since June 2008. (CoreLogic)

In 2014Q4, **homeowner real estate equity** rose to its highest level since 2007Q2. Compared to a year ago, 2014Q4 real estate equity was up $1.0 trillion. At 54.5 points, the 2014Q4 homeowner equity rate was 17.7 points higher than its all-time low (2009Q1). Over the past year, the equity rate rose by 2.4 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 was down 0.67 percentage point from a year ago. The April 2015 mortgage rate represented the lowest rate since May 2013.

Federal Reserve). Despite lower mortgage rates and higher median family income over the last year, housing affordability worsened due to higher home prices. The **National Association of Realtors housing affordability index** fell 2.3 points between March 2014 and March 2015.

Stock prices increased slightly since the January 2015 Consensus Conference. Between the end of December 2014 and the end of April 2015, the **stock market (Wilshire 5000)** rose 1.6 percent. Over the past four months, the index, compared to the end of 2014, has been up as much as +3.3 percent and has been down as much as -3.2 percent. Compared to a year ago, the month-end April 2015 index was up 10.5 percent.

Monetary Policy

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 will continue 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 as a means to "help maintain accommodative financial conditions."

At the FOMC's April 2015 meeting, the Committee maintained the 0.00 to 0.25 range for the target federal funds rate. In terms of future interest rate policy, "The Committee anticipates that it will be appropriate to raise the target range for the federal funds rate when it has seen further improvement in the labor market and is reasonably confident that inflation will move back to its 2 percent objective over the medium term."

Fiscal Policy

In early May, the Senate approved the first joint congressional budget plan in six years. However, the plan is a blueprint and still requires legislation to be drafted and approved in order to be enacted. The plan's elements such as spending cuts (including defense cuts) and an overhaul of poverty programs and of the health care reform act make it likely that the legislation may never be drafted and, if drafted, never be passed by the legislature – let alone signed by the President. Thus, resumption and success of budget talks may be critical to reaching a bi-partisan agreement on funding the U.S. government departments and programs.

Inflation

In November 2014 (the most recent month for which monthly oil price data were available prior to the January 16, 2015 Consensus Revenue Estimating Conference), the price of oil averaged $75.79 per barrel. The price of oil fell in December 2014 and January 2015 with the price falling to $47.22 per barrel -- the lowest oil price average since February 2009. In February, the price of

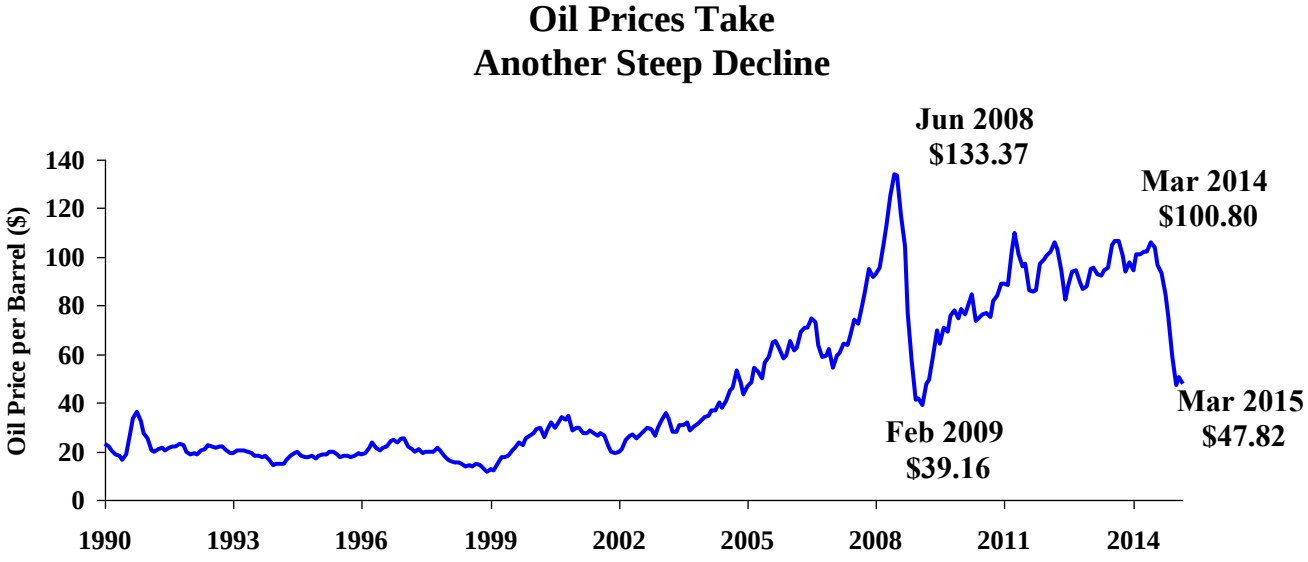
oil rose to $50.58 per barrel and then fell to $47.82 per barrel. (Federal Reserve Bank of St. Louis).

Similarly, the monthly average price of regular gasoline in the U.S. fell each month between July 2014 and January 2015, inclusive and the average price fell a combined $1.58 over the seven months. As a result, in January 2015, the average price fell to $2.12 per gallon – the lowest average price of regular gasoline since April 2009. The average price rose each month between February 2015 and April 2015, inclusive, and increased a combined 35.3 cents per gallon to an average $2.47 per gallon. Compared to a year ago, the April 2015 average is down $1.19 per gallon. (U.S. Energy Information Administration)

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 March 2015, consumer prices have averaged 0.1 percent below prices in the first three months of 2015.

Through March 2015, **core consumer prices** (excluding food and energy) have averaged 1.7 percent higher than in the first three months of 2014. This follows annual core price inflation of 1.0 percent, 1.7 percent, 2.1 percent, 1.8 percent and 1.7 percent in 2010 through 2014 respectively. (U.S. Bureau of Labor Statistics)

Producer prices rose 6.0 percent in 2011, due primarily to increases in fuel prices. Producer prices then increased 1.9 percent in 2012, 1.2 percent in 2013 and 1.9 percent in 2014. Through the first three months of 2015, producer prices were *down* 3.2 percent. Core producer prices rose 1.5 percent in 2013 and increased 1.9 percent in 2014. Through the first three months of 2015, core producer prices are up 1.7 percent from a year ago. (Bureau of Labor Statistics)



Source: Federal Reserve Bank of St. Louis

Major Economic Indicators

Since the January 2015 Conference, five additional months of **ISM manufacturing index (PMI)** data have been released (December 2014-April 2015). The PMI fell each month between December 2014 and March 2015, inclusive. The PMI was unchanged in April 2015. At 51.5, the April 2015 PMI was down 6.1 points from November 2014 (the most recent month available for the January Conference). Compared to a year ago, the PMI is down 3.8 points in April 2015. However, the PMI continued to signal growth each month. In April 2015, the PMI indicated overall economic growth for the 71st month and manufacturing sector growth for the 28th consecutive.

In April 2015, the **ISM non-manufacturing index (NMI)** marked the 63rd straight month signaling sector expansion.

In 2014, **industrial production** increased 4.2 percent from 2013. 2014 marked the fifth straight year of annual growth and the second fastest increase over the five-year period. Between March 2014 and March 2015, industrial production rose 5.2 percent -- the 63rd straight monthly year-over-year increase in industrial production. However, at 2.0 percent, March also marked the fourth straight month of slowing year-over-year increases.

As with industrial production, the annual **capacity utilization rate** rose for the fifth straight year in 2014. In 2014Q4, the capacity utilization rate rose to its highest quarterly rate since 2008Q1. However, with four straight month-over-month declines since last November, the utilization rate fell 0.7 of a point between 2014Q4 and 2015Q1. Compared to a year ago, the 2015Q1 rate was up 0.2 of a point. 2015Q1 marked the 21st straight quarter of year-over-year increases, but also represented the smallest year-over-year rate increase among the 21 quarters.

The **three-month moving average for new durable goods orders** declined from the prior month each month between September 2014 and February 2015. However the three-month average rose in March 2015 (the most recent month for which orders data are available). Compared to a year-ago, the March 2015 average was up 1.9 percent. Between November 2014 (the most recent month for which were available for the January 2015 Conference) and March 2015, the three-month average of new orders fell 2.8 percent.

