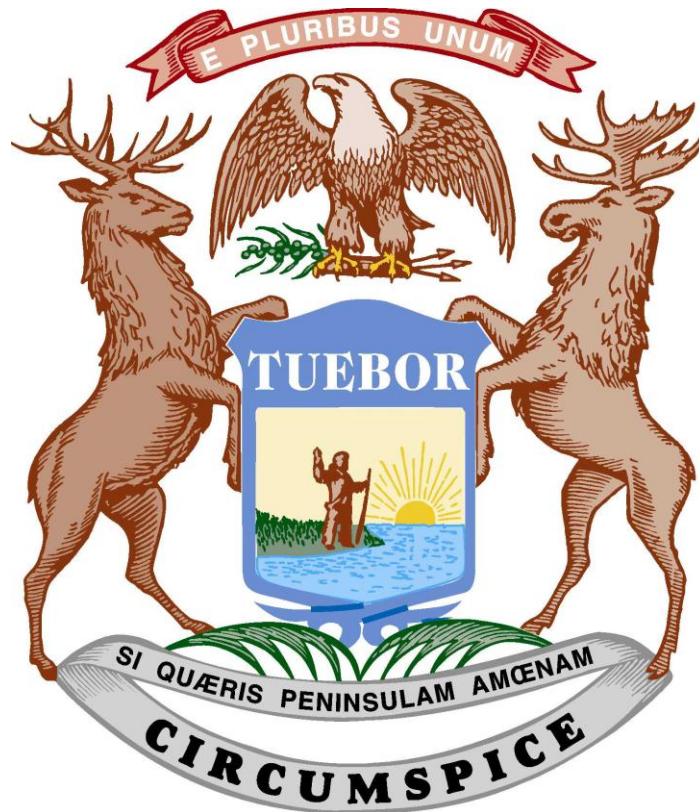


# Administration Estimates Michigan Economic and Revenue Outlook



**FY 2012-13, FY 2013-14 and FY 2014-15**

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May 15, 2013**

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**ADMINISTRATION ESTIMATES**  
**EXECUTIVE SUMMARY**  
**May 15, 2013**

**Revenue Review and Outlook**

- FY 2013 GF-GP revenue is forecast to decrease 0.8 percent to \$9,186.9 million, up \$394.6 million from the January 2013 Consensus estimate. FY 2013 SAF revenue is forecast to increase 2.9 percent to \$11,194.5 million, which is \$66.8 million above the January 2013 Consensus estimate.
- FY 2014 GF-GP revenue is forecast to increase 3.0 percent to \$9,463.0 million, up \$198.6 million from the January 2013 Consensus estimate. FY 2014 SAF revenue is forecast to increase 2.4 percent to \$11,461.4 million, up \$28.8 million from the January 2013 Consensus estimate.
- FY 2015 GF-GP revenue is forecast to increase 4.4 percent to \$9,883.9 million, up \$244.0 million from the January 2013 Consensus estimate. FY 2015 SAF revenue is forecast to increase 3.2 percent to \$11,823.1 up \$54.3 million from the January 2013 Consensus estimate.

**2013, 2014 and 2015 U.S. Economic Outlook**

- After increasing 1.8 percent in 2011, real gross domestic product grew 2.2 percent in 2012. Real GDP growth is expected to slow to 2.0 percent in 2013 before accelerating to 2.9 percent in 2014 and 3.1 percent in 2015.
- U.S. wage and salary employment rose 1.7 percent in 2012. Wage and salary employment is expected to grow 1.7 percent in 2013 and then accelerate to 1.8 percent growth in 2014 and 2.1 percent growth in 2015.
- The U.S. unemployment rate is forecast to decline each year over the forecast horizon. The unemployment rate averaged 8.1 percent in 2012. The unemployment rate is projected to fall to 7.6 percent in 2013, drop to 7.2 percent in 2014 and then decrease to 6.6 percent in 2015.
- In 2012, housing starts increased a sharp 28.2 percent in 2012 and are forecast to rise 35.8 percent in 2013. In 2014, starts are expected to rise another 22.5 percent to 1.3 million units, Starts are then expected to rise a moderate 8.7 percent in 2015 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 are expected to increase to 15.3 million units – marking the first year that sales would top 15.0 million units since 2007. Sales are expected to rise to 15.8 million units in 2014 and increase to 16.1 million units in 2015.

- Consumer prices edged up 2.1 percent in 2012. Inflation is expected to slow to 1.7 percent in 2013. In 2014, prices will rise an estimated 1.9 percent and then accelerate to 2.1 percent growth in 2015.

### **2013, 2014 and 2015 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. Employment growth is forecast to continue but slow to 1.3 percent in 2013 before accelerating to 1.4 percent in both 2014 and 2015.
- 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. The rate is expected to continue to drop over the forecast horizon to 8.6 percent in 2013, 8.0 percent in 2014 and 7.4 percent in 2015.
- After dropping 8.2 percent in 2009 (the largest percent decline since 1945), Michigan wages and salaries increased 1.7 percent in 2010, 5.5 percent in 2011 and rose 3.3 percent in 2012. Wage and salary payments are forecasted to rise 3.1 percent in 2013, 3.7 percent in 2014 and 4.2 percent in 2015.
- Michigan personal income fell 6.3 percent in 2009 – marking the first annual Michigan income drop since 1958 and the largest annual decline since 1938. Income increased 3.1 percent in 2010 and rose 5.6 percent in 2011. Personal income increased 3.5 percent in 2012. Personal income is expected to rise 2.5 percent in 2013, 4.4 percent in 2014 and 4.6 percent in 2015.
- On a fiscal year basis, Michigan disposable income rose 3.1 percent in FY 2012. Disposable income is expected to increase 2.5 percent in FY 2013, 3.3 percent in FY 2014 and 4.1 percent in FY 2015. Wages and salaries increased 4.1 percent in FY 2012 and are expected to rise 2.8 percent in FY 2013, 3.7 percent in FY 2014 and 4.1 percent in FY 2015.

## **Forecast Risks**

- Continued and greater division among federal policymakers, particularly in regards to budget items, could substantially weaken consumer and investor confidence. Increased polarization also substantially limits the federal government's ability to respond to negative financial and macroeconomic shocks.
- Europe's widening financial crises may severely weaken the continent's economic growth and have negative financial and economic impacts on the U.S. economy.
- Political and military tensions have grown substantially since January 2013. 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.
- Substantially faster than forecast inflation would increase the likelihood of anti-inflation monetary policy, which would curtail economic growth.
- A stronger (weaker) housing market would boost (depress) the economy more than forecast.
- 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.

# ECONOMIC REVIEW AND OUTLOOK

## May 15, 2013

### 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 each quarter since the Great Recession's end (2009Q3 – 2013Q1). However, given the Great Recession's severity coupled with the modest recovery following the Recession, it required ten quarters (2009Q3-2011Q4) into the recovery before the U.S. economy exceeded the real GDP level it was at 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.

Real GDP growth accelerated to a 4.1 percent annual rate in 2011Q4 but then slowed to 2.0 percent in 2012Q1 and to 1.3 percent in 2012Q2. In 2012Q3 (the last quarter released prior to the January Consensus Conference), real GDP accelerated to 3.1 percent growth. Growth slowed to just 0.4 percent in 2012Q4 before accelerating to 2.5 percent in 2013Q1. Real GDP in 2013Q1 was 8.3 percent larger than at the end of the Great Recession (2009Q2) but only 3.2 percent larger than real GDP at the recession's start. Annual GDP has risen modestly in each of the past three calendar years (2010-2012) with annual growth of 2.4 percent, 1.8 percent and 2.2 percent, respectively.

In the past two calendar years (2011 and 2012), **U.S. wage and salary employment** increased with annual gains of 1.2 percent and 1.7 percent respectively. Over these two years, annual employment rose 3.8 million jobs. However, the two increases directly follow three straight annual declines (-0.6 percent, -4.4 percent and -0.7 percent) over which annual employment dropped 7.7 million jobs. Thus, on net, annual employment dropped a net 2.3 million jobs over the past five years.

Wage and salary employment has risen each month since October 2010 with a cumulative gain of 5.5 million jobs over the past 31 months. However, April 2013 jobs still remain 2.6 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.

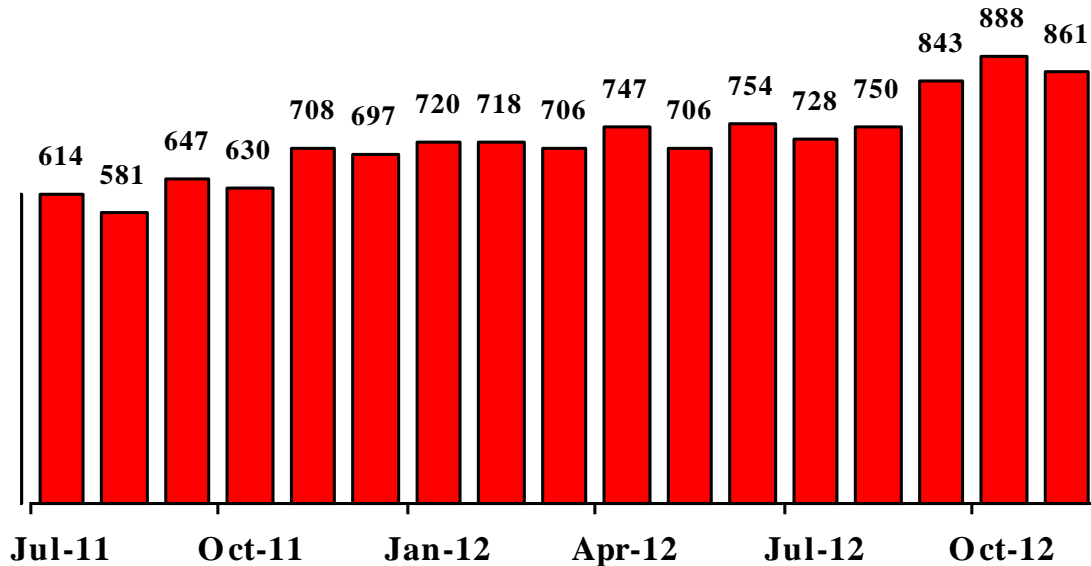
Calendar year (CY) 2012, **housing starts** marked the fifth straight year in which housing starts totaled fewer than 1.0 million units. Prior to 2008, starts had never fallen below 1.0 million units since at least 1959. Further, 2012 starts were 54.5 percent below the ten-year annual average of starts 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. In March 2013, annualized starts rose above 1.0 million units for the first time since June 2008. As a result, 2013Q1 starts were up 7.2 percent from 2012Q4 and 35.5 percent higher than 2012Q1 starts. (U.S. Census Bureau).

In December 2012 (the last month of data available at the January Consensus Conference), the **National Association of Home Builders (NAHB) sentiment index** rose to 47 (the index's highest reading since April 2006). The index remained unchanged in January 2013, but then fell in each of the next three months. However, at 42, the April 2013 index was still 18 points above last April's level. Further the April 2013 reading marked the seventh straight monthly reading above 40 – the first such string since mid-2006.

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 1970. At 368,000 units, 2012 new home sales represented the 3<sup>rd</sup> lowest total in its 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. 2013Q1 marked the sixth straight sales increase from the prior quarter. As a result, 2013Q1 registered the highest quarterly sales level since 2008Q3. (U.S. Census Bureau).

