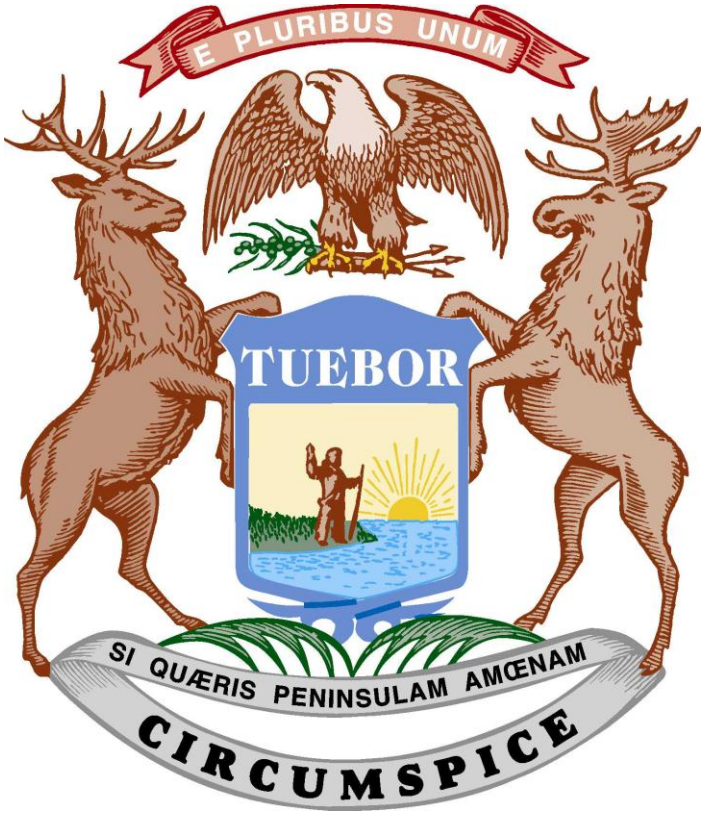
Administration Estimates Michigan Economic and Revenue Outlook



FY 2013-14, FY 2014-15 and FY 2015-16

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Revenue Review and Outlook

- FY 2013 General Fund-General Purpose (GF-GP) revenue totaled $9,562.8 million, a 3.2 percent increase from 2012. FY 2013 SAF revenue totaled $11,269.5 million, a 3.6 percent increase from 2012.

- FY 2014 GF-GP revenue is forecast to decrease 0.9 percent to $9,473.0 million. This revised estimate is up $26.7 million from the May 2013 Consensus estimate. FY 2014 SAF revenue is forecast to increase 2.5 percent to $11,549.6 million and is up $79.5 million from the May 2013 Consensus estimate.

- FY 2015 GF-GP revenue is forecast to increase 4.7 percent to $9,916.1 million, up $75.9 million from the May 2013 Consensus estimate. FY 2015 SAF revenue is forecast to increase 3.1 percent to $11,909.0 million, up $96.2 million from the May 2013 Consensus estimate.

- FY 2016 GF-GP revenue is forecast to increase 4.6 percent to $10,375.1 million. FY 2016 SAF revenue is forecast to increase 3.3 percent to $12,302.9 million.

2014, 2015 and 2016 U.S. Economic Outlook

- After increasing 1.8 percent in 2011, real gross domestic product grew 2.8 percent in 2012. Real GDP growth is estimated to have slowed to 1.7 percent in 2013 and is forecast to accelerate to 2.4 percent in 2014, 2.8 percent in 2015 and 3.1 percent in 2016.

- U.S. wage and salary employment rose 1.7 percent in 2012. Wage and salary employment is estimated to have grown 1.6 percent in 2013 an is expected to increase an additional 1.6 percent in 2014. Employment is then forecast to accelerate to 1.7 percent growth in 2015 and 2.0 percent growth in 2016.

- 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 then 7.4 percent in 2013 (estimated). The unemployment rate is forecast to drop to 6.8 percent in 2014, decline to 6.5 percent in 2015 and fall to 5.9 percent in 2016.

- In 2012, housing starts increased a sharp 28.2 percent. In 2013, starts grew an estimated 18.0 percent. Starts are forecast to increase an additional 19.5 percent in 2014. In 2015, starts are expected to rise another 16.2 percent to 1.3 million units. Starts are then expected to rise a moderate 9.7 percent in 2016 to 1.4 million units.

- Light vehicle sales are expected to post significant growth across the forecast. In 2012, sales rose to 14.4 million units from 12.7 million units in 2011. Sales in 2013 increased to an estimated 15.5 million units – marking the first year that sales topped 15.0 million units since 2007. Sales are expected to rise to 16.0 million units in 2014 and increase to 16.3 million units in 2015 and rise to 16.5 million units in 2016.

- Consumer prices edged up 2.1 percent in 2012 and rose an estimated 1.5 percent in 2013. Prices will rise an additional 1.5 percent in 2014 before inflation accelerates to 1.7 percent in 2015 and to 1.9 percent in 2016.

2014, 2015 and 2016 Michigan Economic Outlook

- In 2009, Michigan wage and salary employment plummeted 7.0 percent – the largest drop in over 50 years. After declining another 0.2 percent in 2010, employment increased 2.3 percent or 88,500 jobs in 2011 – marking the first increase since 2000. Employment grew again in 2012, by 1.8 percent or 72,400 jobs. In 2013, Michigan employment rose an estimated 1.4 percent year-over-year. Employment is expected to grow at a fairly steady rate through 2006. While accelerating slightly in 2014 to 1.5 percent, State employment growth is forecast to return to 1.4 percent in 2015 and in 2016.

- The Michigan unemployment rate dropped from 12.7 percent in 2010 to 10.4 percent in 2011. The rate declined sharply in 2012 to 9.1 percent before falling to an estimated 8.7 percent in 2013. The rate is expected to continue to drop over the forecast horizon to 8.3 percent in 2014, 7.5 percent in 2015 and 6.7 percent in 2016.

- 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 4.0 percent in 2013 (estimated). Michigan wages and salaries are forecast to increase 3.9 percent each year in 2014, 2015 and 2016.

- 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 1945. Income increased 2.5 percent in 2010 and rose 5.5 percent in 2011. Personal income increased 3.5 percent in 2012 and rose an estimated 3.1 percent in 2013. Michigan personal income is forecast to increase 4.4 percent in 2014, 4.6 percent in 2015 and 4.7 percent in 2016.

- On a fiscal year basis, Michigan disposable income rose 3.3 percent in FY 2012 and an estimated 2.7 percent in FY 2013. Disposable income is then forecast to grow 3.3 percent in FY 2014, 4.1 percent in FY 2015 and 4.3 percent in 2016. Wages and salaries increased 4.3 percent in FY 2012 and an estimated 4.0 percent in FY 2013. Wages and salaries are forecast to increase 4.0 percent in FY 2014, 3.7 percent in FY 2015 and 4.1 percent in 2016.

Forecast Risks

- The recent federal budget agreement and the political fallout from last October's government shutdown reduces the likelihood of further political brinksmanship. However, division among federal policymakers could substantially weaken consumer and investor confidence. The need to increase or suspend the federal debt ceiling in early 2014 provides the next hurdle for Congress and the President to surmount. Polarization could also substantially limit the federal government's ability to respond to negative financial and macroeconomic shocks.

- 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.

- Political and military tensions have continued to mount. Still greater unrest throughout the Middle East would seriously curtail world oil supplies, which, in turn, would dramatically raise oil and gasoline prices. 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.

- The recent massive increase in stock prices heightens the prospect of a severe drop in stock values, which 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 the Federal Reserve's tapering of its quantitative easing both in terms of the actions the Fed will take as well as the impact of those actions themselves given the unprecedented and unconventional nature of the quantitative easing program.

- Uncertainty also 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 that Fed will begin raising the rate after 2016.

ECONOMIC REVIEW AND OUTLOOK
January 10, 2014

Current U.S. Economic Situation

Summary

The U.S. economy has continued to show signs of improvement over recent months. However, improvements have been modest and many economic indicators remain weak by historical standards.

Real Gross Domestic Product (GDP) has grown in all but one quarter since the end of the Great Recession (2009Q3 – 2013Q3). However, given the Great Recession's severity coupled with the modest recovery following the Recession, it required eight quarters (2009Q3-2011Q2) into the recovery before the U.S. economy exceeded the real GDP level it was just prior to the Great Recession. In the previous ten recessions, it had taken no more than three quarters for post-recession real GDP to exceed real GDP at the recession's outset. In 2013Q3, which was seventeen quarters after the end of the Great Recession, real GDP was 10.2 percent higher than in the quarter directly prior to the Great Recession (2009Q2). In the ten recessions just prior to the Great Recession, the smallest 17-quarter gain was 12.4 percent and the median 17-quarter increase was 18.8 percent.

Annual GDP has risen modestly in each of the past three calendar years (2010-2012) with annual growth of 2.5 percent, 1.8 percent and 2.8 percent, respectively.

U.S. wage and salary employment has risen each month since October 2010 with a cumulative gain of 6.8 million jobs over the past 38 months. However, in November 2013 jobs still remained 1.3 million jobs lower than at the beginning of the recession.

Housing Market

House Construction and Sales

While the housing market remains historically weak, the market has recently strengthened considerably.

Calendar year (CY) 2012, **housing starts** marked the fifth straight year in which 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. Further, 2012 starts were 54.5 percent below the ten-year annual average of starts between 1998 and 2007 (1.7 million units). However, starts did rise sharply (28.2 percent) from CY 2011 to CY 2012. At 780,600 units, CY 2012 starts represented the highest level of starts since 2008 when starts totaled 905,000 units. Through the first eleven months of 2013, annualized housing starts have averaged 919,000 units -- up 20.1 percent from the 765,000 units

average over the first eleven months of 2012. In November 2013, annualized starts rose above 1.0 million units for the second time in 2013. At 1.1 million units, annualized November 2013 starts were up 29.6 percent from last November. Prior to 2013, annualized starts last rose above 1.0 million units in June 2008. (U.S. Census Bureau).

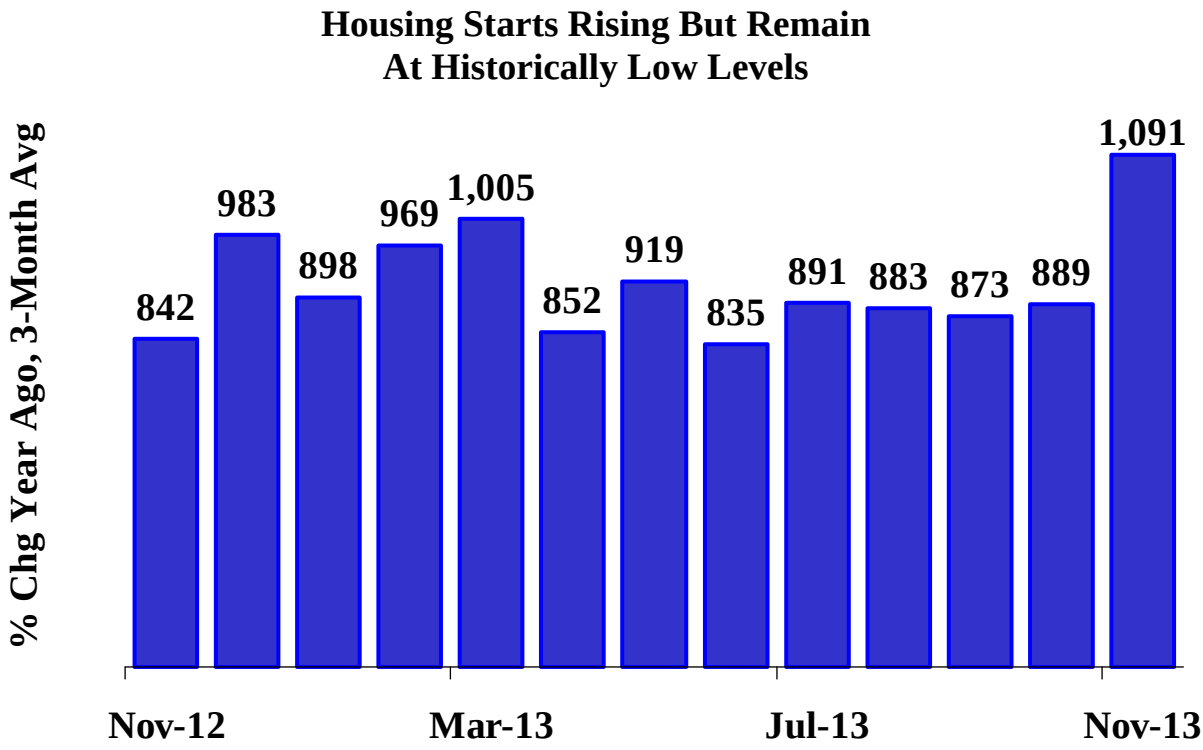
In April 2013 (the last month of data available at the May 2013 Consensus Conference), the **National Association of Home Builders (NAHB) sentiment index** had fallen to 41 -- indicating that more builders viewed conditions as poor compared with the number who view conditions as favorable. While rising in May, the index remained below 50.0. However, the index rose to 51 in June – marking the first month that the index had been above 50 since April 2006. Since June 2013, the index has remained above 50 each month. In August, the index rose to 58 – the index's highest reading since November 2005. After falling to 57 in September and to 54 in October and November, the index rebounded to 58 in December. Compared to a year ago, the December 2013 reading is up 11 points. The 2013 annual average of NAHB sentiment index (50.8) is 16.9 points above the index's 2012 average (33.9).