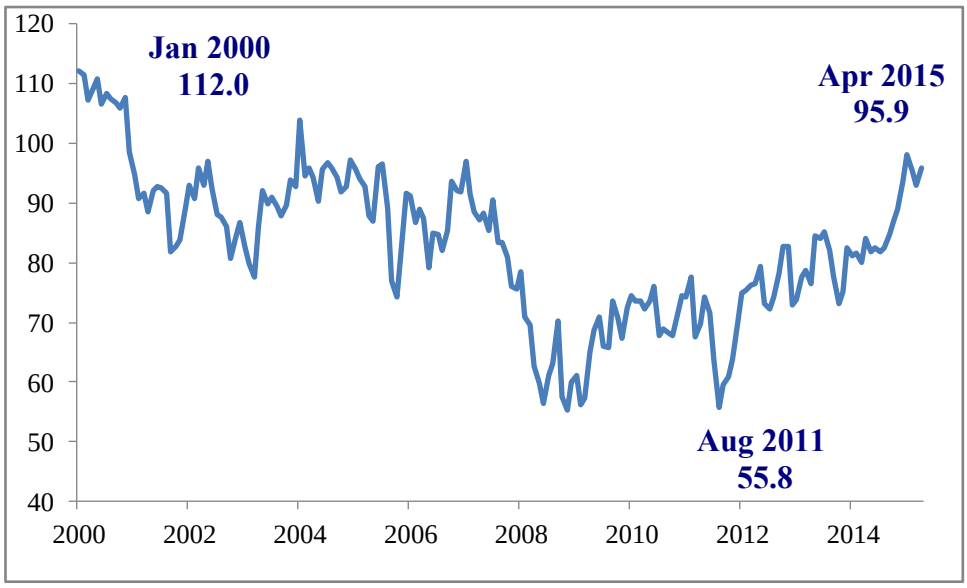
Since November 2009, the **three-month moving average for retail sales** has increased every month from the year-ago level. Over this period, the median y-o-y percent increase has been 4.6 percent. After poor weather conditions slowed y-o-y increases to 2.6 percent in February 2014, growth accelerated in each of the next two months and rose to 4.6 percent in May 2014. The rate of increase changed little in each of the following five months with changes in the rate ranging between -0.2 percent and 0.2 percent. In part the result of poor weather, the rate of change has decelerated in each of the five most recent months for which data are available (November 2014-March 2015). The March 2015 y-o-y increase represented the slowest growth rate (2.2 percent) since December 2009.

Since the January 2015 Consensus Conference, the **University of Michigan index of consumer sentiment** has increased a net 2.3 points. The index reported a 4.5 point increase in January, but

then fell in both February 2015 and March 2015 – falling a combined 5.1 points. However, the index rose 2.9 points in April 2015, resulting in the net 2.3 point increase.

At 84.1, the 2014 consumer sentiment index represented its highest average annual level since 2007 when the index averaged 85.6. The 2014 average is up substantially (20.4 points) from the index's average in 2008 of 63.8, but is 23.5 points down from the average's peak of 107.6 in 2000.

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



Source: University of Michigan Survey of Consumers.

The **Conference Board Measure of CEO Confidence Index** reported net positive readings (over 50) in each of the past nine quarters with five quarters posting readings at or above 60. However, the index was down six points between 2014Q1 to 2015Q1.

The **Conference Board index of leading economic indicators (LEI)** rose 0.2 percent in March 2015. The LEI increased 0.1 percent in January and 0.2 percent in February. The index has been trending upward since the Great Recession.

Between late May 2014 and early January 2015, the **Economic Cycle Research Institute (ECRI) weekly leading index growth rate** slowed from 5.1 percent to -4.7 percent. In mid-October 2014, the growth rate turned negative for the first time since August 2012 (pointing to an economic contraction in the near future). The magnitude of decline increased through early January 2015 and then hovered within a range of -4.7 percent and -3.7 percent until late February. Since early March, the magnitude of the decline has lessened. In late April, the weekly leading index growth rate stood at -0.1 percent.

Employment

Between early January 2015 and early February 2015, the four-week average of **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. Most recently, the average trended downward between mid-March 2015 and early May 2015. The average fell below 300,000 in late March 2015 and in early May 2015 stood at 279,500 – the lowest four-week average of initial unemployment claims in 15 years. (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 February 2015, the U.S. unemployment rate fell to 5.5 percent, the lowest U.S. jobless rate since May 2008. The rate remained unchanged in March 2015. In the 2015Q1, the rate averaged 5.6 percent. In April 2015, the national unemployment rate dropped to 5.4 percent – the lowest U.S. monthly rate since April 2008. (Bureau of Labor Statistics)

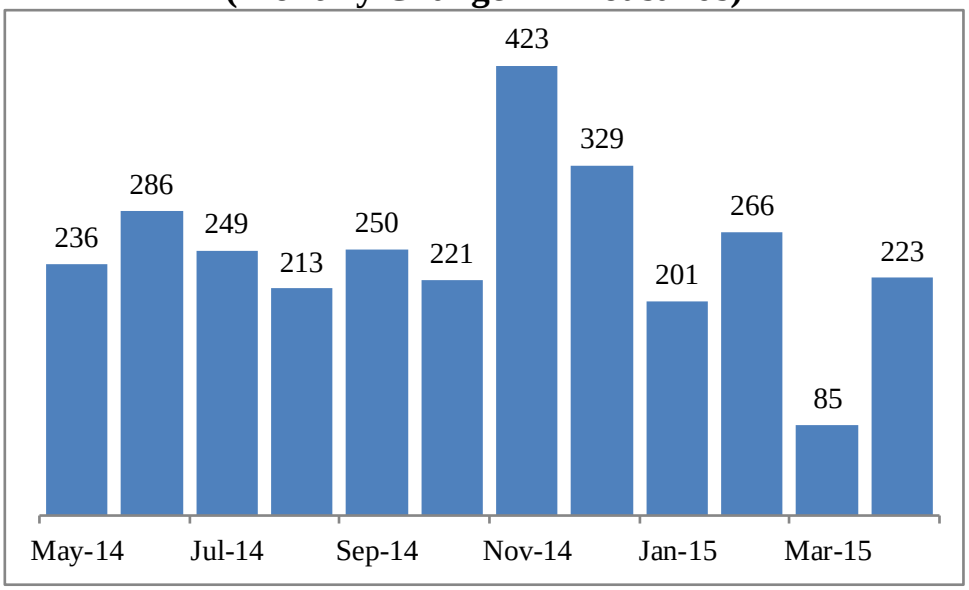
Since November 2014 (the last monthly data were reported before the January 2015 Consensus Conference), the U.S. unemployment rate has dropped 0.4 percentage point. The April 2015 rate also marked the eighth straight month of sub-6.0 percent readings. The annual unemployment rate dropped from 9.6 percent (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.

Between February 2008 and December 2009, **U.S. wage and salary employment** fell every month, declining 8.7 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 11.7 million jobs between January 2010 and April 2015. Compared to a year ago, April 2015 employment was up 3.0 million jobs (2.2 percent).

At 141.4 million jobs, the April 2015 employment level represents the all-time high monthly U.S. employment level. Compared to December 2014 (the last month available prior to the January 2015 Conference), employment is up 0.8 million jobs.

In 2014, average U.S. wage and salary employment was up 1.9 percent. Given this, calendar year (CY) 2014 represents the fourth straight year in which U.S. wage and salary employment has increased. The overall U.S. employment level rose 1.2 percent in 2011 and increased 1.7 percent in both 2012 and 2013.

U.S. Payroll Employment
3.0 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. Between March 2010 and April 2015, manufacturing sector employment has increased from the prior month in 51 of the 62 months. Further, manufacturing employment has increased in 20 of the past 21 months and during this time has risen by 339,000 jobs. April manufacturing employment was up 180,000 jobs from a year ago. Since the end of the Great Recession (June 2009), manufacturing employment has increased a net 596,000 jobs. Despite these increases, April 2015 manufacturing employment was still down 1.4 million jobs from the start of the recession (December 2007). Since December 2014 (the last month reported prior to the January 2015 Consensus Conference), the sector's employment has increased slightly (21,000 jobs).

C**onstruction sector employment** is up by 373,000 jobs since the end of the recession (June 2009) but is down by 1.1 million jobs (-14.8 percent) compared to December 2007. In 2014, construction employment was up by 282,000 jobs.

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. In 2012, sales grew to 14.4 million units and rose to 15.5 million units in 2013. In 2014, light vehicle sales rose to 16.4 million units– the highest reported annual light vehicle sales since 2006.

Through the first four months of 2015, light vehicle sales averaged a 16.6 million unit annual sales rate – up 5.3 percent from the first four months of 2014. Light vehicle sales have exceeded a 15.0 million unit annual rate in each of the past 30 months. Light vehicle sales have exceeded a 16.0 million unit rate in each of the past 12 months. In addition, light vehicle sales exceeded a 17.0 million unit rate in August 2014, November 2014 and March 2015. (Prior to August 2014, light vehicle sales last exceeded a 17.0 million unit rate in July 2006).

Between 2003 and 2009, inclusive, **U.S. vehicle production** declined each year. Between 2006 and 2009, annual production decreased a cumulative 5.6 million units (49.4 percent). However, U.S. vehicle production has risen in each of the past five years (2010-2013, inclusive). Consequently, 2014 national vehicle production was 106.2 percent higher than 2009 production. In 2015, through March, U.S. vehicle production is down 7.1 percent from the year-ago level.

