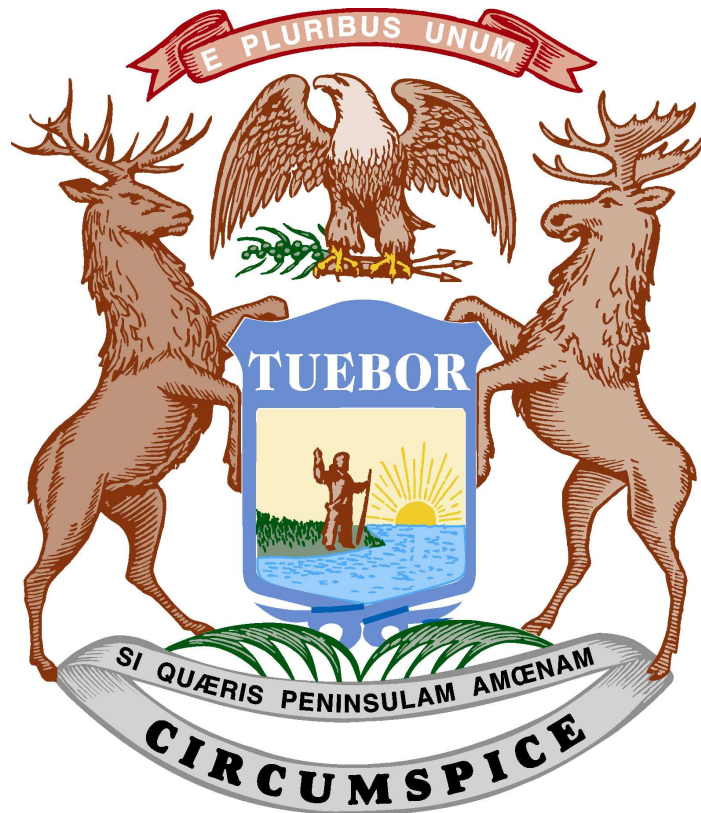


# Economic and Revenue Outlook

**FY 2018-19, FY 2019-20 and FY 2020-21**

**Michigan Department of Treasury**



**Rachael Eubanks, State Treasurer**

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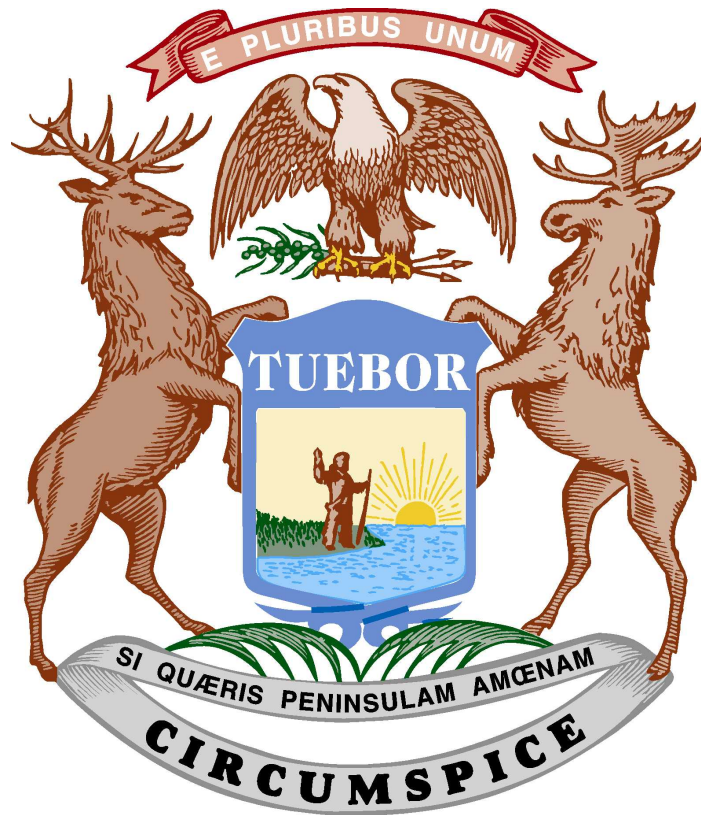
**Thomas Patchak-Schuster, Economic Specialist**

**May 17, 2019**

# Economic and Revenue Outlook

**FY 2018-19, FY 2019-20 and FY 2020-21**

Michigan Department of Treasury



## Acknowledgements

The Economic and Revenue Outlook was prepared by Eric Bussis, Director of the Office and Revenue and Tax Analysis (ORTA), Thomas Patchak-Schuster and Andrew Lockwood of ORTA. ORTA economists Scott Darragh, Denise Heidt, and Eric Krupka contributed to the estimates contained in the report. David Simon and Brian Barnes of ORTA provided editorial assistance.

## Table of Contents

<b>SECTION I: Administration Estimates--Executive Summary .....</b>	<b>1</b>
<b><u>Administration Estimates--Executive Summary .....</u></b>	<b>2</b>
<b>Revenue Review and Outlook .....</b>	<b>2</b>
<b>2019, 2020 and 2021 U.S. Economic Outlook .....</b>	<b>3</b>
<b>2019, 2020 and 2021 Michigan Economic Outlook .....</b>	<b>3</b>
<b>Forecast Risks.....</b>	<b>4</b>
 <b>SECTION II: Economic Review .....</b>	<b>5</b>
<b><u>Economic Review .....</u></b>	<b>6</b>
<b>Current U.S. Economic Situation .....</b>	<b>6</b>
Overall Economic Growth .....	6
Employment.....	7
Overall Wage and Salary Employment.....	7
Unemployment Rate .....	9
Housing Market .....	10
House Construction and Sales .....	10
Mortgage Interest Rates .....	11
Monetary Policy.....	11
Fiscal Policy.....	14
Inflation.....	14
Major Economic Indices .....	16
Vehicle Sales and Production .....	18
<b>Current Michigan Economic Conditions.....</b>	<b>19</b>
Vehicle Production.....	19
Employment.....	21
Unemployment Rate .....	22
Housing Market .....	23
Personal Income.....	24
 <b>SECTION III: Administration Economic Outlook.....</b>	<b>26</b>
<b>Administration Economic Forecast Summary .....</b>	<b>27</b>
<b>2019, 2020 and 2021 U.S. Economic Outlook .....</b>	<b>27</b>

Summary .....	27
Assumptions.....	30
<b>2019, 2020 and 2021 Michigan Economic Outlook .....</b>	<b>31</b>
<b>Fiscal Year Economics.....</b>	<b>33</b>
<b>Forecast Risks.....</b>	<b>35</b>
 <b>SECTION IV: Administration Revenue Estimates .....</b>	 <b>39</b>
<b><u>Administration Revenue Estimates</u>.....</b>	<b>40</b>
<b>Revenue Estimate Overview .....</b>	<b>40</b>
<b>FY 2019 Revenue Outlook.....</b>	<b>41</b>
<b>FY 2020 Revenue Outlook.....</b>	<b>42</b>
<b>FY 2021 Revenue Outlook.....</b>	<b>43</b>
<b>Constitutional Revenue Limit.....</b>	<b>44</b>
<b>Budget Stabilization Fund Calculation.....</b>	<b>44</b>
<b>School Aid Fund Revenue Adjustment Factor.....</b>	<b>45</b>
<b>Revenue Detail.....</b>	<b>46</b>

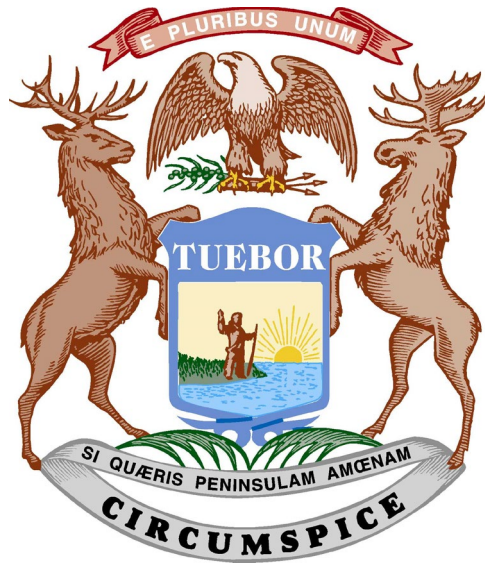
## List of Tables

<b>Table 1 Administration Economic Forecast .....</b>	<b>28</b>
<b>Table 2 FY 2018-19 Administration Revenue Estimates.....</b>	<b>41</b>
<b>Table 3 FY 2019-20 Administration Revenue Estimates.....</b>	<b>42</b>
<b>Table 4 FY 2020-21 Administration Revenue Estimates.....</b>	<b>43</b>
<b>Table 5 Administration Revenue Limit Calculation .....</b>	<b>44</b>
<b>Table 6 Administration School Aid Revenue Adjustment Factor for FY 2020 .....</b>	<b>45</b>

<b>Table 7</b>	<b>Administration School Aid Revenue Adjustment Factor for FY 2021 .....</b>	<b>46</b>
<b>Table 8</b>	<b>Administration General Fund General Purpose Revenue Detail .....</b>	<b>47</b>
<b>Table 9</b>	<b>Administration School Aid Fund Revenue Detail .....</b>	<b>48</b>
<b>Table 10</b>	<b>Administration Major Tax Totals .....</b>	<b>48</b>

## SECTION I

### Administration Estimates Executive Summary

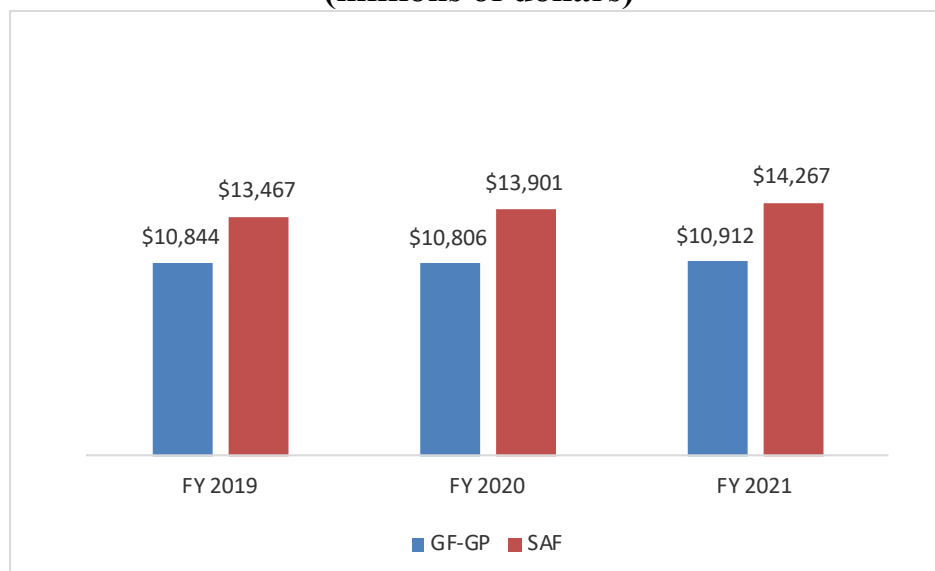


**Administration Estimates  
Executive Summary  
May 17, 2019**

**Revenue Review and Outlook**

- Revenue growth was strong in FY 2018. FY 2018 GF-GP revenue finished at \$11,017.1 million, up 8.1 percent from FY 2017. FY 2018 SAF totaled \$13,302.0 million up 4.9 percent from FY 2017.
- FY 2019 GF-GP revenue is forecast to decrease 1.6 percent to \$10,843.6 million, up \$143.4 million from the January 2019 Consensus estimate. FY 2019 SAF revenue is forecast to increase 1.2 percent to \$13,466.8 million, down \$83.7 million from the January 2019 Consensus estimate.
- FY 2020 GF-GP revenue is forecast to remain approximately flat at \$10,805.7 million, up \$87.9 million from the January 2019 Consensus estimate. FY 2020 SAF revenue is forecast to increase 3.2 percent to \$13,900.6 million, down \$26.1 million from the January 2019 Consensus estimate.
- FY 2021 GF-GP revenue is forecast to increase 1.0 percent to \$10,911.5 million, up \$58.9 million from the January 2019 Consensus estimate. FY 2021 SAF revenue is forecast to increase 2.6 percent to \$14,266.8 million, up \$2.4 million from the January 2019 Consensus estimate.

**Administration GF-GP and School Aid Fund  
Revenue Estimates  
(millions of dollars)**



## **2019, 2020 and 2021 U.S. Economic Outlook**

- The U.S. economy is expected to continue to grow over the forecast horizon.
- In 2018, real GDP growth accelerated to 2.9 percent from 2.2 percent. However, economic growth is forecast to decelerate to 2.4 percent in 2019, 1.8 percent in 2020 and 1.6 percent in 2021.
- In 2018, national employment increased 1.7 percent marking its eighth straight national annual increase. U.S. employment is projected to rise 1.6 percent in 2019, 1.1 percent in 2020 and 0.9 percent in 2021.
- The U.S. unemployment rate has declined in each of the past eight years. In 2018, the national unemployment rate dropped 0.5 of a point to 3.9 percent – the lowest annual unemployment rate since 1969. The national unemployment rate is forecast to fall to 3.7 percent in 2019, decline to 3.6 in 2020 and rise to 3.8 percent in 2021.
- Housing starts increased 3.9 percent in 2018, marking the ninth straight annual increase. Housing starts are forecast to fall 1.2 percent in 2019, rise 0.9 percent in 2020 and increase 1.8 percent in 2021. In 2021, starts are expected to total 1.269 million units – a historically low level.
- In 2018, light vehicle sales rose slightly to 17.2 million units. Over the forecast horizon, light vehicle sales are projected to fall to 16.7 million units in 2019, 16.6 million units in 2020 and 16.4 million units in 2021.
- In 2018, CPI inflation accelerated to an estimated 2.4 percent. Inflation is forecast to slow to 1.8 percent in 2019 and then accelerate to 2.0 percent in 2020 and to 2.1 percent in 2021.

## **2019, 2020 and 2021 Michigan Economic Outlook**

- The Michigan economy is expected to grow over the forecast from 2019 to 2021. Michigan wage and salary employment and personal income are expected to show modest growth.
- Michigan wage and salary employment increased 1.1 percent in 2018 – marking the eighth straight annual increase. Michigan employment is forecast to rise 0.7 percent in 2019, 0.4 percent in 2020 and 0.5 percent in 2021.
- The Michigan unemployment rate has dropped each year since 2010. In 2018, the Michigan unemployment rate fell to 4.1 percent. The Michigan unemployment rate is forecast to remain at 4.1 percent in 2019, rise to 4.2 percent in 2020 and remain at 4.2 percent in 2021.
- In 2018, Michigan wages and salaries grew 3.3 percent. Michigan wages and salaries are forecast to rise 3.6 percent in 2019, increase 3.6 percent in 2020 and rise 3.8 percent in 2021.



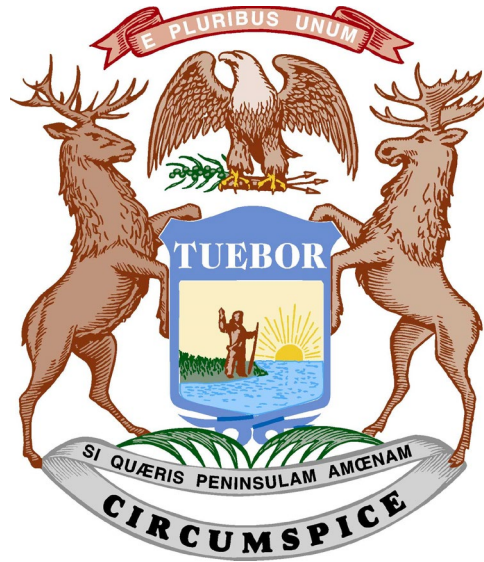
- Michigan personal income increased 3.3 percent in 2018. Michigan income is projected to increase 3.5 percent in 2019, rise 3.8 percent in 2020 and increase 3.9 percent in 2021.
- On a fiscal year basis, Michigan disposable income rose 3.5 percent in FY 2018. Disposable income is projected to rise 3.7 percent both in FY 2019 and in FY 2020 and then rise 3.8 percent in FY 2021.
- Wages and salaries increased 3.4 percent in FY 2018. Wages and salaries are forecast to increase 3.5 percent in FY 2019 and rise 3.7 percent both in FY 2020 and in FY 2021.