Since late 2010, **existing home sales** have trended upward with the 2013Q1 sales rate rising to 4.9 million units – the highest quarterly average since 2009Q4 (5.0 million units) and the second highest rate since 2007Q2 (5.2 million units). Between 2011 and 2012, existing home sales rose 9.4 percent. In addition, the annualized sales rate has reported year-over-year increases in each of the past 21 months (July 2011-March 2013, inclusive). March 2013 sales were up 10.3 percent compared to a year ago. Existing home sales have changed little since the January 2013 Conference with sales rising 0.8 percent between 2012Q4 and 2013Q1. (National Association of Realtors).

## Housing Starts Rising But Remain At Historically Low Levels



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

### *House Prices*

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

- Between March 2012 and March 2013, the **Core Logic Home Price Index** increased 10.5 percent – the largest year-over-year increase in six years and the 13<sup>th</sup> straight year over-year (y-o-y) increase. In contrast in each of the 19 months prior to March 2012, the index reported y-o-y declines. The March 2013 level represented the index’s highest reading since November 2008. However, the February 2013 level remained 25.1 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, \$247,200, reached in 2007. Between March 2012 and March 2013, the median price increased 3.0 percent. In contrast, the median price rose 14.3 percent between November 2011 and November 2012 (the last month available prior to the January Conference). Between November

2012 and March 2013, the median price rose slightly (0.8 percent). In February 2013, the median price rose to an all-time high before falling 6.8 percent in March 2013.

- According to the **National Association of Realtors, the median existing-house price** was up 11.8 percent from March 2012 to March 2013 -- the fastest y-o-y increase since November 2005. Further, March 2013 marked the 13<sup>th</sup> straight monthly increase from the year-ago level.
- In October 2012 (the last month reported prior to the January Conference), the **S&P/Case Shiller 20-city home price index** (seasonally adjusted) was up 4.3 percent from a year earlier. In contrast, in February 2013 (the last month of data currently available), the index was up 9.4 percent -- the greatest gain since May 2006. In addition the February 2013 Case Shiller index *level* was the highest index reading since December 2008. However, the February 2013 reading remains 27.5 percent below the index's peak reading (April 2006).

### Repercussions

In 2012Q1, **foreclosure sales** were down 12 percent from 2012Q4 and were 23 percent lower than 2012Q1 based on data from RealtyTrac. In 2013Q1, foreclosures fell to their lowest level since 2007Q2. However, RealtyTrac cautions:

Although the overall national foreclosure trend continues to head lower, late-blooming foreclosures are bolting higher in some local markets where aggressive foreclosure prevention efforts in previous years are wearing off. Meanwhile, more recent foreclosure prevention efforts in other states have drastically increased the average time to foreclose, which could result in a similar outbreak of delayed foreclosures down the road in those states.

In March 2013, there were 55,000 **completed foreclosures** in the U.S. March 2013 foreclosures were up six percent from February 2013, but were down 16 percent from a year ago (CoreLogic).

In 2012Q4 **homeowner real estate equity** was down \$5.0 trillion from its 2006Q4 peak. At 46.6 points, the 2012Q4 homeowner equity rate was off 12.8 percentage points from 2006Q1 but 9.3 points higher than its all-time low (2009Q1). Over the past year, homeowner equity increased \$1.4 trillion and the equity rate rose by 6.1 percentage points. As a result, 2012Q4 real estate equity represented the highest equity level since 2008Q3 and the highest equity rate since 2008Q1 (Federal Reserve Bank, *Flow of Funds Accounts of the United States*).

During the Great Recession, **household net worth** dropped by \$13.62 trillion (-20.6 percent). Thus far, during the subsequent economic recovery, household net worth has regained a net \$13.58 trillion – leaving 2012Q4 net worth little different (-0.1 percent) than at the beginning of the Great Recession. 2012Q4 marks the highest level of net worth since 2007Q4. Over the past year alone, household net worth has risen substantially (\$5.46 trillion) -- accounting for 40.2 of

net worth's increase during the recovery (Federal Reserve, *Flow of Funds Accounts of the United States*).

**Mortgage rates** are up modestly from record lows set in late November 2012. In late November 2012, mortgage rates fell to a record low of 3.31 percent for a 30-year fixed mortgage rate. By mid-December 2012 (the most recent data available prior to the January 2013 Conference), the rate had risen very slightly to 3.37 percent. Between mid-December 2012 and early May 2013, the mortgage rate has risen slightly (0.2 percentage point) to 3.42 percent (Freddie Mac).

After reaching a then record high in February 2012, the **National Association of Realtors housing affordability index** fell in each of the following four months. The index then rose each month between July and October (the latest data available prior to the January Conference). The index remained little changed over the final months of 2012. However, the index rose sharply in January 2013 to a new record high and then fell modestly (-2.1 percent) in February. As a result, the February 2013 affordability index reading was 1.8 percent below last February. Further, February 2013 median U.S. family income was more than twice the income needed to purchase a median-price home.

The **stock market (Wilshire 5000)** ended 2012 up 13.7 percent compared to the end of 2011. The index rose sharply through the first four months of 2013. As a result, the index in the end of April 2013 was already up 12.5 percent from the end of 2012.

### 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. In particular, 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. Since its December meeting, the FOMC has continued to tie the need for low interest rates to these unemployment rate and inflation rate targets.

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. Instead, the FOMC tied the continuation/termination of QE3 and QE4 to the Committee's assessment of economic conditions and concomitant determination of the need for continued easing. Still more, in May 2013, the FOMC introduced still greater flexibility in its quantitative easing actions by announcing that, "The Committee is prepared to *increase or reduce* the pace of its purchases to maintain appropriate policy accommodation as the outlook for the labor market or inflation changes (emphasis added)."

### 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. The now effective 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.

At least in the near term, sequestration will very likely slow U.S. economic growth. The Congressional Budget Office estimates that sequestration would cut 2013 economic growth by 0.6 percentage point and affect approximately 750,000 jobs (new or retained). More generally, the Federal Reserve describes current federal government fiscal policy as "restraining economic growth." In addition to the federal government's efforts to cut the federal deficit, the United States' withdrawal from Afghanistan will also act to slow economic growth.

## Inflation

In March 2011, **oil prices** rose above \$100 per barrel for the first time since 2008 – rising to \$102.94. Oil prices rose further in April – increasing to \$110.04. Between May and October, oil prices trended downward – falling to \$86.41 per barrel by October. However, oil prices rose each month between November 2011 and March 2012 (\$106.19) before falling to \$103.33 in April 2012. Since May 2012, oil prices have remained below \$100 per barrel with prices fluctuating between \$80 and \$95 per barrel. In 2012Q4 (the last pre-January Conference price), oil prices averaged \$88 per barrel. The 2013Q1 average oil price is modestly higher at \$94 per barrel. In April 2013, oil prices fell to \$92 per barrel. However, 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).

**Gasoline prices** have fluctuated since mid-2011, but have remained above three dollars a gallon. Gasoline prices trended downward through mid-December 2011 – dropping to \$3.18 a gallon and then trended upward and rose to \$3.88 a gallon by early April 2012. Beginning in mid-April, gasoline prices declined – falling to \$3.29 per gallon by July. Gasoline prices then trended upward – rising to \$3.83 per gallon by mid-September before heading downward again. By late December, gasoline prices had fallen to \$3.20 per gallon. Between late-December 2012 and late-February 2013, gasoline prices then trended upward – rising to \$3.72 per gallon. Over the last two months, gasoline prices have trended downward with prices dropping to \$3.46 per gallon by the end of April. However, gasoline prices remain historically high. In the 1990s, gasoline prices never rose above \$1.35 a gallon. (U.S. Energy Information Administration)

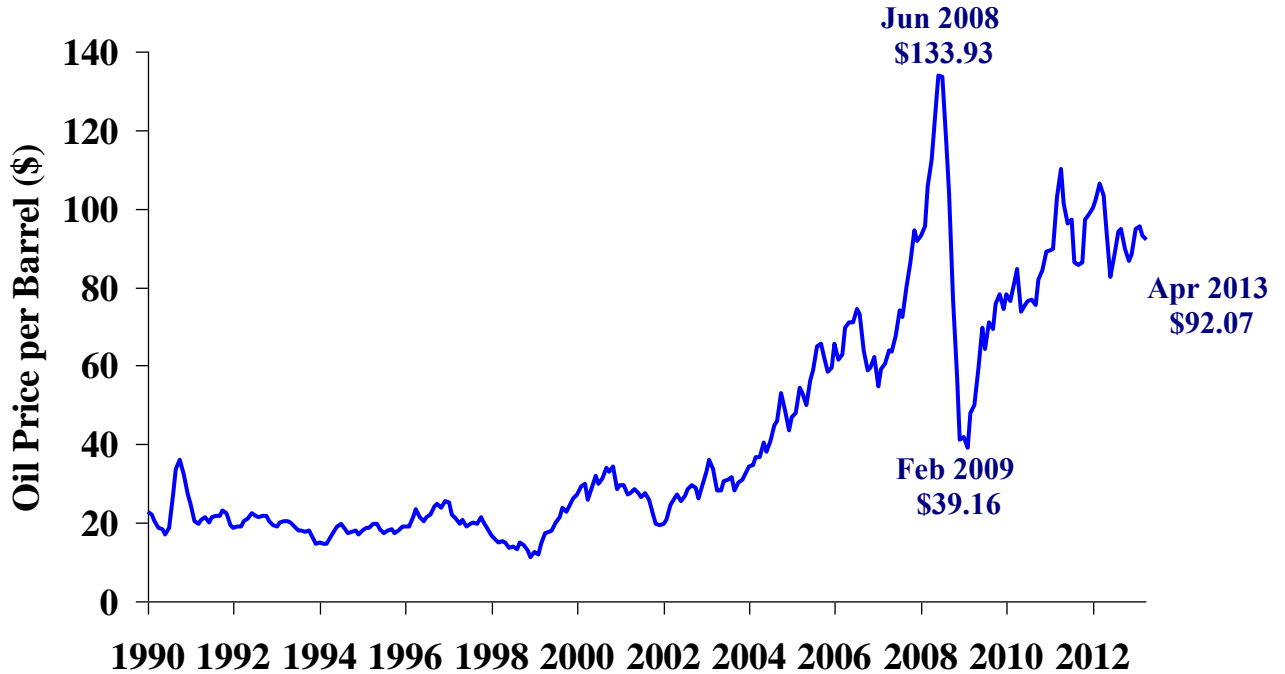
In calendar year (CY) 2012, **consumer prices** increased 2.1 percent. The increase follows a 0.4 percent decline in CY 2009, a 1.6 increase in CY 2010 and a 3.2 percent rise in CY 2011. Core consumer price inflation (excluding food and energy) has remained relatively tame over the past four years with 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. In 2013Q1, overall prices were up 1.7 percent from 2012Q1 while core prices were up 1.9 percent from a year ago. (Bureau of Labor Statistics)

**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. (Bureau of Labor Statistics)

In March 2013, the **Economic Cycle Research Institute's (ECRI) future inflation gauge (FIG)** reported its second straight month-over-month decline. In March, the index fell to its lowest reading since November 2012, but remained above the index's 2012Q4 level. Economy.com sees the recent index readings as consistent with its own forecast for modest but higher inflation in late 2013.