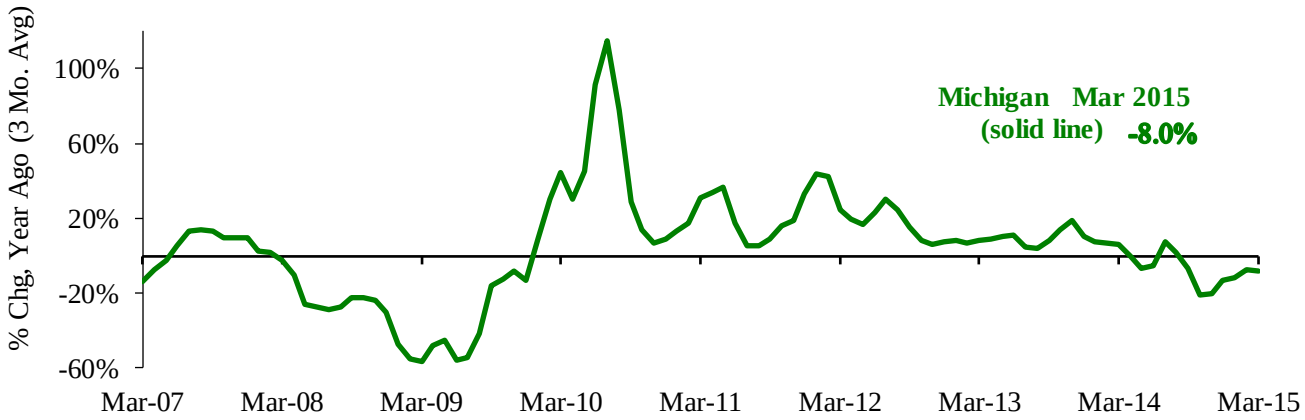
Current Michigan Economic Conditions

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 addition, Michigan vehicle production fell 8.0 percent between 2014Q1 and 2015Q1 – marking the fourth straight quarter in which State vehicle production fell from a year earlier. The four-quarter streak of declines follows 17 straight quarters in which Michigan vehicle production was up from a year ago. In March 2015, Michigan vehicle production rose 3.5 percent from March 2014.

In 2013, **Michigan's share of U.S. vehicle production** rose to 22.3 percent – matching 2001 for 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. In 2015Q1, Michigan's share of U.S. vehicle production fell 0.2 percentage point from a year-ago to 20.3 percent. However, while Michigan's share of monthly U. S. vehicle production was down 2.3 percentage points from a year ago in January 2015, Michigan's share of national vehicle production was *up* 0.7 percentage point from a year ago in both February 2015 and March 2015.

Michigan Vehicle Production Declining 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. The actual 1.7 percent increase is 1.0 percentage point larger than data available at the time of the January 2015 Consensus Conference had indicated. Michigan employment had increased 2.3 percent in 2011, 2.1 percent in 2012 and 1.9 percent in 2013. 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 rose 8.2 percent (the 10th fastest percent growth among U.S. states).

Directly prior to the four recent annual increases, Michigan employment had fallen each year between 2001 and 2010, inclusive, and dropped a combined 813,100 jobs. Thus, Michigan's 2014 wage and salary employment level (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.

In March 2015, Michigan payroll employment was up 88,200 jobs from a year ago but down 1,500 jobs from February 2015. Directly prior to March 2015, Michigan had recorded significant month-over-month employment increases between October 2014 and February 2015, inclusive.

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.

After recording month-over-month increases between October 2014 and February 2015, inclusive, totaling 17,200 jobs, Michigan manufacturing employment declined by 2,400 jobs in March 2015. Over the last year, Michigan manufacturing employment has increased a net 17,700 jobs, accounting for 20.1 percent of the overall net increase of 88,200 jobs

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. In 11 of the past 12 months (April 2014-March 2015), Michigan construction employment has posted a month-over-month increase. Between March 2014 and March 2015, State construction employment rose a net 14,400 jobs, accounting for 16.3 percent of the overall net increase.

At 10.6 percent, Michigan's wage and salary employment percent increase since the end of the Great Recession (June 2009) ranks 7th among all U.S. states. Over the past year between March 2014 and March 2015, Michigan employment has risen 2.1 percent, ranking 15th 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.

Michigan's unemployment rate fell in each of the most recent 19 months (September 2013-March 2015, inclusive). Over these months, the State's unemployment rate has dropped a net 2.9 percentage points from 8.5 percent in August 2013 to 5.6 percent in March 2015 (the most recent month for which data are available). At 5.6 percent, Michigan's March 2015 unemployment rate represented the State's lowest monthly rate since August 2001.

After rising to 1.3 percentage points in April 2014, the **gap between Michigan's unemployment rate and the U.S. unemployment rate** trended downward. Over the past year, the Michigan unemployment rate has fallen 2.0 percentage points while the national rate has declined 1.1 percentage points. Thus, in March 2015 (the most recent month for which data are available), the gap fell to 0.1 percentage point. Prior to this March, the last time the gap between Michigan's and the U.S. rate equaled or was less than 0.1 percentage point was October 2000.

Month-over-month, **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 302,500 persons. According to data available for the January 2015 Consensus Conference, Michigan household employment rose by 120,200 persons between November 2013 and November 2014. Based on revised data, the year-over-year gain equaled 84,600 persons. Since November 2014, Michigan household employment is up by 40,300 persons. Between March 2014 and March 2015, Michigan household employment was up a net 90,400 persons.

The **Michigan labor force** fell from the prior month in every month between August 2005 and December 2008, inclusive. Over these 41 months, the State labor force fell a combined 226,700 persons. The Michigan labor force rose each month between January 2009 and June 2009 (rising a combined 90,700 persons). However, the State's labor force fell each month between July 2009 and May 2011 and dropped a combined 293,600 persons. Similarly, the Michigan labor force rose each month between June 2011 and October 2011, but then declined in each of the following six months (November 2011-April 2012). Between June 2011 and April 2012, Michigan's labor force fell a net 4,200 persons. Between May 2012 and March 2014, inclusive, the Michigan labor force increased each month and rose a cumulative 93,500 persons over the 23 months. In the 12 most recent months for which data are available (April 2014-March 2015), the State labor force fell in seven months and rose in five months -- declining a net 5,400 persons over the past year.

On an annual basis, 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 March 2014 and March 2015, **Michigan household unemployment** fell 95,800 persons (26.4 percent). Compared to household unemployment at the end of the Great Recession, March 2015 unemployment is 470,300 persons lower. Compared to the *outset* of the Recession, March 2015 unemployment is 97,300 persons lower. At 266,900 persons, the number of Michigan unemployed in March 2015 represents the State's lowest monthly unemployment level since July 2001.

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 marks the fifth straight annual year increase in State authorizations. Nationally, authorizations grew 5.6 percent. The 2014 increase follows increases greater than 25 percent in 2010, 2012 and 2013.

In 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 2013 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 March 2014, total Michigan authorizations were up 8.2 percent. Nationally, year-to-date authorizations were up 8.9 percent between 2014 and 2015.

In February 2015, according to **Case-Shiller house price measures** (seasonally adjusted), the Detroit MSA recorded a 3.7 percent year-over-year house price increase, compared to a 4.2 percent average increase for the 20 U.S. metro areas surveyed for the measure. Detroit's 3.6 percent year-over-year increase ranked 14th among the 20 metro areas. According to CoreLogic, Michigan had the 2nd highest number of **completed foreclosures** for the 12 months ending February 2015 with 50,000 completed foreclosures, behind Florida. However, Michigan had the 12th smallest **percent of homes in foreclosure**.

The **share of mortgage properties underwater (negative equity)** in Michigan is higher than the national average. In 2014Q4, 10.8 percent of residential properties with mortgages were underwater nationally. In Michigan, 13.9 percent of such properties were underwater –ranking Michigan 7th highest among the fifty states behind Nevada (24.2 percent), Florida (23.2 percent), Arizona (18.7 percent), Illinois (16.2 percent), Rhode Island (15.8 percent), and Ohio (15.2 percent). (CoreLogic)

Personal Income

Michigan annual personal income growth accelerated from 1.4 percent in 2013 to 4.0 percent in 2014. Michigan's 4.0 percent income growth in 2014 ranked 22nd among U.S. states. Nationally, personal income growth sped from 2.0 percent in 2013 to 3.9 percent in 2014 with 46 of the 50 states reporting accelerating growth in 2014. Michigan's 2014 per capita income increase (3.8 percent) ranked 10th among U.S. states. (Bureau of Economic Analysis)

Michigan's quarterly personal income grew from the prior year in all but one quarter between 2010Q1-2014Q4 (the latest quarter available). Most recently, in 2014Q4, Michigan personal income was up 4.7 percent from a year ago (ranking 16th among U.S. states).

Each quarter between 2010Q2 and 2014Q4, **Michigan wage and salary income** rose from a year ago with increases ranging between 0.9 percent and 8.2 percent. Wage and salary growth has accelerated in each of the most recently available quarters (2014Q1-2014Q4, inclusive). Most recently, year-over-year wage and salary growth accelerated from 4.3 percent growth in 2014Q3 to 5.0 percent growth in 2014Q4. At 5.0 percent, Michigan's 2014Q4 wage and salary growth ranked 18th among the 50 states. Nationally, wage and salary income rose 5.1 percent between 2013Q4 and 2014Q4.

After year-over-year declines in 12 straight quarters from 2007Q2 to 2010Q1, **Michigan manufacturing wages and salaries** has experienced 19 consecutive quarters of y-o-y increases. Manufacturing wage growth peaked in 2011Q1 (20.5 percent) and then slowed to 8.4 percent and 5.6 percent in the second and third quarters, respectively. After accelerating to 12.5 percent in 2011Q4, manufacturing wage growth fluctuated between 5.2 percent and 8.6 percent over the next four quarters. Manufacturing wage and salary growth slowed to 3.9 percent in 2013Q1 but then accelerated in the following two quarters with y-o-y wage and salary growth accelerating to 6.4 percent in 2013Q3. Wage and salary growth then slowed to 3.5 percent in 2013Q4 before accelerating to 5.1 percent in 2014Q1. Wages growth slowed to 4.3 percent in 2014Q2, then accelerated to 4.7 percent in 2014Q3 and, most recently, slowed slightly to 4.6 percent in 2014Q4.