### **Forecast Risks**

- International geopolitical and international trade tensions and U.S. household and business concerns about these tensions remain substantial. Chief international trade risks surround the continued U.S.-China trade tensions and negotiations; whether, how and when the United Kingdom will depart from the European Union; and the re-negotiation of the North American Free Trade Agreement.
- Current and widening political divisions in the U.S. federal government and the resultant political impasses pose a substantial risk to future policymaking and more broadly the U.S. macroeconomy.
- Uncertainty surrounds if and when the Fed might take major policy actions over the forecast horizon (including rate adjustments and quantitative easing modifications) and the impact of Fed actions on consumer and business sentiment, spending and investment.
- To the extent to which consumer and business expectations drop going forward, sentiment could drop sharply and, in turn, weaken the macroeconomy.
- Slower than expected economic growth across Asia and Europe would have a negative impact on the U.S. economy.
- Lower than expected vehicle sales would weaken the U.S. and Michigan economies.
- Risks surround upcoming contract negotiations between the Big 3 and UAW and the uncertainties involved with negotiating an agreement.

## SECTION II

### Economic Review



## Economic Review May 17, 2019

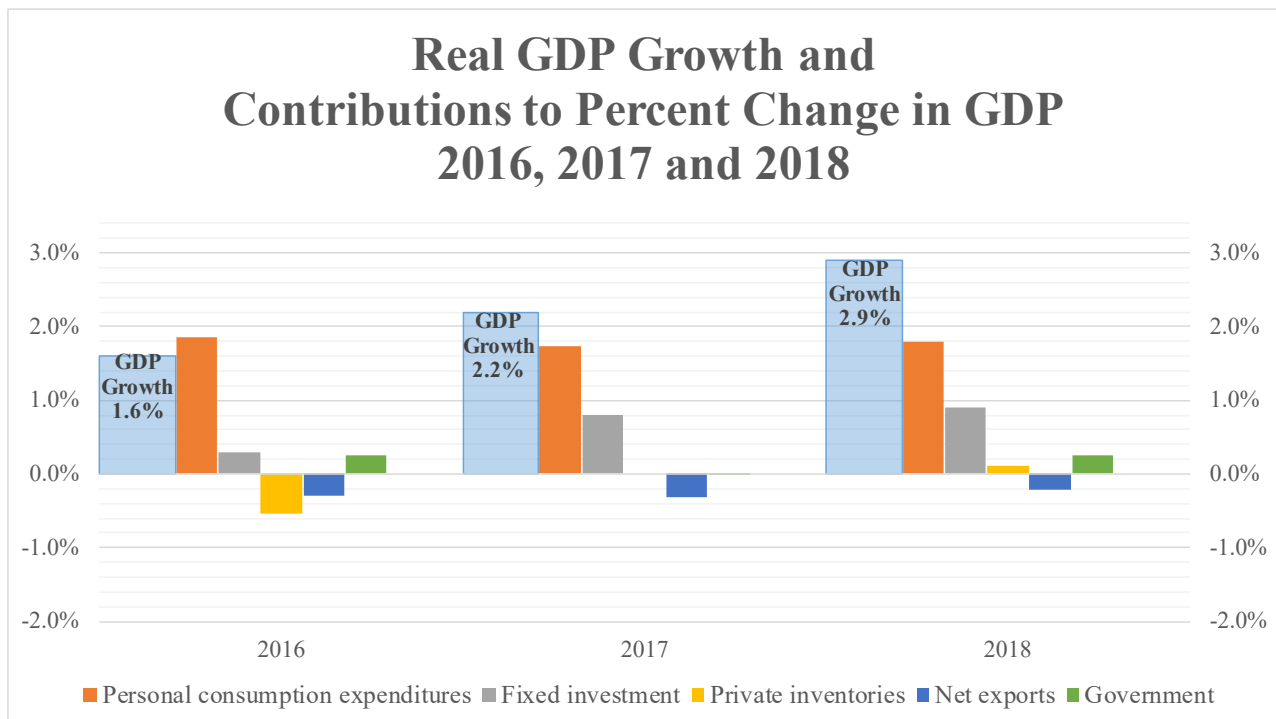
### Current U.S. Economic Situation

#### Overall Economic Growth

*The current U.S. economic expansion is one of the longest expansions, but also one of the slowest expansions on record.*

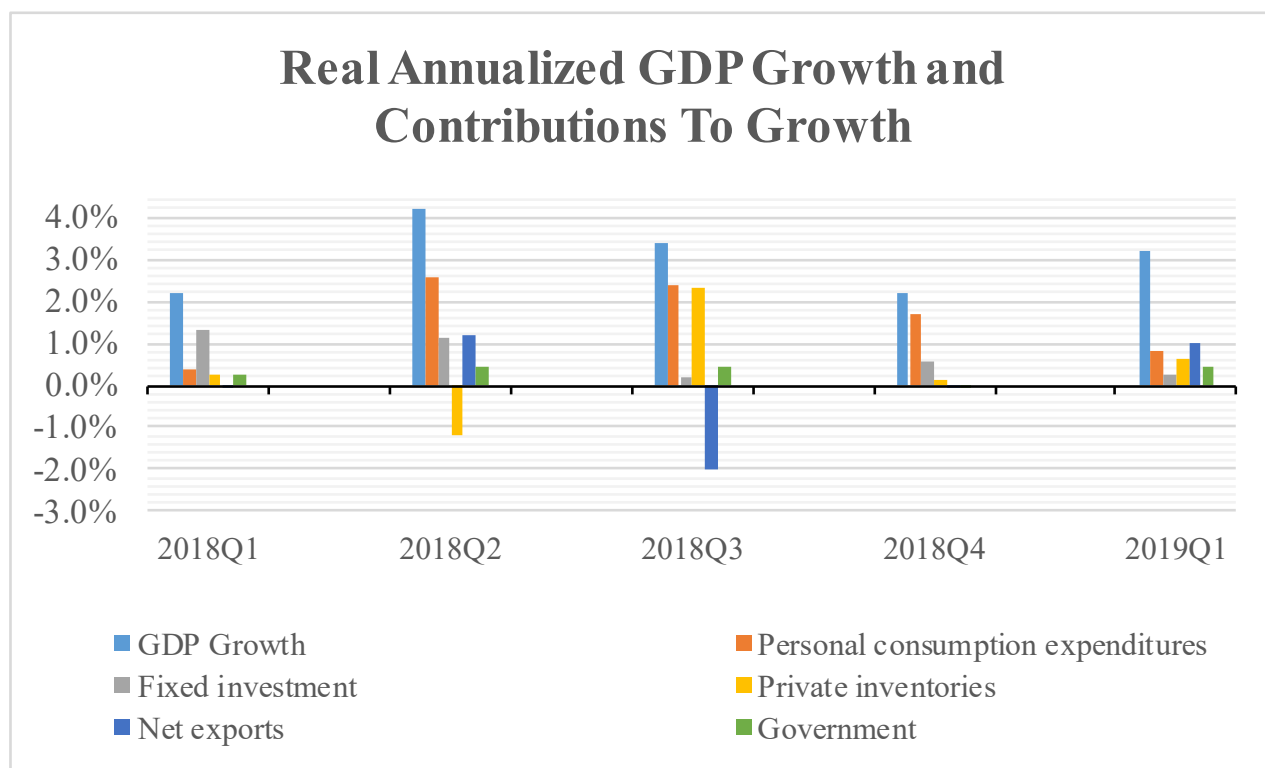
The current U.S. economic expansion is ten years old. According to the Institute for Supply Management's Purchasing Managers' Index (PMI), the overall U.S. economy expanded for its 120<sup>th</sup> straight month in April 2019. **Real Gross Domestic Product (GDP)** has grown in all but three quarters since the end of the Great Recession. The last quarterly decline was in 2014Q1.

After growing 2.9 percent in 2015, real GDP slowed to 1.6 percent in 2016 – matching 2011 growth as the slowest annual real GDP gain in the current expansion. However, growth accelerated to 2.2 percent in 2017 and to 2.9 percent in 2018. Comprising the largest share of the level of real GDP, consumption has played the largest role in supporting overall annual real GDP growth as the graph below illustrates.



Source: Bureau of Economic Analysis.

After slowing in the second half of 2018, annualized real GDP growth rebounded in the first quarter of 2019. However, unlike the three prior quarters, consumption's contribution to overall growth was substantially smaller in 2019Q1. Instead, net exports (a volatile component of real GDP) and inventory investment (for which substantial increases in one quarter are often met with substantial declines in following quarters) together accounted for an outsized share of first quarter real GDP growth of 52.5 percent.



Source: Bureau of Economic Analysis.

## Employment

### Overall Wage and Salary Employment

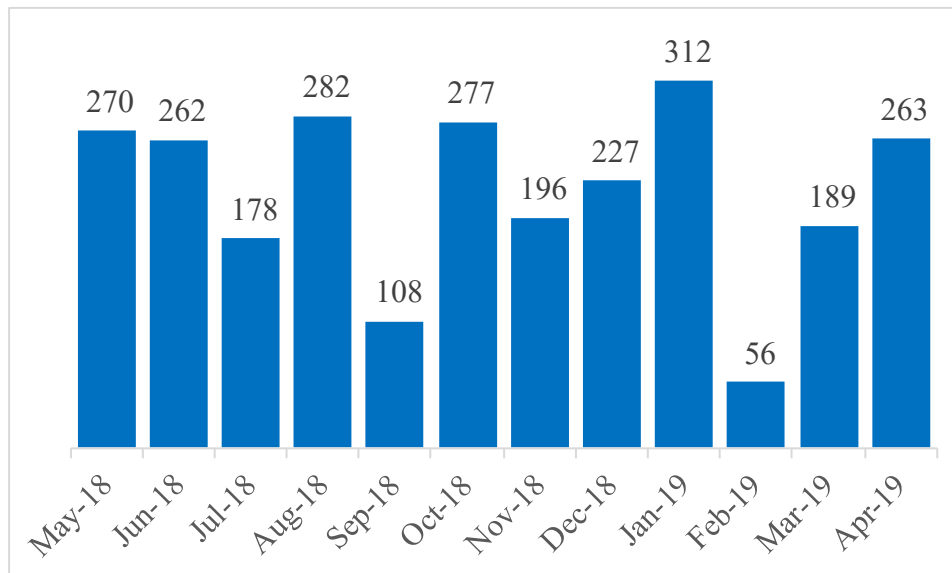
***Wage and salary employment growth remains strong, with employment at an all-time high in April 2019.***

***The current streak of 103 months of employment gains is by far the longest on record.***

**U.S. wage and salary employment** has continued rising since the January 2019 Consensus Conference. April 2019 marked the 103<sup>rd</sup> consecutive increase from the prior month in national wage and salary employment. Consequently, at 151.1 million jobs, the April 2019 employment level represents the all-time high monthly U.S. employment level. Since December 2018, employment rose by 0.8 million jobs, an average increase of 205,000 jobs per month. Monthly U.S. jobs gains varied widely in the first four months of 2019. Compared to a year ago, April

2019 employment was up by 2.6 million jobs, or 1.8 percent. Over the 103 straight monthly jobs gains, the monthly jobs increase has averaged 201,000.

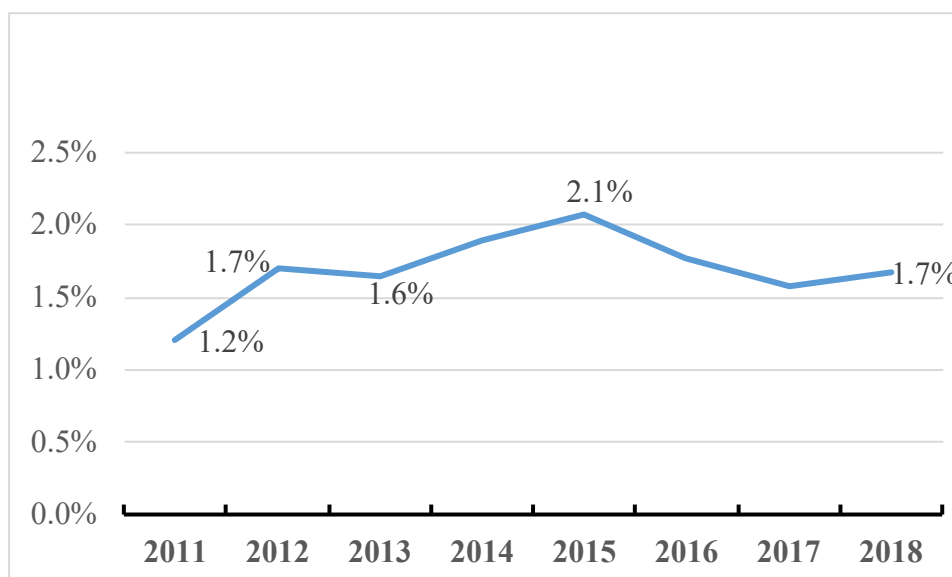
### U.S. Payroll Employment 2.6 Million Jobs Added in Past Year (Monthly Change in Thousands)



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

In calendar year 2018, employment was up 1.7 percent which made 2018 the eighth straight calendar year of U.S. payroll employment increases.

### U.S. Wage and Salary Employment – Percentage Change



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

## Unemployment Rate

***In April 2019, the national unemployment rate fell to 3.6 percent, the lowest monthly U.S. jobless rate since December 1969. Over the first four months of 2019, the national unemployment rate averaged 3.8 percent.***

***In 2018, the U.S. unemployment rate averaged 3.9 percent, the lowest calendar year national unemployment rate since 1969.***

After fluctuating between 3.8 percent and 4.0 percent in mid-2018, the monthly U.S. unemployment rate fell to 3.7 percent in September 2018 and again in November 2018. Rising slightly in each of the following two months, the national unemployment rate rose to 4.0 percent in January 2019. In February 2019, the rate dropped to 3.8 percent, where it remained in March 2019. Most recently, the U.S. rate fell to 3.6 percent in April 2019. The 3.6 percent rate represents the lowest monthly U.S. unemployment rate since December 1969.

The annual U.S. unemployment rate has fallen in each of the past eight years. After peaking at a 28-year high of 9.6 percent in 2010, the national unemployment rate fell to 8.9 percent in 2011 and by 2017 fell to 4.4 percent. In 2018, the U.S. unemployment rate averaged 3.9 percent which was the lowest calendar year U.S. jobless rate since 1969.

**United States Unemployment Rate  
2008-2018**



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

The four-week average of initial unemployment claims has remained below 300,000 for 216 consecutive weeks (through May 4, 2019) which is the longest streak of sub-300,000 readings since 1970, when the U.S. workforce and population were much smaller. Similarly, the four-week average has remained below 250,000 for 82 straight weeks, the longest streak of sub-

250,000 readings since 1970. Most recently, the four-week average stood at 220,250 initial claims.