At its March 20, 2013 meeting, the **Federal Open Market Committee** stated, “Inflation has been running somewhat below the Committee's longer-run objective, apart from temporary variations that largely reflect fluctuations in energy prices. Longer-term inflation expectations have remained stable.”

## 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 June 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 one month between August 2009 and April 2013. The only sub-50 reading over this period was 49.9 in November 2012. Over the 44 months, the PMI peaked in February 2011 at 59.6 – the index’s highest reading since July 2004. Since the January Conference, five additional months of PMI data have been released (December 2012-April 2013). The index rose over this period’s first three months. At 54.2, the February 2013 reading represented the highest PMI since June 2011. However, the index fell a combined 3.5 points over the two most recent months. As a result, in April 2013, the index dropped to 50.7 – the lowest reading since the Conference and just 0.8 point above the index’s November 2012 reading.

Midway through the 2007-2009 recession, in November 2008, the **ISM non-manufacturing index (NMI)** fell to 37.6 -- its lowest reading in at least 11 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 April 2013, which marked the 40<sup>th</sup> straight month signaling sector expansion. However, the April 2013 reading was down 0.6 point from a year earlier and off 1.3 points from March 2013. In the five months reported prior to the May 2013 Conference, the NMI averaged 54.9 -- 0.5 point higher than the average of the five months available directly prior to the January 2013 Conference.

**Industrial production**, based on a three-month moving average, increased compared to a year ago in each month from March 2010 to March 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. In the six months most recently available (October 2012-March 2013), the growth rate has varied only slightly with readings ranging between 2.4 percent and 2.8 percent.

After falling each month between February 2008 and July 2009, the three-month moving average of **capacity utilization** fell to a record low (67.2 percent) for the series which dates back to 1967. Between August 2009 and April 2012, the average rose in all but two months with a net increase totaling 10.4 points. The average fell in four of the following six months, but then rose each month between November 2012 and March 2013. At 78.1, the March 2013 reading represented the highest average since August 2008 but remained 2.5 points lower than the average in December 2007 (the first month of the Great Recession).

**New durable goods orders** experienced double-digit percentage declines each month in 2009 based on a new durable goods orders three-month average compared to the year-ago level. In sharp contrast, the new durable goods orders three-month average experienced double-digit y-o-y increases each month between February 2010 and May 2011. Over each of the following six months, the three-month moving average then recorded single-digit y-o-y increases each month. The average then recorded double-digit increases between December 2011 and February 2012. After registering single-digit increases between March 2012 and August 2012, the average then fell slightly over the following two months. Between November 2012 and March 2013, the three-month average has posted slight to no y-o-y growth. In March 2013, the average of durable goods orders was up 1.1 percent from a year earlier.

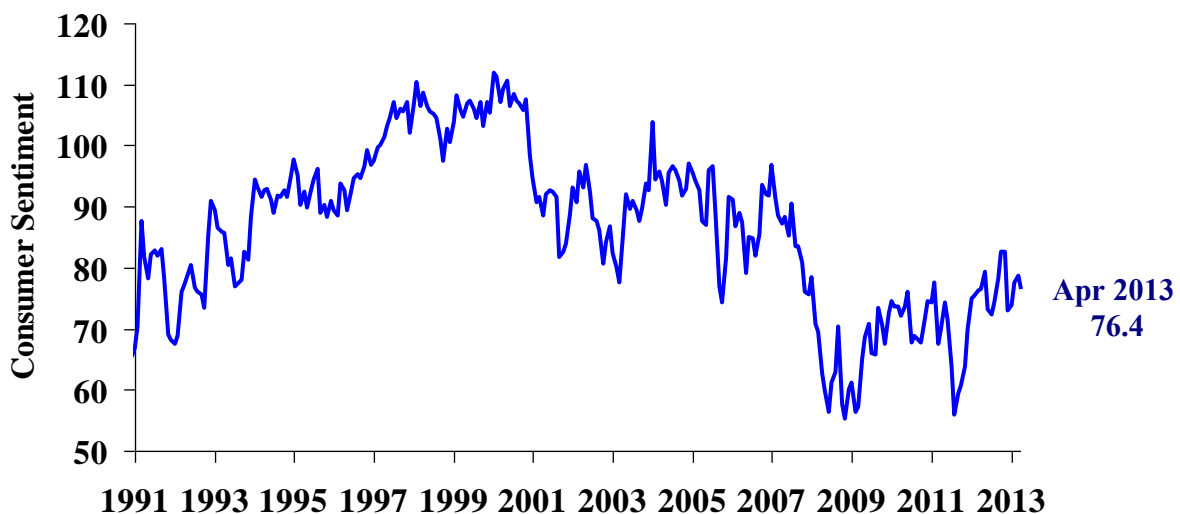
Over the first eight months of 2011, the three-month average of **retail sales** percent changes trended upward so that by August 2011 the three-month average was up 8.9 percent from a year earlier. Year-over-year increases then grew smaller each month between September 2011 and August 2012. As a result, the August 2012 three-month average was up only 4.1 percent from a year ago. While accelerating in September 2012, the average's growth slowed each month through the end of 2012 -- slowing to 4.3 percent in December 2012. The average's y-o-y increase was essentially unchanged in January 2013 and February 2013. The increase shrank in March 2013 to 3.7 percent -- the average's slowest y-o-y increase since January 2010.

In November 2008, the **University of Michigan index of consumer sentiment** fell to 55.3 -- a 28-year low. The index then haltingly trended upward through June 2010 to 76.0. In July 2010



the index fell sharply – dropping to 67.8 before trending upward into February 2011 when sentiment rose slightly above its mid-2010 level to a three-year high (77.5). However, the index then trended downward through August 2011 when the index fell to 55.8 – a 33-month low. Over the following nine months (September 2011-May 2012), the index rose each month over which time the index increased 23.5 points from August 2011 to 79.3. After falling in June and July, the index rose each month between July and November. At 82.7, the November index represented the index’s highest reading in over five years. The index, under the weight of fiscal cliff concerns, fell sharply (-9.8 points) in December 2012 to 72.9 (the last reading available prior to the January Conference). The index rose in each of the first three months of 2013, but then fell in April 2013. On net, the index has fallen by 0.6 point over the past four months. Further, the April 2013 reading was 21.8 points lower than the index’s average over the ten years directly prior to the Great Recession.

### Consumer Sentiment Still At Historically Low Levels



Over the past two years the **Conference Board Measure of CEO Confidence** index has fluctuated. In 2011Q1, the Conference Board Measure of CEO Confidence rose to 67.0 – the index’s highest reading in over six years. The index fell sharply in each of the next two quarters – losing a combined 25 points over the two quarters – falling to 42.0 in 2011Q3. (A reading over 50.0 indicates more positive than negative responses). The index regained 21 of the 25 lost points in the two following quarters. As a result, the measure stood at 63.0 in 2012Q1. Over the next two quarters, the index dropped a combined 21 points. Thus, in 2012Q3 (the last quarter available prior to the January 2013 Consensus Conference), the index fell to 42.0 points -- matching the measure’s reading a year earlier. However, the index has risen in each of the two quarters released since the January Conference. In 2013Q1, the index stood at 54.0 – up 12.0 points from 2012Q3, but down 9.0 points compared from 2012Q1.

In the first three months of data newly available since the Administration's January 2013 Conference Report (December 2012-February 2013), the **Conference Board index of leading economic indicators (LEI)** reported solid gains averaging 0.5 percent. However, the LEI fell unexpectedly in March by 0.1 percent. On a year-over-year basis, the March index was up just 1.7 percent.

In early 2012, the **Economic Cycle Research Institute (ECRI) weekly leading index growth rate** saw substantive improvements each week through the first week of April. The growth rate turned positive in late March, indicating a growing economy. However, the rate slowed over the balance of April with growth turning flat by the end of April. The rate turned negative in late May and the rate of decline accelerated over the next month. The rate of decline then slowed between late June and mid-August at which point the growth rate turned positive. Growth accelerated between late-August and mid-October, but slowed between mid-October and late-November. Over the next month, the growth rate accelerated, before slowing slightly at the end December. Then, from early January 2013 through early February 2013, the growth rate reported substantial improvement, but then slowed between early February and early March. Over the next two months, the growth rate has shown little change. As a result, the index's late-April growth rate remains modestly faster than the index's growth rate at the end of 2012.

### Employment

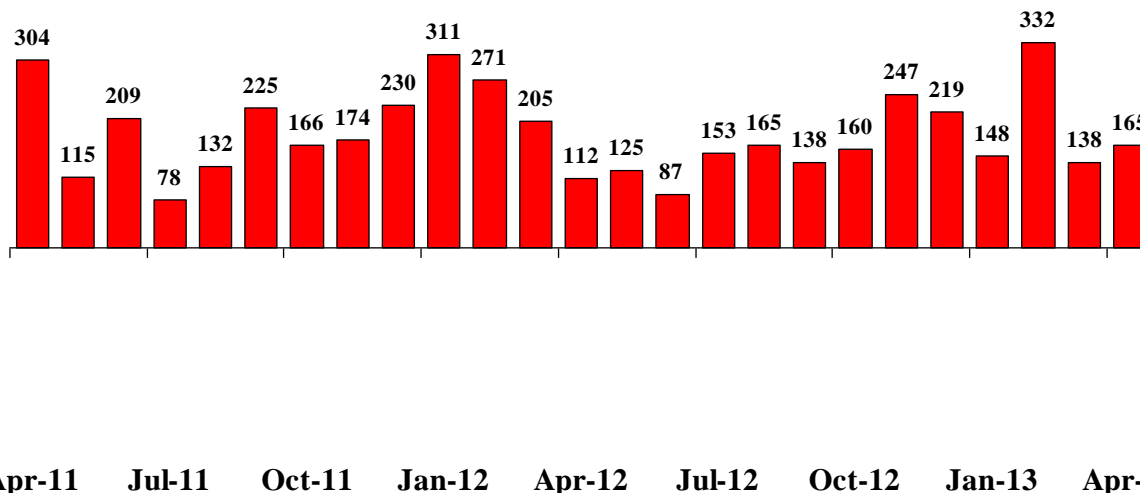
At the end of the Great Recession, the four-week average of **initial unemployment claims** stood at 598,000 – dramatically above the key 400,000 threshold. In early November 2011, the average fell below 400,000 for the first time since the recession's end. Between early November 2011 and late April 2013, the average was 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. Consequently, the average fell to 342,250 by the end of April – second only to the mid-March 2013 reading as the lowest average seen since early February 2008.

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 rate had fallen to 7.5 percent -- the lowest rate since December 2008. The April 2013 unemployment rate was 2.0 percentage points below the rate at the end of the Great Recession, but 2.5 percentage points above the unemployment rate at the outset of the Great Recession.

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 6.2 million jobs between March 2010 and April

2013. Compared to a year ago, April 2013 employment was up 2.1 million jobs. Over the first four months of 2013, increases have averaged 196,000 jobs per month. In February 2013, alone, the labor market gained 332,000 jobs – the largest one-month increase since May 2010.

### U.S. Payroll Employment 2.1 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. In contrast, between February 2010 and April 2013, manufacturing employment has increased in 33 of 39 months. On net, the sector gained 530,000 jobs over this period. In the past year, manufacturing employment has risen by 70,000 jobs. While manufacturing employment is up by 269,000 jobs compared to the end of the Great Recession, sector employment is down by 1.8 million jobs compared to the start of the recession.