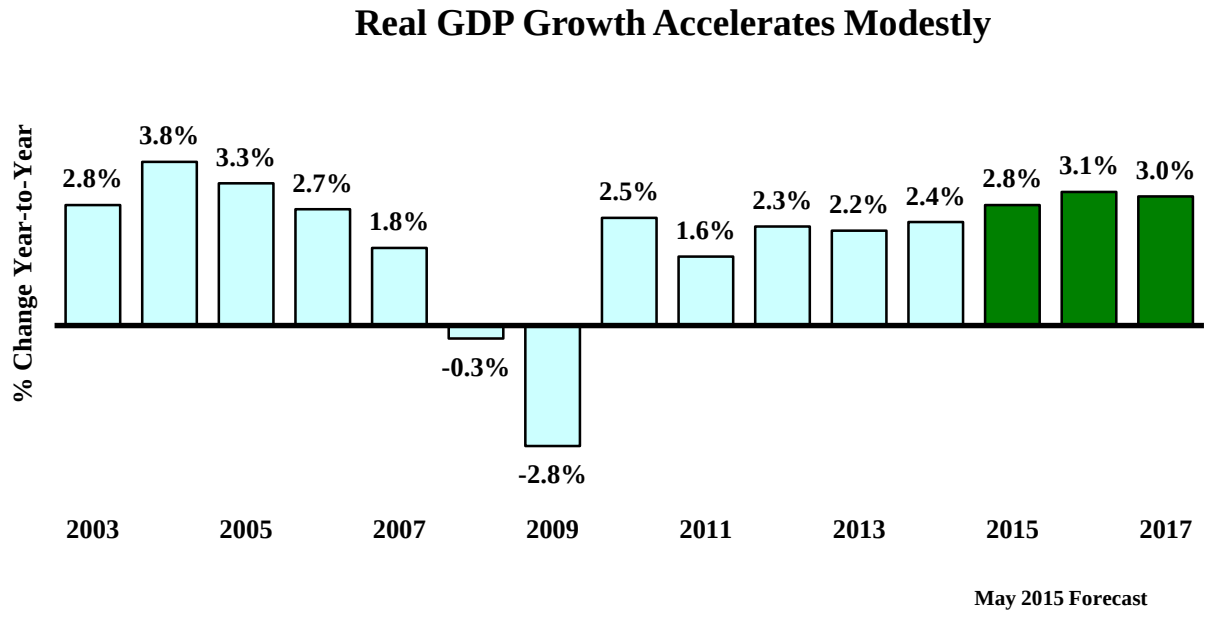
Michigan manufacturing wages have outpaced overall U.S. manufacturing sector wages for 20 straight quarters. In 2014Q4, Michigan manufacturing wages and salaries grew 0.3 percentage point faster than manufacturing wages and salaries nationally.

The manufacturing sector continues to play an important role in Michigan's wage growth. However, most recently, the manufacturing sector's share of Michigan's overall wage growth has moved closer in line with the manufacturing sector's share of total wages. The manufacturing sector accounted for 30.2 percent of the State's overall increase from 2012Q3 to 2013Q3, even while the sector comprised 22.8 percent of 2012Q3 wages. In fact, most recently, the manufacturing sector accounted for 20.0 percent overall Michigan wage growth between 2013Q4 and 2014Q4 –3.2 percentage points *less* than the Michigan's manufacturing sector share of total wages in 2013Q4 (23.2 percent).

2015, 2016 and 2017 U.S. Economic Outlook

Summary

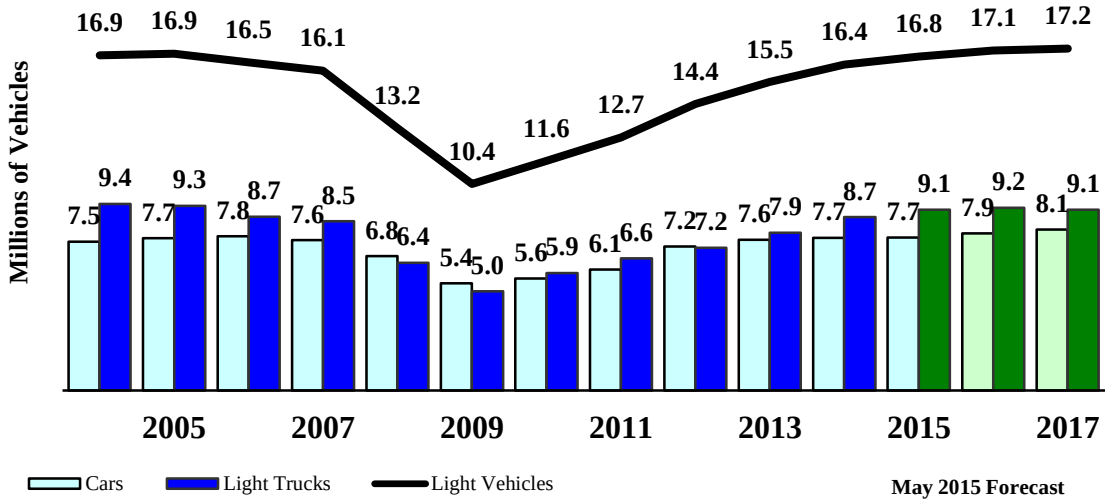
After declining 2.8 percent in 2009, real GDP rose 2.5 percent in 2010 and 1.6 percent in 2011. Real GDP then increased 2.3 percent in 2012 and 2.2 percent in 2013. Marking the fifth straight year of annual growth, inflation adjusted GDP rose 2.4 percent in 2014. Real GDP is forecast to rise 2.8 percent in 2015, 3.1 percent in 2016 and 3.0 percent in 2017.



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2015.

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 have exceeded 15.0 million units since 2007. In 2014, light vehicle sales totaled 16.4 million units. Annual light vehicle sales are expected to increase each year over the forecast horizon with sales of 16.8 million units in 2015, 17.1 million units in 2016 and 17.2 million units in 2017. At 17.2 million units, the 2017 total would represent the second highest annual light vehicle sales on record.

Vehicle Sales Continue Their Rebound



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2015.

The U.S. unemployment rate has fallen in each of the past four years with the unemployment rate dropping from a near post-World War II record high 9.6 percent in 2010 to 6.2 percent in 2014. The national unemployment rate is forecast to fall to 5.3 percent in 2015 and to 5.1 percent in 2016. In 2017, the unemployment rate is expected to fall to 5.0 percent, which would be the lowest annual U.S. unemployment rate since 2007.

U.S. wage and salary employment has increased in each of the past four 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 is forecast to increase 2.2 percent in 2015, 1.8 percent in 2016 and 1.6 percent in 2017. U.S. wage and salary employment in 2014 rose above the previous national peak employment level set in 2007. With employment increases forecast in 2015, 2016 and 2017, calendar year 2017 national employment is expected to be 6.5 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. Inflation is forecast to remain modest over the forecast horizon with overall annual consumer price increases of 0.2 percent in 2015, 2.0 percent in 2016 and 2.4 percent in 2017.

The short-term Treasury bill rate averaged 0.1 percent in each year between 2010 and 2013, inclusive. The rate fell below 0.1 percent in 2014 and is projected to rise to 0.3 percent in 2015. As a result of increases in the federal funds rate, the short-term Treasury bill rate is forecast to average 1.2 percent in 2016 and 2.0 percent in 2017.

Corporate interest rates are forecast to fall slightly in 2015 and then increase modestly over the balance of the forecast horizon. After rising to 4.2 percent in 2013, the corporate Aaa bond rate

held steady in 2014. Corporate rates are forecast to fall to 4.0 percent in 2015, and then rise to 4.4 percent in 2016 and 4.6 percent in 2017.

The 30-year fixed mortgage rate fell to 3.7 percent in 2012 before rising to 4.0 percent in 2013. In 2014, the mortgage rate averaged 4.2 percent. Mortgage rates are forecast to fall to 4.0 percent in 2015 and then increase to 4.4 percent in 2016 and to 4.7 percent in 2017.

Assumptions

The forecast expects real (inflation-adjusted) federal government expenditures to decrease 0.5 percent in calendar year (CY) 2015 and then rise 1.3 percent in both CY 2016 and CY 2017.

In 2015, oil prices per barrel are expected average $57 per barrel. Oil prices are expected to rise to $73 per barrel in 2016 and then increase to $85 per barrel in 2017.

Throughout the forecast horizon, the housing market is expected to strengthen and housing starts are forecast to increase each year. Consequently, housing starts in 2017 (1.46 million units) will be 57.8 percent higher than starts in 2013. Nevertheless, 2017 starts will remain below the average 1.7 million annual starts in the ten years before the housing bust.

The Fed is expected to begin raising the federal funds rate in late 2015. The forecast assumes that the Fed increases the federal funds rate gradually over the balance of the forecast horizon with the rate rising to 2.60 percent by the end of 2017.