## Housing Market

*Despite gains over the past nine years, housing starts remain at historically low levels.*

*On net, mortgage rates have fallen modestly over the past year.*

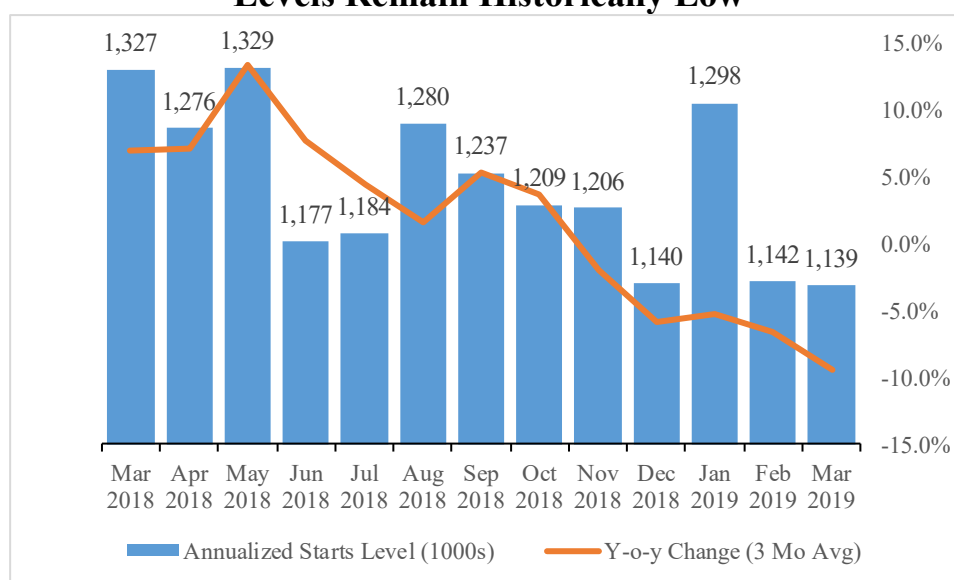
## House Construction and Sales

Since the Great Recession, calendar year **housing starts** have strengthened but remain at a historically low level. Compared to the 2009 record annual low, 2018 annual housing starts averaged 125.6 percent higher. However, 2018 housing starts are 39.6 percent below the 2005 level and are 8.9 percent lower than average annual housing starts in the 1990s, before the housing boom.

March 2019 marked the 48<sup>th</sup> straight month in which housing starts were above 1.0 million units at an annualized rate and marked the 30<sup>th</sup> straight month in which annualized starts exceeded 1.1 million units. However, on a year-over-year (y-o-y) basis, monthly housing starts have fallen in each of the past six months. In March 2019, housing starts were down 14.2 percent from last March – the largest monthly y-o-y decline in nearly eight years.

The three-month average of housing starts has been down in each of the past five months – the longest streak of y-o-y declines since 2009. In March 2019, the three-month average of housing starts was down 9.4 percent from March 2018's three-month average.

### **Housing Starts Growth Has Turned Negative Levels Remain Historically Low**



Source: Bureau of the Census.

Following a 9.3 percent increase in 2017, **new home sales** rose slightly (0.7 percent) in 2018 -- marking the seventh straight annual sales increase. In the first quarter of 2019, new home sales were up 0.6 percent from 2018Q1. The slight 2019Q1 increase followed a 12.2 percent year-over-year decline in 2018Q4. In each of the past 13 months for which data are available (March 2018-March 2019), the monthly **existing home sales** rate was down from a year earlier.

The **National Association of Home Builders Housing Market Index** has remained in positive territory (above 50) in each month since July 2014. In December 2017, the Index rose to 74, the highest level in over 18 years. The index remained around the high 60s through most of 2018. However, weighed down by poor housing affordability, the Index fell substantially in final two months of 2018. Consequently, between December 2017 and December 2018, the Index fell a net 18 points to 56 (the Index's lowest reading in three and a half years). Since December 2018, the Index has regained a portion of its losses by rising seven points between December 2018 and April 2019. However, the April 2019 reading remains down five points from its year-ago reading and 11 points below its December 2017 recent high.

### Mortgage Interest Rates

*Compared to a year ago, the 30-year fixed mortgage rate is down 0.38 of a percentage point.*

At the time of the January 2019 Consensus Conference, the most recent available **30-year fixed mortgage rate** stood at 4.45 percent. Between early-January and late February, the rate fell a net 0.10 of a percentage point to 4.35 percent. The rate then fell nearly 0.30 of a percentage point by late March to 4.06 percent before rising in each week of April. As of the end of April 2019, the 30-year fixed mortgage rate stood at 4.20 percent -- 0.38 of a percentage point lower than a year earlier.

### Monetary Policy

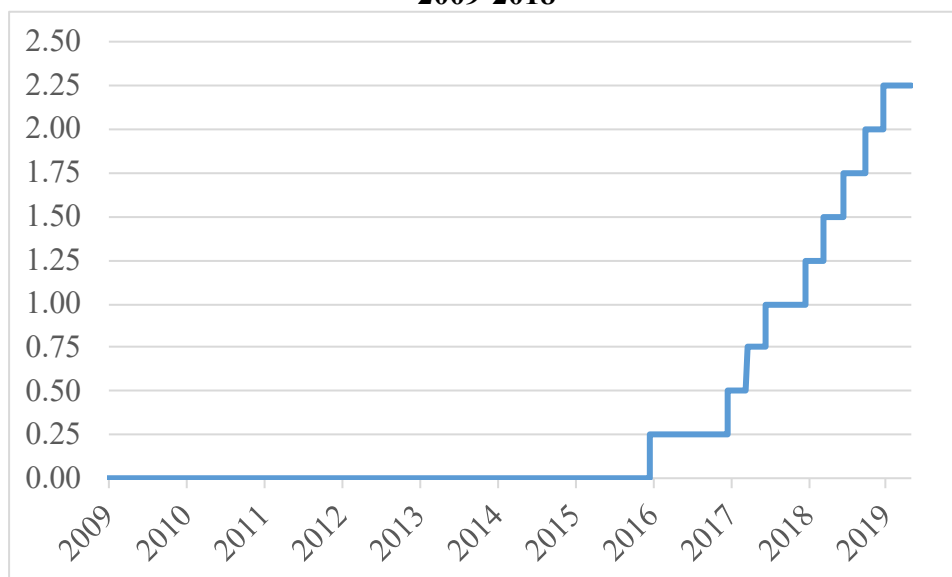
*In January 2019, the FOMC changed its policy direction from gradual interest rate hikes to leaving its target interest rate range unchanged for some time. Through May 2019, the FOMC has left interest rates unchanged. However, it is uncertain for how long the Committee will leave rates unchanged.*

*In addition, some uncertainty surrounds the direction (increase or decrease) of the FOMC's next rate change.*

After maintaining the target federal funds rate range at a record low 0.00 to 0.25 percent for seven years, the Federal Open Market Committee (FOMC) raised the target range 25 basis points in December 2015 and raised the range an additional 25 basis points in December 2016. In 2017, the FOMC raised the target range 25 basis points three times. In 2018, the FOMC raised the target range four times -- increasing the range by 25 basis points four times. At its first three meetings in 2019, the FOMC left the target range unchanged. Thus, as of May 2019, the federal funds rate target range stands at 2.25-2.50 basis points.



**Federal Funds Interest Rate (lower limit)  
2009-2018**



Source: Board of Governors of the United States Federal Reserve System

At the December 18-19, 2018 FOMC meeting, the Committee strongly indicated that the Fed would continue with its program of gradual interest rate hikes into 2019:

The Committee judges that some further gradual increases in the target range for the federal funds rate will be consistent with sustained expansion of economic activity, strong labor market conditions, and inflation near the Committee's symmetric 2 percent objective over the medium term. (FOMC Statement, December 19, 2018)

At a press briefing directly following the December 2018 FOMC meeting, FOMC Chair Powell acknowledged the economy had recently shown signs of softening since its September meeting but stated that "these developments haven't fundamentally altered the outlook." However, the median number of FOMC members' expected rate hikes in 2019 fell from three times at the September FOMC meeting to two times at the December meeting.

In contrast to its December 2018 meeting statement, the FOMC's January 2019 meeting statement strongly suggested that the Committee would put its program of gradual interest rate increases on hold for an extended period of time:

The Committee continues to view sustained expansion of economic activity, strong labor market conditions, and inflation near the Committee's symmetric 2 percent objective as the most likely outcomes. In light of global economic and financial developments and muted inflation pressures, the Committee will be patient as it determines what future adjustments to the target range for the federal funds rate may be appropriate to support these outcomes. (FOMC Statement, January 30, 2019)

The FOMC reiterated the above statement verbatim in its March 20, 2019, and May 1, 2019, FOMC meeting statements.

In its May statement, the FOMC acknowledged that economic activity rose at a solid rate but pointed out that household spending and business fixed investment slowed in 2019Q1.

In its May 1 statement, the FOMC made several changes to its statement relating to inflation. First, the FOMC added that not only was overall inflation declining, but so was core (excluding food and energy) inflation. The FOMC also removed the wording attributing most of the overall decline in inflation to lower energy prices. Finally, while having observed in March that core inflation remains *near* its 2 percent target, the FOMC observed in May that core *and overall* inflation are now running *below* 2 percent. Taken together, these May 2019 changes indicate that uncertainty surrounds not only the length over which the Fed will leave rates unchanged but also the direction (up or down) of the next rate change.

Nevertheless, future Fed actions will remain substantially dependent on future data releases and readings on financial and international developments:

In determining the timing and size of future adjustments to the target range for the federal funds rate, the Committee will assess realized and expected economic conditions relative to its maximum employment objective and its symmetric 2 percent inflation objective. This assessment will take into account a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. (FOMC Statement, May 1, 2019)

In October 2017, the Federal Reserve began a very gradual unwinding of the massive long-term securities holdings the Fed amassed in three rounds of quantitative easing between late 2008 and late 2014. The FOMC ended its quantitative easing program in October 2014. However, the FOMC continued, for three years, to reinvest all principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and to roll over all maturing Treasury securities at auction. In October 2017, the Committee initiated a balance sheet normalization program. Under the program, the FOMC is very gradually reducing its longer-term holdings of Treasury securities and mortgage-backed securities by not rolling over/reinvesting a portion of maturing Treasury securities/mortgage-backed securities.

In March 2019, the FOMC stated its intention to slow the reduction of Treasury securities by reducing the cap on monthly redemptions from \$30 billion to \$15 billion, effective May 2019. Further, the FOMC stated its intention to conclude the reduction of its aggregate security holdings at the end of September 2019. The FOMC also stated that the Fed, beginning October 2019, would reinvest principal payments from agency debt and mortgage-backed securities below the \$20 billion per month maximum in Treasury securities, but would continue to reinvest any principal payments in excess of the \$20 billion maximum in agency mortgage backed securities.

Largely as a result of the quantitative easing program, Federal Reserve assets rose from \$0.9 trillion in August 2007 to \$4.5 trillion in January 2015. Thus far, the Federal Reserve's very gradual unwinding of the quantitative easing program has reduced the Federal Reserve's balance sheet to \$3.9 trillion.

## Fiscal Policy

***The stimulus provided by recent federal tax cuts and spending increases has begun to fade and will continue to lessen over the forecast horizon.***

In late December 2017, the House and Senate passed and the President signed the Tax Cuts and Jobs Act of 2017 (TCJA). The Congressional Budget Office and Joint Committee on Taxation estimated that the TCJA would reduce federal government revenues by \$1.7 trillion and reduce federal outlays by \$200 billion over the next ten years – increasing the deficit by \$1.5 trillion over the next ten years.

In March 2018, Congress passed and the President signed the Bipartisan Budget Act of 2018. The Act increased spending caps for fiscal years 2018 and 2019 by nearly a combined \$300 billion above spending caps – a dramatic spending increase especially with a U.S. economy near full employment.

The federal tax cut and spending increase legislation played a substantial role in boosting the U.S. economy through mid-2018. However, the legislation's impact has lessened recently. The legislation's impact will continue to fade over the forecast horizon.

## Inflation

***In all but one year, the overall personal consumption expenditures (PCE) price index inflation remained below the Federal Reserve's target 2.0 percent level between 2009 and 2017. In 2018, the overall PCE rose 2.0 percent. Further, annual core PCE inflation (excluding food and energy) has remained below 2.0 percent every year between 2009 and 2018.***

***U.S. consumer price index inflation remains moderate. From 2013 to 2016, CPI inflation remained below 2.0 percent. CPI inflation rose to 2.1 percent in 2017 and 2.4 percent in 2018.***

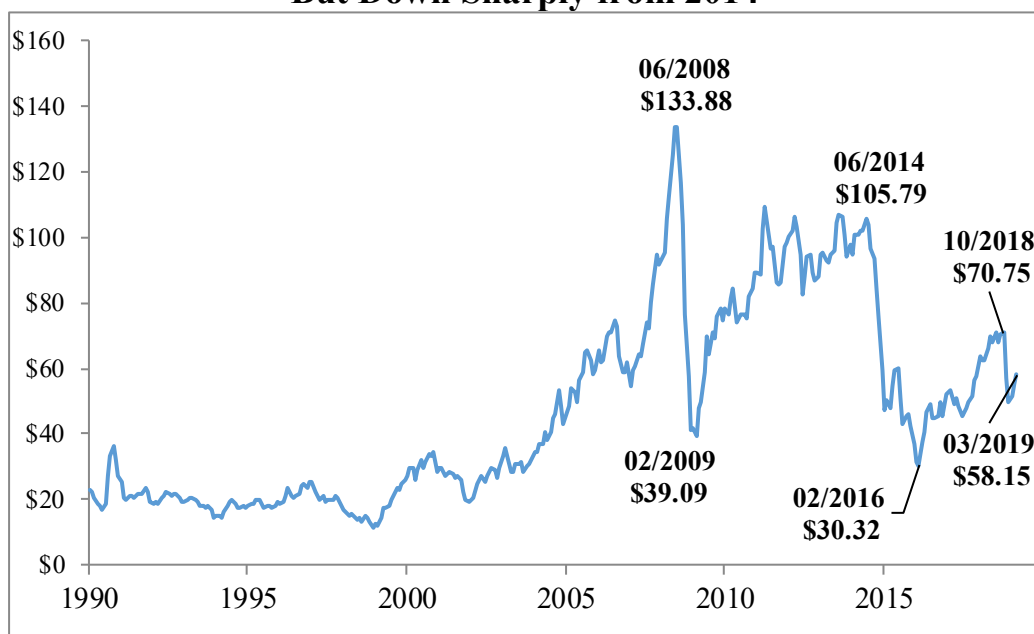
Between 2009 and 2017, the **personal consumption expenditures (PCE) price index**, which the Federal Reserve emphasizes in evaluating whether the U.S. economy is meeting the Fed's 2.0 percent inflation target, grew less than 2.0 percent each year except 2011. In 2018, the PCE price index grew 2.0 percent. The core PCE price index inflation, which excludes the direct impact of volatile food and energy prices, stayed below 2.0 percent in each year between 2009 and 2018. In 2018, core PCE price inflation was 1.9 percent. Most recently, in March 2019, the PCE price index was up 1.5 percent from a year ago and the core PCE price index was up 1.6 percent from last March. The monthly core PCE price index last increased year-over-year faster than 2.0 percent seven years ago.

The **U.S. Consumer Price Index (CPI)** has risen each year beginning in 2010. In recent years, inflation has remained moderate but has accelerated recently. In each year between 2013 and 2016, CPI inflation remained below 2.0 percent. However, CPI inflation accelerated to 2.1 percent in 2017 and to 2.4 percent in 2018. Core CPI inflation accelerated from 1.8 percent in 2017 to 2.1 percent in 2018.