In 2012, **new home sales** remained below 500,000 units for the fifth straight year. Prior to 2008, new home sales last totaled fewer than 500,000 units in 1982. At 368,000 units, 2012 represented the fourth straight year in which new home sales totaled fewer than 400,000 units. Prior to 2009, new home sales had never fallen below 400,000 units in their 50-year data history.

Further, 2012 sales were 62.9 percent below the 1998-2007 annual average sales (992,000 units). However, in 2012, new home sales did rise sharply from 2011, in which sales had fallen to their lowest level in recorded history. In addition, 2012 represented the first annual sales increase since 2005.

Through the first 11 months of 2013, new home sales averaged a 433,900 units annual rate – up 18.6 percent compared average new home sales between January 2012-November 2012, inclusive. In each quarter between 2011Q4 and 2013Q1, inclusive, the new home sales rate rose from the prior quarter – rising to 448,700 units in 2013Q1 -- the highest rate since 2008Q2. However, the new home sales rate has fallen in each of the two most recently reported quarters. Consequently, the annualized 2013Q3 new home sales rate stood at 388,000 units. (U.S. Census Bureau). Compared to a year ago, new home sales reported double-digit increases each quarter between 2012Q1 and 2013Q2, inclusive. However, in 2013Q3, new home sales rose only 3.3 percent compared to 2012Q3.

Between the end of 2010 and mid-2013, **existing home sales** trended upward with the annualized sales rate peaking in July 2013 at 5.4 million units – the highest sales rate since late 2009. In addition, the annualized existing sales rate reported year-over-year increases each month between July 2011 and October 2013, inclusive. However, most recently, the existing home market hit a slight lull. In each of the three most recent months (September, October and November 2013), existing home sales fell from the prior month. In November 2013, the sales rate fell below 5.0 million units for the first time since April 2013. In addition, November 2013 marked the first month since June 2011 that the sales rate was down compared to a year-ago.



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

House Prices

While remaining below peak values, house prices have grown substantially in recent months.

- Between October 2012 and October 2013, the **Core Logic Home Price Index** increased 12.5 percent – the largest year-over-year increase in over seven years and the 9th straight double-digit year over-year (y-o-y) increase. The October 2013 level represented the index's highest reading since May 2008. However, the October 2013 level remained 17.3 percent below the index's peak (April 2006).

- In 2012, the **Census Bureau's median new home sales price** reported its third straight annual price increase – rising 7.9 percent from 2011. At $245,200, the 2012 annual median price was only 1.1 percent lower than its peak value, $247,900, reached in 2007.

- In April 2013, the median sales price jumped to an all-time record monthly high ($279,300). Since April, the median sales price has fallen a net $8,400. However, in the last three months, the median price has risen a net $15,600. Compared to a year ago, the November 2013 median sales price is up 10.6 percent compared to a year ago. Further, November 2013 marks the 17th straight year-over-year increase,

- According to the **National Association of Realtors, the median existing-house price** was up 9.4 percent from November 2012 to November 2013.

- In October 2013 (the most recent month of available data), the **S&P/Case Shiller 20-city home price index** (seasonally adjusted) was up 13.6 percent from a year earlier – the fastest year-over-year increase since February 2006.

Repercussions

In November 2013, **foreclosures** fell 15 percent from October and were down 37 percent from a year ago with foreclosure starts falling to a 95-month low. **RealtyTrac**, which tracks foreclosure data, sees foreclosure activity as under control:

> While foreclosures will likely continue to stage a weak rally in certain markets next year as the last of the distress left over from the Great Recession is dealt with, it is highly unlikely that there will be a foreclosure comeback that poses any major threat to the solid housing recovery that has now taken hold.

In October 2013, there were 48,000 **completed foreclosures** in the U.S. October 2013 foreclosures were down 25.6 percent from September 2013 and were down 29.4 percent from a year ago. Further, the October 2013 **rate of serious delinquencies** was the lowest rate in nearly five years. **(CoreLogic)**

In 2013Q3 **homeowner real estate equity** was down $3.6 trillion from its 2006Q1 peak. At 50.8 points, the 2013Q3 homeowner equity rate was off 8.5 percentage points from 2006Q1 but 14.3 points higher than its all-time low (2009Q1). Over the past year, homeowner equity increased $2.1 trillion and the equity rate rose by 6.5 percentage points. As a result, 2013Q3 real estate equity represented the highest equity level since 2008Q1 and the highest equity rate since 2007Q2 (Federal Reserve Bank, *Flow of Funds Accounts of the United States*).

During the Great Recession, **household net worth** dropped by $11.4 trillion (-16.8 percent). Thus far, during the subsequent economic recovery, household net worth has gained a net $20.7 trillion -- making 2013Q3 net worth level the highest level on record (going back to 1952Q1). Over the past year alone, household net worth has risen substantially ($7.7 trillion) -- accounting for 37.0 percent of net worth's increase during the recovery (Federal Reserve, *Flow of Funds Accounts of the United States*).

With substantial gains in the housing market and growing expectations that the Federal Reserve would begin to taper the size of its quantitative easing program, the **30-year fixed mortgage rate** rose to 4.58 percent in late-August 2013 – up 1.16 percentage points from early May 2013 (the most recent data available prior to the May 2013 Consensus Conference). While mortgage rates have fallen slightly since late August, mid-December mortgage rates were still 1.18 percentage points higher compared to early May. (Federal Reserve)

With both higher home prices and mortgage rates, the **National Association of Realtors housing affordability index** fell 18.8 percent between October 2012 and October 2013 (the most recent index value available). Last October, the housing affordability index stood at 203.7 – indicating that the median family income was more than twice the income necessary to qualify for a mortgage. In contrast, in September 2013, the median family income was only 65.4 percent higher than the qualifying income.

Stock prices have risen substantially since the May 2013 Consensus Conference. Between the end of April 2013 and the end of December 2013, the **stock market (Wilshire 5000)** rose 16.8 percent. In addition, compared to a year ago, the month-end December 2013 index was up 31.4 percent.

Monetary Policy

At its December 16, 2008 meeting, the Federal Open Market Committee (FOMC) took an unprecedented step and lowered the **target federal funds rate** range to 0.00 percent to 0.25 percent. At the same time, the FOMC cut the **discount rate** to 0.50 percent, its lowest level since the 1940s. The FOMC has kept its rates at their exceptionally low levels up to the present day. Through its September 2012 meeting the Fed continued to push the date by which the record low rates would be warranted to mid-2015. Beginning with the FOMC's December 2012 meeting, the Committee tied the likely end date for the exceptionally low rates to economic conditions. The FOMC stated at its December 2012 meeting, that the low rates would be appropriate at least as long as unemployment remained above 6.5 percent and inflation remained no higher than 2.5 percent.

At the FOMC's most recent meeting (December 18, 2013), the Committee stated that the Fed expects to maintain its 0.00-025 federal funds rate range well after the unemployment rate falls below 6.5 percent if the projected inflation rate remains under 2.0 percent:

> The Committee now anticipates, based on its assessment of these factors, that it likely will be appropriate to maintain the current target range for the federal funds rate well past the time that the unemployment rate declines below 6-1/2 percent, especially if projected inflation continues to run below the Committee's 2 percent longer-run goal. When the Committee decides to begin to remove policy accommodation, it will take a balanced approach consistent with its longer-run goals of maximum employment and inflation of 2 percent.

In addition to having maintained key interest rates at record low levels, the Federal Reserve (Fed) also addressed the financial and economic crises by injecting substantial liquidity into financial markets (**quantitative easing**). In the first round of quantitative easing (QE1), the Fed purchased $1.25 trillion of agency mortgage-backed securities and about $175 billion of agency debt between December 2008 and March 2010. In a second round of quantitative easing (QE2), the Fed purchased an additional $600 billion of longer-term Treasuries between November 2010 and June 2011.

Between September 2011 and December 2012, the Fed engaged in **Operation Twist**. Under this policy action, the Fed *purchased* $667 billion of additional longer-term bonds and *sold* $667 billion of shorter-term bonds. In doing so, the Fed sought to depress longer-term interest rates and thus provided additional economic stimulus without the inflationary pressures associated with quantitative easing under which the net size of the Fed's holdings increases.

In September 2012, the FOMC announced a third round of quantitative easing (QE3) under which it continued to purchase an additional $40 billion per month in agency mortgage-backed securities (MBS). In December 2012, the FOMC announced that it would continue buying an additional $40 billion in MBS and would begin purchasing an additional $45 billion in longer-term Treasuries (QE4). Thus, since December 2012, the Fed has been purchasing an additional $85 billion in longer term securities/Treasuries and Treasury bonds. Unlike QE1 and QE2, the FOMC did not set an end date for QE3 and QE4.

As of the week ended January 1, 2014, the Fed's reserve assets totaled $4.0 trillion. Of that $4.0 trillion amount, the Fed purchased $1.1 trillion (one-fourth) during the past year.

At its most recent meeting (December 18, 2013), the FOMC suggested that the Committee will begin tapering the Fed's quantitative easing from its current $85 billion per month in January 2014. However, the FOMC left the door open to the possibility of adjusting/slowing the tapering's pace:

> If incoming information broadly supports the Committee's expectation of ongoing improvement in labor market conditions and inflation moving back toward its longer-run objective, the Committee will likely reduce the pace of asset purchases in further measured steps at future meetings. However, asset purchases are not on a preset course, and the Committee's decisions about their pace will remain contingent on the Committee's outlook for the labor market and inflation as well as its assessment of the likely efficacy and costs of such purchases.

Beginning in January 2014, Janet Yellen replaces Ben Bernanke as FOMC Chair. However, Yellen is already a voting member of the FOMC and her policy stance is very similar to Bernanke's. Given this, Yellen's elevation to Chair will likely effect little change on FOMC policies.

Fiscal Policy

The Budget Control Act of 2012 established a Joint Select Committee on Deficit Reduction (i.e, the "Super Committee"). Under the Act, the Super Committee was required to produce legislation by late November that would cut the federal deficit by $1.2 trillion over ten years. When the Committee failed to produce the requisite legislation, automatic across-the-board cuts (i.e., **sequestration**) were to become effective January 2, 2013. The American Taxpayer Relief Act of 2012 removed taxes from the dispute but delayed budget sequestrations two months. Thus, budget sequestration became effective in early March 1, 2013. Sequestration provided for cuts of approximately $85 billion in fiscal year 2013 and about $110 billion in cuts in each of the following nine years. The cuts are spread evenly across federal spending with the exception of certain budget items including Social Security, Medicaid and federal pay.

In December 2013, the President signed a budget agreement reached by Congress. The agreement eased sequestration by allowing spending to rise by $62 billion combined in fiscal years 2014 and 2015. The budget agreement also included offsetting revenue and long-term spending cuts, so that the agreement overall would reduce the deficit by $23 billion over 10 years. The federal government's next challenge is the need to suspend or raise the federal debt ceiling in early 2014.

Inflation

In 2012Q4, oil prices averaged $88 per barrel in 2012Q4. The 2013Q1 average oil price was modestly higher at $94 per barrel. In April, 2013 oil prices fell to $92 per barrel. However, oil prices then rose in each of the next four months -- rising to $107 per barrel in August 2013. However, oil prices fell in each month the next three months, with substantial declines in October and November. As a result, by November 2013, oil prices fell to $94 a barrel – just $2 a barrel above oil's April 2013 price per barrel. Nevertheless, the November 2013 oil price was still $7 higher than a year earlier. In addition, oil prices remain well above pre-2000 prices, when prices never rose above $40 per barrel (January 1946 - December 1999). (Federal Reserve Bank of St. Louis).