**Construction employment** is *down* by 218,000 jobs since the end of the recession (June 2009) and is down by 1.7 million jobs (-22.7 percent) compared to December 2007. However, over the past year, construction employment is up by 154,000 jobs. In the first four months of 2013, construction employment has risen a net 79,000 jobs.

The **ISM manufacturing employment index** has improved dramatically from early 2009. In 2009Q1, the index averaged 27.6 (a record low for a series that dates back to 1948). In 2011Q1, the index averaged 61.0 – the highest quarterly reading since 1973Q1. The index has signaled an improving sector employment picture every month between October 2009 and April 2013. In 2012, the index averaged 53.8, 3.6 points lower than the 2011 annual average of 57.3. The index

averaged 55.2 in the first half of 2012, but the average fell to 52.3 in 2012H2. Over the first four months of 2013, the index averaged 52.8 with an April 2013 reading of 50.2.

In April 2013, the ISM **non-manufacturing employment index** signaled growing sector employment (reading above 50.0) for the 29<sup>th</sup> month in the past 32 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. Further the 2013Q1 average (56.0) represented the highest quarterly average in eight years. However, the index has fallen in each of the past three months (February 2013-April 2013) with the index falling to a nine-month low in April 2013 (53.1).

### Vehicle Sales and Production

The vehicle sector has shown substantial growth over the past three years, but still remains historically weak. 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 four months of 2013, light vehicle sales averaged 15.2 million units (seasonally adjusted annual rate) – up significantly from the first four months of 2012 (14.1 million units rate) and the CY 2012 average (14.4 million units rate). Further, the 2013Q1 sales rate (15.3 million units rate) represented the highest quarterly sales rate in five years. However, after five months of a 15.0 million plus sales rate, the rate fell to 14.9 million units in April 2013.

Between 2007 and 2009, inclusive, **U.S. vehicle production** declined each year. As 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.

Over the four months of production data available since the January Conference (December 2012-March 2013), U.S. vehicle production has reported two year-over-year declines (-0.4 percent in December 2012 and -2.5 percent in February 2013) and two y-o-y increases (7.8 percent in January 2013 and 0.3 percent in March 2013). As a result, 2013Q1 national vehicle production was up 1.7 percent from 2012Q1.

## Current Michigan Economic Conditions

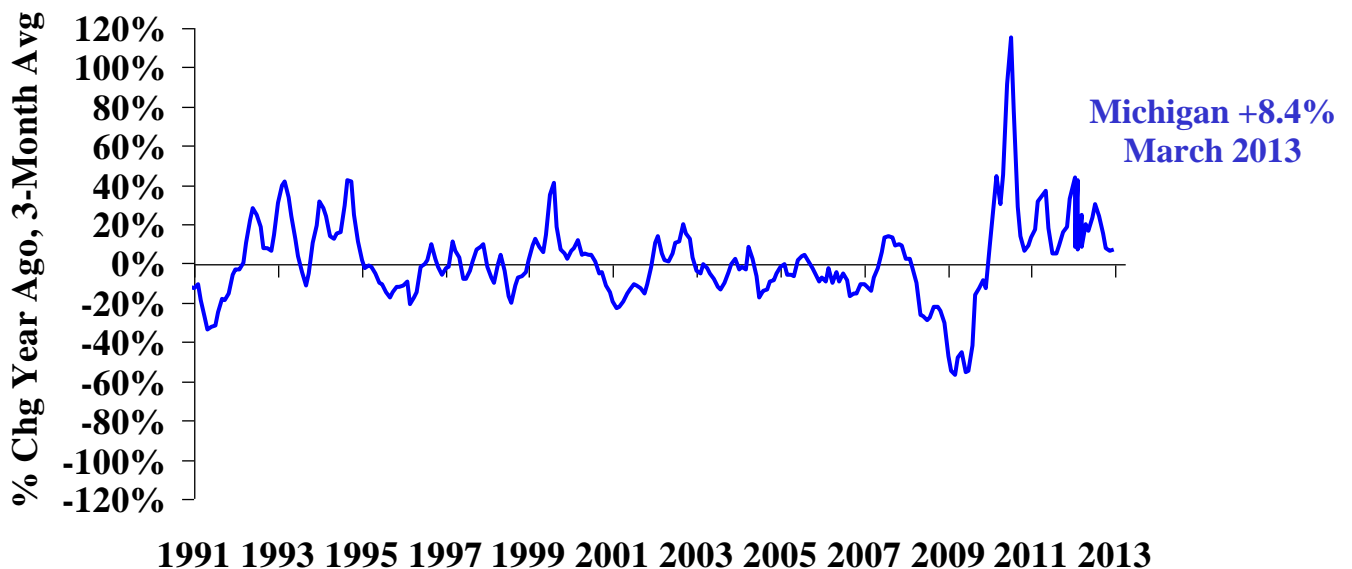
### Vehicle Production

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 2013Q1 was up 8.4 percent from the first quarter of 2012. At 612,168 units, 2013Q1 represented the highest quarterly production since 2007Q2. March 2013 marked the 20<sup>th</sup> straight year-over-year increase and the 37<sup>th</sup> monthly year-over-year production increase in the last 39 months. Between March 2012 and March 2013, Michigan vehicle production was up 7.9 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, in 2013Q1, Michigan's share of national vehicle production (22.2 percent) was up 1.4 percentage points from 2012Q1's share (20.8 percent).

### **Michigan Vehicle Production Increases Slowing**



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 an increase of 88,500 jobs (2.3 percent) in 2011 and a 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.

In the first quarter of 2013, overall Michigan wage and salary employment was up 0.7 percent from the end of 2012 with manufacturing employment up 0.9 percent and construction 1.7 percent higher.

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.

Between December 2008 and October 2011, Michigan's unemployment rate remained in double-digits. Over this time, the State's unemployment rate peaked in August 2009 at 14.2 percent – the State's highest rate since July 1983. However, between September 2009 and March 2012, the State's unemployment rate declined in 26 months, remained unchanged in four months and increased in only one month. As a result, in March 2012, the State's unemployment rate dropped to 9.0 percent – the State's lowest rate in over three years. Michigan's unemployment rate remained at or slightly above 9.0 percent between April 2012 and November 2012. Then, in December 2012, the State's unemployment rate fell 8.9 percent – marking the first month that the State's unemployment rate fell below 9.0 percent since September 2008. In March 2013, the Michigan unemployment rate fell to 8.5 percent -- the State's lowest rate since July 2008 (8.2 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. Over the past year, the gap has fluctuated narrowly between 0.9 percentage point and 1.4 percentage points. In March 2013, the gap equaled 0.9 percentage point.

Over the past year, Michigan **household employment** has risen by 14,000 persons, while the State's **labor force** has fallen by 11,000 persons. As a result, the number of persons unemployed in Michigan has fallen by 25,000 persons.

## 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 growth. 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. In 2013Q1, Michigan authorizations were 34.6 percent higher than in 2012Q1 -- compared to a national increase of 22.5 percent.

In February 2013, according to **Case-Shiller house price measures** (seasonally adjusted), the Detroit MSA recorded a 15.2 percent year-over-year house price increase, compared to a 9.4 percent average increase for the 20 U.S. metro areas surveyed for the measure. Detroit's 15.2 percent year-over-year increase ranked 5<sup>th</sup> among the 20 metro areas. However, the February Detroit price measure was 36.1 percent below Detroit's peak measure (March 2006). In comparison, the 20-city reading was 27.5 percent below its peak reading (April 2006).

The **Core Logic Home Price Index** for Michigan rose 5.3 percent between March 2012 and March 2013 – placing Michigan with the 24<sup>th</sup> largest year-over-year increase. However, the current Michigan index is 38.9 percent below the State's peak (November 2005) – placing Michigan with the third largest percent peak to current reading decline among U.S. states, behind only Nevada and Florida.

According to CoreLogic, Michigan, had the third highest number of **completed foreclosures** for the 12 months ending March 2013 with 70,000 completed foreclosures, behind Florida and California. However, the number of **active foreclosures** in April 2013 were half the level in April 2012. (RealtyTrac)

The **share of mortgage properties underwater (negative equity)** in Michigan is substantially higher than the national average. In 2012Q4, 21.5 percent of residential properties with mortgages were underwater nationally. In Michigan, 31.9 percent of such properties were underwater – placing Michigan fifth among the fifty states behind Nevada (52 percent), Florida (40 percent), Arizona (35 percent) and Georgia (34 percent). (CoreLogic)

## Personal Income

**Michigan personal income** annual growth accelerated from 3.1 percent in 2010 to 5.6 percent in 2011. However, as with all other 49 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 22<sup>nd</sup> among U.S. states, while the State's 2012 per capita income increase (3.4 percent) ranked eighth.

Michigan's quarterly personal income grew from the prior year in each quarter between 2010Q1-2012Q4 (the latest quarter available). The State's year over year growth accelerated from 0.4 percent to 7.6 percent between 2010Q1 and 2011Q1. Over the next three quarters, year-over-year Michigan income growth fluctuated around five percent. Finally between 2012Q1-2012Q4, the State's income y-o-y growth ranged between 2.9 percent and 4.0 percent. Michigan's 2012Q4 y-o-y income growth (4.0 percent) ranked 39<sup>th</sup> among U.S. states.

Between 2010Q2 and 2012Q4, year-over-year **Michigan wage and salary income** increases ranged between 1.0 percent (2010Q2) and 8.0 percent (2011Q1). Between 2011Q4 and 2012Q4, Michigan wages rose 2.4 percent – slower than 4.0 percent nationally and ranking 36<sup>th</sup> among the 50 states.

After year-over-year declines in 12 straight quarters, **Michigan manufacturing wages and salaries** experienced 11 consecutive quarters of y-o-y increases. Manufacturing wage growth peaked in 2011Q1 (19.8 percent) and then slowed to 9.8 percent and 6.5 percent in the second and third quarters, respectively. Manufacturing wage growth fluctuated between 3.6 percent and 11.7 percent over the next four quarters. Most recently, manufacturing sector wage growth slowed in each of the next two quarters (2012Q3 and 2012Q4). After 11 straight quarters in which Michigan manufacturing wages outpaced overall U.S. manufacturing sector wages, Michigan's 2012Q4 wage growth (4.0 percent) was significantly slower than the manufacturing sector's wage growth nationally (6.4 percent).

The manufacturing sector continues to play an important role in Michigan's wage growth. While comprising 17.6 percent of Michigan's overall wages in 2011Q4, the State's manufacturing sector accounted for 29.5 percent of Michigan's overall wages growth between 2011Q4-2012Q4.