Monthly year-over-year CPI inflation accelerated over the first half of 2018 with the June and July 2018 CPI both up 2.9 percent from a year earlier. However, y-o-y monthly CPI inflation moderated over the balance of 2018. In December 2018, CPI inflation slowed to 1.9 percent -- marking the first month of sub-2.0 percent inflation since August 2017. Year-over-year CPI inflation slowed to 1.6 percent in January 2019 and 1.5 percent in February 2019, but then accelerated to 1.9 percent in March 2019. In April, y-o-y CPI inflation increased to 2.0 percent. February 2019 marked the 12<sup>th</sup> straight month in which the core CPI (excluding food and energy) was up slightly more than 2.0 percent from a year ago. Core y-o-y CPI inflation slowed to 2.0 percent in March 2019 but accelerated to 2.1 percent in April 2019.

Oil prices rose substantially from February 2016 to October 2018. In 2017, the average price of oil per barrel rose 17.9 percent. Still more, through October, the average 2018 price of oil was up 35.6 percent from a year ago. However, the price of oil fell sharply in November 2018 -- falling from \$70.75 to \$56.96. The price of oil fell further in December 2018 -- dropping to \$49.52 per barrel. However, oil prices rose in each of the first three months of 2019. In March 2019, the price of oil rose to \$58.15. Oil prices continued to increase in April. In April 2019, the *daily* price of oil averaged to \$63.86.

### Oil Prices Up in Recent Months But Down Sharply from 2014



Source: Federal Reserve Bank of St. Louis. Price per Barrel, West Texas Intermediate Oil.

## Major Economic Indices

*Institute for Supply Management (ISM) indices continued to indicate growth in the manufacturing sector (32 straight months) and non-manufacturing sectors (111 straight months) as well as the overall economy (120 straight months).*

*Compared to a year ago, April 2019 consumer sentiment was down slightly, but remained at a historically high level. CEO confidence in 2019Q1 is down sharply from a year ago and remains in negative territory (below 50).*

*Since the January Consensus Conference, the stock market rose considerably (+13.2 percent through April 30, 2019).*

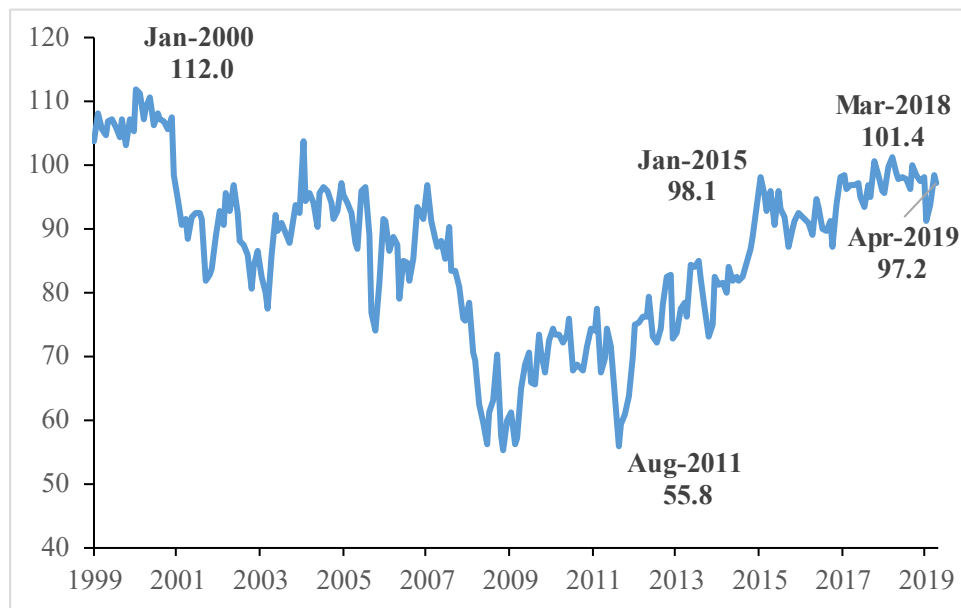
The April 2019, the **ISM manufacturing index**, known as the PMI (Purchasing Managers' Index), marked the 32<sup>nd</sup> straight month of an expanding manufacturing sector. A PMI above 50.0 indicates an expanding sector. However, the PMI has haltingly trended downward since August 2018. In December 2018, the PMI dropped sharply by 4.5 points to 54.3. Since the January Conference, the PMI has alternated monthly increases with decreases. However, on net, the PMI has continued trending downward -- pointing to a slowing manufacturing sector. The PMI rose to 56.6 in January 2019, fell to 54.2 in February, rose to 55.3 in March but, in April 2019, the PMI dropped 2.5 points to 52.8 which is its lowest reading since October 2016.

The April 2019 **ISM non-manufacturing index (NMI)** signaled the 111<sup>th</sup> straight month of an expanding service sector. Since the January Consensus Conference, the NMI has fluctuated. The NMI dropped from 58.0 in December 2018 to 56.7 in January 2019. The NMI rose to 59.7 in February 2019 but fell in both March 2019 and April 2019. The April 2019 reading of 55.5 represents the index's lowest level since August 2017.

In April 2019, both the PMI and NMI both signaled a growing overall economy. The April PMI 2019 indicated overall economic growth for the 120<sup>th</sup> straight month, while the NMI has signaled overall economic growth for each of the past 117 months. However, both recent PMI and NMI readings indicate that overall U.S. economic growth has slowed.

In January 2019, the first month for which a final value was available since the January 2019 Consensus Conference, the **University of Michigan index of consumer sentiment** fell sharply from 98.3 to 91.2 (2¼ year low). The index rose significantly in both February 2019 and March 2019 with the index rising just above its December 2018 value to 98.4. The index fell in April 2019 to 97.2, down 1.6 points from last April. Nevertheless, at 97.2, April 2019 consumer sentiment was historically high.

## Consumer Sentiment Down from 2018 But Historically High



Source: University of Michigan Survey of Consumers.

Between 2016Q4 and 2018Q3, the **Conference Board Measure of CEO Confidence Index** had remained in positive territory (above 50). However, in each quarter between 2018Q2 and 2018Q4, CEO Confidence fell from the previous quarter and dropped 23 points over the three quarters. As a result, CEO Confidence dropped into negative territory to 42, matching its 2012Q3 reading as the index's lowest level since 2009Q1, when the index stood at 30. CEO Confidence rose very slightly in 2009Q1 to 43. However, compared to a year ago, the 2019Q1 reading of 43 was down sharply by -22 points and remained in negative territory.

Reversing losses in late 2018 and early 2019, the equities markets have improved considerably since the January 2019 Consensus Conference as the Dow Jones Industrial Index and S&P 500 have risen from recent lows. Another measure, the **Wilshire 5000 Index**, is a weighted index of all actively traded U.S. stocks and represents the broadest index of the total value of the U.S. stock market. The Wilshire 5000 fell sharply in December 2018. On December 24, 2018, the Wilshire 5000 Index fell to a nearly two-year low and was down 20.7 percent from its all-time record high set on September 20, 2018. Between December 24, 2018, and January 11, 2019 (the date of the January 2019 Consensus Conference), the Wilshire 5000 recouped a significant of share of its losses but remained 11.8 percent below its all-time high. Through the end of April, the Wilshire 5000 Index continued its rebound. Between January 11, 2019, and April 30, 2019, the Index rose 13.2 percent. Consequently, at the end of April 2019, the Index was up 25.9 percent from its December 24, 2018, low and was only 0.2 percent below the Index's all-time high set in September 2018. However, the very recent escalation in the U.S.-China trade war weighed on the stock markets worldwide (including U.S. markets). As a result, as of May 14, the Wilshire 5000 Index was down 3.7 percent from its April 30, 2019 high.

The **ECRI weekly leading index growth rate** has improved substantially since the January 2019 Consensus Conference. In early January, the ECRI weekly leading index growth rate fell to its worst pace in seven years (*negative 6.9 percent*). Since early January 2019, the growth rate improved from the prior week in all but three weeks. Consequently, in early April, the growth rate recorded its first positive reading (0.1 percent) since early October 2018. Most recently, the growth rate rose to 1.3 percent in mid-April 2019 but then slowed to 0.8 percent in early May.

In December 2018, **industrial production** recorded its 7<sup>th</sup> straight monthly increase. Compared to a year ago, December industrial production was up 3.8 percent. However, in 2019, industrial production fell substantially in January, rose slightly in February but then fell slightly in March. In March 2019, industrial production was up only 2.8 percent from last March – its slowest y-o-y increase in a year and a half.

Following 23 monthly declines over the 24-month period between March 2015 and February 2017, the **capacity utilization rate** has risen from the prior year in each of the past 25 straight months from March 2017 to March 2019. However, y-o-y capacity utilization gains have slowed steadily in each of the most recent six months. While up 3.1 points on a y-o-y basis in September 2018, capacity utilization was up only 0.6 of a point y-o-y in March 2019 – the smallest y-o-y increase over the past 25 months.

In 2018, overall **retail and food services sales** rose 5.2 percent, marking the third straight year of accelerating retail sales and the fastest sales growth since 2011. However, first quarter 2019 retail sales were up only 2.9 percent from 2018Q1 retail sales. Excluding gasoline stations, average 2018 retail and food services sales were up 4.2 percent, slightly slower than the 4.4 percent growth in 2017. Most recently, in the first quarter of 2019, retail and food services sales excluding gasoline stations rose 3.2 percent from 2018Q1 which was the slowest first quarter growth since 2014.

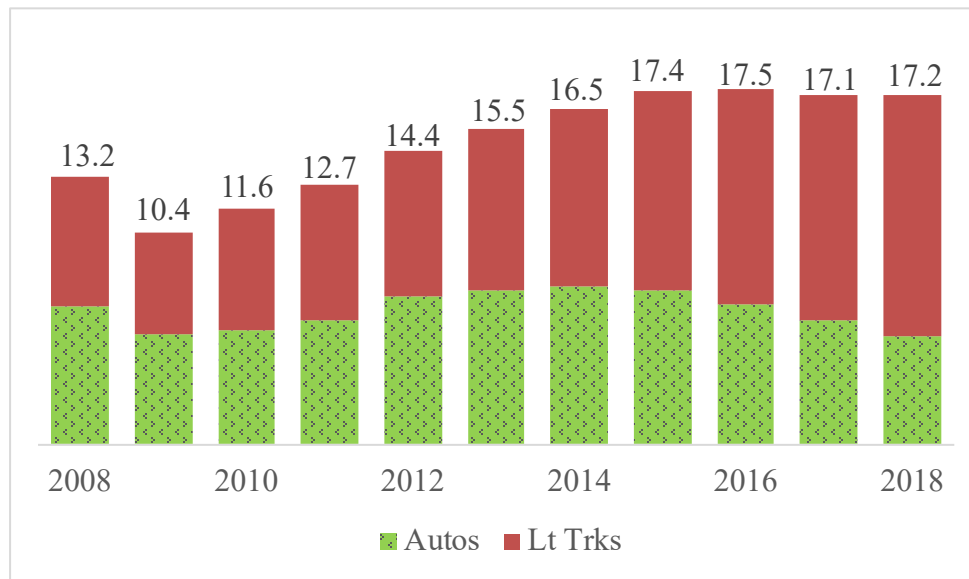
#### Vehicle Sales and Production

***In 2018, light vehicle sales remained above 17.0 million units for the fourth straight year. In 2018, light vehicle sales totaled 17.2 million units. Light truck sales comprised 69.2 percent of light vehicle sales in 2018.***

***In the first four months of 2019, the annualized light vehicle sales rate averaged 16.7 million which was down 2.2 percent from the first four months of 2018.***

In 2015, **U.S. light vehicle sales** rose to a then record high of 17.40 million units, slightly exceeding the previous record of 17.35 million units set in 2000. In 2016, light vehicle sales rose slightly by 0.4 percent to a new record high of 17.46 million units. Annual light vehicle sales fell in 2017, but, at 17.14 million units, sales remained strong. In 2018, light vehicle sales rose slightly to 17.21 million units. In April 2019, light vehicle sales exceeded a 16.0-million-unit annual rate for the 62<sup>nd</sup> straight month. The annualized light vehicle sales rate averaged 16.7 million over the first four months of 2019 -- down 2.2 percent compared with the first four months of 2018.

## Light Vehicle Sales At Historically High Levels (millions of units)



Source: U.S. Bureau of Economic Analysis.

**Light truck sales share** of the light vehicle sales market has continued to grow. In 2018, light truck sales share of light vehicle sales rose 4.7 percentage points to yet another new record high of 69.2 percent. April 2019 marked the 37<sup>th</sup> straight month the light truck sales share exceeded 60.0 percent and the 19<sup>th</sup> straight month in which the light truck share exceeded 65.0 percent. Over the first four months of 2019, the light truck sales share of light vehicle sales averaged 70.3 percent.

While bringing vehicle makers higher profitability per unit, the record high light truck sales share exposes makers to greater downward risks from economic slowdowns and higher fuel prices.

**U.S. vehicle production** increased each year from 2010 to 2016. By 2016, production was up 113.8 percent from 2009. In 2016, national vehicle production was up to 12.3 million units – its highest production level since 2000. However, U.S. vehicle production fell 8.3 percent in 2017 and dropped 2.0 percent in 2018. In the first quarter of 2019, national vehicle production was down 4.0 percent from 2018Q1.

### **Current Michigan Economic Conditions**

#### **Vehicle Production**

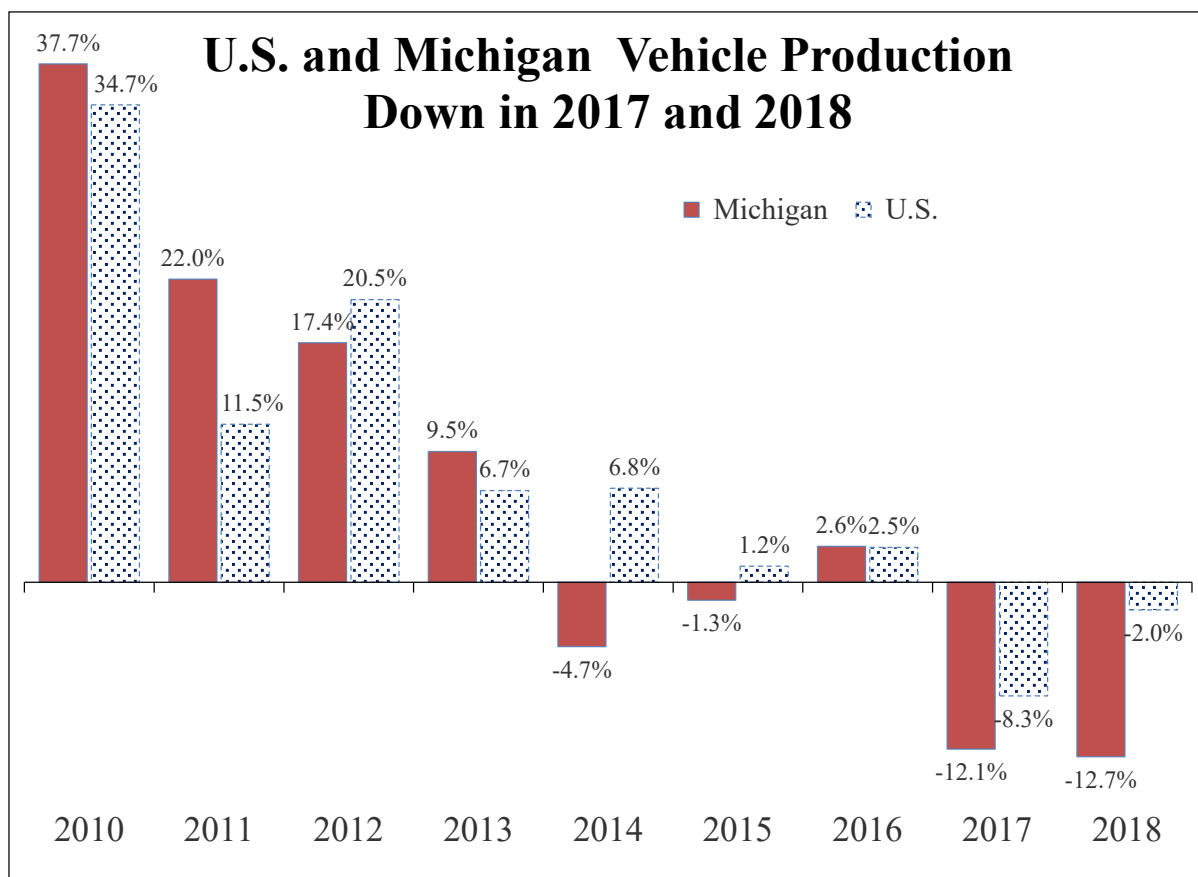
***In 2017 and 2018, Michigan vehicle production and Michigan's share of U.S. vehicle production fell.***



***Between 2018Q1 and 2019Q1, Michigan vehicle production rose 1.7 percent and Michigan's share of national production increased by 1.0 percentage point.***

**Michigan vehicle production** rose substantially each year between 2010 and 2013 with Michigan production rising from 1.15 million units in 2009 and 2.47 million units in 2013. However, the number of vehicles produced in Michigan fell 12.1 percent in 2017 and dropped 12.7 percent in 2018. Retooling of Michigan plants and a switch to producing light trucks from cars accounted for the recent annual decline in production. In 2019Q1, Michigan vehicle production rose 1.7 percent compared with 2018Q1.