Between late-December 2012 and late-February 2013, **gasoline prices** trended upward – rising to $3.72 per gallon from $3.20 per gallon in late December 2012. However, gasoline prices trended downward in March and April. As a result, gasoline prices fell to $3.46 per gallon by the end of April 2013. Over the next five months, gasoline prices fluctuated with prices in early September at $3.58 per gallon. Gasoline prices then trended downward. By mid-November 2013, gasoline prices had fallen to $3.13 per gallon – the lowest gasoline price in nearly 12 years. Gasoline prices have since risen with prices at $3.26 per gallon by late December 2013. However, gasoline prices remain historically high. Between August 1990 and mid-May 2004, gasoline prices never rose above $2.00 per gallon. (U.S. Energy Information Administration)

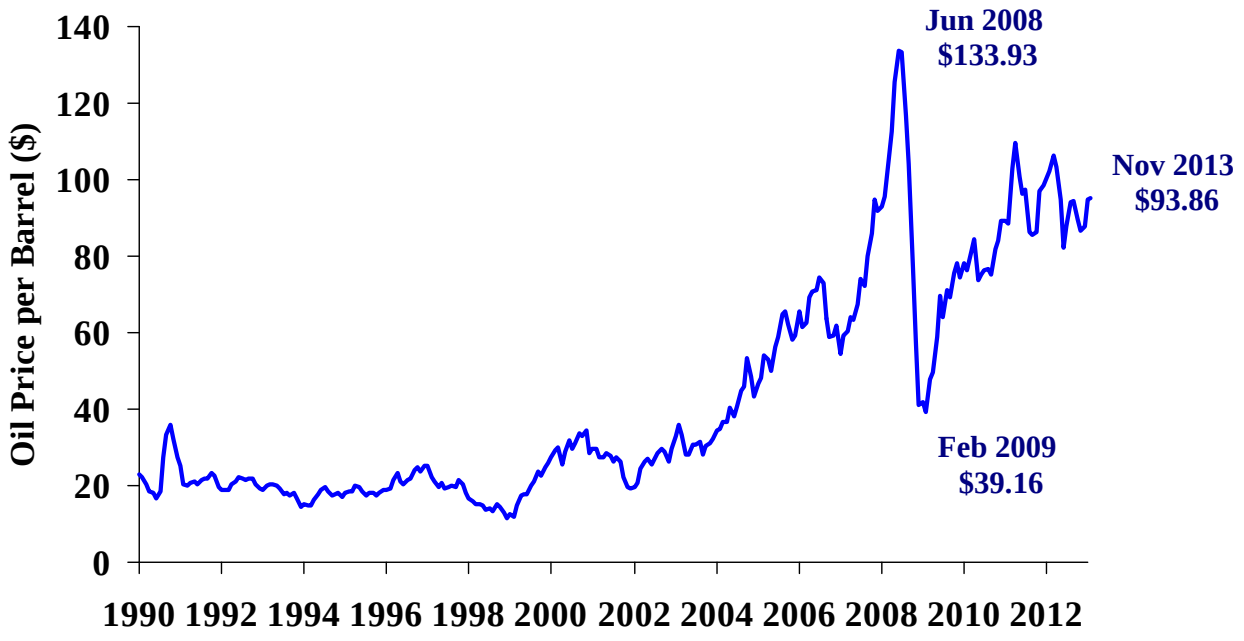
In recent years and months, price inflation has remained mild. In calendar year (CY) 2012, **consumer prices** increased 2.1 percent. The increase follows a 0.4 percent decline in CY 2009, a 1.6 increase in CY 2010 and a 3.2 percent rise in CY 2011. **Core consumer price** inflation (excluding food and energy) has remained relatively tame over the past four years with core

prices rising 2.1 percent in 2012 following core inflation of 1.7 percent in 2009, 1.0 percent in 2010 and 1.7 percent in 2011. Year-to-date through November 2013, average consumer prices are up 1.5 percent compared to the first eleven months of 2012. Year-to-date core consumer prices have averaged 1.8 percent higher than in 2012. (Bureau of Labor Statistics) As further evidence of tame consumer price inflation, the average **core personal consumption expenditures deflator** over the first 11 months of 2013 is up only 1.2 percent from the first ten months of 2012. Year-over-year, the deflator has risen less than 2.0 percent every month since May 2012. (Bureau of Economic Analysis)

Producer prices rose 6.0 percent in CY 2011, due primarily to increases in fuel prices. In contrast, 2011 core producer prices (excluding food and energy) were up only 2.4 percent. In 2012, overall producer prices increased 1.9 percent while core producer prices were up 2.6 percent. Through the first eleven months in 2013, producer prices were up 1.2 percent from 2012 while core producer prices were up 1.5 percent. (Bureau of Labor Statistics)

While up slightly from October 2013, the November 2013 Economic Cycle Research Institute's (ECRI) future inflation gauge (FIG) is down 2.8 percent from a year ago.

Oil Prices Remain Historically High



Source: Federal Reserve Bank of St. Louis

Major Economic Indicators

In the heart of the Great Recession (December 2008), the **ISM manufacturing index (PMI)** fell to 33.1 – the index's lowest reading since May 1980. However, by August 2009, the PMI had risen above the key 50.0 threshold (readings over 50.0 indicate sector expansion). The PMI has signaled sector expansion in all but two months between August 2009 and December 2013. The

two sub-50 readings over this period were 49.9 in November 2012 and 49.0 in May 2013. Over the 53 months, the PMI peaked in February 2011 at 59.6 – the index's highest reading since July 2004. Since the May 2013 Conference, eight additional months of PMI data have been released (May 2013-December 2013). Although falling to 49.0 in May, the index rose each month through November 2013. As a result, in November 2013, the PMI rose to 57.3 – the index's highest reading since April 2011. While the PMI fell slightly to 57.0 in December 2013, the December index was still 6.8 points from a year ago.

Midway through the 2007-2009 recession, in November 2008, the **ISM non-manufacturing index (NMI)** fell to 37.6 -- its lowest reading in over 16 years. September 2009 marked the first month, since the Great Recession, that the NMI signaled non-manufacturing sector expansion with a 50.5 reading. While increasing slightly in October 2009, the NMI signaled contraction in November and December. However, the NMI rose above 50.0 in January 2010 and has remained above 50.0 each month through November 2013, which marked the 47th straight month signaling sector expansion. The November 2013 reading was down 0.9 point from a year earlier and off 1.5 points from October 2013. However, in the seven months reported after the May 2013 Consensus Conference, the NMI averaged 55.0 – little different from the index's average in the seven months prior to the May 2013 Consensus Conference.

Industrial production, based on a three-month moving average, increased compared to a year ago in each month from March 2010 to November 2013 after experiencing dramatic declines during the Great Recession. Growth peaked at 8.2 percent in July 2010 but slowed considerably over the next year with growth bottoming at 2.4 percent in July 2011. Growth then trended upward and accelerated to 4.5 percent by June 2012. Between July 2012 and July 2013, growth trended downward with growth slowing to 1.8 percent – the slowest growth rate since February 2010. However, over the last four months, growth has accelerated with growth increasing to 3.3 percent in November 2013.

After falling each month between February 2008 and July 2009, the three-month moving average of **capacity utilization** fell a cumulative 13.5 points to a record low (66.9 percent) for the series which dates back to 1967. Between August 2009 and March 2011, the average rose in every month with a cumulative increase totaling 8.9 points. Between April 2011 and November 2013, the average reported 23 monthly increases and nine monthly declines with a net cumulative increase of 2.4 points. Directly after the May 2013 Consensus Conference, the average fell in each of the next three months. However, the average rose in each of the next four months. Taken together, the average has risen 0.4 points. At 78.5, the November 2013 average represented the highest average in over five years. However, the November 2013 reading remained 2.1 points lower than the average in December 2007 (the first month of the Great Recession).

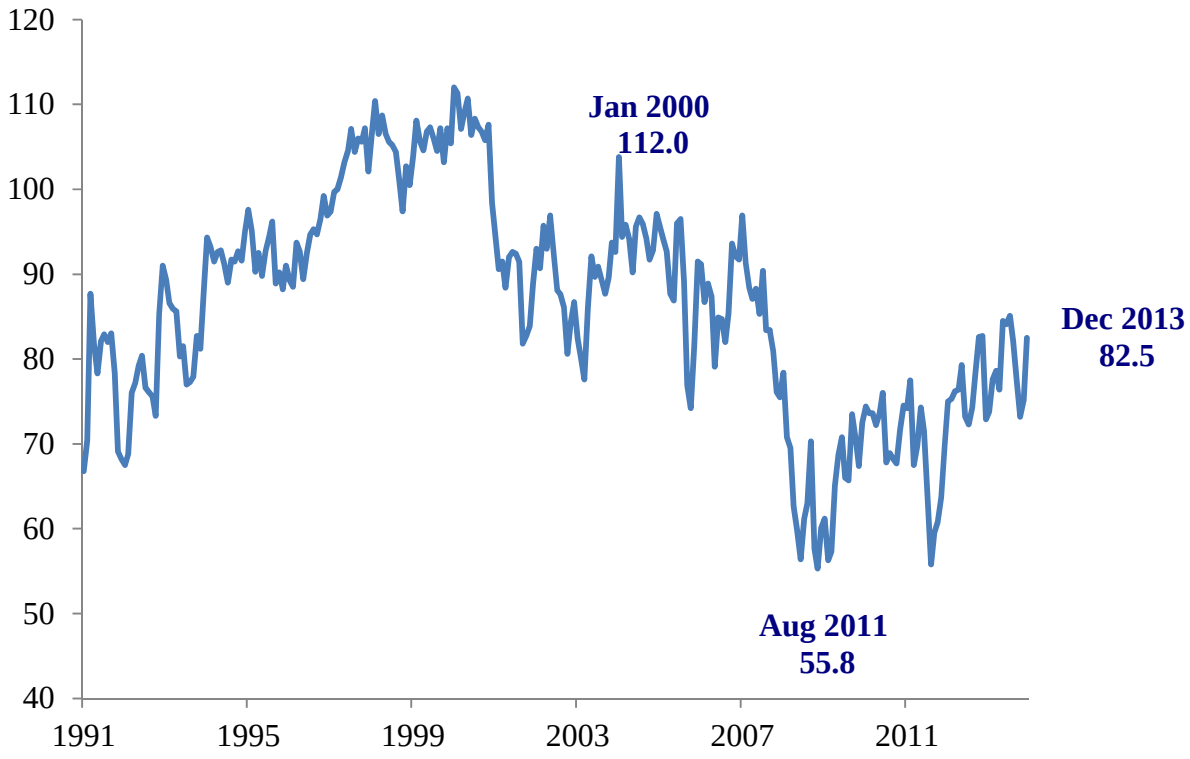
The three-month average of **new durable goods orders** experienced double-digit percentage y-o-y declines each month between October 2008 and November 2009, inclusive. However, after reporting a 1.9 percent decline in December 2009, the average rose from the prior year each month between February 2010 and September 2012, inclusive. Since November 2012, y-o-y changes have trended faster. However, the average has reported y-o-y increases in six of the seven months reported since the May 2013 Consensus (April 2013-November 2013). As a

result, growth sped to 9.5 percent in October 2013 before slowing modestly to 8.6 percent in November 2013.

Since December 2009, the three-month average of **retail sales** has been higher compared to a year ago. The y-o-y increases trended faster between December 2009 and August 2011. As a result, the August 2011 average was up 8.2 percent from August 2010. Increases decelerated over the next 12 months with the August 2012 average up 4.4 percent from a year earlier. Since September 2012, increases have fluctuated between 3.7 percent and 5.4 percent. In November 2013, the average was up 4.1 percent.

The **University of Michigan index of consumer sentiment** fell sharply in December 2012 to 72.9 under the weight of fiscal cliff concerns. The index rose in each of the first three months of 2013, but then fell in April 2013 (the last month available prior to the May 2013 Conference). The index increased sharply in May 2013 -- rising to 84.5 points – a nearly six-year high. The index then trended downward over the next five months with the index dropping to 73.2 in October. The index has risen substantially over the two most recent months with the index rising to 82.5 in December. On net, the consumer sentiment index has risen 6.1 points since the May 2013 Conference, but remains at historically low readings as the graph below illustrates.

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 fell to 42.0 in the last quarter of 2012. The index rose to 54.0 in 2013Q1 (the most recent quarter available prior to the May 2013 Conference). The index rose to 62.0 in 2013Q2, but then returned to 54.0 in 2013Q3.

In each of the five most recent available months of data (July 2013-November 2013), the **Conference Board index of leading economic indicators (LEI)** has reported monthly gains averaging 0.6 percent. In November, the index rose 0.8 percent. The November index (98.3) was up 3.1 percent from June 2013.

Between mid-December 2012 and early February 2013, the **Economic Cycle Research Institute (ECRI) weekly leading index growth rate** accelerated from 4.6 percent to 8.8 percent. However, since early February, the growth rate has trended slower. While the growth rate averaged 6.7 percent over the first half of 2013, the rate slowed to 4.3 percent in 2013Q3 and to 2.3 percent in 2013Q4. The rate fell to its year-to-date 2013 weekly low (1.7 percent) in late October before accelerating over the next month to 2.8 percent. However, the growth rate slowed – 3.2 percentage points slower than the rate's most recent 52-week average (5.0 percent).

Employment

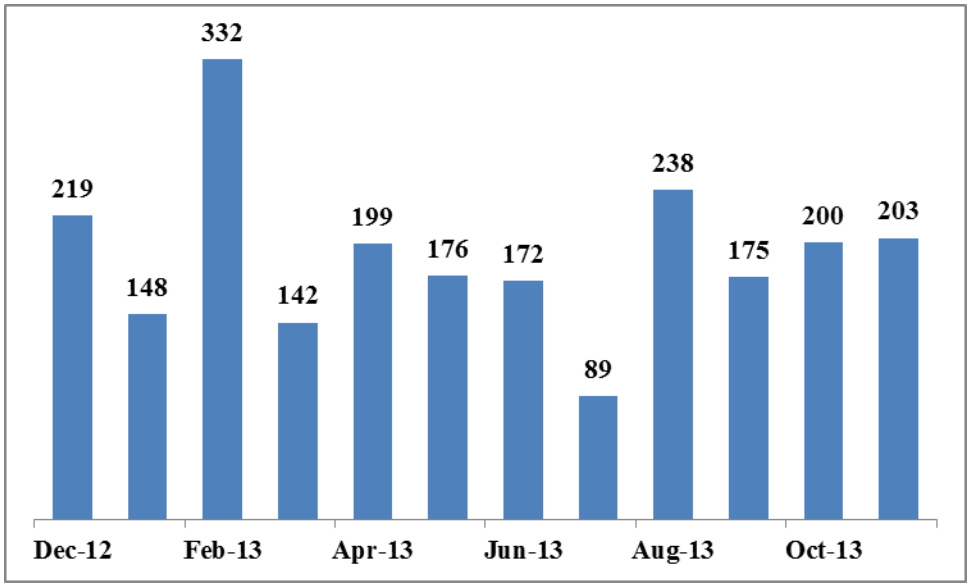
At the end of the Great Recession, the four-week average of **initial unemployment claims** stood at 598,000 – dramatically above the key 400,000 threshold. In early November 2011, the average fell below 400,000 for the first time since the recession's end. Since early November 2011, the average has remained below 400,000 with the exception of two weeks in late 2012. Between early January 2013 and mid-March 2013, the average trended downward from 369,250 to 340,750 -- the lowest average in over five years. The average rose from 340,750 to 362,000 between mid-March 2013 and mid-April 2013. However, the average dropped sharply over the last two weeks in April 2013. The average fluctuated between 338,000 and 352,500 over the next three months. The average then trended lower. By the end of September, the average had fallen to 305,000 – the lowest average since late May 2007. The average rose throughout October, but then fell each week in November. With increases in each of the four most recently reported weeks, the average stood at 357,250 in mid-December. However, the four-week average has remained below the key 400,000 threshold each week over the past twelve months.