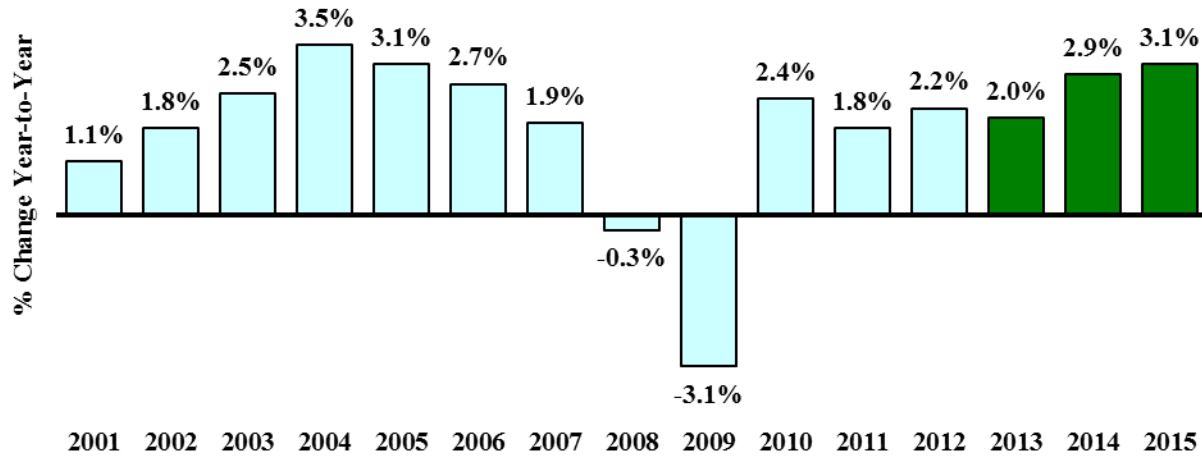
## **2013, 2014 and 2015 U.S. Economic Outlook**

### Summary

After declining 3.1 percent in 2009, real GDP rose 2.4 percent in 2010 and 1.8 percent in 2011. Real GDP then increased 2.2 percent in 2012 and is expected to grow at a rate of 2.0 percent in 2013, 2.9 percent in 2014 and 3.1 percent in 2015.



## Real GDP Growth Remains Moderate



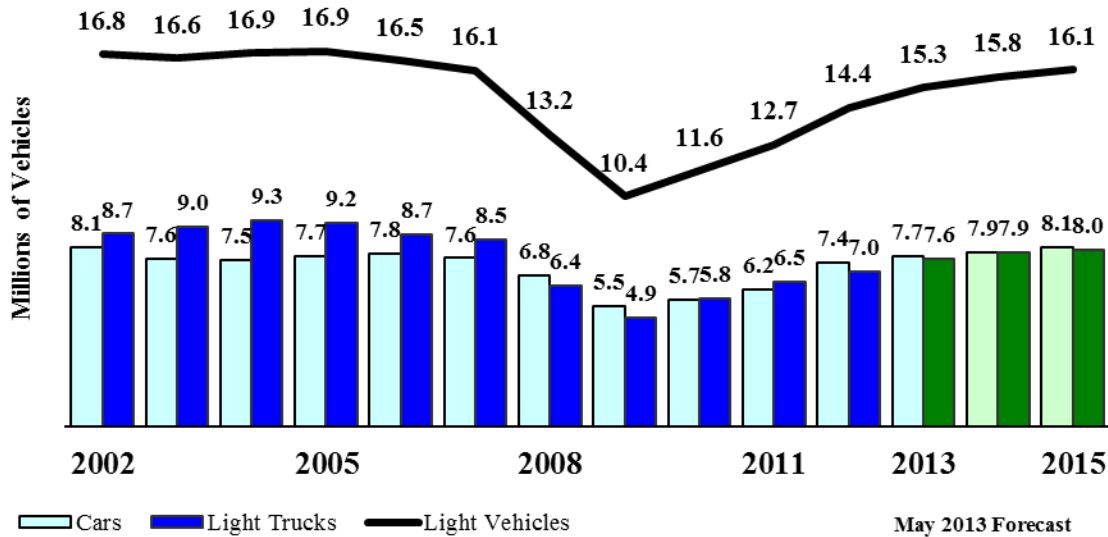
May 2013 Forecast

Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2013.

After growing at a 2.5 percent seasonally adjusted annual rate in 2013Q1, real GDP is expected to slow sharply in 2013Q2 to 0.5 percent, but then accelerate to 2.7 percent and 3.5 percent in the third and fourth quarters of 2013. In the four quarters of 2014, growth rates range narrowly between 2.8 percent and 3.3 percent. Over 2015, the growth rate slows from 3.3 percent in the first quarter to 2.5 percent in the fourth quarter.

Light vehicle sales totaled 12.7 million units in 2011 and increased to 14.4 million units in 2012. Vehicle sales are forecast to rise to 15.3 million units in 2013, 15.8 million units in 2014 and 16.1 million units in 2015.

## Vehicle Sales Continue Their Rebound



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2013.

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. The unemployment rate is forecast to decline to 7.6 percent in 2013, 7.2 percent in 2014 and 6.6 percent in 2015.

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 rose 1.7 percent in 2012. Over the forecast horizon, employment is expected to rise 1.7 percent in 2013, 1.8 percent in 2014 and 2.1 percent in 2015.

After accelerating to 3.2 percent in 2011, inflation moderated to 2.1 percent in 2012. Inflation is then forecast to accelerate modestly with 1.7 percent in 2013, 1.9 percent in 2014 and 2.1 percent in 2015.

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. The rate is forecast to remain extremely low over the forecast horizon with a 0.1 percent rate in 2013 and a 0.2 percent rate in 2014 and 2015. After falling from 4.6 percent in 2011 to 3.7 percent in 2012, corporate interest rates are forecast to change slightly over the balance of the forecast horizon. After rising to 3.9 percent in 2013, the corporate Aaa bond rate is expected to average 4.0 percent in both 2014 and 2015. 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 then fell to 3.7 percent in 2012. Mortgage rates are forecast to fall slightly to 3.6 percent in 2013. Rates are then forecast to rise to 3.9 percent in 2014 and 4.2 percent in 2015.

## Assumptions

The forecast assumes that the federal government enacts the legislation necessary to end sequestration by the end of fiscal year 2013. However, programs and entities (in particular state governments) that receive federal monies spend those monies with a lag. Given this, the forecast assumes that sequestration's economic and revenue impact will extend into fiscal year 2014.

More generally, the forecast assumes that real (inflation-adjusted) federal government expenditures decline 5.0 percent in 2013, fall 2.3 percent in 2014 and drop 1.0 percent in 2015

Oil prices per barrel are expected to trend slightly upward over the forecast horizon with prices ranging between \$93 per barrel in mid-2013 to \$102 at the end of 2015. Natural gas prices dropped 27.0 percent in 2012. Natural gas prices are expected to rise sharply in 2013 (18.9 percent) before slowing to 8.1 percent growth in 2014 and a 5.0 percent increase in 2015.

Throughout the forecast horizon, the housing market is expected to strengthen but still remain historically weak. Starts are forecast to increase each year. Consequently, housing starts in 2015 (1.4 million units) will be 80.6 percent higher than starts in 2012. Nevertheless, 2015 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 the end of 2015.

The level of real state and local government expenditures is expected to remain relatively unchanged over the forecast horizon with a 0.9 percent decline in 2013, a 0.1 percent increase in 2014 and 0.4 percent rise in 2015. Consequently, 2015 inflation-adjusted state and local government spending is forecast to be 0.4 percent less than 2012 real spending.

The savings rate is assumed to fall from 3.9 percent in 2012 to 2.5 percent in 2013. The rate is then expected to rise to 2.8 percent in 2014 and to 3.3 percent in 2015.

Rest-of-world growth is assumed to rise 1.9 percent in 2013, increase 2.7 percent in 2014 and then rise 2.8 percent in 2015.

**Table 1**  
**Administration Economic Forecast**

	May 2013								
	Calendar	Calendar	Percent	Calendar	Percent	Calendar	Percent	Calendar	Percent
	2011	2012	Change	2013	Change	2014	Change	2015	Change
	Actual	Actual	from Prior	Forecast	from Prior	Forecast	from Prior	Forecast	from Prior
			Year		Year		Year		Year
<b>United States</b>									
Real Gross Domestic Product (Billions of Chained 2005 Dollars)	\$13,299	\$13,593	2.2%	\$13,865	2.0%	\$14,267	2.9%	\$14,709	3.1%
Implicit Price Deflator GDP (2005 = 100)	113.4	115.4	1.8%	117.0	1.4%	119.0	1.7%	121.1	1.8%
Consumer Price Index (1982-84 = 100)	224.939	229.594	2.1%	233.482	1.7%	238.023	1.9%	242.977	2.1%
Consumer Price Index - Fiscal Year (1982-84 = 100)	223.137	228.526	2.4%	232.483	1.7%	236.879	1.9%	241.695	2.0%
Personal Consumption Deflator (2005 = 100)	113.8	115.8	1.8%	117.3	1.3%	119.1	1.5%	121.0	1.6%
3-month Treasury Bills Interest Rate (percent)	0.1	0.1		0.1		0.2		0.2	
Aaa Corporate Bonds Interest Rate (percent)	4.6	3.7		3.9		4.0		4.0	
Unemployment Rate - Civilian (percent)	8.9	8.1		7.6		7.2		6.6	
Wage and Salary Employment (millions)	131.497	133.739	1.7%	136.010	1.7%	138.460	1.8%	141.370	2.1%
Housing Starts (millions of starts)	0.609	0.781	28.2%	1.060	35.8%	1.298	22.5%	1.412	8.7%
Light Vehicle Sales (millions of units)	12.7	14.4	13.4%	15.3	6.3%	15.8	3.3%	16.1	1.9%
Passenger Car Sales (millions of units)	6.2	7.4	19.4%	7.7	4.1%	7.9	2.6%	8.1	2.5%
Light Truck Sales (millions of units)	6.5	7.0	7.7%	7.6	8.6%	7.9	3.9%	8.0	1.3%
Big 3 Share of Light Vehicles (percent)	46.2	44.2		45.0		45.1		45.3	
<b>Michigan</b>									
Wage and Salary Employment (thousands)	3,952	4,024	1.8%	4,077	1.3%	4,134	1.4%	4,192	1.4%
Unemployment Rate (percent)	10.4	9.1		8.6		8.0		7.4	
Personal Income (millions of dollars)	\$358,152	\$370,599	3.5%	\$379,864	2.5%	\$396,578	4.4%	\$414,820	4.6%
Real Personal Income (millions of 1982-84 dollars)	\$169,131	\$171,508	1.4%	\$172,752	0.7%	\$177,210	2.6%	\$181,826	2.6%
Wages and Salaries (millions of dollars)	\$183,000	\$189,121	3.3%	\$194,984	3.1%	\$202,198	3.7%	\$210,691	4.2%
Detroit Consumer Price Index (1982-84 = 100)	211.760	216.082	2.0%	219.890	1.8%	223.790	1.8%	228.141	1.9%

## Forecast Risks

The economic recovery continues to face significant challenges.

**Fiscal Policy.** Considerable uncertainty surrounds the U.S. government's fiscal policy actions including how long sequestration will remain in effect and sequestration's impact on the economy. Further, continued fierce partisanship and accompanying brinksmanship complicate and likely worsen the broader U.S. economic and financial outlook. In addition, the continuing substantial divisions among the House, Senate and President will reduce the federal government's ability to counter negative financial and macroeconomic shocks to the economy.

**Oil Prices.** Geopolitical concerns, increased demand, or a major supply disruption could raise oil prices well above the assumed range (\$93-\$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 as a result of financial crises, prices could be lower than assumed.

**Europe Debt Crisis.** Europe remains in the midst of a credit crisis spurred by the need for European banks and governments to refinance or sell substantial amounts of debt – raising serious concerns that there will not be enough demand to buy such a tremendously large amount of debt. Depending upon the eventual magnitude and severity of the credit problems, these strains could spread to other nations' financial markets and economies including the U.S. A flight to safety would raise the value of the dollar – making U.S. exports more costly.