In 2013, **Michigan's share of U.S. vehicle production** rose to 22.3 percent. However, in 2014, the State's share of U.S. vehicle production fell 2.4 percentage points to 19.9 percent. In 2015, Michigan's share of national vehicle production fell an additional 0.5 of a percentage point to 19.4 percent, where it remained in 2016. However, Michigan's share of national vehicle production fell to 18.6 percent in 2017 and dropped to 16.6 percent in 2018. In 2019Q1, Michigan's share of national vehicle production (17.7 percent) was up 1.0 percentage point from 2018Q1.



Automotive News and Michigan Department of Treasury.

## Employment

*Michigan's labor market is strong and an increasing number of residents are finding work.*

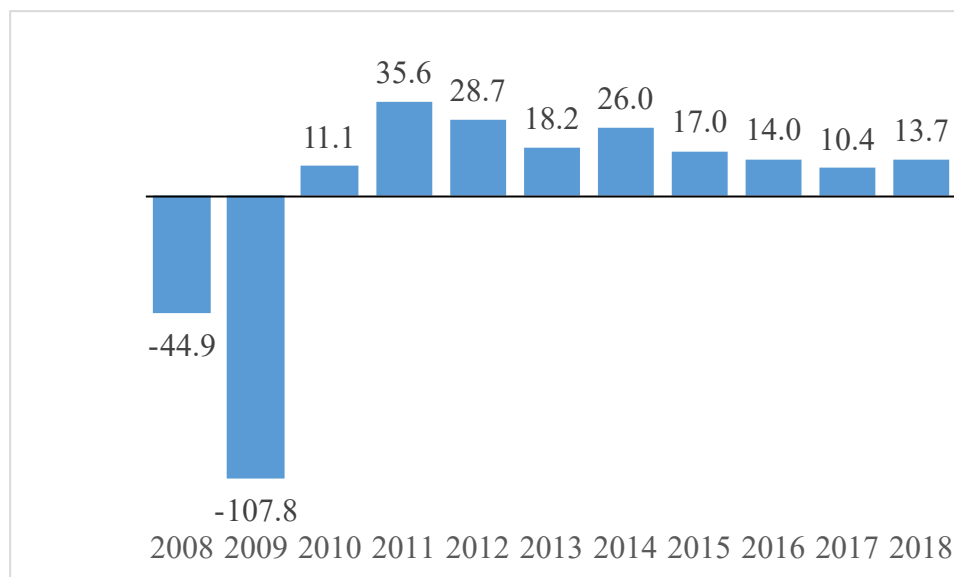
*In 2018, Michigan wage and salary employment increased for the eighth straight year.*

In 2018, **Michigan wage and salary employment** rose for an eighth straight year with 1.1 percent growth.

Rising by a total of 555,000 jobs between 2010 and 2018, Michigan wage and salary employment increased 14.4 percent and was the 16<sup>th</sup> fastest percent growth among U.S. states. Michigan employment rose in five straight months between October 2018 and February 2019. As a result, in February 2019, Michigan employment rose to 4.445 million jobs, the State's highest monthly employment level since January 2003. In March 2019, Michigan employment fell slightly by 2,300 jobs. Compared to a year earlier, March 2019 Michigan employment was up by 25,600 jobs (0.6 percent). The 0.6 percent increase ranks 35<sup>th</sup> fastest among U.S. states.

**Michigan's overall wage and salary employment** has increased 15.8 percent **since the end of the Great Recession** (June 2009). The 15.8 percent growth represents the 16<sup>th</sup> strongest growth rate among all U.S. states.

### **Michigan Manufacturing Employment Change (thousands of jobs)**



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

Over the past eight years, **manufacturing employment in Michigan** increased by 163,600 total jobs. Manufacturing employment accounted for 29.5 percent of the overall State employment

increase over the past eight years, even while comprising only 12.1 percent of the overall *level* of base year 2010 Michigan wage and salary employment. In 2018, manufacturing employment accounted for 27.7 percent of the overall calendar year State wage and salary employment increase.

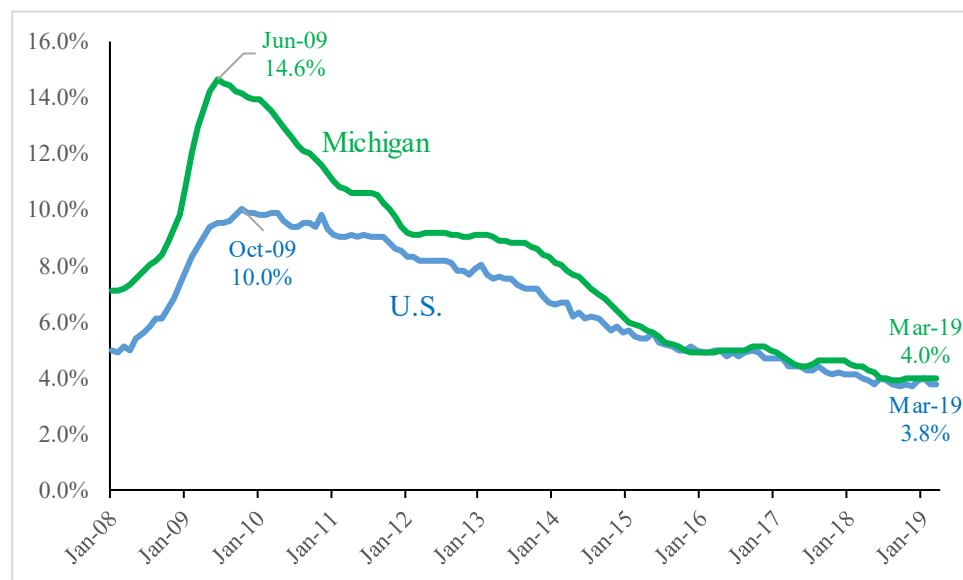
### Unemployment Rate

***Michigan's unemployment rate has fallen each year beginning in 2010. In 2018, the unemployment rate averaged 4.1 percent.***

***The gap between the Michigan unemployment rate and the U.S. unemployment stood at 0.2 of a percentage point in March 2019.***

In 2009, **Michigan's unemployment rate** rose to 13.7 percent which was the State's highest rate since 1983 when the rate stood at 14.4 percent. However, the State's unemployment rate has decreased each year since. Over the past nine years, Michigan's unemployment rate dropped a combined 9.6 percentage points. In 2018, the Michigan unemployment rate fell 0.5 of a percentage point to 4.1 percent, the State's lowest annual rate since 2000.

## **Since the Great Recession Michigan's Unemployment Rate Has Dropped Sharply**



Source: Michigan Bureau of Labor Market Information and the U.S. Bureau of Labor Statistics.

During the Great Recession (December 2007-June 2009), the **gap between Michigan's unemployment rate and the U.S. unemployment rate** rose to 5.1 percentage points. Within a

year after the Great Recession, the gap shrank to 3.2 percentage points and within two years, the gap fell to 1.5 percentage points. The gap trended downward through early 2012, falling to 0.8 of a percentage point. The gap then trended upward through late 2013, rising to 1.6 percentage points in December 2013. The gap fell steadily through mid-2015. Between May 2015 and October 2016, the gap ranged narrowly between +0.2 of a percentage point and -0.2 of a percentage point.

After rising to 0.4 of a percentage point in November 2016, the unemployment rate gap fell through early 2017. Between March 2017 and August 2017, the gap ranged narrowly between 0.0 of a percentage point and 0.2 of a percentage point. Between September 2017 and May 2018, the gap ranged narrowly between 0.3 of a percentage point and 0.5 of a percentage point between. In June 2018, the gap fell to 0.0 of a percentage point. Since June 2018, the gap has ranged between 0.0 and 0.3 of a percentage point. Most recently, in March 2019, the gap stood at 0.2 of a percentage point.

Compared to the number of Michigan unemployed at the end of the Great Recession in June 2009, March 2019 unemployment was down by 526,700 persons.

**Michigan's labor force** fell every year between 2006 and 2012. Over the seven years, the State's annual labor force dropped a combined 410,000 persons. However, in five of the most recent six years, the State's annual labor force increased. On net, calendar year Michigan labor force rose 229,000 persons, or 4.9 percent over the six years.

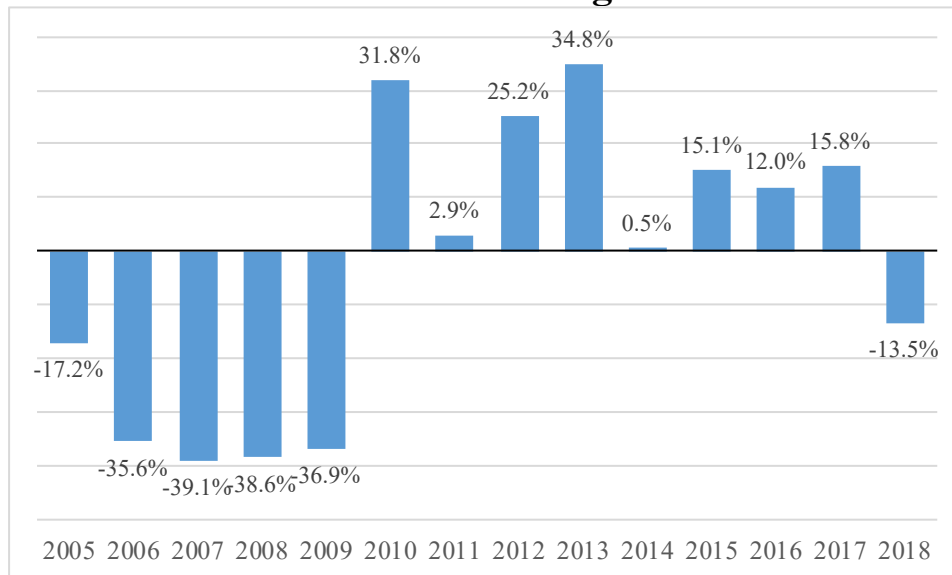
### Housing Market

***After rising 15.8 percent in 2017, Michigan housing authorizations fell 13.5 percent in 2018. However, Michigan housing authorizations were up 16.7 percent in 2019Q1 compared with 2018Q1.***

***The share of mortgage properties with negative equity in Michigan is higher than the national average.***

In 2018, Michigan housing unit authorizations decreased 13.5 percent while authorizations increased 2.8 percent nationally. However, in 2019Q1, Michigan housing authorizations were up 16.7 percent from 2018Q1, compared to a 4.2 percent decline nationally.

## Michigan Housing Unit Authorizations Percent Change



Source: U.S. Census Bureau.

The **share of mortgage properties with negative equity** in Michigan is higher than the national average. In the fourth quarter of 2018, nationwide, 4.2 percent of residential properties with mortgages were underwater. In Michigan, 5.2 percent of such properties were underwater – ranking Michigan 13<sup>th</sup> highest among U.S. states.

### Personal Income

*Michigan total personal income has continued to grow but grew more slowly than national total personal income in each of the past three years.*

*Since the Great Recession, Michigan per capita personal income has grown faster than the national average.*

In 2018, **Michigan total personal income** grew 3.3 percent from 2017 Michigan total personal income, compared with 4.5 percent growth nationally. Growth in Michigan's personal income in 2018 ranked 43<sup>rd</sup> among the 50 states. In contrast Michigan's personal income growth ranked 11<sup>th</sup> in 2015, 16<sup>th</sup> in 2016 and 35<sup>th</sup> in 2017.

Michigan's 2018 annual personal income growth was down from 3.5 percent in 2017 but up from 3.1 percent in 2016.

Over the past nine years, Michigan personal income has grown each year. As a result, compared with 2009 personal income, 2018 Michigan personal income is up 41.5 percent, ranking 22<sup>nd</sup> among U.S. states. Nationwide, personal income grew 45.8 percent between 2009 and 2018.

Of Michigan's 3.3 percent growth in total personal income in 2018, net earnings, which accounted for 2.0 percentage points of the overall percentage point increase, drove most of the growth rate. Dividends, interest, and rent accounted for 0.7 percentage points of overall growth, and transfer receipts comprised 0.6 of a percentage point of overall growth.

In 2018, **total earnings** grew \$10.6 billion in Michigan for all industries. This was led by the manufacturing sector increase of \$2.0 billion, which accounted for nearly one-fifth of the overall increase. Durable manufacturing alone accounted for \$1.6 billion of the manufacturing increase. The health care and social assistance sector accounted for the second largest share of the total earnings increase (\$1.3 billion), followed by the professional, scientific and technical services sector (\$1.2 billion).

In 2018, Michigan's annual **per capita income** ranked 32<sup>nd</sup> among U.S. states and matched its 2016 and 2017 ranking. Michigan's 2018 annual per capita income of \$47,582 equaled 88.6 percent of the U.S. annual per capita personal income average of \$53,712. Between 2017 and 2018, Michigan's annual per capita income rose 3.1 percent (ranking 41<sup>st</sup> among the 50 states). Nationally, annual per capita income rose 3.8 percent in 2018. Between 2009 (the year in which the Great Recession ended) and 2018, Michigan's per capita income increased 40.2 percent – ranking 7<sup>th</sup> among U.S. states and exceeding the national increase of 36.7 percent.

Between 2017Q4 and 2018Q4, Michigan's quarterly per capita income rose 3.6 percent – ranking 35th among the 50 states. Nationally, per capita income increased 3.9 percent between 2017Q4 and 2018Q4.