The **U.S. unemployment rate** rose sharply between April 2008 and October 2009. Over this period, the unemployment rate doubled, rising from 5.0 percent to 10.0 percent – the highest monthly rate since June 1983. Since October 2009, the rate has trended downward – although haltingly. By April 2013 (the last month reported prior to the May 2013 Consensus Conference), the rate had fallen to 7.5 percent. In May 2013, the rate rose to 7.6 percent and was unchanged in June 2013. The rate fell in each of the following three months -- dropping to 7.2 percent in September. The rate rose slightly in October, but then fell in November. At 7.0 percent, the November 2013 unemployment rate represented the lowest unemployment rate in five years. The November 2013 unemployment rate was 2.5 percentage points below the rate at the end of the Great Recession, but 2.0 percentage points above the unemployment rate at the outset of the Great Recession. However, a portion of the inroads made into lowering the unemployment rate is attributable to substantial reductions in the labor force participation rate. At 62.8 percent, the

labor force participation rate in October 2013 was the lowest participation rate since February 1978. In November 2013, the participation rate rose slightly to 63.0.

Between February 2008 and February 2010, **wage and salary employment** fell every month, declining 8.7 million jobs to its lowest level since July 1999. With the exception of the months June 2010 through September 2010, wage and salary employment has risen each month since March 2010. On net, employment has risen by 7.4 million jobs between March 2010 and November 2013. Compared to a year ago, November 2013 employment was up 2.3 million jobs (1.7 percent). In the first 11 months of 2013, monthly increases have averaged 189,000 jobs. November 2013 wage and salary employment was up 4.7 percent from the end of Great Recession, but down 0.9 percent from the outset of the Recession.

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



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

Between July 2006 and January 2010, **manufacturing sector employment** fell every month. Over this period, the sector lost 2.8 million jobs. Between February 2010 and November 2013, manufacturing employment has increased in 36 of 46 months. On net, the sector gained 554,000 jobs over this period. Sector employment dropped each month between March 2013 and July 2013 with sector losses totaling 40,000 over these five months. However, manufacturing employment increased each month between August 2013 and November 2013 with gains totaling 66,000 jobs over these four months. On net, November 2013 manufacturing employment was up 76,000 jobs from a year ago. Despite these increases, manufacturing employment was still down 1.7 million jobs from the start of the recession.

Construction employment is *down* by 157,000 jobs since the end of the recession (June 2009) and is down by 1.6 million jobs (-21.9 percent) compared to December 2007. However, over the past year, construction employment is up by 178,000 jobs. Since April 2013 (the last month reported prior to the May 2013 Consensus Conference), the sector's employment has risen a net 59,000 jobs.

The **ISM manufacturing employment index** signaled an improving sector employment picture in all but one month (June 2013) between October 2009 and November 2013. In 2012, the index averaged 53.8, 3.6 points lower than the 2011 annual average of 57.3. In 2013, the employment index averaged still lower– 53. However, in 2013Q4, the index averaged 55.0. Further, in December, the index rose to 56.9 – the highest monthly reading since June 2011.

The ISM **non-manufacturing employment index** signaled growing sector employment (reading above 50.0) in the 37 of the last 41 months. The index averaged 53.5 in calendar year 2012. The index rose to 57.5 in January 2013 – its highest monthly reading since February 2006. Similarly, the 2013Q1 average (56.0) represented the highest quarterly average in eight years. However, the index fell each month between February 2013 and May 2013 – dropping to 50.1. Since June 2013, the index has fluctuated with August reporting the highest value (57.0) over the six-month period and November 2013 reporting the period's lowest value (52.5). However, compared to a year ago, the November reading is still up 1.1 points.

Vehicle Sales and Production

The vehicle sector has shown substantial growth over the past four 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 continued to grow with sales of 14.4 million units – the highest annual light vehicle sales since 2007. Further, in 2012, domestic light vehicle sales totaled more than 10.0 million units for the first year since 2007. Nevertheless, 2012 sales were substantially lower than the 16.1 million unit sales in 2007 and lower still compared to average annual sales over the ten years prior to 2008 (16.7 million units). Likewise, 2012 domestic light vehicle sales at 11.2 million units were substantially lower than average annual domestic sales over the ten years prior to 2008 (13.5 million units)

During the first 11 months of 2013, light vehicle sales averaged 15.5 million units (seasonally adjusted annual rate) – up significantly from the first 11 months of 2012 (14.4 million units rate). The 2013Q3 sales rate (15.7 million units rate) represented the highest quarterly sales rate in over five years. Further, at a 16.3 million units rate, November 2013 sales represented the highest monthly reading since February 2007.

Between 2003 and 2009, inclusive, **U.S. vehicle production** declined each year. Between 2006 and 2009, annual production fell a cumulative 5.6 million units (49.4 percent).A s a result, national vehicle production fell a combined 49.4 percent over the three years. However, U.S. vehicle production has risen substantially in each of the past three years (2010-2012, inclusive). Consequently, 2012 national vehicle production was 80.9 percent higher than 2009 production

and only 4.5 percent below 2007 production. Year-to-date through November 2013, vehicle production has totaled 10.4 million units – up 6.6 percent from the production in the first 11 months of 2012.

Current Michigan Economic Conditions

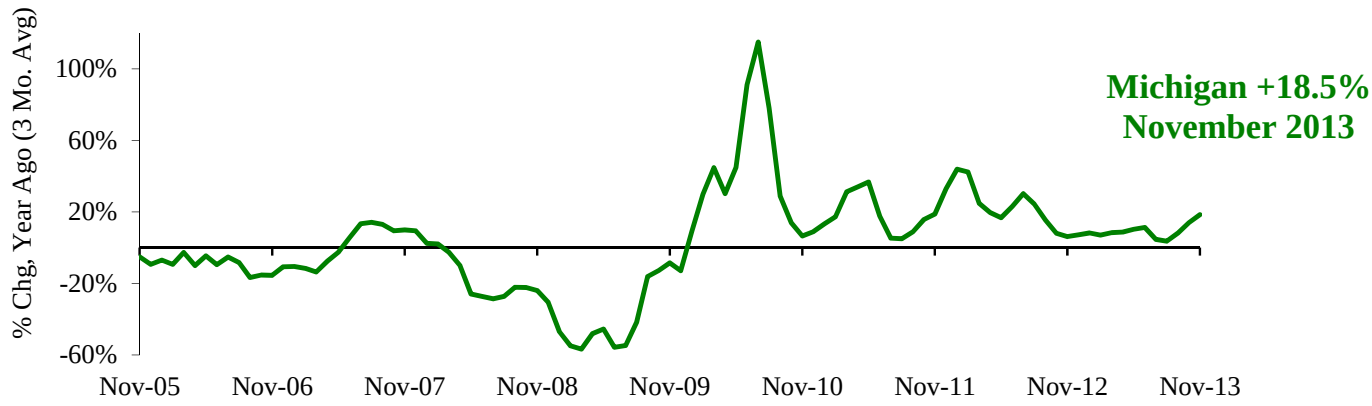
Vehicle Production

Following national trends, **Michigan vehicle production** fell 20.9 percent in 2008 and dropped 37.9 percent in 2009. Consequently, annual Michigan vehicle production fell by 1.2 million units between 2007 and 2009. However, Michigan vehicle production then increased substantially each year between 2010 and 2012, inclusive, with annual gains of 37.7 percent, 22.0 percent and 17.4 percent, respectively. Consequently, 2012 Michigan vehicle production was only 3.1 percent lower than in 2007.

Michigan vehicle production in 2013Q2 was up 11.3 percent from the second quarter of 2012. At 661,026 units, 2013Q2 represented the highest quarterly production since 2007Q2. November 2013 marked the 44th monthly year-over-year production increase in the last 47 months. Between November 2012 and November 2013, Michigan vehicle production was up 16.3 percent. Total production in the first 11 months of 2013 exceeded production in the first 11 months of 2012 by 10.4 percent.

In 2012, Michigan car production rose 41.6 percent from 2011 while State truck production was up 4.1 percent. Between 2011 and 2012, **Michigan's share of national vehicle production** fell from 22.3 percent to 21.7 percent. However, over the first 11 months of 2013, Michigan's share of national vehicle production (22.3 percent) was up 0.8 percentage points from State production in the first 11 months of 2012. In the most recent three-month period (September 2013-November 2013), Michigan comprised 22.4 percent of national vehicle production.

Michigan Vehicle Production Increases Accelerate



Source: Automotive News and Michigan Department of Treasury

Employment

After reporting ten straight annual declines, totaling 813,100 jobs (-17.4 percent), overall **Michigan wage and salary employment** turned the corner with increases of 88,500 jobs (2.3 percent) in 2011 and 72,400 jobs increase in 2012 (1.8 percent). In 2011 and 2012, State construction employment rose 3.0 percent and 1.6 percent, respectively. Manufacturing employment has risen sharply in the past two years with percent gains of 7.6 percent in 2011 and 5.3 percent in 2012. Increasing by 63,000 jobs over the past two years, the manufacturing sector accounted for 39.2 percent of the overall two-year employment gain – even while accounting for only 12.3 percent of the overall *level* of 2010 Michigan wage and salary employment.

At 6.7 percent, Michigan's wage and salary employment percent increase since the end of the Great Recession (June 2009) ranks 5th among all U.S. states. Between December 2012 and November 2013, overall Michigan wage and salary employment was up 65,400 jobs (1.6 percent). Michigan's year-to-date percent employment increase ranks 14th among all U.S. states.

The manufacturing sector accounted for 25.7 percent of Michigan' year-to-date overall employment increase – ranking first among all states.

During the first 11 months of 2013, **manufacturing employment** is up 3.1 percent and **construction employment** in November 2013 was 2.8 percent higher than December 2012.

In 2009, **Michigan's unemployment rate** rose to 13.4 percent – the State's highest rate since 1983 when the rate stood at 14.6 percent. However, between 2009 and 2012, the State's unemployment rate fell a combined 4.3 percentage points with the majority of the decline (-2.3 points) occurring in 2011. Michigan's 2012 unemployment rate stood at 9.1 percent.
On a monthly basis, Michigan's unemployment rate remained in double-digits from December 2008 to October 2011. Over this time, the State's unemployment rate peaked in August 2009 at 14.2 percent – the State's highest monthly rate since July 1983. Since October 2011, the State's unemployment rate has declined in 13 months, has risen in 6 months and was unchanged in 6 months. Through the first 11 months of 2012, the unemployment rate remained at or slightly above 9.0 percent. In December 2012, the State's unemployment rate fell to 8.9 percent – marking the first month that the State's unemployment rate fell below 9.0 percent since September 2008. In April 2013, the Michigan unemployment rate fell to 8.4 percent -- the State's lowest rate since July 2008 (8.2 percent). The rate remained unchanged in May 2013, but then rose in each of the following three months. As a result, in August 2013, the rate increased to 9.0 percent – where the rate remained in both September and October. In the most recent month for which data are available (November 2013), the Michigan unemployment rate fell to 8.8 percent

Between August 2009 and March 2012, the **gap between Michigan's unemployment rate and the U.S. unemployment rate** trended downward – falling from 4.6 percentage points to 0.8 percentage point – the smallest gap since December 2002. Between March 2012 and July 2013, the gap fluctuated between 0.9 percentage point and 1.4 percentage points. In March 2013, the gap equaled 0.9 percentage point. However, the gap rose in each of the following four months – rising to 1.8 percentage points in September 2013. The gap fell 0.1 percentage point in October 2013, but rose 0.1 percentage point in November 2013. At 1.8 percentage points, the November 2013 gap represented the largest unemployment rate gap since January 2011.

Month-over-month, **Michigan household employment** fell in each month between January 2007 and December 2009 with household employment falling a combined 597,500 persons (12.6 percent). Since January 2010, household employment has trended upward but has only regained a net 165,900 persons. In four of the past five months, household employment has fallen on a month-to-month basis. Compared to a year ago, State household employment is up 68,400 persons (1.6 percent).

The **Michigan labor force** fell in all but four months between December 2006 and December 2012, inclusive. Over this period, the State's labor force dropped a net 437,000 persons (8.6 percent). The Michigan labor force rose in each of the first seven months of 2013 -- gaining a combined 87,200 persons. However the labor force declined in three of the following four months. On net, between December 2006 and November 2013, the State's labor force has fallen 370,800 persons (7.3 percent). However, over the last year, the labor force has increased by 66,200 persons.