Complicating the crisis, 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.

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

**Monetary Policy.** A major concern facing monetary policy is that its increased potency may push inflation above its target level (2.5 percent) and require that the Fed raise interest rates -- even if the economy remains weak (e.g., unemployment rate over 6.5 percent). In addition, while providing the Fed with greater latitude to respond to changing economic conditions, the FOMC's most recent policy statements introduce still greater uncertainty as to the degree and direction (easing or tightening) of monetary policy.

**Housing Market.** Projected 2015 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. However, despite the large projected increases, forecasted 2015 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. Historically low mortgage interest rates and record high overall affordability support prospects for a stronger than forecasted housing market.

**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. Recent employment gains are encouraging, but the labor market remains at risk of being harmed by a negative economic shock.

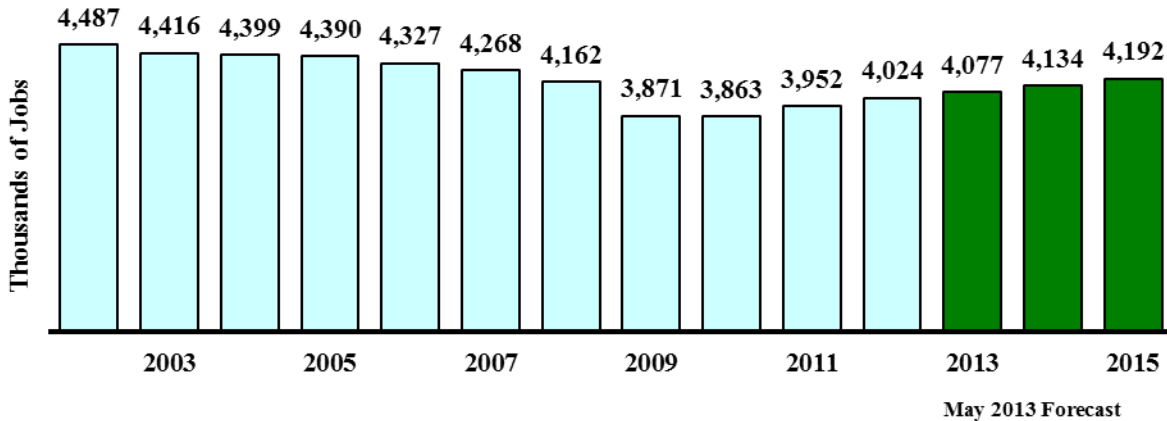
### **2013, 2014 and 2015 Michigan Economic Outlook**

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 increase since 2000. Michigan employment grew 1.8 percent in 2012. State employment is forecast to increase 1.3 percent in 2013, 1.4 percent in 2014 and 1.4 percent in 2015. Compared to 2000, forecasted 2015 employment is still down 484,400 jobs or 10.4 percent.

Private non-manufacturing employment rose by 70,800 jobs in 2011 and gained 52,400 jobs in calendar year 2012. Private non-manufacturing employment is forecast to gain a net 42,300 jobs in 2013, 51,800 jobs in 2014 and 52,700 jobs in 2015.

After increasing a strong 7.6 percent in 2011, manufacturing employment grew 5.3 percent in 2012. Manufacturing employment growth is forecast to slow to 3.1 percent in 2013 and to decelerate to 1.9 percent in 2014. Sector employment then is expected to increase 1.7 percent in 2015. Between 2012 and 2015, manufacturing employment is projected to rise by 37,100 jobs.

## Michigan Wage and Salary Employment Rises Slightly



Source: Michigan Department of Labor and Economic Growth, U.S. Bureau of Labor Statistics, and May 2013 Administration Forecast.

Michigan transportation equipment employment rose 10.3 percent in 2011 and then increased 7.6 percent in 2012. Transportation equipment employment is forecast to grow each year between 2013 and 2015 with annual increases of 4.6 percent in 2013, 2.5 percent in 2014 and 3.0 percent in 2015. Despite the increases, forecasted 2015 transportation equipment employment of 172,100 jobs is down 50.3 percent from the sector's 2000 employment of 346,100 jobs.

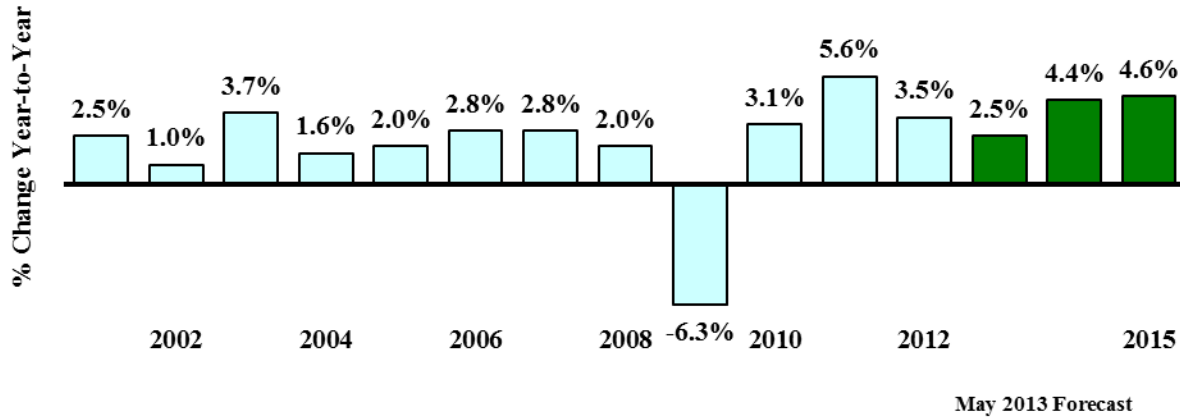
After soaring from 8.3 percent to 13.4 percent in 2009 (highest rate since 1983), Michigan's unemployment rate declined to 12.7 percent in 2010, 10.4 percent in 2011 and to 9.1 percent in 2012. The State's rate is expected to continue to drop across the forecast horizon to 8.6 percent in 2013, 8.0 percent in 2014 and 7.4 percent in 2015.

After falling 8.2 percent in 2009 (the greatest decline since 1945), Michigan wages and salaries rose 1.7 percent in 2010, increased 5.5 percent in 2011 and rose 3.3 percent in 2012. Wages are forecast to grow 3.1 percent in 2013, 3.7 percent in 2014 and 4.2 percent in 2015.

In 2009, overall Michigan personal income declined 6.3 percent – the largest Michigan personal income decline since 1938. Personal income rose 3.1 percent in 2010, increased 5.6 percent in 2011 and rose 3.5 percent in 2012. After slowing to a forecasted 2.5 percent income growth in 2013, income is expected to rise 4.4 percent in 2014 and 4.6 percent in 2015.

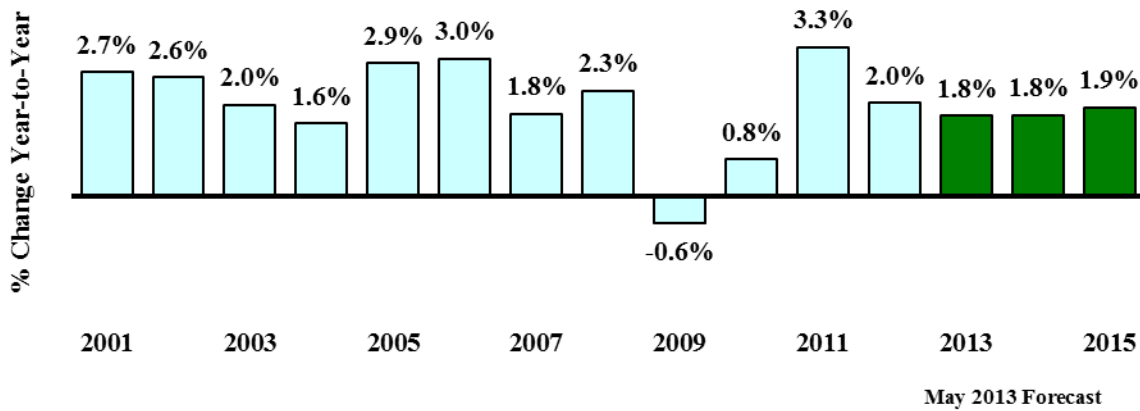
The overall CY price level, as measured by the Detroit CPI, increased 3.3 percent in 2011. Detroit CPI inflation was 2.0 percent in 2012. Detroit price increases are forecast to remain moderate with a 1.8 percent annual increase in both 2013 and 2014. The Detroit CPI is then expected to rise 1.9 percent in 2015.

## Michigan Personal Income Reports Solid Growth



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2013.

## Overall Price Level Rises Moderately Detroit CPI



Source: U.S. Bureau of Labor Statistics and Administration Forecast, May 2013.

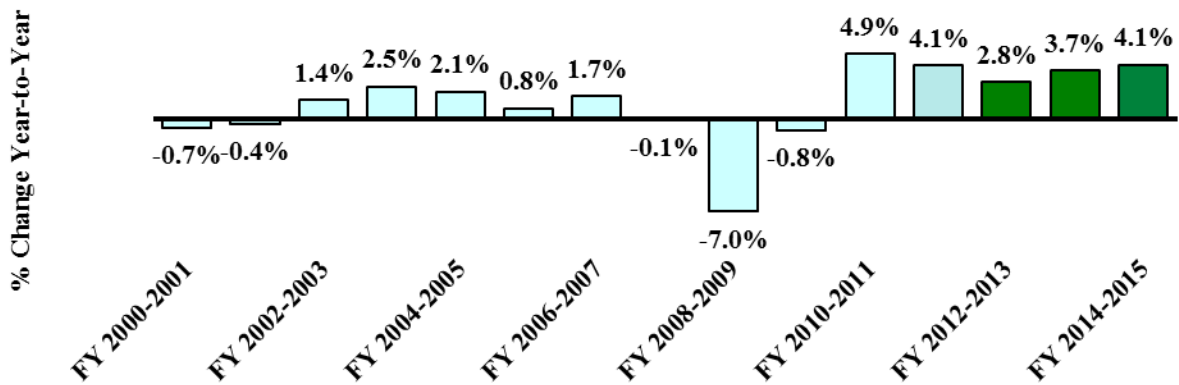


## Fiscal Year Economics

Michigan's largest taxes are the individual income tax (\$6.9 billion in FY 2012), which includes refunds, and sales and use taxes (\$8.2 billion). Income tax withholding is the largest income tax component. Withholding (\$7.6 billion) is most affected by growth in wages and salaries. Michigan wages and salaries rose 4.1 percent in FY 2012 and are forecast to increase 2.8 percent in 2013, 3.7 percent in FY 2014 and 4.1 percent in FY 2015.

Sales and use taxes depend primarily on Michigan disposable (after tax) income and inflation. Having risen 3.1 percent in fiscal year 2012, disposable income is projected to increase 2.5 percent in FY 2013, 3.3 percent in FY 2014 and 4.1 percent in FY 2015. Prices, as measured by the Detroit CPI, rose 2.5 percent in FY 2012. Over the forecast horizon, prices are forecast to increase 1.8 percent in FY 2013, rise 1.7 percent in FY 2014 and grow 1.9 percent in FY 2015.