## SECTION III

### Administration Economic Forecast



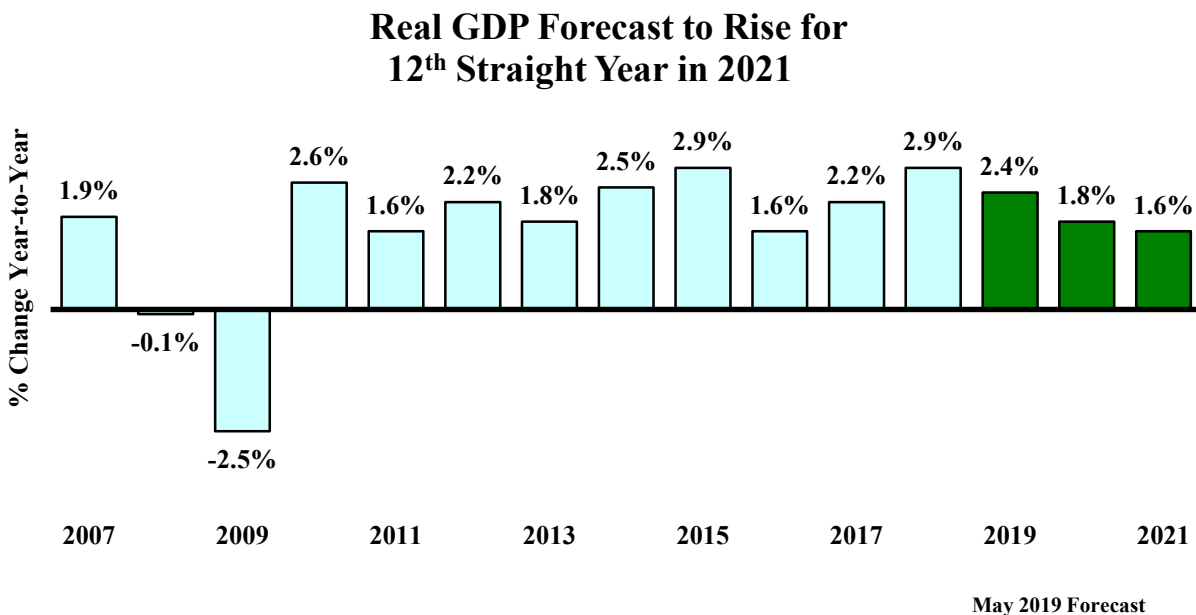
## Administration Economic Forecast Summary

**Table 1** (next page) provides a one-page summary table of the Administration forecast of the U.S. and Michigan economies.

### 2019, 2020 and 2021 U.S. Economic Outlook

#### Summary

**Real (inflation adjusted) GDP** rose 2.9 percent in 2018 -- marking the ninth straight year of annual growth. Real GDP is expected to increase 2.4 percent in 2019, 1.8 percent in 2020 and 1.6 percent in 2021.



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2019.

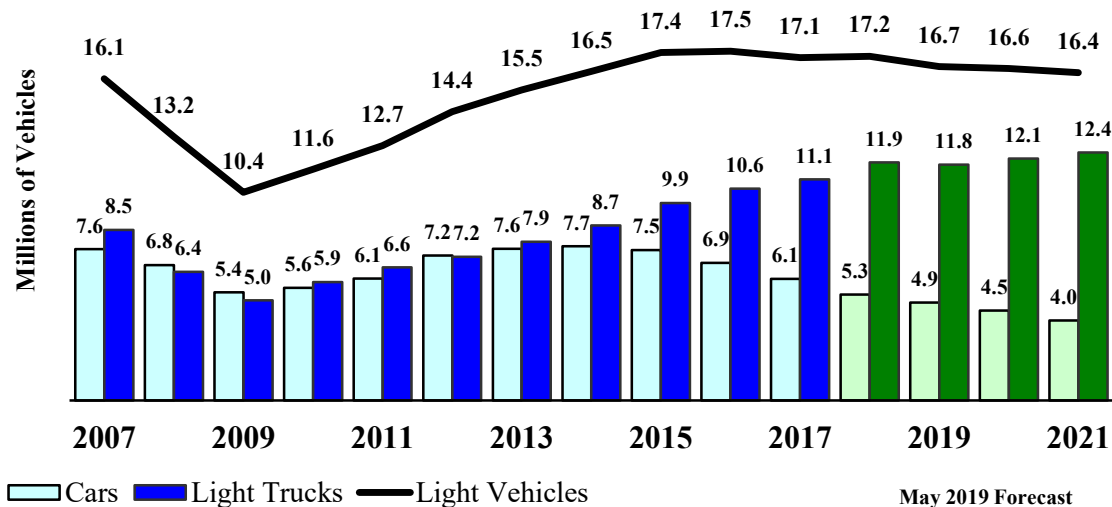
In 2018, light vehicle sales rose slightly to 17.2 million units. Light vehicle sales are then forecast to decline to 16.7 million units in 2019, 16.6 million units in 2020 and 16.4 million units in 2021.



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

May 2019										
	Calendar 2017 Actual	Percent Change from Prior Year	Calendar 2018 Actual	Percent Change from Prior Year	Calendar 2019 Forecast	Percent Change from Prior Year	Calendar 2020 Forecast	Percent Change from Prior Year	Calendar 2021 Forecast	Percent Change from Prior Year
<b>United States</b>										
Real Gross Domestic Product (Billions of Chained 2012 Dollars)	\$18,051	2.2%	\$18,566	2.9%	\$19,012	2.4%	\$19,354	1.8%	\$19,664	1.6%
Implicit Price Deflator GDP (2012 = 100)	107.9	1.9%	110.4	2.3%	112.6	2.0%	115.1	2.2%	117.6	2.2%
Consumer Price Index (1982-84 = 100)	245.120	2.1%	251.107	2.4%	255.513	1.8%	260.550	2.0%	265.893	2.1%
Consumer Price Index - Fiscal Year (1982-84 = 100)	243.841	2.1%	249.749	2.4%	254.362	1.8%	259.270	1.9%	264.537	2.0%
Personal Consumption Deflator (2012 = 100)	106.1	1.8%	108.2	2.0%	110.0	1.6%	112.2	2.0%	114.4	2.0%
3-month Treasury Bills Interest Rate (percent)	0.9		1.9		2.4		2.6		2.9	
Unemployment Rate - Civilian (percent)	4.4		3.9		3.7		3.6		3.8	
Wage and Salary Employment (millions)	146.624	1.6%	149.074	1.7%	151.460	1.6%	153.130	1.1%	154.510	0.9%
Housing Starts (millions of starts)	1.203	2.5%	1.250	3.9%	1.235	-1.2%	1.246	0.9%	1.269	1.8%
Light Vehicle Sales (millions of units)	17.1	-1.9%	17.2	0.5%	16.7	-3.0%	16.6	-0.6%	16.4	-1.2%
Passenger Car Sales (millions of units)	6.1	-11.5%	5.3	-12.8%	4.9	-7.6%	4.5	-8.2%	4.0	-11.1%
Light Truck Sales (millions of units)	11.1	4.4%	11.9	7.7%	11.8	-0.9%	12.1	2.5%	12.4	2.5%
Big 3 Share of Light Vehicles (percent)	42.0		41.7		41.6		41.8		41.7	
<b>Michigan</b>										
Wage and Salary Employment (thousands)	4,369	1.1%	4,419	1.1%	4,450	0.7%	4,467	0.4%	4,490	0.5%
Unemployment Rate (percent)	4.6		4.1		4.1		4.2		4.2	
Personal Income (millions of dollars)	\$460,270	3.5%	\$475,626	3.3%	\$492,273	3.5%	\$510,979	3.8%	\$530,908	3.9%
Real Personal Income (millions of 1982-84 dollars)	\$202,855	1.4%	\$204,791	1.0%	\$208,803	2.0%	\$212,680	1.9%	\$216,955	2.0%
Wages and Salaries (millions of dollars)	\$231,748	4.2%	\$239,478	3.3%	\$248,099	3.6%	\$257,031	3.6%	\$266,798	3.8%
Detroit Consumer Price Index (1982-84 = 100)	226.896	2.1%	232.250	2.4%	235.760	1.5%	240.257	1.9%	244.709	1.9%
Detroit CPI - Fiscal Year (1982-84 = 100)	225.517	2.0%	231.441	2.6%	234.650	1.4%	239.166	1.9%	243.579	1.8%

## Vehicle Sales Fall Modestly Over Forecast



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2019.

The **U.S. unemployment rate** has fallen in each of the past eight years with the unemployment rate dropping from a near record high 9.6 percent in 2010 to 3.9 percent in 2018. The U.S. rate is forecast to fall to 3.7 percent in 2019 and to 3.6 percent in 2020. In 2021, the national unemployment rate is expected to rise to 3.8 percent.

**U.S. wage and salary employment** increased 1.6 percent in 2017 and rose 1.7 percent in 2018. U.S. employment growth is forecast to slow to 1.6 percent in 2019, 1.1 percent in 2020 and 0.9 percent in 2021. The U.S. employment level rose to a new record annual high each year from 2014 to 2018. With forecasted increases, calendar year 2021 national employment is expected to be 12.0 percent above the pre-2014 peak employment level.

**U.S. consumer price inflation** accelerated to 2.1 percent in 2017 and to 2.4 percent in 2018. Inflation is forecast to slow to 1.8 percent in 2019 and then accelerate to 2.0 percent in 2020. In 2021, inflation is expected to accelerate to 2.1 percent. The personal consumption price deflator inflation rate is projected to slow from 2.0 percent in 2018 to 1.6 percent in 2019. In 2020, the personal consumption deflator inflation rate is forecast to accelerate to 2.0 percent, where it is expected to stay in 2021.

In 2016, the **short-term Treasury bill rate** rose to 0.3 percent. As a result of increases in the federal funds rate, the short-term Treasury bill rate increased to 0.9 percent in 2017 and to 1.9 percent in 2018. The Treasury bill rate is forecast to rise to 2.4 percent in 2019, 2.6 percent in 2020 and 2.9 percent in 2021 – which would be the highest annual short-term Treasury bill rate since 2007, when the rate stood at 4.4 percent.

The **30-year fixed mortgage rate** fell to 3.65 percent in 2016. Mortgage rates rose to 4.0 percent in 2017 and increased to 4.5 percent in 2018. Mortgage rates are forecast to rise to 4.6 percent in 2019, 4.8 percent in 2020 and 5.0 percent in 2021.

Throughout the forecast horizon, the national housing market is expected to fall in 2019 before rising slightly over the balance of the forecast horizon. Consequently, **housing starts** in 2021 (1.27 million units) are expected to be only slightly higher (1.5 percent) than starts in 2017. In addition, 2021 starts will remain well below the average 1.7 million annual starts in the ten years before the housing bust.

### Assumptions

After rising 2.6 percent in 2018, **real (inflation-adjusted) federal government expenditures** are forecast to rise 4.3 percent in calendar year (CY) 2019, increase 2.0 percent in CY 2020 and then decline 0.6 percent in CY 2021.

The level of **nominal state and local government expenditures** are expected to increase 3.5 percent in 2019, 3.5 percent in 2020 and 3.4 percent in 2021.

The Fed raised the **federal funds rate** by 25 basis points four times in 2018. The Fed is expected to raise the rate by 25 basis points in late 2019 and by an additional 25 basis points in late 2020. The Fed is then assumed to leave the rate unchanged in 2021. As a result, the federal funds rate is assumed to rise from a 2.25-2.50 percent range in late 2018 to 2.75-3.00 percent range in late 2020 and for all of 2021.

The **average savings rate** averaged 6.8 percent in 2018. The average rate is expected to fall to 6.6 percent in 2019, rise to 6.8 percent in 2020 and 7.0 percent in 2021.

**Economic growth among Germany, United Kingdom, Japan, Canada and Mexico** slowed considerably from 3.0 percent growth in 2017 to 1.7 percent growth in 2018. The growth rate is forecast to slow to 1.3 percent in 2019 and accelerate to 1.6 percent in both 2020 and 2021. The Chinese economy is expected to grow around 6.0 percent per year over the forecast horizon.

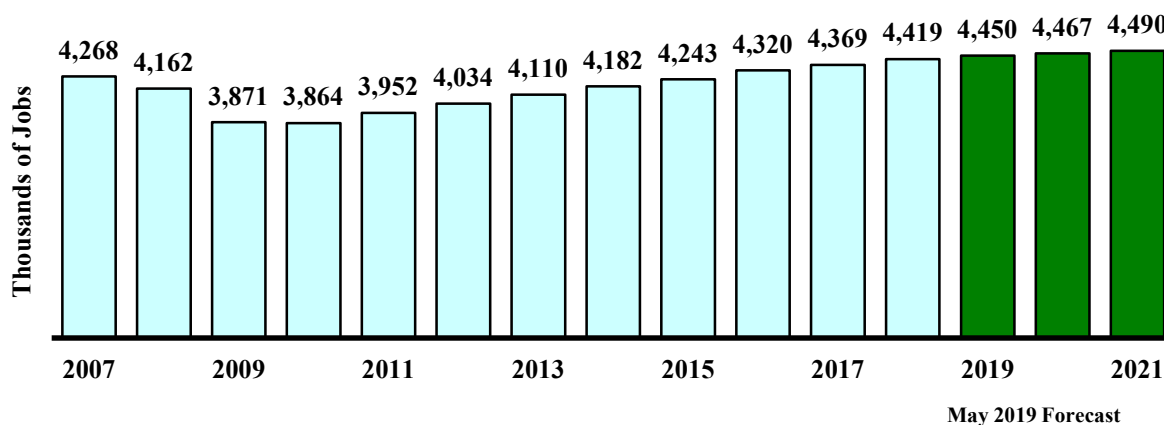
## **2019, 2020 and 2021 Michigan Economic Outlook**

**Michigan wage and salary employment** reported its eighth straight annual employment increase in 2018. In 2018, Michigan employment increased 1.1 percent. Michigan employment is forecast to rise 0.7 percent in 2019, 0.4 percent in 2020 and 0.5 percent in 2021. At 4.49 million jobs, the forecasted Michigan wage and salary employment level in 2021 would represent the State's highest employment level since 2001. However, forecasted 2021 Michigan employment would remain 185,000 jobs (4.0 percent) below the State's peak annual employment set in 2000 (4.7 million jobs).

In 2018, **Michigan private non-manufacturing employment** rose 33,700 jobs. Private non-manufacturing employment is forecast to gain 24,600 jobs in 2019, 18,500 jobs in 2020 and 19,800 jobs in 2021.

In 2018, **Michigan manufacturing employment** rose 2.2 percent. The State's manufacturing employment is projected to rise 0.5 percent in 2019, fall 0.8 percent in 2020 and rise 0.3 percent in 2021. Consequently, on net, Michigan manufacturing employment is forecast to change little over the three years of the forecast.

### **Michigan Wage and Salary Employment Continues to Rise**



Source: Michigan Department of Technology, Management, & Budget, U.S. Bureau of Labor Statistics and May 2019 Administration Forecast.

In 2018, **transportation equipment employment** rose 2.6 percent. Transportation equipment employment is forecast to decline 0.2 percent in 2019, remain unchanged in 2020 and rise 1.7 percent in 2021. Forecasted 2021 transportation equipment employment of 196,000 jobs would be down 41.6 percent from the sector's CY 2000 peak employment of 335,500 jobs.

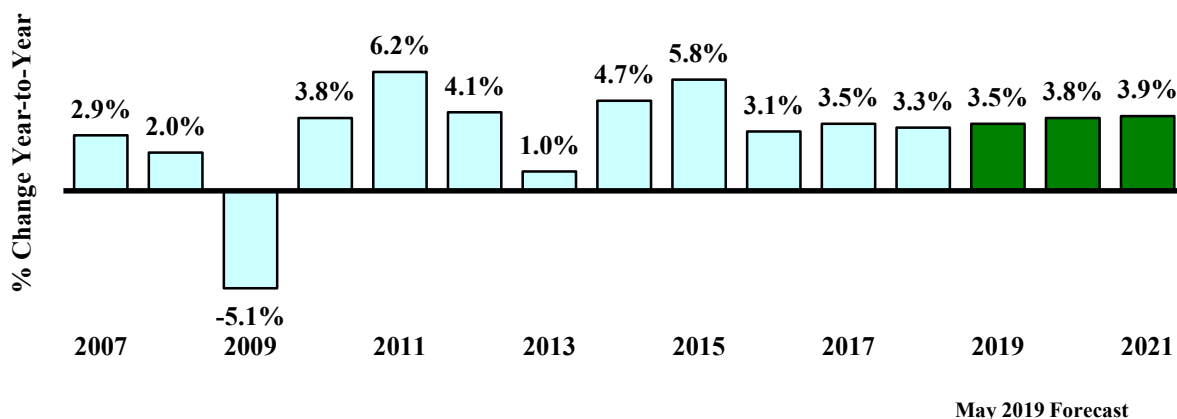
The **Michigan unemployment rate** dropped to 4.6 percent in 2017 from 5.0 percent in 2016. In 2018, the rate fell to 4.1 percent, the State's lowest unemployment rate since 2000. The Michigan unemployment rate is projected to remain at 4.1 percent in 2019. In 2020, the Michigan unemployment rate is forecast to rise to 4.2 percent, where it is expected to remain in 2021.