Over the past year, **Michigan household unemployment** is down 4,200 persons (1.0 percent). Compared to household unemployment at the end of the Great Recession, November 2012 unemployment is 262,700 persons lower. Compared to the *outset* of the Recession, November 2013 unemployment is 54,400 persons higher.

The State's November 2013 labor force is down 160,700 persons from the end of the Great Recession and is 304,700 lower than the labor force count at the Recession's outset. Michigan household employment has risen 101,700 persons since the end of the Great Recession. Thus the employment increase accounts for about 40 percent of the 262,700 persons decline in State unemployment with the labor force accounting for the other 60 percent of the unemployment decline. Nationally, the increase in household employment since the Great Recession (4.4 million persons) more than accounts for the 3.8 million persons decline in the U.S. unemployment count.

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 2010, **Michigan housing unit authorizations** rose 31.8 percent – the fastest growth rate among all 50 states and substantially faster than the 3.7 percent nationwide increase. In 2011, Michigan authorizations growth slowed substantially to 2.9 percent. Nationally, authorizations grew 3.2 percent in 2011. In 2012, nationwide authorization growth accelerated to 32.9 percent and Michigan authorization growth rose to 25.2 percent. Nevertheless, in 2012, Michigan authorizations (11,692 units) were 77.4 percent below the State's 1996-2005 annual average (51,688 units). Total U.S. authorizations in 2012 were 51.9 percent below the national 1996-2005 average. As a result, while accounting for an average of 3.0 percent of overall U.S. authorizations between 1996-2005, Michigan authorizations accounted for only 1.4 percent of U.S. authorizations in 2012.

Year-to-date through November 2013, Michigan housing authorizations were up 35.3 percent compared to 2012 – ranking 6th among U.S. states. Nationally, y-t-d authorizations were up 20.1 percent. Michigan accounted for 1.7 percent of total y-t-d U.S. authorizations.

In September 2013, according to **Case-Shiller house price measures** (seasonally adjusted), the Detroit MSA recorded a 17.1 percent year-over-year house price increase, compared to a 13.6 percent average increase for the 20 U.S. metro areas surveyed for the measure. Detroit's 17.3 percent year-over-year increase ranked 7th among the 20 metro areas.

According to CoreLogic, Michigan, had the 4th highest number of **completed foreclosures** for the 12 months ending September 2013 with 40,000 completed foreclosures, behind Florida, California and Texas. However, Michigan had the 13th smallest **percent of homes in foreclosure**. (CoreLogic)

The **share of mortgage properties underwater (negative equity)** in Michigan is higher than the national average. In 2013Q3, 13.0 percent of residential properties with mortgages were underwater nationally. In Michigan, 17.7 percent of such properties were underwater – placing

Michigan 6th among the fifty states behind Nevada (32.2 percent), Florida (28.8 percent), Arizona (22.5 percent), Ohio (18.0 percent) and Georgia (17.8 percent). (CoreLogic)

Personal Income

Michigan personal income annual growth accelerated from 2.5 percent in 2010 to 5.5 percent in 2011. However, as with 45 states, Michigan's personal income growth decelerated in 2012. In 2012, Michigan personal income growth slowed to 3.5 percent. Michigan's 2012 personal income growth ranked 39th among U.S. states, while Michigan's 2012 per capita income increase (3.4 percent) ranked 23rd.

Michigan's quarterly personal income grew from the prior year in each quarter between 2010Q1-2013Q3 (the latest quarter available). The State's year-over-year growth accelerated from 0.8 percent to 6.9 percent between 2010Q1 and 2011Q1. After slowing to 4.4 percent in 2011Q3, growth accelerated to 5.4 percent in 2011Q4. Growth then slowed again over the next three quarters – decelerating to 2.9 percent in 2012Q3. Between 2012Q4 and 2013Q3, growth fluctuated between 4.1 percent and 2.3 percent Most recently, 2013Q3 Michigan personal income was up 3.9 percent from a year ago. The 3.9 percent increase ranked 22nd among the 50 states.

Each quarter between 2010Q2 and 2013Q3, **Michigan wage and salary income** rose from a year ago with increases ranging between 1.0 percent and 8.2 percent. Year-over-year wage and salary growth has accelerated over the three most recently reported quarters with growth accelerating from 2.9 percent in 2013Q1 to 4.9 percent in 2013Q3. At 4.9 percent, Michigan's 2013Q3 wage and salary growth ranked 7th among the 50 states. Nationally, wage and salary income rose 3.8 percent between 2012Q3 and 2013Q3.

After year-over-year declines in 12 straight quarters from 2007Q2 to 2010Q1, **Michigan manufacturing wages and salaries** experienced 14 consecutive quarters of y-o-y increases. Manufacturing wage growth peaked in 2011Q1 (20.7 percent) and then slowed to 8.8 percent and 5.6 percent in the second and third quarters, respectively. After accelerating to 12.0 percent in 2011Q4, manufacturing wage growth fluctuated between 4.5 percent and 8.7 percent over the next four quarters. Manufacturing wage and salary growth slowed to 3.4 percent in 2013Q1 but then accelerated in each of the two most recently reported quarters with y-o-y wage and salary growth accelerating to 7.7 percent in 2013Q3.

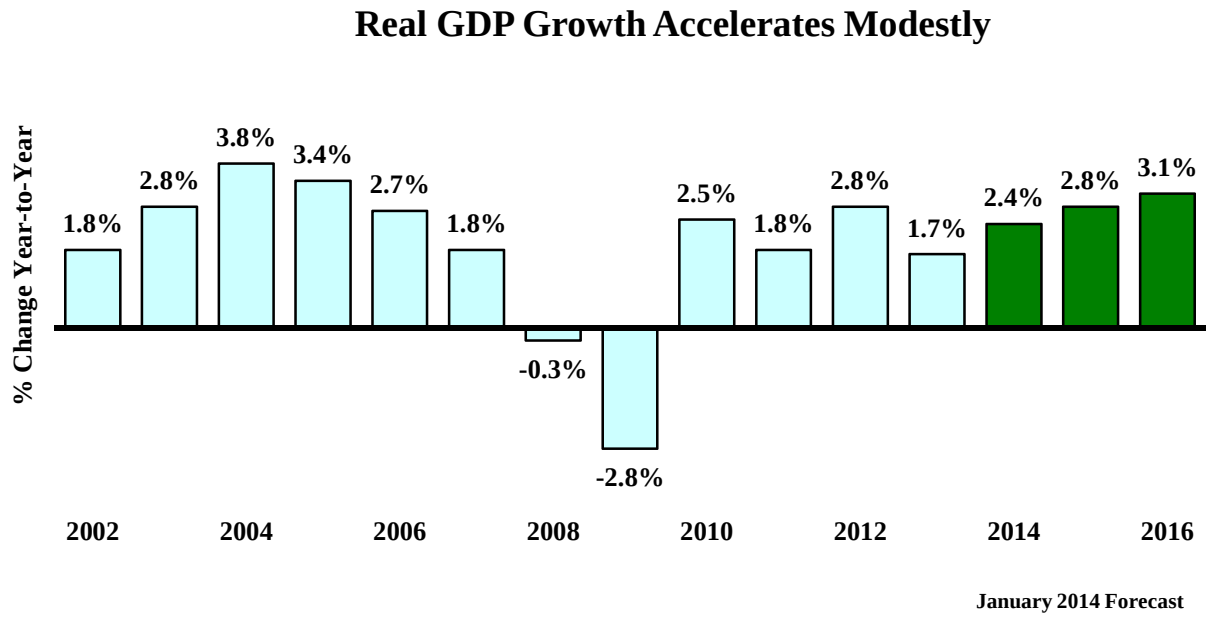
Michigan manufacturing wages have outpaced overall U.S. manufacturing sector wages for 15 straight quarters. In 2013Q3, Michigan wages and salaries grew 5.4 percentage points faster than manufacturing wages and salaries nationally.

The manufacturing sector continues to play an important role in Michigan's wage growth. While comprising 17.5 percent of Michigan's overall wages in 2012Q3, the State's manufacturing sector accounted for 27.6 percent of Michigan's overall wages growth between 2012Q3-2013Q3.

2014, 2015 and 2016 U.S. Economic Outlook

Summary

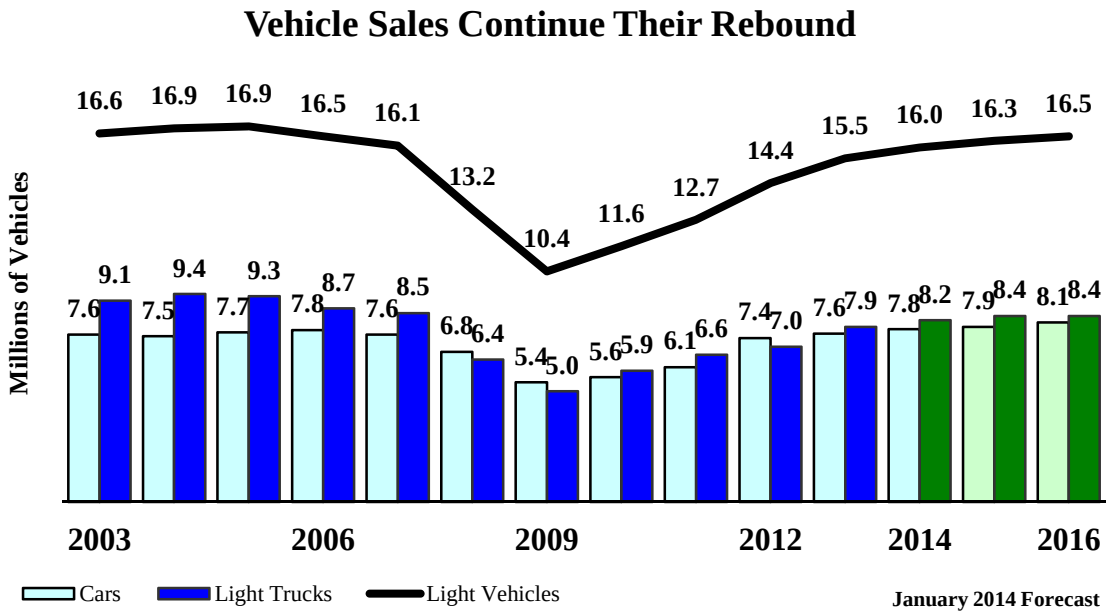
After declining 2.8 percent in 2009, real GDP rose 2.5 percent in 2010 and 1.8 percent in 2011. Real GDP then increased 2.8 percent in 2012 and an estimated 1.7 percent in 2013. Inflation adjusted GDP is expected to rise 2.4 percent in 2014, 2.8 percent in 2015 and 3.1 percent in 2016.



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, January 2014.

The U.S. economy is expected to grow at a moderate rate in each quarter of 2014 with real GDP increasing at rates of 2.5 percent, 2.2 percent, 2.7 percent and 2.7 percent, respectively, in the year's four quarters. Growth is then forecast to accelerate slightly in each of the first three quarters of 2015 with real GDP increasing at a 3.1 percent rate in 2015Q3. Through the end of 2016, real GDP then remains at or slightly above a 3.0 percent annual rate each quarter.

Light vehicle sales totaled 12.7 million units in 2011 and increased to 14.4 million units in 2012. Light vehicle sales rose to an estimated 15.5 million units in 2013 -- marking the first year in which light vehicle sales exceed 15.0 million units since 2007. Annual light vehicle sales are expected to increase each year over the forecast horizon with sales of 16.0 million units in 2014, 16.3 million units in 2015 and 16.5 million units in 2015.



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, January 2014.

The U.S. unemployment rate rose to a 9.6 percent rate in 2010 – just below the record high 9.7 percent rate set in 1982 (going back to 1947). In 2011, the U.S. unemployment rate fell to 8.9 percent and then declined to 8.1 percent in 2012. In 2013, the national unemployment rate fell to an estimated 7.4 percent. The national unemployment rate is forecast to fall to 6.8 percent in 2014 and 6.5 percent in 2015. In 2016, the unemployment rate falls to 5.9 percent – the lowest annual U.S. unemployment rate since 2002.

After falling 4.4 percent in 2009, at its fastest rate of decline since at least 1940, U.S. wage and salary employment fell modestly in 2010 (-0.7 percent). In 2011, employment rose 1.2 percent and then increased 1.7 percent in 2012. In 2013, employment rose an estimated 1.6 percent. Employment growth in 2014 is expected to match the 2013 employment growth rate before accelerating to a 1.7 percent increase in 2015 and a 2.0 percent increase in 2016. Consequently, national wage and salary employment is forecast to grow a cumulative 7.1 percent between 2012 and 2016.

After accelerating to 3.2 percent in 2011, inflation moderated to 2.1 percent in 2012 and then to an estimated 1.5 percent in 2013. Inflation is forecast to remain modest over the forecast horizon with overall annual consumer price increases of 1.5 percent in 2014, 1.7 percent in 2015 and 1.8 percent in 2016.