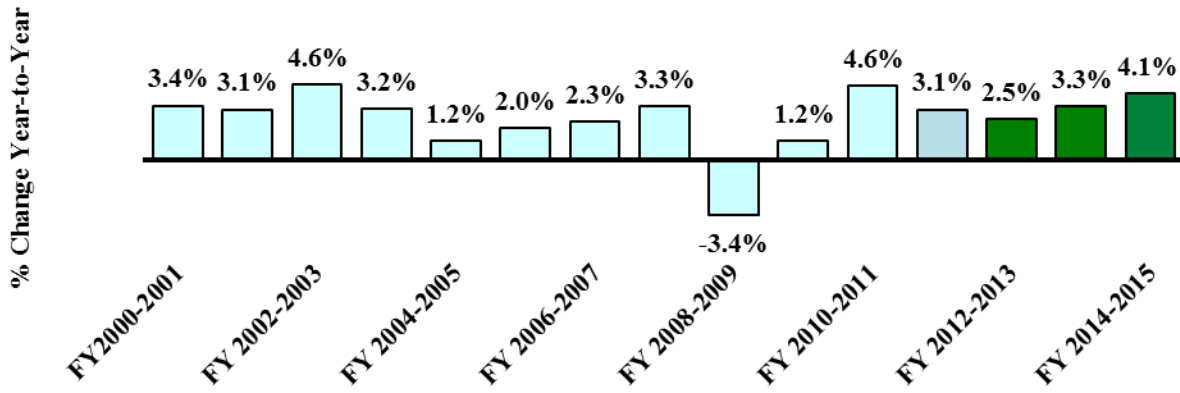
### **Michigan Wages and Salaries Rise Throughout Forecast Basis for Income Tax Withholding Collections**



May 2013 Forecast

Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2013.

## Michigan Disposable Income Increases Basis for Sales and Use Tax Collections



May 2013 Forecast

Source: Research Seminar in Quantitative Economics, University of Michigan, and Administration Forecast, May 2013.

## **ADMINISTRATION REVENUE ESTIMATES**

**May 15, 2013**

### **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 2012 is the base year. Any non-economic changes to the taxes occurring in FY 2013, FY 2014 and FY 2015 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 is estimated to be \$9,186.9 million, a 0.8 percent decrease compared to FY 2012. The FY 2013 GF-GP revenue estimate is up \$394.6 million from the January 2013 Consensus estimate. SAF revenue is forecast to be \$11,194.5 million; representing a 2.9 percent increase compared to FY 2012. The FY 2013 SAF estimate is \$66.8 million above the January 2013 Consensus estimate (see Table 2).

**Table 2**  
**FY 2012-13 Administration Revenue Estimates**  
(millions)

	Consensus Jan 11, 2013		Administration May 15, 2013		Change
	Amount	Growth	Amount	Growth	
General Fund - General Purpose					
Baseline Revenue	\$8,320.6	1.9%	\$8,601.1	5.3%	
Tax Cut Adjustments	\$471.7		\$585.8		
Net Resources	\$8,792.2	-5.1%	\$9,186.9	-0.8%	\$394.6
School Aid Fund					
Baseline Revenue	\$11,856.7	2.1%	\$11,923.5	2.7%	
Tax Cut Adjustments	(\$729.0)		(\$729.0)		
Net Resources	\$11,127.7	2.3%	\$11,194.5	2.9%	\$66.8
Combined					
Baseline Revenue	\$20,177.3	2.0%	\$20,524.6	3.8%	
Tax Cut Adjustments	(\$257.3)		(\$143.2)		
Net Resources	\$19,919.9	-1.1%	\$20,381.3	1.2%	\$461.4

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 \$9,463.0 million, a 3.0 percent increase compared to FY 2013. The FY 2014 GF-GP revenue estimate is \$198.6 million above the January 2013 Consensus estimate. SAF revenue is forecast to be \$11,461.4 million; representing a 2.4 percent increase compared to FY 2013. The FY 2014 SAF estimate is \$28.8 million above the January 2013 Consensus estimate (see Table 3).

**Table 3**  
**FY 2013-14 Administration Revenue Estimates**  
(millions)

	Consensus Jan 11, 2013		Administration May 15, 2013		Change
	Amount	Growth	Amount	Growth	
General Fund - General Purpose					
Baseline Revenue	\$8,680.7	4.3%	\$8,809.3	2.4%	
Tax Cut Adjustments	\$583.7		\$653.7		
Net Resources	\$9,264.4	5.4%	\$9,463.0	3.0%	\$198.6
School Aid Fund					
Baseline Revenue	\$12,159.2	2.6%	\$12,188.1	2.2%	
Tax Cut Adjustments	(\$726.7)		(\$726.7)		
Net Resources	\$11,432.5	2.7%	\$11,461.4	2.4%	\$28.8
Combined					
Baseline Revenue	\$20,840.0	3.3%	\$20,997.4	2.3%	
Tax Cut Adjustments	(\$143.0)		(\$73.0)		
Net Resources	\$20,697.0	3.9%	\$20,924.3	2.7%	\$227.4

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 \$9,883.9 million, a 4.4 percent increase compared to FY 2014. The FY 2015 GF-GP revenue estimate is \$244.0 million above the January 2013 Consensus estimate. SAF revenue is forecast to be \$11,823.1 million; representing a 3.2 percent increase compared to FY 2014. The FY 2015 SAF estimate is \$54.3 million above the January 2013 Consensus estimate (see Table 4).

**Table 4**  
**FY 2014-15 Administration Revenue Estimates**  
(millions)

	Consensus Jan 11, 2013		Administration May 15, 2013		Change
	Amount	Growth	Amount	Growth	
General Fund - General Purpose					
Baseline Revenue	\$8,964.8	3.3%	\$9,124.4	3.6%	
Tax Cut Adjustments	\$675.2		\$759.6		
Net Resources	\$9,639.9	4.1%	\$9,883.9	4.4%	\$244.0
School Aid Fund					
Baseline Revenue	\$12,521.8	3.0%	\$12,576.1	3.2%	
Tax Cut Adjustments	(\$753.0)		(\$753.0)		
Net Resources	\$11,768.8	2.9%	\$11,823.1	3.2%	\$54.3
Combined					
Baseline Revenue	\$21,486.5	3.1%	\$21,700.4	3.3%	
Tax Cut Adjustments	(\$77.8)		\$6.6		
Net Resources	\$21,408.7	3.4%	\$21,707.0	3.7%	\$298.3

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 2011 revenues were \$5.6 billion below the revenue limit. State revenues will also be well below the limit for FY 2012 through FY 2015. FY 2012 revenues are expected to be \$5.3 billion below the limit, FY 2013 revenues \$6.4 billion below the limit, FY 2014 revenues \$7.1 billion below the limit, and FY 2015 revenues \$7.1 billion below the limit (See Table 5).

**Table 5**  
**Administration Revenue Limit Calculation**  
(millions)

	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>
	<u>Final</u>	<u>Admin</u>	<u>Admin</u>	<u>Admin</u>	<u>Admin</u>
	<u>June 2012</u>	<u>May 2013</u>	<u>May 2013</u>	<u>May 2013</u>	<u>May 2013</u>
<b>Revenue Subject to Limit</b>	\$27,248.2	\$27,228.1	\$27,556.0	\$28,138.3	\$29,091.6
<b><u>Revenue Limit</u></b>	<b><u>CY 2009</u></b>	<b><u>CY 2010</u></b>	<b><u>CY 2011</u></b>	<b><u>CY 2012</u></b>	<b><u>CY 2013</u></b>
Personal Income	\$345,933	\$342,663	\$358,152	\$371,630	\$381,293
Ratio	9.49%	9.49%	9.49%	9.49%	9.49%
Revenue Limit	\$32,829.0	\$32,518.7	\$33,988.6	\$35,267.7	\$36,184.7
<b><u>Amount Under (Over) Limit</u></b>	<b>\$5,580.9</b>	<b>\$5,290.6</b>	<b>\$6,432.6</b>	<b>\$7,129.4</b>	<b>\$7,093.1</b>

## 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 0.4 percent in 2013. Thus, the formula has no pay-in for FY 2014 or pay-out for FY 2013 (See Table 6). In 2014, real calendar year personal income for Michigan is forecast to increase 2.5 percent, so the formula calls for a pay-in of \$47.3 million for FY 2015 (See Table 7). In 2015, real calendar year personal income for Michigan is forecast to increase 2.5 percent, so the formula calls for a pay-in of \$49.4 million in FY 2016 (See Table 8).

**Table 6**  
**Budget and Economic Stabilization Fund Calculation**  
**Based on CY 2013 Personal Income Growth**  
**Administration Calculation**

	CY 2012	CY 2013
Michigan Personal Income	\$ 370,599 <sup>(1)</sup>	\$ 379,864 <sup>(1)</sup>
less Transfer Payments	<u>\$ 83,672 <sup>(1)</sup></u>	<u>\$ 86,743 <sup>(1)</sup></u>
Income Net of Transfers	\$ 286,927	\$ 293,121
Detroit CPI	2.143 <sup>(2)</sup>	2.181 <sup>(3)</sup>
for 12 months ending	(June 2012)	(June 2013)
Real Adjusted Michigan Personal Income	\$ 133,890	\$ 134,397
Change in Real Adjusted Personal Income		0.4%
Between 0 and 2%		0.0%
GF-GP Revenue Fiscal Year 2012-2013		\$ 9,186.9

	FY 2013-2014
BSF Pay-In Calculated for FY 2014	NO PAY-IN
	FY 2012-2013
BSF Pay-Out Calculated for FY 2013	NO PAY-OUT

Notes:

- <sup>(1)</sup> Personal Income and Transfer Payments, Administration Forecast, May 2013.
- <sup>(2)</sup> Detroit Consumer Price Index, Average of 6 monthly values reported by BLS for each 12-month period.
- <sup>(3)</sup> Detroit Consumer Price Index, Administration Forecast, May 2013.



**Table 7**  
**Budget and Economic Stabilization Fund Calculation**  
**Based on CY 2014 Personal Income Growth**  
**Administration Calculation**

	<u>CY 2013</u>	<u>CY 2014</u>
Michigan Personal Income	\$379,864 <sup>(1)</sup>	\$396,578 <sup>(1)</sup>
less Transfer Payments	<u>\$ 86,743 <sup>(1)</sup></u>	<u>\$ 91,063 <sup>(1)</sup></u>
Income Net of Transfers	\$ 293,121	\$ 305,515
Detroit CPI	2.181 <sup>(2)</sup>	2.218 <sup>(2)</sup>
for 12 months ending	(June 2013)	(June 2014)
Real Adjusted Michigan Personal Income	\$ 134,397	\$ 137,744
Change in Real Adjusted Personal Income		2.5%
Excess over 2%		0.5%
GF-GP Revenue Fiscal Year 2013-2014		\$ 9,463.0
		<u>FY 2014-2015</u>
BSF Pay-In Calculated for FY 2015		\$ 47.3
		<u>FY 2013-2014</u>
BSF Pay-Out Calculated for FY 2014		NO PAY-OUT

Notes:

<sup>(1)</sup> Personal Income and Transfer Payments, Administration Forecast, May 2013.

<sup>(2)</sup> Detroit Consumer Price Index, Administration Forecast, May 2013.