**Michigan wages and salaries** increased 3.3 percent in 2018. Michigan wages and salaries are projected to rise 3.6 percent in 2019, 3.6 percent in 2020 and 3.8 percent in 2021. **Michigan personal income** increased 3.3 percent in 2018. State personal income is forecast to rise 3.5 percent in 2019, 3.8 percent in 2020 and 3.9 percent in 2021.

The **Detroit CPI** rose 2.1 percent in 2017 and increased 2.4 percent in 2018. Over the forecast horizon, the overall price level is projected to rise each year with increases of 1.5 percent in 2019, 1.9 percent in 2020 and 1.9 percent in 2021.

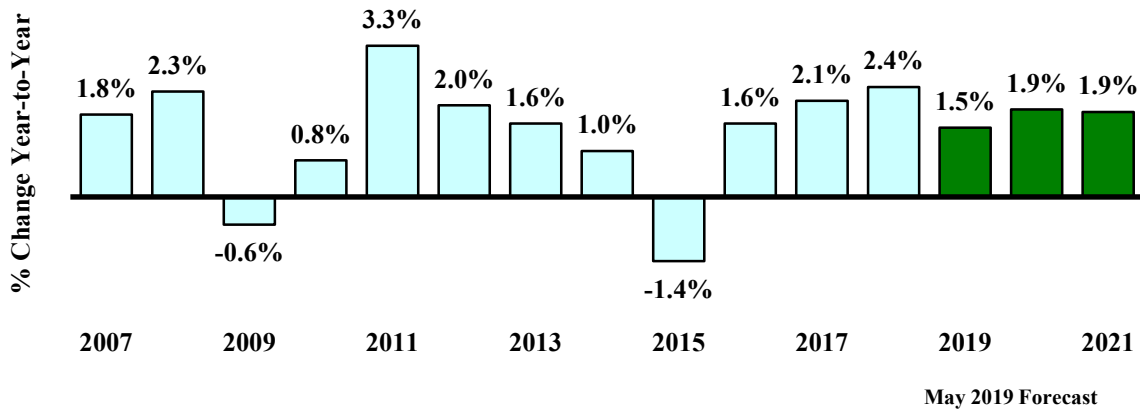
**Real (inflation adjusted) Michigan personal income** grew 1.4 percent in 2017 and rose 1.0 percent in 2018. Real Michigan personal income growth is forecast to increase 2.0 percent in 2019 and to rise 1.9 percent in 2020. In 2021, real Michigan personal income growth is forecast to accelerate slightly to 2.0 percent.

### Michigan Personal Income Reports Solid Growth



Source: Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2019.

## Consumer Prices Forecast to Record Moderate Growth Detroit CPI



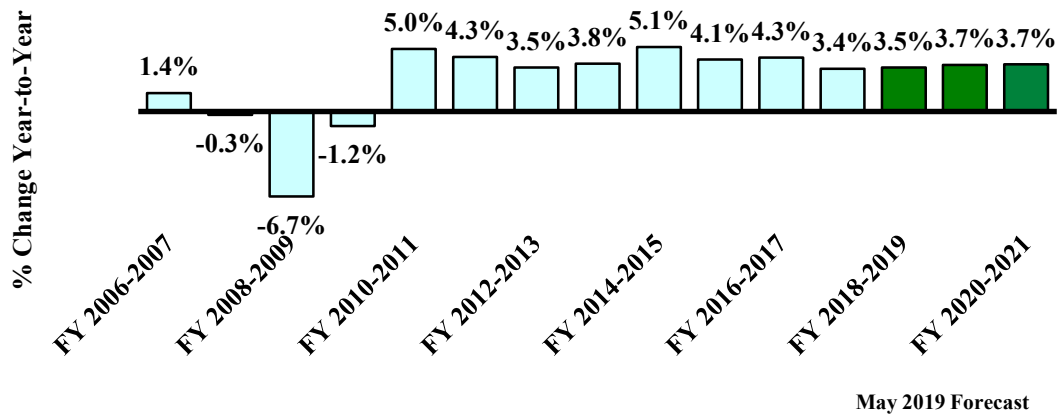
Source: U.S. Bureau of Labor Statistics and Administration Forecast, May 2019.

### Fiscal Year Economics

Michigan's largest taxes are the individual income tax (\$12.2 billion in FY 2018) and sales and use taxes (\$10.0 billion). Income tax withholding is the largest income tax component of the income tax. Withholding (\$9.7 billion) is most affected by growth in wages and salaries. Over the forecast horizon, **Michigan wages and salaries** are projected to grow 3.5 percent in FY 2019, and to increase 3.7 percent both in FY 2020 and in FY 2021.

Sales and use taxes depend primarily on **Michigan disposable (after tax) income** and inflation. Disposable income is projected to increase 3.7 percent both in FY 2019 and in FY 2020 and to rise 3.8 percent in FY 2021. Prices, as measured by the **Detroit CPI**, are forecast to rise 1.4 percent in FY 2019, to increase 1.9 percent in FY 2020 and to rise 1.8 percent in FY 2021.

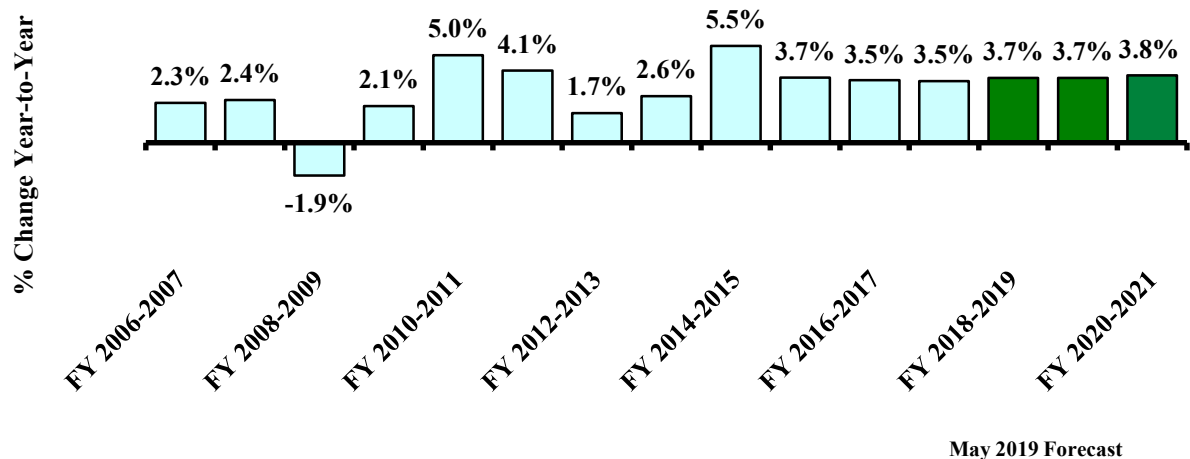
### Michigan Wages and Salaries to Report Moderate Growth Basis for Income Tax Withholding Collections



Source:

Bureau of Economic Analysis, U.S. Department of Commerce, and Administration Forecast, May 2019.

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



Source: Research Seminar in Quantitative Economics, University of Michigan, and Administration Forecast, May 2019.

## **Forecast Risks**

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

**Consumer and Economic Sentiment.** Consumer sentiment is down slightly from a year ago, and CEO confidence is down sharply. To the extent to which expectations are disappointed, sentiment could drop sharply and, in turn, weaken the macroeconomy. Currently, higher oil/gasoline prices may help prop up business confidence but depress consumer sentiment.

**International Economies and Geopolitical Tensions.** International geopolitical and military tensions have broadened and heightened recently -- along with concerns about those tensions' impact on the U.S. economy.

Substantial uncertainty surrounds U.S. trade international relationships. These include uncertainties around the U.S.-Mexico-Canada Agreement (USMCA) trade pact (a renegotiated NAFTA). USMCA faces uncertainties as to its ratification, the ultimate elements of the trade pact and its impact on the U.S. economy. Uncertainty also surrounds whether Canada and Mexico will remain subject to current U.S. import tariffs on steel and aluminum which are key inputs to production.

Among international trade risks, the ongoing U.S. trade war with China represents the greatest threat to the U.S. economy. Over three rounds of tariff increases between July 2018 and September 2018, the U.S. imposed new tariffs on Chinese imports totaling \$250 billion while China has imposed retaliatory tariffs on U.S. imports equaling \$110 billion. The U.S. had scheduled to impose additional tariffs on Chinese imports to the U.S. on January 1, 2019. However, in early December, the U.S. and China agreed to a 90-day trade truce under which the U.S. postponed imposing any new tariffs or higher tariff rates on Chinese imports.

With the truce due to expire in early March 2019, the U.S. further delayed an increase in tariffs on Chinese imports, citing "substantial progress." Through April 2019, ongoing U.S.-China trade negotiations appeared to be moving forward. In late April 2019, there were indications that the two nations were on the verge of signing a trade pact. However, on May 10, 2019, the U.S., citing backsliding by China, raised tariff rates to 25 percent from 10 percent on \$200 billion of Chinese imports. The U.S. also announced that it would start the process to impose a 25 percent tariff on the remaining \$325 billion in Chinese imports that are currently not subject to a tariff. In response, China threatened "necessary countermeasures." On May 10, 2019, the United States and China broke off trade talks with no agreement and no announcement on future talks. On May 13, 2019, China ordered higher tariffs rates on U.S. imports to as much as 25 percent, effective June 1. Prior to the early May escalation, indications were that negotiations were progressing, which helped to stabilize financial markets and, to some degree, lessened businesses' uncertainty regarding U.S.-China trade relations. Conversely, the recent abrupt negative shift in U.S.-China trade relations could raise consumer prices, increase business costs, unsettle financial markets, worsen business sentiment and slow the U.S. economy.



Political turmoil in the United Kingdom increased the likelihood that the U.K. would depart from the European Union without a United Kingdom-Euro Zone agreement in place. If the U.K. were to leave the E.U. without an agreement in place, the U.K. economy would likely be thrown into turmoil. Still more, given the U.K.'s central role in European financial markets, the Euro Zone would also be substantially rattled both financially and economically.

The European Union projects weak economic growth among its members with expected 1.3 percent growth expected in 2019 and just 1.5 percent growth in 2020. Still more the European Union reports that “substantial downside risks to the growth outlook remain” -- including risks associated with the escalating U.S.-China trade war and the prospect of the United Kingdom's withdrawal from the EU without a deal.

In 2018, China's economy grew 6.6 percent – the slowest annual growth since 1990. Still more, in 2018's final quarter (2018Q4), the Chinese year-over-year economic growth slowed to 6.4 percent. In 2019Q1, China's economy sustained 6.4 percent y-o-y growth with the help government actions. In March 2019, the official China manufacturing purchasing managers index rose to 50.5 – a six month high. However, in April, the index fell to 50.1. The baseline forecast assumes 6.0 percent annual economic growth in China. While the baseline forecast's assumed annual growth is slower than last year's near 30-year low, the recent escalation in the U.S.-China trade war could depress China's economic growth below the assumed 6.0 percent rate.

**Light Vehicle Sales.** According to the forecast, light vehicle sales fall slightly over the forecast period but remain at historically high levels in 2019, 2020 and 2021. As a result, there is likely more downside risk to the vehicle forecast than upside risk. In addition, light trucks' historically large share of light vehicle sales likely heightens the severity of the negative impact that higher oil prices and a weaker economy will have on light vehicle sales.

In addition, risks surround upcoming contract negotiations between the Big 3 and UAW and the uncertainties involved with negotiating an agreement.

**Fiscal Policy.** In late December 2017, Congress passed and the President signed a tax reform legislation package that will result in a \$1.5 trillion reduction in federal revenues over the next ten years, excluding effects from macroeconomic feedback. In March 2018, Congress passed and the President signed the Bipartisan Budget Act (BBA) of 2018. The Act increased federal government spending by nearly \$300 billion above budget caps set in 2011. While likely remaining to some degree through 2019, the stimulative impact of the tax cuts and spending increases appears to have begun fading. The stimulative impact will continue to lessen over course of the forecast horizon while, at the same time, the resulting larger federal deficit will increase federal government borrowing and hence raise interest rates, which will depress economic growth.

The end of the recent lengthy partial government shutdown improved the economic outlook. However, split party control of the U.S. Congress increases the likelihood of other federal government shutdowns and other impasses over the forecast horizon.

In February 2018, Congress voted to suspend the federal borrowing limit until March 1, 2019. Consequently, since March 1, the U.S. Treasury has been unable to issue new debt to finance making on-time payments to bondholders and other federal benefit recipients. Since March 1, the Treasury Department has undertaken extraordinary measures to make these payments. However, based on Treasury estimates, those measures will be exhausted in late September or early October. Failure to raise or suspend the debt ceiling until late September would increase Treasury's borrowing costs. Failure to raise the debt ceiling before extraordinary measures are exhausted would risk missed payments and defaulting on the federal government's debts.

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

- The direction and magnitude of changes in oil prices. Geopolitical concerns, increased demand, or a major supply disruption could substantially raise oil prices. On the other hand, stronger/weaker foreign economies than predicted will raise/lower oil prices.
- The net impact of oil price's more immediate impact on capital investment and financial markets and oil price's less immediate impact on consumer spending. Given that the U.S. is producing record amounts of crude oil, and thus oil production is accounting for a growing share of overall U.S. business investment, a sharp drop in oil prices could depress business investment and confidence even as lower gasoline prices increase consumers' discretionary income and sentiment.

**Monetary Policy.** The Fed has indicated that its future actions will be highly data dependent, and thus uncertainty surrounds the timing and size of future rate changes. The longer the Fed remains "patient" and leaves interest rates unchanged, the greater the risk of "overheating" financial/economic markets. Conversely, to the extent to which inflation remains below the Fed's target 2.0 percent rate, the greater the risk of a substantial slowing or decline in economic activity. In addition, uncertainty surrounds whether the Fed's next action would be to *lower* interest rates. Doing so would reduce the risk of contractionary impacts but would heighten the risk of overheating financial/economic markets. Finally, uncertainty surrounds households' and businesses' reactions to future Fed actions -- especially given the great length of time over which interest rates have been extremely low.

In October 2017, the FOMC began a program to reduce gradually the Fed's massive holdings of agency debt and agency mortgage-backed securities accumulated during several rounds of quantitative easing. The Fed is now slowing the decline of its holdings and will soon act to stop reducing the size of its holdings later this year. Nevertheless, uncertainty surrounds the impact that these actions will have on households and businesses. In addition, uncertainty also surrounds whether the Fed would initiate another round of quantitative easing if worsening economic conditions warrant.

**Housing Market.** Projected 2021 housing starts are slightly higher than 2018 starts. A weaker than forecasted housing market would result in weaker U.S. and Michigan economies. Higher than expected mortgage rates could severely curtail housing market growth. However, forecasted 2021 starts total 1.3 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.

**Recession Risk.** A worsening of one or a combination of risks could weigh very heavily on the U.S. financial markets and macroeconomy and push the U.S. economy into a recession.