In 2009, the short-term Treasury bill rate averaged 0.2 percent – down substantially from 1.4 percent reported in 2008. The rate averaged 0.1 percent in 2010, 2011 and 2012 – as well as 2013 (estimated). The rate is forecast to remain at 0.1 percent in 2014. The rate is projected to rise slightly to 0.3 percent in 2015. As a result of increases in the federal funds rate in 2016, the short-term Treasury bill rate is forecast to average 1.0 percent in 2016.

After falling from 4.6 percent in 2011 to 3.7 percent in 2012, corporate interest rates are forecast to increase modestly over the balance of the forecast horizon. After rising an estimated 4.2 percent in 2013, the corporate Aaa bond rate is expected to average 4.7 percent in 2014, 4.8 percent in 2015 and 4.9 percent in 2016.

Down from 5.0 percent in 2009, the 30-year fixed mortgage rate averaged 4.7 percent in 2010 and 4.5 percent in 2011. The 30-year fixed mortgage rate fell to 3.7 percent in 2012 before rising to an estimated 4.0 percent in 2013. Mortgage rates are forecast to increase over the forecast horizon with rates averaging 4.6 percent in 2014, 5.0 percent in 2015 and 5.2 percent in 2016.

Assumptions

The forecast assumes that the federal government raises the debt ceiling in time to avert a government shutdown in early 2014. The forecast expects real (inflation-adjusted) federal government expenditures to decline 3.1 percent in calendar year (CY) 2014, fall 1.9 percent in CY 2015 and drop 0.8 percent in CY 2016. Consequently, expected CY 2016 real federal government expenditures will be 10.2 percent lower than CY 2012 inflation-adjusted federal government expenditures.

Across the forecast horizon, oil prices per barrel are expected to range narrowly between $98 per barrel and $102 per barrel. After rising sharply in 2013, natural gas price increases are expected to decelerate with 2.3 percent growth in 2014, 4.1 growth in 2015 and 3.1 percent growth in 2016.

Throughout the forecast horizon, the housing market is expected to strengthen and housing starts are forecast to increase each year. Consequently, housing starts in 2016 (1.4 million units) will be 79.8 percent higher than starts in 2012. Nevertheless, 2016 starts will remain below the average 1.7 million annual starts in the ten years before the housing bust.

Consistent with recent FOMC statements, the Fed is expected to keep the federal funds rate within the record low 0.00-0.25 percent range through late 2015. The forecast assumes that the Fed increases the federal funds rate gradually throughout 2016 with the rate rising to 1.40 percent by the end of 2016.

The level of real state and local government expenditures is expected to rise at a 1.0 percent annual rate in the first half of CY 2014. Beginning in the second half of CY 2014, quarterly real state and local government expenditures increase at annual growth rates ranging between 1.9 percent and 2.4 percent. Consequently, CY 2016 inflation-adjusted state and local government spending is 5.3 percent higher than CY 2012 real state and local government spending.

The savings rate is assumed to rise slightly over the forecast horizon. The rate is assumed to average 4.7 percent in 2014, 4.8 percent in 2015 and 4.9 percent in 2016.

Rest-of-world growth is assumed to rise 2.5 percent in 2014, increase 2.7 percent in 2015 and then rise 2.8 percent in 2016.

Table 1
Administration Economic Forecast

January 2014

	Calendar 2012 Actual	Calendar 2013 Forecast	Percent Change from Prior Year	Calendar 2014 Forecast	Percent Change from Prior Year	Calendar 2015 Forecast	Percent Change from Prior Year	Calendar 2016 Forecast	Percent Change from Prior Year
United States									
Real Gross Domestic Product (Billions of Chained 2005 Dollars)	$15,471	$15,734	1.7%	$16,112	2.4%	$16,563	2.8%	$17,076	3.1%
Implicit Price Deflator GDP (2009 = 100)	105.0	106.6	1.5%	108.1	1.4%	109.9	1.7%	111.9	1.8%
Consumer Price Index (1982-84 = 100)	229.594	233.038	1.5%	236.533	1.5%	240.554	1.7%	245.125	1.9%
Consumer Price Index - Fiscal Year (1982-84 = 100)	228.526	232.247	1.6%	235.354	1.5%	238.875	1.6%	243.202	1.8%
Personal Consumption Deflator (2009 = 100)	106.0	107.2	1.1%	108.5	1.2%	110.1	1.5%	111.9	1.6%
3-month Treasury Bills Interest Rate (percent)	0.1	0.1		0.1		0.3		1.0	
Aaa Corporate Bonds Interest Rate (percent)	3.7	4.2		4.7		4.8		4.9	
Unemployment Rate - Civilian (percent)	8.1	7.4		6.8		6.5		5.9	
Wage and Salary Employment (millions)	133.739	135.926	1.6%	138.100	1.6%	140.450	1.7%	143.260	2.0%
Housing Starts (millions of starts)	0.781	0.921	18.0%	1.100	19.5%	1.279	16.2%	1.403	9.7%
Light Vehicle Sales (millions of units)	14.4	15.5	7.6%	16.0	3.2%	16.3	1.9%	16.5	1.2%
Passenger Car Sales (millions of units)	7.4	7.6	2.7%	7.8	2.6%	7.9	1.3%	8.1	2.5%
Light Truck Sales (millions of units)	7.0	7.9	12.9%	8.2	3.8%	8.4	2.4%	8.4	0.0%
Big 3 Share of Light Vehicles (percent)	44.2	44.7		44.9		45.2		45.3	
Michigan									
Wage and Salary Employment (thousands)	4,024	4,082	1.4%	4,145	1.5%	4,203	1.4%	4,261	1.4%
Unemployment Rate (percent)	9.1	8.7		8.3		7.5		6.7	
Personal Income (millions of dollars)	$378,443	$390,175	3.1%	$407,342	4.4%	$426,080	4.6%	$446,106	4.7%
Real Personal Income (millions of 1982-84 dollars)	$175,139	$177,581	1.4%	$183,206	3.2%	$188,955	3.1%	$194,332	2.8%
Wages and Salaries (millions of dollars)	$189,640	$197,226	4.0%	$204,917	3.9%	$212,909	3.9%	$221,213	3.9%
Detroit Consumer Price Index (1982-84 = 100)	216.082	219.717	1.7%	222.341	1.3%	225.493	1.5%	229.559	1.8%

Forecast Risks

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

Fiscal Policy. The late December 2013 budget deal provides an encouraging sign demonstrating the willingness and ability of the House, Senate and President to reach a compromise. The budget accord, in and of itself, constitutes an important step in averting a government shutdown and also restored a portion of sequestration's spending cuts. In addition, the political fallout from last October's federal government shutdown provides a substantial disincentive against further political brinksmanship. However, the federal government faces another significant challenge: raising or suspending the federal debt ceiling (a statutory limit on the total amount of United State borrowing) in early 2014. Failure to raise or suspend the limit would place the federal government on the edge of default. While default is unlikely, getting close to default could lower the U.S. government's credit rating (and thus increase federal government interest payments) and could shake business and financial market confidence more broadly and thus worsen the national economic outlook. Partisanship would also impair the federal government's ability to address negative financial and macroeconomic shocks.

Oil Prices. Geopolitical concerns, increased demand, or a major supply disruption could raise oil prices well above the assumed range ($98-$102 a barrel). 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 demand. Alternatively, if Asian oil demand decreases due to lower and more sustainable growth rates in China or if European demand weakens, prices could be lower than assumed.

Europe Debt Crisis. Last summer, Europe began recovering from its multi-year financial and economic crises. However, the recovery has been slow and tenuous. Extremely slow price inflation remains a major barrier to recovery with the threat of disinflation, which severely hampers efforts to reduce indebtedness. Even if the Eurozone recovery is not short-circuited, continued economic stagnation remains a very real possibility.

Complicating the recovery, austerity measures (spending cuts, tax hikes) represent a major tool being employed by several European countries to address their debt problems. However, austerity measures hamper a nation's economic growth. Given the ill effects of massive indebtedness on the one hand and of austerity measures on the other, the forecast's assumed modest growth among the United States' major trading partners may be too optimistic. In addition, there is growing dissatisfaction among electorates in many European nations with the depressing impacts of austerity measures. Social and political opposition to austerity measures heightens growing uncertainty. Quantitative easing has been floated as a potential means to bolster Eurozone economic growth. However, Germany, the Eurozone's largest economy, remains opposed.

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

Monetary Policy. Uncertainty surrounding the Federal Reserve's tapering of its quantitative easing both in terms of the actions the Fed will take as well as the impact of those actions themselves given the unprecedented and unconventional nature of the quantitative easing program.

Recent FOMC statements sugget that the Fed will likely begin raising the federal fund's late in the forecast horizon. However, given the increased latitude the FOMC provided itself at its December 2013 meeting, substantial uncertainty surrounds when the Fed will begin raising the federal funds rate. It remains possible that rate increases will not start until after 2016.

Housing Market. Projected 2016 starts are about 80 percent more than 2012 housing starts. If the housing market fails to pick up 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 2016 starts total 1.4 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.

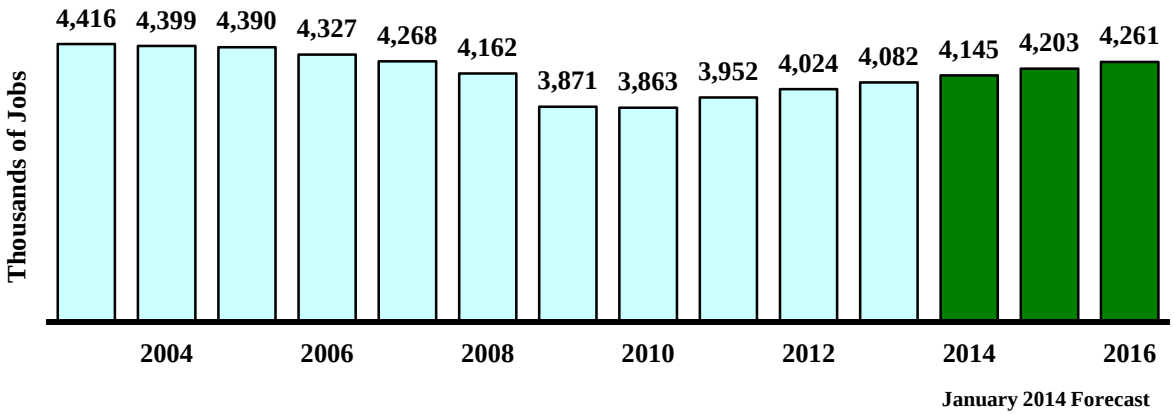
2014, 2015 and 2016 Michigan Economic Outlook

Michigan employment fell 7.0 percent in 2009 – its sharpest decline since 1958 when State employment dropped 9.8 percent. Michigan employment dropped another 0.2 percent in 2010, but increased 2.3 percent in 2011 – marking the first calendar year Michigan employment increased since 2000. Michigan employment grew 1.8 percent in 2012 and rose an estimated 1.4 percent in 2013. State employment annual growth rates are expected to vary little over the forecast horizon with a 1.4 percent annual employment growth rate in two of the forecast years (2015 and 2016) and a 1.5 percent annual increase in 2014. The forecasted Michigan employment level in 2016 would still be 415,400 (8.9 percent) lower than the State's calendar year 2000 employment level.

Private non-manufacturing employment rose by 70,500 jobs in 2011, gained 53,000 jobs in calendar year 2012 and increased an estimated 43,300 jobs in 2013. Private non-manufacturing employment is forecast to gain a net 53,700 jobs in 2014, 53,800 jobs in 2015 and 53,500 jobs in 2016.

After increasing a strong 7.6 percent in 2011, manufacturing employment grew 5.3 percent in 2012. In 2013, manufacturing employment growth slowed further to an estimated 3.3 percent rate. Manufacturing employment growth is forecast to continue to decelerate – slowing to 2.2 percent in 2014, 1.1 percent in 2015 and 0.9 percent in 2016. Between 2012 and 2016, manufacturing employment is projected to rise by 41,200 jobs.

Michigan Wage and Salary Employment Rises Slightly



Source: Michigan Department of Labor and Economic Growth, U.S. Bureau of Labor Statistics, and January 2014 Administration Forecast.

Michigan transportation equipment employment rose 10.3 percent in 2011 and then increased 7.6 percent in 2012 and an estimated 5.8 percent in 2013. Transportation equipment employment is forecast to grow each year between 2014 and 2016 with annual increases of 4.4 percent in 2014, 1.7 percent in 2015 and 2.0 percent in 2016. Despite the increases, forecasted 2016 transportation equipment employment of 167,400 jobs is down 48.4 percent from the sector's 2000 employment of 346,100 jobs.