**Table 8**  
**Budget and Economic Stabilization Fund Calculation**  
**Based on CY 2015 Personal Income Growth**  
**Administration Calculation**

	CY 2014	CY 2015
Michigan Personal Income	\$ 396,578 <sup>(1)</sup>	\$ 414,820 <sup>(1)</sup>
less Transfer Payments	\$ 91,063 <sup>(1)</sup>	\$ 95,971 <sup>(1)</sup>
Income Net of Transfers	\$ 305,515	\$ 318,849
Detroit CPI	2.218 <sup>(2)</sup>	2.258 <sup>(2)</sup>
for 12 months ending	(June 2014)	(June 2015)
Real Adjusted Michigan Personal Income	\$ 137,744	\$ 141,239
Change in Real Adjusted Personal Income		2.5%
Excess over 2%		0.5%
GF-GP Revenue Fiscal Year 2014-2015		\$ 9,883.9
		<u>FY 2015-2016</u>
BSF Pay-In Calculated for FY 2016		\$ 49.4
		<u>FY 2014-2015</u>
BSF Pay-Out Calculated for FY 2015		NO PAY-OUT

Notes:

<sup>(1)</sup> Personal Income and Transfer Payments, Administration Forecast, May 2013.

<sup>(2)</sup> Detroit Consumer Price Index, Administration Forecast, May 2013.

**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 2013 SAF revenue adjustment factor is calculated by dividing the sum of FY 2012 and FY 2013 SAF revenue by the sum of FY 2011 and FY 2012 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 2013, the SAF revenue adjustment factor is calculated to be 1.0305 (See Table 9). For FY 2014, the SAF revenue adjustment factor is calculated to be 1.0260 (See Table 10). For FY 2015, the SAF revenue adjustment factor is calculated to be 1.0289 (See Table 11).

**Table 9**  
**Administration School Aid Revenue Adjustment Factor**  
**For Fiscal Year 2013**

	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
Baseline SAF Revenue	\$11,260.6	\$11,613.9	\$11,923.5
Balance Sheet Adjustments	(\$12.2)	(\$735.0)	(\$729.0)
Net SAF Estimates	<u>\$11,248.3</u>	<u>\$10,878.9</u>	<u>\$11,194.5</u>
Subtotal Adjustments to FY 2013 Base	<u>(\$706.8)</u>	<u>\$6.0</u>	<u>\$0.0</u>
Baseline Revenue on a FY 2013 Base	\$10,541.5	\$10,884.9	\$11,194.5
<u>School Aid Fund Revenue Adjustment Calculation for FY 2013</u>			
Sum of FY 2011 & FY 2012	\$10,541.5	+ \$10,884.9	= \$21,426.4
Sum of FY 2012 & FY 2013	\$10,884.9	+ \$11,194.5	= \$22,079.5

<b>FY 2013 Revenue Adjustment Factor</b>	<b>1.0305</b>
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Note: Factor is calculated off a FY 2013 base year.

**Table 10**  
**Administration School Aid Revenue Adjustment Factor**  
**For Fiscal Year 2014**

	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>
Baseline SAF Revenue	\$11,613.9	\$11,923.5	\$12,188.1
Balance Sheet Adjustments	(\$735.0)	(\$729.0)	(\$726.8)
Net SAF Estimates	<u>\$10,878.9</u>	<u>\$11,194.5</u>	<u>\$11,461.4</u>
Subtotal Adjustments to FY 2014 Base	<u>\$8.2</u>	<u>\$2.2</u>	<u>\$0.0</u>
Baseline Revenue on a FY 2014 Base	\$10,887.2	\$11,196.7	\$11,461.4
<u>School Aid Fund Revenue Adjustment Calculation for FY 2014</u>			
Sum of FY 2012 & FY 2013	\$10,887.2	+ \$11,196.7	= \$22,083.9
Sum of FY 2013 & FY 2014	\$11,196.7	+ \$11,461.4	= \$22,658.1

<b>FY 2014 Revenue Adjustment Factor</b>	<b>1.0260</b>
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Note: Factor is calculated off a FY 2014 base year.

**Table 11**  
**Administration School Aid Revenue Adjustment Factor**  
**For Fiscal Year 2015**

	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>
Baseline SAF Revenue	\$11,923.5	\$12,188.1	\$12,576.1
Balance Sheet Adjustments	(\$729.0)	(\$726.8)	(\$753.0)
Net SAF Estimates	<u>\$11,194.5</u>	<u>\$11,461.4</u>	<u>\$11,823.1</u>
Subtotal Adjustments to FY 2015 Base	<u>(\$24.0)</u>	<u>(\$26.2)</u>	<u>\$0.0</u>
Baseline Revenue on a FY 2015 Base	\$11,170.5	\$11,435.1	\$11,823.1

School Aid Fund Revenue Adjustment Calculation for FY 2015

Sum of FY 2013 & FY 2014	\$11,170.5	+	\$11,435.1	=	\$22,605.6
Sum of FY 2014 & FY 2015	\$11,435.1	+	\$11,823.1	=	\$23,258.2

<b>FY 2015 Revenue Adjustment Factor</b>	<b>1.0289</b>
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Note: Factor is calculated off a FY 2015 base year.

**Revenue Detail**

The estimated tax and revenue totals include the effects of all enacted tax changes except sales tax savings resulting from reductions in revenue sharing payments to local units. The revenue totals by tax are presented separately for GF-GP and for the SAF (See Tables 12 and 13). Tax totals for the income, sales, use, CIT/MBT, tobacco and casino taxes for all funds are also included (See Table 14).

**Table 12**  
**Administration General Fund General Purpose Revenue Detail**  
(millions)

	FY 2013		FY 2014		FY 2015	
	Amount	Growth	Amount	Growth	Amount	Growth
<b>GF-GP Tax Amounts</b>						
Income Tax	\$5,857.8	21.6%	\$5,945.3	1.5%	\$6,208.1	4.4%
Sales	\$1,003.3	-7.2%	\$1,152.9	14.9%	\$1,198.6	4.0%
Use	\$831.0	4.7%	\$884.6	6.5%	\$915.3	3.5%
Cigarette	\$190.2	-1.3%	\$187.4	-1.4%	\$183.9	-1.9%
Beer & Wine	\$52.5	3.3%	\$53.0	1.0%	\$54.0	1.9%
Liquor Specific	\$42.4	1.4%	\$42.9	1.2%	\$43.6	1.6%
Single Business Tax	\$0.0	NA	\$0.0	NA	\$0.0	NA
Insurance Co. Premium	\$292.0	0.6%	\$348.0	19.2%	\$405.0	16.4%
CIT/MBT	\$431.6	-67.9%	\$404.6	-6.3%	\$427.8	5.7%
Telephone & Telegraph	\$56.0	-5.4%	\$55.0	-1.8%	\$54.0	-1.8%
Oil & Gas Severance	\$53.0	-1.1%	\$55.0	3.8%	\$57.0	3.6%
GF-GP Other Taxes	(\$1.0)	-104.1%	\$3.0	200.0%	\$5.0	66.7%
<b>Total GF-GP Taxes</b>	<b>\$8,808.7</b>	<b>1.3%</b>	<b>\$9,131.7</b>	<b>3.7%</b>	<b>\$9,552.3</b>	<b>4.6%</b>
<b>GF-GP Non-Tax Revenue</b>						
Federal Aid	\$20.0	-63.5%	\$20.0	0.0%	\$20.0	0.0%
From Local Agencies	\$1.0	-68.8%	\$1.0	0.0%	\$1.0	0.0%
From Services	\$11.0	4.8%	\$11.0	0.0%	\$11.0	0.0%
From Licenses & Permits	\$20.0	22.7%	\$20.0	0.0%	\$20.0	0.0%
Miscellaneous	\$34.0	-40.4%	\$35.0	2.9%	\$35.0	0.0%
Driver Responsibility Fees	\$89.0	-11.0%	\$79.0	-11.2%	\$80.0	1.3%
Interfund Interest	(\$3.2)	68.4%	(\$4.0)	25.0%	(\$5.5)	37.5%
Liquor Purchase	\$163.2	-6.4%	\$164.0	0.5%	\$165.0	0.6%
Charitable Games	\$9.0	-3.2%	\$9.0	0.0%	\$9.0	0.0%
Transfer From Escheats	\$34.2	-76.1%	(\$3.8)	-111.1%	(\$3.8)	0.0%
Other Non Tax	\$0.0	0.0%	\$0.0	0.0%	\$0.0	0.0%
<b>Total Non Tax</b>	<b>\$378.2</b>	<b>-33.2%</b>	<b>\$331.2</b>	<b>-12.4%</b>	<b>\$331.7</b>	<b>0.2%</b>
<b>Total GF-GP Revenue</b>	<b>\$9,186.9</b>	<b>-0.8%</b>	<b>\$9,463.0</b>	<b>3.0%</b>	<b>\$9,883.9</b>	<b>4.4%</b>

**Table 13**  
**Administration School Aid Fund Revenue Detail**

	FY 2013		FY 2014		FY 2015	
	Amount	Growth	Amount	Growth	Amount	Growth
<b>School Aid Fund</b>						
Income Tax	\$2,318.7	10.4%	\$2,358.6	1.7%	\$2,451.0	3.9%
Sales Tax	\$5,164.0	2.1%	\$5,332.3	3.3%	\$5,526.5	3.6%
Use Tax	\$415.5	0.7%	\$442.4	6.5%	\$457.7	3.5%
Liquor Excise Tax	\$42.4	2.7%	\$42.9	1.2%	\$43.6	1.6%
Cigarette & Tobacco	\$364.9	-2.4%	\$358.0	-1.9%	\$349.6	-2.3%
State Education Tax	\$1,790.0	0.0%	\$1,806.6	0.9%	\$1,846.8	2.2%
Real Estate Transfer	\$181.6	21.0%	\$197.5	8.8%	\$206.7	4.7%
Industrial Facilities Tax	\$37.9	6.2%	\$39.0	2.9%	\$40.0	2.6%
Casino (45% of 18%)	\$111.3	-3.9%	\$111.0	-0.3%	\$116.0	4.5%
Commercial Forest	\$3.1	6.9%	\$3.1	0.0%	\$3.1	0.0%
Other Spec Taxes	\$20.0	-6.5%	\$20.0	0.0%	\$20.0	0.0%
<b>Subtotal Taxes</b>	\$10,449.5	3.5%	\$10,711.4	2.5%	\$11,061.1	3.3%
Lottery Transfer	\$745.0	-4.3%	\$750.0	0.7%	\$762.0	1.6%
<b>Total SAF Revenue</b>	\$11,194.5	2.9%	\$11,461.4	2.4%	\$11,823.1	3.2%

**Table 14**  
**Administration Major Tax Totals**

	FY 2013		FY 2014		FY 2015	
	Amount	Growth	Amount	Growth	Amount	Growth
<b>Major Tax Totals (Includes all Funds)</b>						
Income Tax	\$8,177.5	18.2%	\$8,304.9	1.6%	\$8,660.1	4.3%
Sales Tax	\$7,099.7	2.1%	\$7,330.7	3.3%	\$7,596.6	3.6%
Use Tax	\$1,246.5	3.3%	\$1,327.0	6.5%	\$1,373.0	3.5%
CIT/MBT	\$431.6	-78.9%	\$404.6	-6.3%	\$427.8	5.7%
Cigarette and Tobacco	\$943.5	-2.0%	\$929.9	-1.4%	\$911.4	-2.0%
Casino Tax	\$111.3	1.6%	\$111.0	-0.3%	\$116.0	4.5%