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 2.8 percent in 2015, 2.3 percent in 2016 and 2.0 percent in 2017.

The savings rate is assumed to rise from 4.9 percent in 2014 to 5.5 percent in 2015. The rate is then expected to remain relatively steady with a 5.6 percent rate in 2016 and a 5.4 percent rate in 2017.

Rest-of-world growth is assumed to rise 2.4 percent in 2015, increase 2.6 percent in 2016 and then rise 2.7 percent in 2017.

Table 1
Administration Economic Forecast

May 2015

	Calendar 2013 Actual	Calendar 2014 Forecast	Percent Change from Prior Year	Calendar 2015 Forecast	Percent Change from Prior Year	Calendar 2016 Forecast	Percent Change from Prior Year	Calendar 2017 Forecast	Percent Change from Prior Year
United States									
Real Gross Domestic Product (Billions of Chained 2009 Dollars)	$15,710	$16,086	2.4%	$16,536	2.8%	$17,049	3.1%	$17,560	3.0%
Implicit Price Deflator GDP (2009 = 100)	106.7	108.3	1.5%	109.4	1.0%	111.2	1.6%	113.2	1.8%
Consumer Price Index (1982-84 = 100)	232.957	236.736	1.6%	237.141	0.2%	241.896	2.0%	247.732	2.4%
Consumer Price Index - Fiscal Year (1982-84 = 100)	232.247	236.009	1.6%	236.721	0.3%	240.669	1.7%	246.164	2.3%
Personal Consumption Deflator (2009 = 100)	107.3	108.7	1.3%	109.0	0.3%	110.6	1.5%	112.5	1.7%
3-month Treasury Bills Interest Rate (percent)	0.1	0.03		0.3		1.2		2.0	
Aaa Corporate Bonds Interest Rate (percent)	4.2	4.2		4.0		4.4		4.6	
Unemployment Rate - Civilian (percent)	7.4	6.2		5.3		5.1		5.0	
Wage and Salary Employment (millions)	136.393	139.042	1.9%	142.100	2.2%	144.660	1.8%	146.970	1.6%
Housing Starts (millions of starts)	0.925	1.001	8.2%	1.129	12.8%	1.319	16.8%	1.460	10.7%
Light Vehicle Sales (millions of units)	15.5	16.4	5.8%	16.8	2.4%	17.1	1.8%	17.2	0.6%
Passenger Car Sales (millions of units)	7.6	7.7	1.1%	7.7	0.2%	7.9	2.6%	8.1	2.5%
Light Truck Sales (millions of units)	7.9	8.7	10.4%	9.1	4.4%	9.2	1.1%	9.1	-1.1%
Big 3 Share of Light Vehicles (percent)	44.4	44.3		44.6		44.9		45.2	
Michigan									
Wage and Salary Employment (thousands)	4,109	4,180	1.7%	4,266	2.1%	4,324	1.4%	4,377	1.2%
Unemployment Rate (percent)	8.8	7.3		5.8		5.4		5.0	
Personal Income (millions of dollars)	$386,471	$401,901	4.0%	$420,388	4.6%	$439,306	4.5%	$458,196	4.3%
Real Personal Income (millions of 1982-84 dollars)	$176,084	$181,213	2.9%	$190,479	5.1%	$195,289	2.5%	$198,941	1.9%
Wages and Salaries (millions of dollars)	$195,203	$204,768	4.9%	$214,187	4.6%	$221,898	3.6%	$229,664	3.5%
Detroit Consumer Price Index (1982-84 = 100)	219.481	221.784	1.0%	220.701	-0.5%	224.952	1.9%	230.318	2.4%

Forecast Risks

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

Fiscal Policy. Substantial divisions remain and partisanship will continue to impair the federal government's ability to address financial and macroeconomic issues.

Oil Prices. At the time of the January 2015 Consensus Conference, oil prices had just reported their sixth straight decline with December prices falling to $59.29 per barrel. Since the January Conference, oil prices have declined further with the average March 2015 oil price falling to $47.82 per barrel. The May 2015 Administration forecast assumes that oil prices will rise over the forecast horizon to as high as $90 per barrel in late 2017. Geopolitical concerns, increased demand, or a major supply disruption could raise oil prices well above the assumed range. Higher oil prices (and consequently higher gasoline prices) would retard domestic growth by depressing consumer sentiment, reducing households' discretionary income and increasing input costs to businesses. This risk is heightened as many other countries around the world recover and thus boost oil demand. Alternatively, if Asian oil demand decreases due to lower and more sustainable growth rates in China or if European demand weakens, oil prices could be lower than assumed.

Weak Foreign Economies. Europe's ongoing economic recovery has been slow and tenuous. At the same time, Europe has begun to employ "unconventional" measures (e.g., quantitative easing) to regenerate flagging European economies. These methods may help to better equip many European nations in combatting economic slowdowns/contractions.

Slower economic growth in Asia also poses a downward risk to the U.S. economic forecast.

Monetary Policy. Substantial uncertainty surrounds when the Fed will begin raising the federal funds rate. On the one hand, there is concern that the Fed will begin raising rates too soon and halt U.S. economic growth. On the other hand, there is concern that the Fed will not begin to raise rates soon enough and "overheat" financial/economic markets.

Housing Market. Projected 2017 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 2017 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.

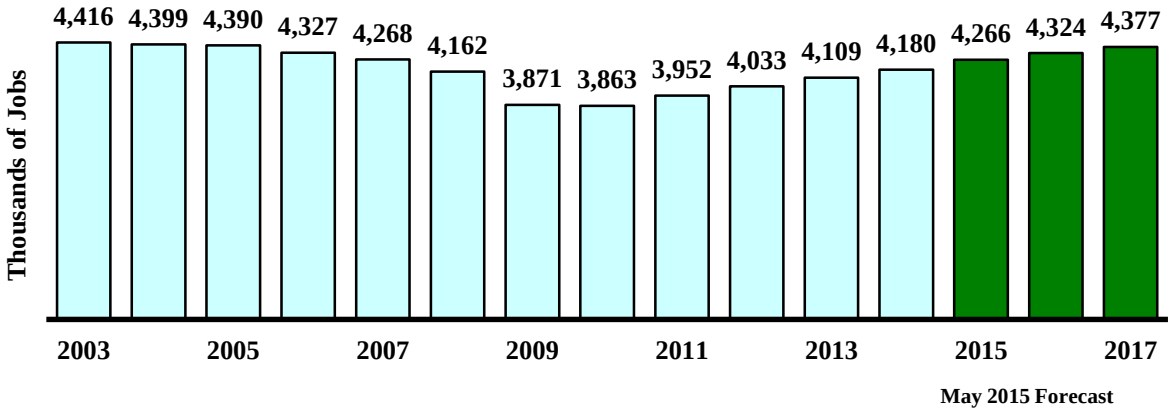
2015, 2016 and 2017 Michigan Economic Outlook

Following ten straight annual declines between 2001 and 2010, inclusive, Michigan wage and salary employment reported its fourth straight annual employment increase in 2014. State employment rose 2.3 percent in 2011, increased 2.1 percent in 2012, was up 1.9 percent in 2013 and grew 1.7 percent in 2014. State employment is forecast to grow in each of the next three years: 2.1 percent in 2015, 1.4 percent in 2016 and 1.2 percent in 2017. At 4.4 million jobs, the forecasted Michigan employment level in 2017 would represent the State's highest employment level since 2005. However, forecasted 2017 Michigan employment would remain 299,400 jobs (6.4 percent) below the State's peak annual employment set in 2000 (4.7 million jobs).

Private non-manufacturing employment rose 62,600 jobs in calendar year 2012, increased 67,500 jobs in 2013 and grew by 53,700 jobs in 2014. Private non-manufacturing employment is forecast to gain a net 68,500 jobs in 2015, 51,500 jobs in 2016 and 50,300 jobs in 2017.

After increasing a strong 7.6 percent in 2011, Michigan manufacturing employment grew 5.5 percent in 2012. Manufacturing employment growth slowed further to a 3.4 percent rate in 2013 before accelerating slightly to a 3.6 rate in 2014. After remaining steady in 2015 at a 3.6 percent rate, the manufacturing employment growth rate is forecast to slow to 1.1 percent in 2016 and to 0.5 percent in 2017. Between 2014 and 2017, manufacturing employment is projected to rise by 30,400 jobs.

Michigan Wage and Salary Employment Continues to Rise



Source: Michigan Department of Labor and Economic Growth, U.S. Bureau of Labor Statistics, and May 2015 Administration Forecast.

Michigan transportation equipment employment rose 10.3 percent in 2011 and then increased 8.1 percent in 2012 and 6.9 percent in 2013. Transportation equipment employment grew 5.1 percent in 2014. Michigan transportation equipment employment is forecast to rise in each year of the forecast. The sector's employment growth is forecast to accelerate to 7.9 percent in

2015, but then slow substantially to a 2.4 percent increase in 2016 and to 1.2 percent increase in 2017. Despite the increases, forecasted 2017 transportation equipment employment of 196,700 jobs is down 43.2 percent from the sector's CY 2000 employment of 346,100 jobs.