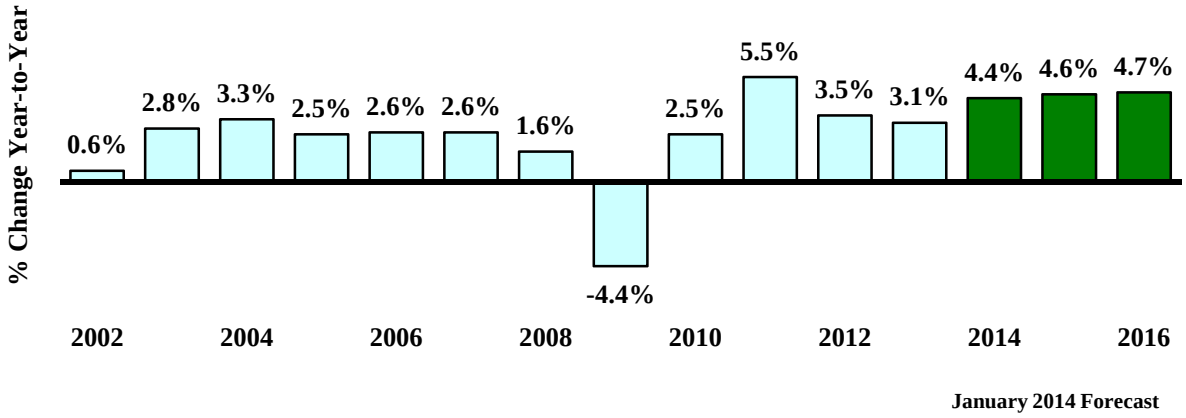
After soaring from 8.3 percent to 13.4 percent in 2009 (highest rate since 1983), Michigan's unemployment rate declined to 12.7 percent in 2010, 10.4 percent in 2011 and 9.1 percent in 2012. The State's rate fell to an estimated 8.7 percent in 2013. The State's rate is expected to continue to drop across the forecast horizon to 8.3 percent in 2014, 7.5 percent in 2015 and 6.7 percent in 2016.

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 4.1 percent in 2012. Wages are salaries are estimated to have grown 4.0 percent in 2013. In 2014 through 2016, inclusive, wages and salaries are expected to rise 3.9 percent each year.

In 2009, overall Michigan personal income declined 4.4 percent – the first personal income decline since 1958 and Michigan's largest percent decline since 1945. Personal income rose 2.5 percent in 2010, increased 5.5 percent in 2011 and rose 3.5 percent in 2012. After accelerating to an estimated 3.1 percent income growth rate in 2013, State income is expected to rise 4.4 percent in 2014, 4.6 percent in 2015 and 4.7 percent in 2016.
The overall CY price level, as measured by the Detroit CPI, increased 3.3 percent in 2011. Detroit CPI inflation was 2.0 percent in 2012. Detroit price increases remained moderate in

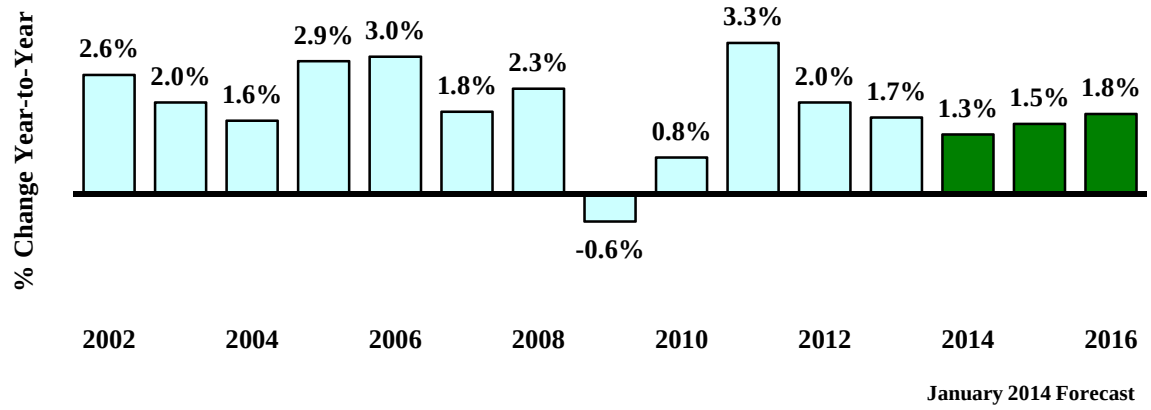
2013 with an estimated 1.7 percent annual increase. The Detroit CPI is forecast to increase 1.3 percent increase in 2014 and 1.5 percent increase in 2015. The Detroit CPI is then expected to rise 1.8 percent in 2016.

Michigan Personal Income Reports Solid Growth



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, January 2014.

Overall Price Level Rises Moderately
Detroit CPI



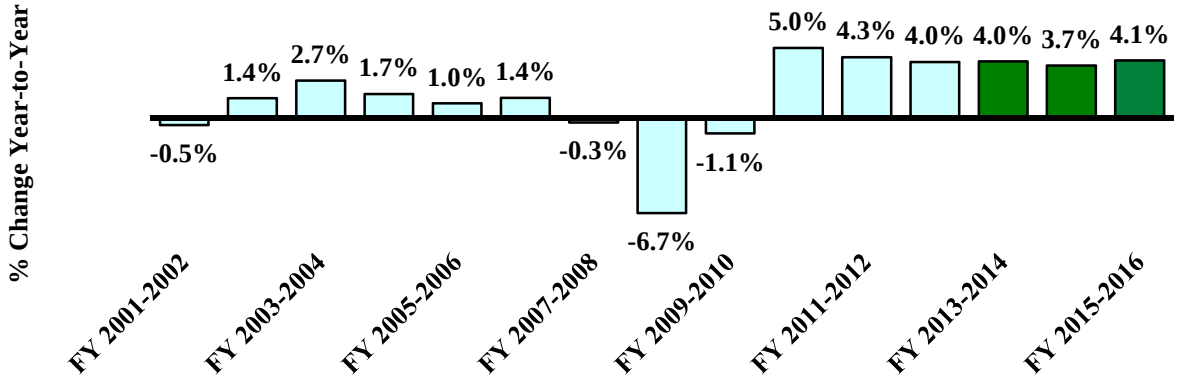
Source: U.S. Bureau of Labor Statistics and Administration Forecast, January 2014.

Fiscal Year Economics

Michigan's largest taxes are the individual income tax ($8.3 billion in FY 2013), which includes refunds, and sales and use taxes ($8.4 billion). Income tax withholding is the largest income tax component. Withholding ($8.0 billion) is most affected by growth in wages and salaries. Michigan wages and salaries rose 4.3 percent in FY 2012 and increased an estimated 4.0 percent in 2013. State wages and salaries are forecast to increase 4.0 percent in FY 2014, 3.7 percent in FY 2015 and 4.1 percent in FY 2016.

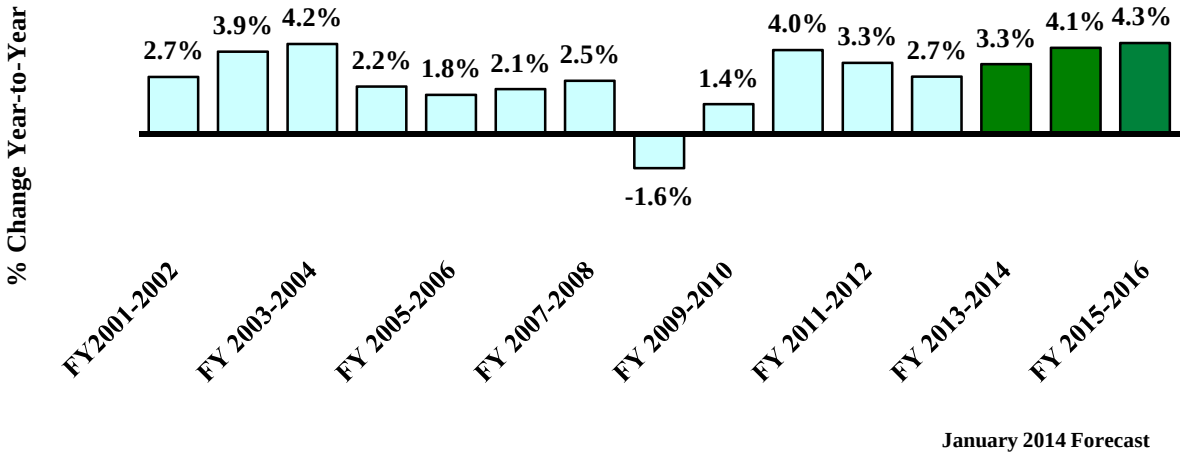
Sales and use taxes depend primarily on Michigan disposable (after tax) income and inflation. Having risen 3.3 percent in fiscal year 2012, disposable income is estimated to have increased 2.7 percent in FY 2013, 3.3 percent in FY 2014, 4.1 percent in FY 2015 and 4.3 percent in FY 2016. Prices, as measured by the Detroit CPI, rose 2.4 percent in FY 2012 and increased an estimated 1.9 percent in FY 2013. The Detroit CPI is forecast to rise 1.2 percent in FY 2014, increase 1.5 percent in FY 2015 and rise 1.7 percent in FY 2016.

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 2014.

Michigan Disposable Income Increases
Basis for Sales and Use Tax Collections



Source: Research Seminar in Quantitative Economics, University of Michigan, and Administration Forecast, January 2014.

ADMINISTRATION REVENUE ESTIMATES
January 10, 2014

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 2013 is the base year. Any non-economic changes to the taxes occurring in FY 2014, FY 2015 and FY 2016 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 2013 Revenue Outlook

FY 2013 GF-GP revenue totaled $9,562.8 million, a 3.2 percent increase compared to FY 2012. The FY 2013 GF-GP total is $373.6 million above the May 2013 Consensus estimate.

SAF revenue totaled $11,269.5 million, representing a 3.6 percent increase compared to FY 2012. The FY 2012 SAF total was $56.0 million above the May 2013 Consensus estimate (See Table 2).

Table 2

FY 2012-13 Administration Revenue Estimates

(millions)

	Preliminary FY 2013	
	Amount	**Growth**
General Fund - General Purpose		
Baseline Revenue	$9,957.6	12.7%
Tax Cut Adjustments	($394.9)	
Net Resources	$9,562.8	3.2%
School Aid Fund		
Baseline Revenue	$11,295.5	3.5%
Tax Cut Adjustments	($26.0)	
Net Resources	$11,269.5	3.6%
Combined		
Baseline Revenue	$21,253.0	7.3%
Tax Cut Adjustments	($420.9)	
Net Resources	$20,832.1	3.4%

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

FY 2014 Revenue Outlook

FY 2014 GF-GP revenue is estimated to be $9,473.0 million, a 0.9 percent decrease compared to FY 2013. The FY 2014 GF-GP revenue estimate is $26.7 million above the May 2013 Consensus estimate. SAF revenue is forecast to be $11,549.6 million; representing a 2.5 percent increase compared to FY 2013. The FY 2014 SAF estimate is $79.5 million above the May 2013 Consensus estimate (see Table 3).

Table 3

FY 2013-14 Administration Revenue Estimates

(millions)

	Consensus May 15, 2013		Administration January 10, 2014		
	Amount	**Growth**	**Amount**	**Growth**	**Change**
General Fund - General Purpose					
Baseline Revenue	$8,910.2	1.4%	$9,936.3	-0.2%	--------
Tax Cut Adjustments	$536.0		($463.3)		
Net Resources	$9,446.2	2.8%	$9,473.0	-0.9%	$26.7
School Aid Fund					
Baseline Revenue	$12,197.0	2.1%	$11,574.0	2.5%	--------
Tax Cut Adjustments	($726.9)		($24.4)		
Net Resources	$11,470.1	2.3%	$11,549.6	2.5%	$79.5
Combined					
Baseline Revenue	$21,107.2	1.8%	$21,510.3	1.2%	--------
Tax Cut Adjustments	($190.9)		($487.7)		
Net Resources	$20,916.3	2.5%	$21,022.6	0.9%	$106.3

Baseline revenue based on FY 12 base for May 2013 Consensus revenue figures
Baseline revenue based on FY 13 base for January 2014 Administration revenue figures

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

FY 2015 Revenue Outlook

FY 2015 GF-GP revenue is estimated to be $9,916.1 million, a 4.7 percent increase compared to FY 2014. The FY 2015 GF-GP revenue estimate is $75.9 million above the May 2013 Consensus estimate. SAF revenue is forecast to be $11,908.9 million; representing a 3.1 percent increase compared to FY 2014. The FY 2015 SAF estimate is $96.2 million above the May 2013 Consensus estimate (see Table 4).

Table 4

FY 2014-15 Administration Revenue Estimates

(millions)

	Consensus May 15, 2013		Administration January 10, 2014		
	Amount	**Growth**	**Amount**	**Growth**	**Change**
General Fund - General Purpose					
Baseline Revenue	$9,237.8	1.4%	$10,359.2	4.3%	--------
Tax Cut Adjustments	$602.5		($443.0)		
Net Resources	$9,840.2	2.8%	$9,916.1	4.7%	$75.9
School Aid Fund					
Baseline Revenue	$12,565.9	2.1%	$11,931.1	3.1%	--------
Tax Cut Adjustments	($753.2)		($22.2)		
Net Resources	$11,812.7	2.3%	$11,908.9	3.1%	$96.2
Combined					
Baseline Revenue	$21,803.7	1.8%	$22,290.3	3.6%	--------
Tax Cut Adjustments	($150.7)		($465.2)		
Net Resources	$21,653.0	2.5%	$21,825.1	3.8%	$172.1

Baseline revenue based on FY 12 base for May 2013 Consensus revenue figures
Baseline revenue based on FY 13 base for January 2014 Administration revenue figures

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 $10,375.1 million, a 4.6 percent increase compared to FY 2015. SAF revenue is forecast to be $12,302.9 million; representing a 3.3 percent increase compared to FY 2015 (see Table 5).