## SECTION IV

### Administration Revenue Estimates



## **Administration Revenue Estimates**

### **May 17, 2019**

### **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 2018 is the base year. Any non-economic changes to the taxes occurring in FY 2019, FY 2020 and FY 2021 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 2019 Revenue Outlook**

FY 2019 GF-GP revenue is estimated to be \$10,843.6 million, a 1.6 percent decrease compared to FY 2018. The FY 2019 GF-GP revenue estimate is \$143.4 million above the January 2019 Consensus estimate. SAF revenue is forecast to be \$13,466.8 million, a 1.2 percent increase compared to FY 2018. The FY 2019 SAF estimate is \$83.7 million below the January 2019 Consensus estimate (see Table 2).

**Table 2**  
**FY 2018-19 Administration Revenue Estimates**  
(millions)

	<b>Administration May 17, 2019</b>		<b>Change from Jan 2019 Consensus</b>
	<b>Amount</b>	<b>Growth</b>	
General Fund - General Purpose			
Baseline Revenue	\$12,311.3	0.7%	---
Tax Cut Adjustments	(\$1,467.7)	---	---
Net Resources	\$10,843.6	-1.6%	\$143.4
School Aid Fund			
Baseline Revenue	\$13,532.4	1.6%	---
Tax Cut Adjustments	(\$65.6)	---	---
Net Resources	\$13,466.8	1.2%	(\$83.7)
Combined			
Baseline Revenue	\$25,843.7	1.2%	---
Tax Cut Adjustments	(\$1,533.3)	---	---
Net Resources	\$24,310.4	0.0%	\$59.7

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

## **FY 2020 Revenue Outlook**

FY 2020 GF-GP revenue is estimated to be \$10,805.7 million, down 0.3 percent compared to FY 2019. The FY 2020 GF-GP revenue estimate is \$87.9 million above the January 2019 Consensus estimate. SAF revenue is forecast to be \$13,900.6 million, a 3.2 percent increase compared to FY 2019. The FY 2020 SAF estimate is \$26.1 million below the January 2019 Consensus estimate (see Table 3).

**Table 3**  
**FY 2019-20 Administration Revenue Estimates**  
(millions)

	<b>Administration May 17, 2019</b>		<b>Change from Jan 2019 Consensus</b>
	<b>Amount</b>	<b>Growth</b>	
General Fund - General Purpose			
Baseline Revenue	\$12,571.4	2.1%	---
Tax Cut Adjustments	(\$1,765.7)	---	---
Net Resources	\$10,805.7	-0.3%	\$87.9
School Aid Fund			
Baseline Revenue	\$13,896.0	2.7%	---
Tax Cut Adjustments	\$4.6	---	---
Net Resources	\$13,900.6	3.2%	(\$26.1)
Combined			
Baseline Revenue	\$26,467.4	2.4%	---
Tax Cut Adjustments	(\$1,761.1)	---	---
Net Resources	\$24,706.3	1.6%	\$61.8

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

## **FY 2021 Revenue Outlook**

FY 2021 GF-GP revenue is estimated to be \$10,911.5 million, a 1.0 percent increase compared to FY 2020. The FY 2021 GF-GP revenue estimate is \$58.9 million above the January 2019 Consensus estimate. SAF revenue is forecast to be \$14,266.8 million, a 2.6 percent increase compared to FY 2020. The FY 2021 SAF estimate is \$2.4 million above the January 2019 Consensus estimate (see Table 4).

**Table 4**  
**FY 2020-21 Administration Revenue Estimates**  
(millions)

	<b>Administration May 17, 2019</b>		<b>Change from Jan 2019 Consensus</b>
	<b>Amount</b>	<b>Growth</b>	
General Fund - General Purpose			
Baseline Revenue	\$12,845.2	2.2%	---
Tax Cut Adjustments	(\$1,933.7)	---	---
Net Resources	\$10,911.5	1.0%	\$58.9
School Aid Fund			
Baseline Revenue	\$14,233.4	2.4%	---
Tax Cut Adjustments	\$33.4	---	---
Net Resources	\$14,266.8	2.6%	\$2.4
Combined			
Baseline Revenue	\$27,078.6	2.3%	---
Tax Cut Adjustments	(\$1,900.3)	---	---
Net Resources	\$25,178.3	1.9%	\$61.3

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 2017 revenue is compared to CY 2015 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 2017 revenues were \$9.2 billion below the revenue limit. State revenues will also be well below the limit for FY 2018 through FY 2021. FY 2018 revenues are expected to be \$8.8 billion below the limit, FY 2019 revenues \$10.4 billion below the limit, FY 2020 revenues \$11.1 billion below the limit, and FY 2021 revenues \$11.6 billion below the limit (See Table 5).

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

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>
	<u>Final</u>	<u>Admin</u>	<u>Admin</u>	<u>Admin</u>	<u>Admin</u>
	<u>June 2018</u>	<u>Jan 2019</u>	<u>Jan 2019</u>	<u>Jan 2019</u>	<u>Jan 2019</u>
<b>Revenue Subject to Limit</b>	\$31,109.2	\$32,876.2	\$33,317.1	\$34,202.8	\$35,145.2
<b><u>Revenue Limit</u></b>	<b><u>CY 2015</u></b>	<b><u>CY 2016</u></b>	<b><u>CY 2017</u></b>	<b><u>CY 2018</u></b>	<b><u>CY 2019</u></b>
Personal Income	\$424,807	\$439,361	\$460,270	\$477,760	\$492,273
Ratio	9.49%	9.49%	9.49%	9.49%	9.49%
Revenue Limit	\$40,314.2	\$41,695.4	\$43,679.6	\$45,339.4	\$46,716.7
<b><u>Amount Under (Over) Limit</u></b>	<b>\$9,205.0</b>	<b>\$8,819.2</b>	<b>\$10,362.5</b>	<b>\$11,136.6</b>	<b>\$11,571.5</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.

Recently enacted legislation, PA 613 of 2018, prohibits the legislature from appropriating money from the fund for a fiscal year when the annual growth rate for the calendar year in which that fiscal year ends is estimated to be greater than 0% at the most recent consensus revenue

estimating conference. When the annual growth rate is estimated to be less than 0% at the most recent consensus revenue estimating conference, the legislature may appropriate by law for the fiscal year ending in the current calendar year no more than 25% of the prior fiscal year ending balance in the fund as reported in the comprehensive annual financial report.

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.

Real calendar year personal income is not projected to be below 0% during the forecast horizon. Therefore, no payouts are projected. Real calendar year personal income is projected to be above 2 percent in FY 2020 only. This results in a pay-in for FY 2021 of \$70.2 million

### **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 2020 SAF revenue adjustment factor is calculated by dividing the sum of FY 2019 and FY 2020 SAF revenue by the sum of FY 2018 and FY 2019 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 2020, the SAF revenue adjustment factor is calculated to be 1.0214 (See Table 6). For FY 2021, the SAF revenue adjustment factor is calculated to be 1.0255 (See Table 7).

**Table 6**  
**Administration School Aid Revenue Adjustment Factor**  
**For Fiscal Year 2020**

	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>
Baseline SAF Revenue	\$13,321.0	\$13,532.4	\$13,896.0
Balance Sheet Adjustments	<u>(\$19.0)</u>	<u>(\$65.6)</u>	<u>\$4.6</u>
Net SAF Estimates	\$13,302.0	\$13,466.8	\$13,900.6
Subtotal Adjustments to FY 2020 Base	<u>\$23.6</u>	<u>\$70.2</u>	<u>\$0.0</u>
Baseline Revenue on a FY 2020 Base	\$13,325.6	\$13,537.0	\$13,900.6

#### **School Aid Fund Revenue Adjustment Calculation for FY 2020**

Sum of FY 2018 & FY 2019	\$13,325.6	+	\$13,537.0	=	\$26,862.6
Sum of FY 2019 & FY 2020	\$13,537.0	+	\$13,900.6	=	\$27,437.6

<b>FY 2020 Revenue Adjustment Factor</b>	<b>1.0214</b>
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Note: Factor is calculated off a FY 2020 base year.

**Table 7**  
**Administration School Aid Revenue Adjustment Factor**  
**For Fiscal Year 2021**

	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>
Baseline SAF Revenue	\$13,532.4	\$13,896.0	\$14,233.4
Balance Sheet Adjustments	<u>(\$65.6)</u>	<u>\$4.6</u>	<u>\$33.4</u>
Net SAF Estimates	\$13,466.8	\$13,900.6	\$14,266.8
Subtotal Adjustments to FY 2021 Base	<u>\$99.0</u>	<u>\$28.8</u>	<u>\$0.0</u>
Baseline Revenue on a FY 2021 Base	\$13,565.8	\$13,929.4	\$14,266.8

School Aid Fund Revenue Adjustment Calculation for FY 2021

Sum of FY 2019 & FY 2020	\$13,565.8	+	\$13,929.4	=	\$27,495.2
Sum of FY 2020 & FY 2021	\$13,929.4	+	\$14,266.8	=	\$28,196.2

<b>FY 2021 Revenue Adjustment Factor</b>	<b>1.0255</b>
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Note: Factor is calculated off a FY 2021 base year.

**Revenue Detail**

The estimated tax and revenue totals include the effects of all enacted tax changes. The revenue totals by tax are presented separately for GF-GP and for the SAF (See Tables 8 and 9). Tax totals for the income, sales, use, CIT/MBT, tobacco and casino taxes for all funds are also included (See Table 10).

**Table 8**  
**Administration General Fund General Purpose Revenue Detail**  
(millions)

	FY 2019		FY 2020		FY 2021	
	Amount	Growth	Amount	Growth	Amount	Growth
<b>GF-GP Tax Amounts</b>						
Income Tax	\$7,107.9	-2.2%	\$7,041.8	-0.9%	\$7,101.8	0.9%
Sales	\$1,302.1	2.5%	\$1,369.9	5.2%	\$1,410.9	3.0%
Use	\$756.0	-5.6%	\$723.1	-4.4%	\$684.9	-5.3%
Cigarette	\$181.0	-0.2%	\$178.7	-1.3%	\$177.1	-0.9%
Beer & Wine	\$52.0	2.4%	\$53.0	1.9%	\$54.0	1.9%
Liquor Specific	\$58.5	1.2%	\$59.6	1.9%	\$60.6	1.7%
Insurance Co. Premium	\$386.0	-1.8%	\$391.6	1.5%	\$402.2	2.7%
CIT/MBT	\$553.7	38.0%	\$457.9	-17.3%	\$471.7	3.0%
Telephone & Telegraph	\$32.0	6.3%	\$32.0	0.0%	\$32.0	0.0%
Oil & Gas Severance	\$27.0	3.1%	\$28.0	3.7%	\$30.0	7.1%
Essential Services Assess.	\$107.0	7.8%	\$114.0	6.5%	\$123.1	8.0%
Penalties and Interest	\$139.0	-20.7%	\$134.2	-3.5%	\$136.0	1.3%
Corporate Income	\$0.0	0.0%	\$0.0	0.0%	\$0.0	0.0%
Railroad/Car Loaning	\$2.0	0.0%	\$2.0	0.0%	\$2.0	0.0%
Enhanc. Enforce/ACS	(\$150.0)	2.0%	(\$152.0)	1.3%	(\$154.0)	1.3%
<b>Total GF-GP Taxes</b>	<b>\$10,484.2</b>	<b>-0.9%</b>	<b>\$10,436.8</b>	<b>-0.5%</b>	<b>\$10,535.3</b>	<b>0.9%</b>
<b>GF-GP Non-Tax Revenue</b>						
Federal Aid	\$13.3	358.6%	\$13.3	0.0%	\$13.3	0.0%
From Local Agencies	\$0.1	NA	\$0.1	0.0%	\$0.1	0.0%
From Services	\$7.0	150.0%	\$7.0	0.0%	\$7.0	0.0%
From Licenses & Permits	\$14.0	-1.4%	\$14.0	0.0%	\$14.0	0.0%
Miscellaneous	\$10.0	-77.3%	\$10.0	0.0%	\$10.0	0.0%
Interfund Interest	\$5.0	-20.6%	\$6.5	30.0%	\$7.0	7.7%
Liquor Purchase	\$235.0	1.9%	\$240.0	2.1%	\$245.0	2.1%
Charitable Games	\$5.0	163.2%	\$5.0	0.0%	\$5.0	0.0%
Transfer From Escheats	\$70.0	-32.4%	\$73.0	4.3%	\$74.8	2.5%
Other Non Tax	\$0.0	0.0%	\$0.0	0.0%	\$0.0	0.0%
<b>Total Non Tax</b>	<b>\$359.4</b>	<b>-17.6%</b>	<b>\$368.9</b>	<b>2.6%</b>	<b>\$376.2</b>	<b>2.0%</b>
<b>Total GF-GP Revenue</b>	<b>\$10,843.6</b>	<b>-1.6%</b>	<b>\$10,805.7</b>	<b>-0.3%</b>	<b>\$10,911.5</b>	<b>1.0%</b>

**Table 9**  
**Administration School Aid Fund Revenue Detail**

	FY 2019		FY 2020		FY 2021	
	Amount	Growth	Amount	Growth	Amount	Growth
<b>School Aid Fund</b>						
Income Tax	\$2,829.7	-2.2%	\$2,855.5	0.9%	\$2,915.3	2.1%
Sales Tax	\$6,041.7	2.7%	\$6,325.0	4.7%	\$6,523.2	3.1%
Use Tax	\$606.0	-4.2%	\$603.5	-0.4%	\$597.2	-1.0%
Liquor Excise Tax	\$58.1	1.9%	\$59.2	1.9%	\$60.2	1.7%
Cigarette & Tobacco	\$344.0	0.1%	\$338.8	-1.5%	\$334.7	-1.2%
Marijuana Excise Tax	\$0.0	0.0%	\$23.6	NA	\$43.1	82.6%
State Education Tax	\$2,090.4	5.2%	\$2,163.1	3.5%	\$2,223.4	2.8%
Real Estate Transfer	\$347.9	-0.7%	\$353.4	1.6%	\$359.8	1.8%
Industrial Facilities Tax	\$36.5	0.6%	\$36.5	0.0%	\$37.5	2.7%
Casino (45% of 18%)	\$117.5	1.8%	\$118.5	0.9%	\$119.0	0.4%
Commercial Forest	\$3.3	-13.2%	\$3.3	0.0%	\$3.3	0.0%
Other Spec Taxes	\$23.0	8.0%	\$23.0	0.0%	\$23.0	0.0%
<b>Subtotal Taxes</b>	\$12,498.1	1.4%	\$12,903.4	3.2%	\$13,239.7	2.6%
Lottery Transfer	\$968.7	-1.1%	\$997.2	2.9%	\$1,027.1	3.0%
<b>Total SAF Revenue</b>	\$13,466.8	1.2%	\$13,900.6	3.2%	\$14,266.8	2.6%

**Table 10**  
**Administration Major Tax Totals**

	FY 2019		FY 2020		FY 2021	
	Amount	Growth	Amount	Growth	Amount	Growth
<b>Major Tax Totals (Includes all Funds)</b>						
Income Tax	\$10,271.4	1.1%	\$10,435.1	1.6%	\$10,686.9	2.4%
Sales Tax	\$8,298.7	2.7%	\$8,686.6	4.7%	\$8,957.9	3.1%
Use Tax	\$1,800.0	-2.4%	\$1,792.5	-0.4%	\$1,773.6	-1.1%
CIT/MBT	\$553.7	38.0%	\$457.9	-17.3%	\$471.7	3.0%
Cigarette and Tobacco	\$914.1	-0.3%	\$903.0	-1.2%	\$894.5	-0.9%
Casino Tax	\$117.5	1.6%	\$118.5	0.9%	\$119.0	0.4%