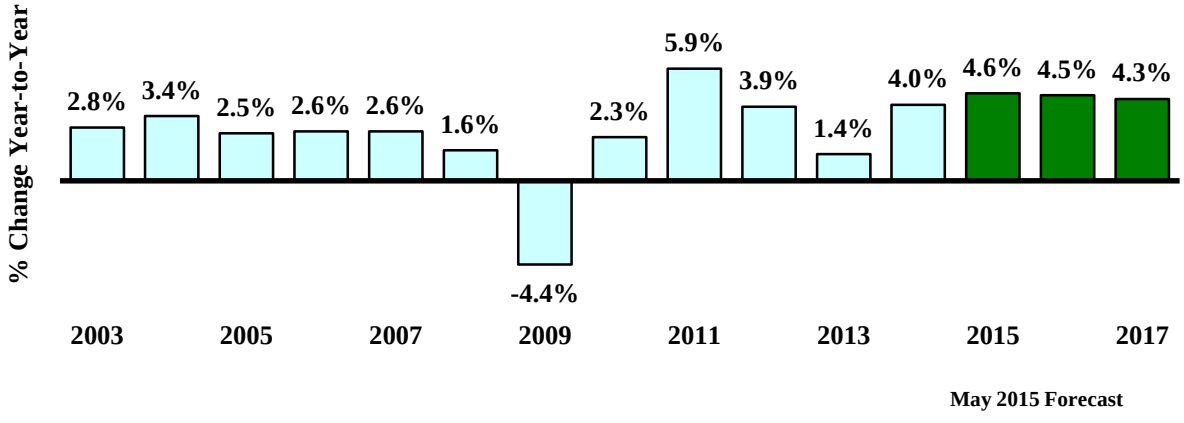
After soaring from 8.0 percent to 13.7 percent in 2009 (highest rate since 1983), Michigan's unemployment rate declined to 12.6 percent in 2010, 10.4 percent in 2011, 9.1 percent in 2012, 8.9 percent in 2013 and 7.3 percent in 2014. The State's rate is expected to continue to drop across the forecast horizon to 5.8 percent in 2015, 5.4 percent in 2016 and 5.0 percent in 2017.

After falling 8.3 percent in 2009 (the greatest decline since 1945), Michigan wages and salaries rose 1.6 percent in 2010, increased 5.4 percent in 2011 and rose 4.2 percent in 2012. Wages and salaries grew 2.9 percent in 2013 and rose 4.3 percent in 2014. Wages and salaries are forecast to increase 4.6 percent in 2015, 3.6 percent in 2016 and 3.6 percent in 2017.

In 2009, overall Michigan personal income declined 4.4 percent – the first personal income decline since 1958 and Michigan's largest percent decline since 1938. Personal income rose 2.3 percent in 2010, increased 5.9 percent in 2011 and rose 3.9 percent in 2012. After slowing to 1.4 percent in 2013, State income grew 4.0 percent in 2014. Michigan personal income is forecast to rise 4.6 percent in 2015, 4.5 percent in 2016 and 4.3 percent in 2017.

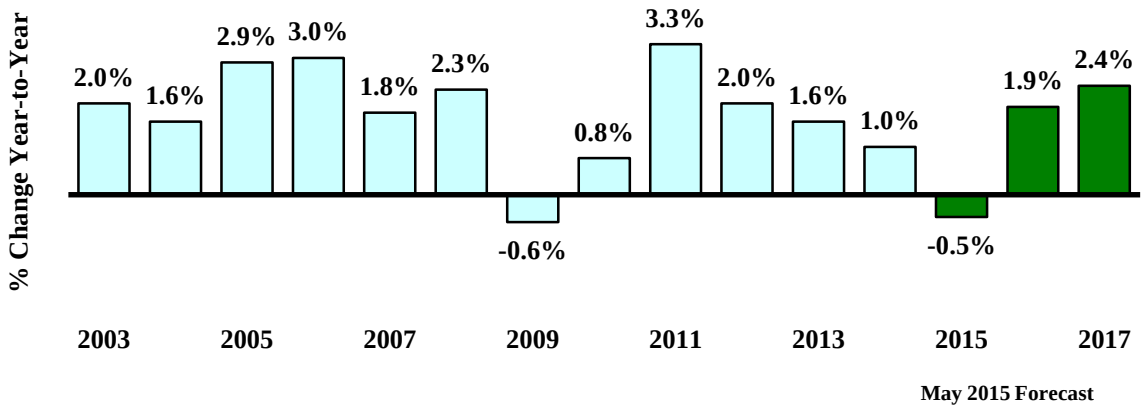
The overall price level, as measured by the Detroit CPI, increased 3.3 percent in 2011. Detroit CPI inflation was 2.0 percent in 2012. Detroit prices rose 1.6 percent in 2013 and 1.0 percent in 2014. The Detroit CPI is forecast to decline 0.5 percent in 2015 and then increase 1.9 percent in 2016 and rise 2.4 percent in 2017.

Michigan Personal Income Reports Solid Growth



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2015.

Overall Price Level Falls in 2015, Rises in 2016 and 2017
Detroit CPI



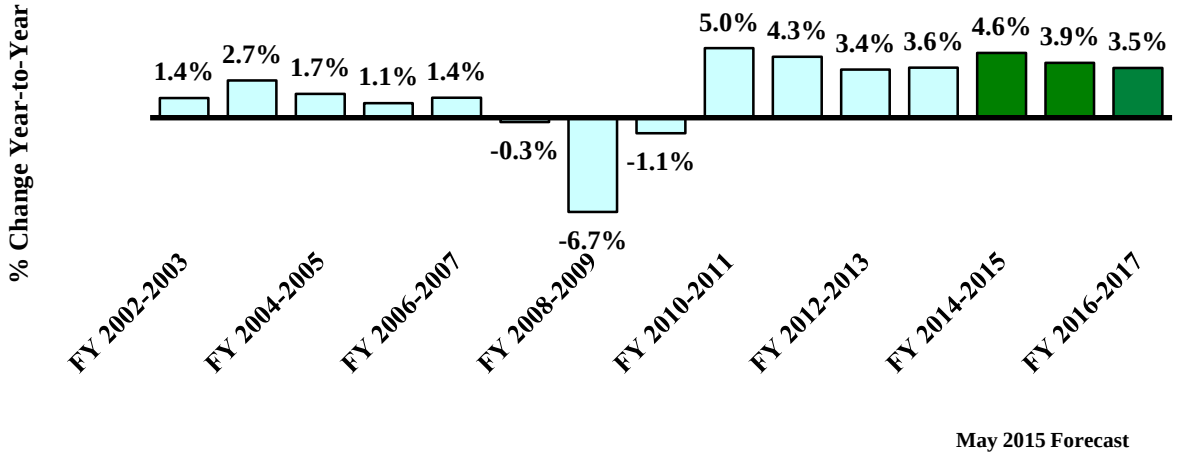
Source: U.S. Bureau of Labor Statistics and Administration Forecast, January 2015.

Fiscal Year Economics

Michigan's largest taxes are the individual income tax ($9.9 billion in FY 2014), which includes refunds, and sales and use taxes ($8.8 billion). Income tax withholding is the largest income tax component. Withholding ($8.2 billion) is most affected by growth in wages and salaries. Michigan wages and salaries rose 3.4 percent in FY 2013 and increased 3.6 percent in FY 2014. State wages and salaries are forecast to increase 4.6 percent in FY 2015, 3.9 percent in FY 2016 and 3.5 percent in FY 2017.

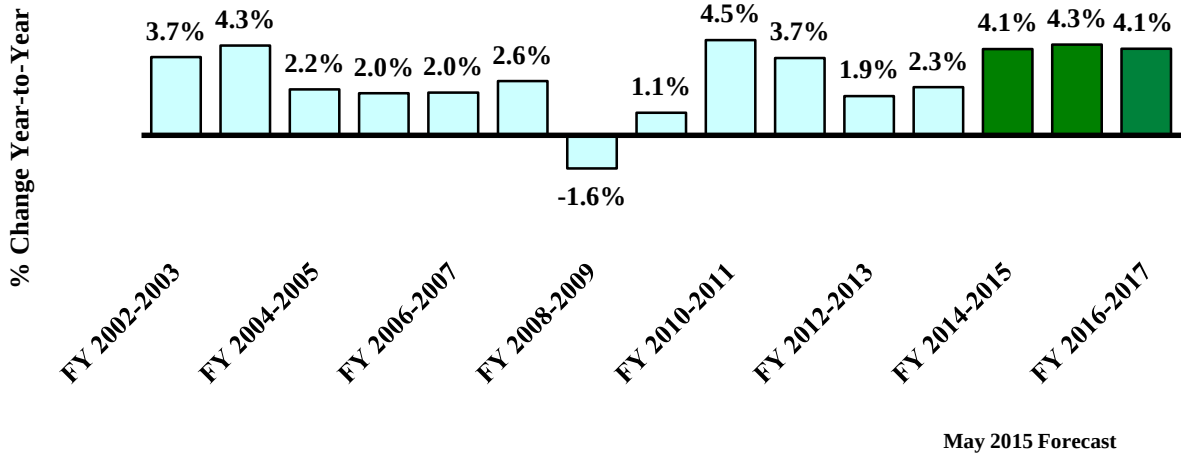
Sales and use taxes depend primarily on Michigan disposable (after tax) income and inflation. Having risen 1.9 percent in fiscal year 2013, disposable income increased 2.3 percent in FY 2014, and is expected to increase 4.1 percent in FY 2015, 4.3 percent in FY 2016 and 4.1 percent in FY 2017. Prices, as measured by the Detroit CPI, rose 1.9 percent in FY 2013 and then increased 1.1 percent in FY 2014. The Detroit CPI is forecast to fall 0.5 percent in FY 2015, increase 1.6 percent in FY 2016 and rise 2.2 percent in FY 2017.