Table 5

FY 2015-16 Administration Revenue Estimates

(millions)

	Administration January 10, 2014	
	Amount	**Growth**
General Fund - General Purpose		
Baseline Revenue	$10,817.1	4.4%
Tax Cut Adjustments	($441.9)	
Net Resources	$10,375.1	4.6%
School Aid Fund		
Baseline Revenue	$12,340.6	3.4%
Tax Cut Adjustments	($37.8)	
Net Resources	$12,302.9	3.3%
Combined		
Baseline Revenue	$23,157.7	3.9%
Tax Cut Adjustments	($479.7)	
Net Resources	$22,678.0	3.9%

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 2011 revenue is compared to CY 2009 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 2012 revenues were $5.2 billion below the revenue limit. State revenues will also be well below the limit for FY 2013 through FY 2016. FY 2013 revenues are expected to be $5.9 billion below the limit, FY 2014 revenues $7.6 billion below the limit, FY 2015 revenues $7.7 billion below the limit, and FY 2016 revenues $8.3 billion below the limit (See Table 6).

Table 6

Administration Revenue Limit Calculation

(millions)

	FY 2012 Actual June 2013	FY 2013 Admin Jan 2014	FY 2014 Admin Jan 2014	FY 2015 Admin Jan 2014	FY 2016 Admin Jan 2014
Revenue Subject to Limit	$27,288.4	$28,084.6	$28,324.2	$29,288.5	$30,315.0
Revenue Limit	**CY 2010**	**CY 2011**	**CY 2012**	**CY 2013**	**CY 2013**
Personal Income	$342,663	$358,152	$378,443	$390,175	$407,342
Ratio	9.49%	9.49%	9.49%	9.49%	9.49%
Revenue Limit	$32,518.7	$33,988.6	$35,914.2	$37,027.6	$38,656.8
Amount Under (Over) Limit	**$5,230.4**	**$5,904.1**	**$7,590.0**	**$7,739.1**	**$8,341.8**

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 3.0 percent in 2014. Thus, the formula has a pay-in for FY 2015 of $94.7 million (See Table 7). In 2015, real calendar year personal income for Michigan is forecast to increase 2.7 percent, so the formula calls for a pay-in of $69.4 million for FY 2016 (See Table 8). In 2016, real calendar year personal income for Michigan is forecast to increase 2.8 percent, so the formula calls for a pay-in of $83.0 million in FY 2017 (See Table 9).

Table 7

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

	CY 2013	CY 2014
Michigan Personal Income	$390,175 (1)	$407,342 (1)
less Transfer Payments	$ 85,028 (1)	$ 88,888 (1)
Income Net of Transfers	$ 305,147	$ 318,454
Detroit CPI	2.181 (2)	2.209 (2)
for 12 months ending	(June 2013)	(June 2014)
Real Adjusted Michigan Personal Income	$ 139,912	$ 144,139
Change in Real Adjusted Personal Income		3.0%
Excess over 2%		1.0%
GF-GP Revenue Fiscal Year 2013-2014		$ 9,473.0

	FY 2014-2015
BSF Pay-In Calculated for FY 2015	$ 94.7
	FY 2013-2014
BSF Pay-Out Calculated for FY 2014	NO PAY-OUT

Notes:

(1) Personal Income and Transfer Payments, Administration Forecast, January 2014.

(2) Detroit Consumer Price Index, Administration Forecast, January 2014.

Table 8

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

	CY 2014	CY 2015
Michigan Personal Income	$ 407,342 [1]	$ 426,080 [1]
less Transfer Payments	$ 88,888 [1]	$ 94,639 [1]
Income Net of Transfers	$ 318,454	$ 331,441
Detroit CPI	2.209 [2]	2.240 [2]
for 12 months ending	(June 2014)	(June 2015)
Real Adjusted Michigan Personal Income	$ 144,139	$ 147,960
Change in Real Adjusted Personal Income		2.7%
Excess over 2%		0.7%
GF-GP Revenue Fiscal Year 2014-2015		$ 9,916.1

	FY 2015-2016
BSF Pay-In Calculated for FY 2016	$ 69.4
	FY 2014-2015
BSF Pay-Out Calculated for FY 2015	NO PAY-OUT

Notes:

[1] Personal Income and Transfer Payments, Administration Forecast, January 2014.

[2] Detroit Consumer Price Index, Administration Forecast, January 2014.

Table 9

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

	CY 2015	CY 2016
Michigan Personal Income	$ 426,080 [1]	$ 446,106 [1]
less Transfer Payments	$ 94,639 [1]	$ 99,845 [1]
Income Net of Transfers	$ 331,441	$ 346,261
Detroit CPI	2.209 [2]	2.246 [2]
for 12 months ending	(June 2014)	(June 2016)
Real Adjusted Michigan Personal Income	$ 150,017	$ 154,166
Change in Real Adjusted Personal Income		2.8%
Excess over 2%		0.8%
GF-GP Revenue Fiscal Year 2014-2015		$ 10,375.1

	FY 2016-2017
BSF Pay-In Calculated for FY 2017	$ 83.0
	FY 2015-2016
BSF Pay-Out Calculated for FY 2016	NO PAY-OUT

Notes:

[1] Personal Income and Transfer Payments, Administration Forecast, January 2014.

[2] Detroit Consumer Price Index, Administration Forecast, January 2014.

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 2014, the SAF revenue adjustment factor is calculated to be 1.0321 (See Table 10). For FY 2015, the SAF revenue adjustment factor is calculated to be 1.0278 (See Table 11). For FY 2016, the SAF revenue adjustment factor is calculated to be 1.0327 (See Table 12).

Table 10

Administration School Aid Revenue Adjustment Factor

For Fiscal Year 2014

	FY 2012	FY 2013	FY 2014
Baseline SAF Revenue	$10,863.9	$11,295.4	$11,574.0
Balance Sheet Adjustments	($734.9)	($26.0)	($24.4)
Net SAF Estimates	$10,129.0	$11,269.4	$11,549.6
Subtotal Adjustments to FY 2014 Base	$710.5	$1.6	$0.0
Baseline Revenue on a FY 2014 Base	$10,839.5	$11,271.1	$11,549.6

School Aid Fund Revenue Adjustment Calculation for FY 2014

Sum of FY 2012 & FY 2013	$10,839.5	+	$11,271.1	=	$22,110.6
Sum of FY 2013 & FY 2014	$11,271.1	+	$11,549.6	=	$22,820.7

FY 2014 Revenue Adjustment Factor	**1.0321**

Note: Factor is calculated off a FY 2014 base year.

Table 11

Administration School Aid Revenue Adjustment Factor

For Fiscal Year 2015

	FY 2013	FY 2014	FY 2015
Baseline SAF Revenue	$11,295.4	$11,574.0	$11,931.1
Balance Sheet Adjustments	($26.0)	($24.4)	($22.2)
Net SAF Estimates	$11,269.4	$11,549.6	$11,908.9
Subtotal Adjustments to FY 2015 Base	$3.8	$2.2	$0.0
Baseline Revenue on a FY 2015 Base	$11,273.3	$11,551.8	$11,908.9

School Aid Fund Revenue Adjustment Calculation for FY 2015

Sum of FY 2013 & FY 2014	$11,273.3	+	$11,551.8	=	$22,825.1
Sum of FY 2014 & FY 2015	$11,551.8	+	$11,908.9	=	$23,460.7

FY 2015 Revenue Adjustment Factor	**1.0278**

Note: Factor is calculated off a FY 2015 base year.

Table 12

Administration School Aid Revenue Adjustment Factor

For Fiscal Year 2016

	FY 2014	FY 2015	FY 2016
Baseline SAF Revenue	$11,574.0	$11,931.1	$12,340.6
Balance Sheet Adjustments	($24.4)	($22.2)	($37.8)
Net SAF Estimates	$11,549.6	$11,908.9	$12,302.9
Subtotal Adjustments to FY 2015 Base	($13.4)	($15.6)	$0.0
Baseline Revenue on a FY 2015 Base	$11,536.2	$11,893.3	$12,302.9

School Aid Fund Revenue Adjustment Calculation for FY 2016

Sum of FY 2014 & FY 2015	$11,536.2	+	$11,893.3	=	$23,429.5
Sum of FY 2015 & FY 2016	$11,893.3	+	$12,302.9	=	$24,196.2

FY 2016 Revenue Adjustment Factor	**1.0327**

Note: Factor is calculated off a FY 2016 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 2014		FY 2015		FY 2016	
	Amount	**Growth**	**Amount**	**Growth**	**Amount**	**Growth**
GF-GP Tax Amounts						
Income Tax	$6,012.8	1.4%	$6,249.3	3.9%	$6,535.1	4.6%
Sales	$1,150.5	14.6%	$1,203.1	4.6%	$1,254.9	4.3%
Use	$901.7	7.6%	$935.3	3.7%	$974.7	4.2%
Cigarette	$187.2	-0.3%	$184.2	-1.6%	$181.3	-1.6%
Beer & Wine	$51.0	0.6%	$52.0	2.0%	$52.5	1.0%
Liquor Specific	$45.0	1.4%	$46.1	2.4%	$47.1	2.2%
Single Business Tax	($10.0)	NA	($10.0)	NA	$0.0	NA
Insurance Co. Premium	$348.2	15.5%	$396.5	13.9%	$409.0	3.2%
CIT/MBT	$300.9	-77.6%	$374.0	24.3%	$432.5	15.6%
Telephone & Telegraph	$46.0	-1.1%	$45.5	-1.1%	$45.0	-1.1%
Oil & Gas Severance	$60.0	0.8%	$62.0	3.3%	$64.0	3.2%
GF-GP Other Taxes	$23.4	-2.9%	$25.4	8.5%	$28.4	11.8%
Total GF-GP Taxes	$9,116.8	-0.4%	$9,563.4	4.9%	$10,024.4	4.8%
GF-GP Non-Tax Revenue						
Federal Aid	$20.0	-11.1%	$20.0	0.0%	$20.0	0.0%
From Local Agencies	$1.0	900.0%	$1.0	0.0%	$1.0	0.0%
From Services	$11.0	22.2%	$11.0	0.0%	$11.0	0.0%
From Licenses & Permits	$5.0	4.2%	$5.0	0.0%	$5.0	0.0%
Miscellaneous	$30.0	11.1%	$30.0	0.0%	$30.0	0.0%
Driver Responsibility Fees	$69.0	-13.5%	$69.0	0.0%	$69.0	0.0%
Interfund Interest	($2.5)	108.3%	($4.0)	60.0%	($6.0)	50.0%
Liquor Purchase	$169.0	-0.9%	$170.0	0.6%	$170.0	0.0%
Charitable Games	$4.5	0.0%	$4.5	0.0%	$4.5	0.0%
Transfer From Escheats	$49.2	-45.5%	$46.2	-6.1%	$46.2	0.0%
Other Non Tax	$0.0	0.0%	$0.0	0.0%	$0.0	0.0%
Total Non Tax	$356.2	-12.6%	$352.7	-1.0%	$350.7	-0.6%
Total GF-GP Revenue	$9,473.0	-0.9%	$9,916.1	4.7%	$10,375.1	4.6%

Table 14
Administration School Aid Fund Revenue Detail

	FY 2014		FY 2015		FY 2016	
	Amount	**Growth**	**Amount**	**Growth**	**Amount**	**Growth**
School Aid Fund						
Income Tax	$2,405.1	2.8%	$2,492.3	3.6%	$2,594.3	4.1%
Sales Tax	$5,357.5	2.9%	$5,553.4	3.7%	$5,771.6	3.9%
Use Tax	$450.8	4.3%	$467.7	3.7%	$487.3	4.2%
Liquor Excise Tax	$44.5	1.6%	$45.6	2.5%	$46.6	2.2%
Cigarette & Tobacco	$356.8	-4.1%	$349.7	-2.0%	$343.0	-1.9%
State Education Tax	$1,790.0	1.1%	$1,832.8	2.4%	$1,876.9	2.4%
Real Estate Transfer	$213.6	5.6%	$223.7	4.7%	$232.5	3.9%
Industrial Facilities Tax	$35.0	3.2%	$36.0	2.9%	$36.5	1.4%
Casino (45% of 18%)	$112.0	1.2%	$113.5	1.3%	$114.5	0.9%
Commercial Forest	$3.1	-6.1%	$3.1	0.0%	$3.1	0.0%
Other Spec Taxes	$21.0	-1.4%	$21.0	0.0%	$21.0	0.0%
Subtotal Taxes	$10,789.3	2.4%	$11,138.7	3.2%	$11,527.4	3.5%
Lottery Transfer	$760.3	3.5%	$770.2	1.3%	$775.5	0.7%
Total SAF Revenue	$11,549.6	2.5%	$11,908.9	3.1%	$12,302.9	3.3%

Table 15
Administration Major Tax Totals

	FY 2014		FY 2015		FY 2016	
	Amount	**Growth**	**Amount**	**Growth**	**Amount**	**Growth**
Major Tax Totals (Includes all Funds)						
Income Tax	$8,418.9	1.8%	$8,742.6	3.8%	$9,130.4	4.4%
Sales Tax	$7,362.6	2.9%	$7,631.0	3.6%	$7,929.8	3.9%
Use Tax	$1,352.5	6.4%	$1,403.0	3.7%	$1,462.0	4.2%
CIT/MBT	$300.9	-57.5%	$374.0	24.3%	$432.5	15.6%
Cigarette and Tobacco	$936.4	-2.2%	$920.8	-1.7%	$905.8	-1.6%
Casino Tax	$112.0	1.6%	$113.5	1.3%	$114.5	0.9%