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, May 2015.

Michigan Disposable Income Increases
Basis for Sales and Use Tax Collections



Source: Research Seminar in Quantitative Economics, University of Michigan, and Administration Forecast, May 2015.

ADMINISTRATION REVENUE ESTIMATES
May 15, 2015

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 2014 is the base year. Any non-economic changes to the taxes occurring in FY 2015, FY 2016 and FY 2017 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 is estimated to be $9,720.2 million, a 7.8 percent increase compared to FY 2014. The FY 2015 GF-GP revenue estimate is $218.8 million above the January 2015 Consensus estimate. SAF revenue is forecast to be $11,897.2 million; representing a 3.3 percent increase compared to FY 2014. The FY 2015 SAF estimate is $8.1 million above the January 2015 Consensus estimate (see Table 2).

Table 2

FY 2014-15 Administration Revenue Estimates

(millions)

	Consensus Jan 16, 2015		Administration May 15, 2015		
	Amount	**Growth**	**Amount**	**Growth**	**Change**
General Fund - General Purpose					
Baseline Revenue	$10,245.4	4.7%	$10,480.2	7.1%	------
Tax Cut Adjustments	($744.1)	-----	($760.1)	----	------
Net Resources	$9,501.4	5.4%	$9,720.2	7.8%	$218.8
School Aid Fund					
Baseline Revenue	$11,949.4	3.3%	$11,963.1	3.5%	------
Tax Cut Adjustments	($60.2)	-----	($65.9)	----	------
Net Resources	$11,889.1	3.2%	$11,897.2	3.3%	$8.1
Combined					
Baseline Revenue	$22,194.8	4.0%	$22,443.4	5.1%	------
Tax Cut Adjustments	($804.3)	-----	($826.0)	----	------
Net Resources	$21,390.5	4.1%	$21,617.4	5.3%	$226.9

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 $9,874.7 million, a 1.6 percent increase compared to FY 2015. The FY 2016 GF-GP revenue estimate is $161.5 million above the January 2015 Consensus estimate. SAF revenue is forecast to be $12,301.9 million; representing a 3.4 percent increase compared to FY 2015. The FY 2016 SAF estimate is $38.2 million above the January 2015 Consensus estimate (see Table 3).

Table 3

FY 2015-16 Administration Revenue Estimates

(millions)

	Consensus Jan 16, 2015		Administration May 15, 2015		
	Amount	**Growth**	**Amount**	**Growth**	**Change**
General Fund - General Purpose					
Baseline Revenue	$10,634.6	3.8%	$10,824.1	3.3%	------
Tax Cut Adjustments	($921.4)	-----	($949.4)	----	------
Net Resources	$9,713.2	2.2%	$9,874.7	1.6%	$161.5
School Aid Fund					
Baseline Revenue	$12,329.8	3.2%	$12,324.0	3.0%	------
Tax Cut Adjustments	($66.1)	-----	($22.1)	----	------
Net Resources	$12,263.7	3.2%	$12,301.9	3.4%	$38.2
Combined					
Baseline Revenue	$22,964.4	3.5%	$23,148.1	3.1%	------
Tax Cut Adjustments	($987.5)	-----	($971.5)	----	------
Net Resources	$21,976.9	2.7%	$22,176.6	2.6%	$199.7

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 $9,874.7 million, a 2.5 percent increase compared to FY 2016. The FY 2017 GF-GP revenue estimate is $117.0 million above the January 2015 Consensus estimate. SAF revenue is forecast to be $12,699.3 million; representing a 3.2 percent increase compared to FY 2015. The FY 2017 SAF estimate is $58.4 million above the January 2015 Consensus estimate (see Table 4).

Table 4

FY 2016-17 Administration Revenue Estimates

(millions)

	Consensus Jan 16, 2015		Administration May 15, 2015		
	Amount	**Growth**	**Amount**	**Growth**	**Change**
General Fund - General Purpose					
Baseline Revenue	$11,021.8	3.6%	$11,192.8	3.4%	------
Tax Cut Adjustments	($1,021.3)	-----	($1,075.2)	----	------
Net Resources	$10,000.6	3.0%	$10,117.6	2.5%	$117.0
School Aid Fund					
Baseline Revenue	$12,713.9	3.1%	$12,726.8	3.3%	------
Tax Cut Adjustments	($73.0)	-----	($27.5)	----	------
Net Resources	$12,640.9	3.1%	$12,699.3	3.2%	$58.4
Combined					
Baseline Revenue	$23,735.8	3.4%	$23,919.7	3.3%	------
Tax Cut Adjustments	($1,094.2)	-----	($1,102.7)	----	------
Net Resources	$22,641.5	3.0%	$22,816.9	2.9%	$175.4

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 2013 revenue is compared to CY 2011 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 2013 revenues were $6.5 billion below the revenue limit. State revenues will also be well below the limit for FY 2014 through FY 2017. FY 2014 revenues are expected to be $8.7 billion below the limit, FY 2015 revenues $8.3 billion below the limit, FY 2016 revenues $9.1 billion below the limit, and FY 2017 revenues $10.1 billion below the limit (See Table 5).

Table 5

Administration Revenue Limit Calculation

(millions)

	FY 2013 Final June 2014	FY 2014 Admin Jan 2015	FY 2015 Admin Jan 2015	FY 2016 Admin Jan 2015	FY 2017 Admin Jan 2015
Revenue Subject to Limit	$27,441.0	$27,190.1	$28,382.6	$29,054.4	$29,798.7
Revenue Limit	**CY 2011**	**CY 2012**	**CY 2013**	**CY 2014**	**CY 2015**
Personal Income	$358,152	$378,443	$386,471	$401,901	$420,388
Ratio	9.49%	9.49%	9.49%	9.49%	9.49%
Revenue Limit	$33,988.6	$35,914.2	$36,676.1	$38,140.4	$39,894.8
Amount Under (Over) Limit	**$6,547.6**	**$8,724.2**	**$8,293.5**	**$9,086.0**	**$10,096.1**

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 2014. Thus, the formula has a pay-in for FY 2015 of $45.1 million (See Table 6). In 2015, real calendar year personal income for Michigan is forecast to increase 4.5 percent, so the formula calls for a pay-in of $243.0 million for FY 2016 (See Table 7). In 2016, real calendar year personal income for Michigan is forecast to increase 3.4 percent, so the formula calls for a pay-in of $138.2 million in FY 2017 (See Table 8). Based on the personal income numbers, there is no pay-out in FY 2017 (See Table 9).

Table 6

Budget and Economic Stabilization Fund Calculation Based on CY 2014 Personal Income Growth Administration Calculation

	CY 2013	CY 2014
Michigan Personal Income	$386,471 (1)	$401,901 (1)
less Transfer Payments	$ 83,546 (1)	$ 87,481 (1)
Income Net of Transfers	$ 302,925	$ 314,420
Detroit CPI	2.182 (2)	2.210 (2)
for 12 months ending	(June 2013)	(June 2014)
Real Adjusted Michigan Personal Income	$ 138,829	$ 142,247
Change in Real Adjusted Personal Income		2.5%
Excess over 2%		0.5%
GF-GP Revenue Fiscal Year 2013-2014		$ 9,018.6

	FY 2014-2015
BSF Pay-In Calculated for FY 2015	$ 45.1
	FY 2013-2014
BSF Pay-Out Calculated for FY 2014	NO PAY-OUT

Notes:

(1) Personal Income and Transfer Payments, Administration Forecast, May 2015.

(2) Detroit Consumer Price Index, Administration Forecast, May 2015.

Table 7

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

	CY 2014	CY 2015
Michigan Personal Income	$ 401,901 [1]	$ 420,388 [1]
less Transfer Payments	$ 87,481 [1]	$ 92,371 [1]
Income Net of Transfers	$ 314,420	$ 328,017
Detroit CPI	2.210 [2]	2.206 [2]
for 12 months ending	(June 2014)	(June 2015)
Real Adjusted Michigan Personal Income	$ 142,247	$ 148,666
Change in Real Adjusted Personal Income		4.5%
Excess over 2%		2.5%
GF-GP Revenue Fiscal Year 2014-2015		$ 9,720.2

	FY 2015-2016
BSF Pay-In Calculated for FY 2016	$ 243.0
	FY 2014-2015
BSF Pay-Out Calculated for FY 2015	NO PAY-OUT

Notes:

[1] Personal Income and Transfer Payments, Administration Forecast, May 2015.

[2] Detroit Consumer Price Index, Administration Forecast, May 2015.

Table 8

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

	CY 2015	CY 2016
Michigan Personal Income	$ 420,388 [1]	$ 439,306 [1]
less Transfer Payments	$ 92,371 [1]	$ 96,648 [1]
Income Net of Transfers	$ 328,017	$ 342,658
Detroit CPI	2.206 [2]	2.229 [2]
for 12 months ending	(June 2015)	(June 2016)
Real Adjusted Michigan Personal Income	$ 148,666	$ 153,718
Change in Real Adjusted Personal Income		3.4%
Excess over 2%		1.4%
GF-GP Revenue Fiscal Year 2015-2016		$ 9,874.7

	FY 2016-2017
BSF Pay-In Calculated for FY 2017	$ 138.2
	FY 2015-2016
BSF Pay-Out Calculated for FY 2016	NO PAY-OUT

Notes:

[1] Personal Income and Transfer Payments, Administration Forecast, May 2015.

[2] Detroit Consumer Price Index, Administration Forecast, May 2015.

Table 9

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

	CY 2016	CY 2017
Michigan Personal Income	$ 439,306 [1]	$ 458,196 [1]
less Transfer Payments	$ 96,648 [1]	$ 101,219 [1]
Income Net of Transfers	$ 342,658	$ 356,977
Detroit CPI	2.229 [2]	2.275 [2]
for 12 months ending	(June 2016)	(June 2017)
Real Adjusted Michigan Personal Income	$ 153,718	$ 156,940
Change in Real Adjusted Personal Income		2.1%
Excess over 2%		0.1%
GF-GP Revenue Fiscal Year 2016-2017		$ 10,117.6

	FY 2016-2017
BSF Pay-Out Calculated for FY 2017	NO PAY-OUT

Notes:

[1] Personal Income and Transfer Payments, Administration Forecast, May 2015.

[2] Detroit Consumer Price Index, Administration Forecast, May 2015.

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 2014 SAF revenue adjustment factor is calculated by dividing the sum of FY 2013 and FY 2014 SAF revenue by the sum of FY 2012 and FY 2013 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 2016, the SAF revenue adjustment factor is calculated to be 1.0324 (See Table 10). For FY 2017, the SAF revenue adjustment factor is calculated to be 1.0315 (See Table 11).

Table 10

Administration School Aid Revenue Adjustment Factor

For Fiscal Year 2016

	FY 2014	FY 2015	FY 2016
Baseline SAF Revenue	$11,562.9	$11,963.1	$12,324.0
Balance Sheet Adjustments	($42.3)	($65.9)	($22.1)
Net SAF Estimates	$11,520.6	$11,897.2	$12,301.9
Subtotal Adjustments to FY 2016 Base	$20.2	$43.8	$0.0
Baseline Revenue on a FY 2016 Base	$11,540.8	$11,941.1	$12,301.9

School Aid Fund Revenue Adjustment Calculation for FY 2016

Sum of FY 2014 & FY 2015	$11,540.8	+	$11,941.1	=	$23,481.9
Sum of FY 2015 & FY 2016	$11,941.1	+	$12,301.9	=	$24,243.0

FY 2016 Revenue Adjustment Factor	**1.0324**

Note: Factor is calculated off a FY 2016 base year.

Table 11

Administration School Aid Revenue Adjustment Factor

For Fiscal Year 2017

	FY 2015	FY 2016	FY 2017
Baseline SAF Revenue	$11,963.1	$12,324.0	$12,726.8
Balance Sheet Adjustments	($65.9)	($22.1)	($27.5)
Net SAF Estimates	$11,897.2	$12,301.9	$12,699.3
Subtotal Adjustments to FY 2017 Base	$38.4	($5.4)	$0.0
Baseline Revenue on a FY 2017 Base	$11,935.6	$12,296.5	$12,699.3

School Aid Fund Revenue Adjustment Calculation for FY 2017

Sum of FY 2015 & FY 2016	$11,935.6	+	$12,296.5	=	$24,232.1
Sum of FY 2016 & FY 2017	$12,296.5	+	$12,699.3	=	$24,995.8

FY 2017 Revenue Adjustment Factor	**1.0315**

Note: Factor is calculated off a FY 2017 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 12 and 13). Tax totals for the income, sales, use, CIT/MBT, tobacco and casino taxes for all funds are also included (See Table 14).

Table 12

Administration General Fund General Purpose Revenue Detail

(millions)

	FY 2015		FY 2016		FY 2017	
	Amount	**Growth**	**Amount**	**Growth**	**Amount**	**Growth**
GF-GP Tax Amounts						
Income Tax	$6,195.2	9.5%	$6,352.7	2.5%	$6,579.7	3.6%
Sales	$1,196.1	2.2%	$1,265.4	5.8%	$1,314.7	3.9%
Use	$954.2	3.0%	$905.6	-5.1%	$656.2	-27.5%
Cigarette	$180.1	-6.6%	$177.2	-1.6%	$174.4	-1.6%
Beer & Wine	$46.0	-10.2%	$53.0	15.2%	$54.0	1.9%
Liquor Specific	$47.5	2.4%	$48.5	2.1%	$49.5	2.1%
Single Business Tax	($20.0)	NA	($10.0)	NA	$0.0	NA
Insurance Co. Premium	$407.0	12.4%	$418.0	2.7%	$432.0	3.3%
CIT/MBT	$256.6	40.1%	$156.3	-39.1%	$345.8	121.2%
Telephone & Telegraph	$47.0	-2.1%	$46.0	-2.1%	$44.6	-3.0%
Oil & Gas Severance	$43.0	-29.5%	$49.2	14.4%	$51.0	3.7%
Essential Services Assess.	$0.0	NA	$55.0	NA	$73.1	NA
GF-GP Other Taxes	$0.5	NA	($3.5)	-800.0%	($5.8)	65.7%
Total GF-GP Taxes	$9,353.2	8.4%	$9,513.4	1.7%	$9,769.2	2.7%
GF-GP Non-Tax Revenue						
Federal Aid	$30.0	-2.9%	$30.0	0.0%	$30.0	0.0%
From Local Agencies	$0.1	0.0%	$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	-9.7%	$13.0	0.0%	$13.0	0.0%
Miscellaneous	$20.0	129.9%	$20.0	0.0%	$20.0	0.0%
Driver Responsibility Fees	$61.4	-19.5%	$58.7	-4.4%	$43.0	-26.7%
Interfund Interest	$0.0	-100.0%	($2.0)	NA	($3.0)	50.0%
Liquor Purchase	$178.5	1.0%	$182.5	2.2%	$186.3	2.1%
Charitable Games	$6.0	106.9%	$6.0	0.0%	$6.0	0.0%
Transfer From Escheats	$50.0	-33.9%	$45.0	-10.0%	$45.0	0.0%
Other Non Tax	$0.0	0.0%	$0.0	0.0%	$0.0	0.0%
Total Non Tax	$367.0	-6.7%	$361.3	-1.6%	$348.4	-3.6%
Total GF-GP Revenue	$9,720.2	7.8%	$9,874.7	1.6%	$10,117.6	2.5%

Table 13
Administration School Aid Fund Revenue Detail

	FY 2015		FY 2016		FY 2017	
	Amount	**Growth**	**Amount**	**Growth**	**Amount**	**Growth**
School Aid Fund						
Income Tax	$2,489.5	5.6%	$2,556.2	2.7%	$2,640.9	3.3%
Sales Tax	$5,477.1	2.4%	$5,751.0	5.0%	$5,976.5	3.9%
Use Tax	$477.0	2.8%	$500.8	5.0%	$518.4	3.5%
Liquor Excise Tax	$47.1	2.4%	$48.1	2.1%	$49.1	2.1%
Cigarette & Tobacco	$345.9	-3.7%	$338.4	-2.2%	$331.0	-2.2%
State Education Tax	$1,852.3	2.7%	$1,876.9	1.3%	$1,927.4	2.7%
Real Estate Transfer	$247.8	6.2%	$260.7	5.2%	$270.3	3.7%
Industrial Facilities Tax	$35.0	4.5%	$36.0	2.9%	$36.4	1.1%
Casino (45% of 18%)	$111.0	3.8%	$111.0	0.0%	$112.0	0.9%
Commercial Forest	$3.4	0.0%	$3.4	0.0%	$3.4	0.0%
Other Spec Taxes	$28.5	0.7%	$28.5	0.0%	$28.5	0.0%
Subtotal Taxes	$11,114.6	3.0%	$11,511.0	3.6%	$11,893.9	3.3%
Lottery Transfer	$782.6	6.6%	$790.9	1.1%	$805.4	1.8%
Total SAF Revenue	$11,897.2	3.3%	$12,301.9	3.4%	$12,699.3	3.2%

Table 14
Administration Major Tax Totals

	FY 2015		FY 2016		FY 2017	
	Amount	**Growth**	**Amount**	**Growth**	**Amount**	**Growth**
Major Tax Totals (Includes all Funds)						
Income Tax	$8,685.5	8.4%	$8,909.7	2.6%	$9,221.4	3.5%
Sales Tax	$7,528.8	2.4%	$7,903.7	5.0%	$8,212.3	3.9%
Use Tax	$1,431.2	2.9%	$1,406.4	-1.7%	$1,174.6	-16.5%
CIT/MBT	$256.6	40.1%	$156.3	-39.1%	$345.8	121.2%
Cigarette and Tobacco	$914.4	-2.8%	$899.1	-1.7%	$884.5	-1.6%
Casino Tax	$111.0	1.6%	$111.0	0.0%	$112.0	0.9%