Economic and Revenue Forecasts

FY 2018 * FY 2019 * FY 2020

Consensus Revenue Estimating Conference
January 11, 2018
Outline

• Economic Forecast
  Eric Bussis, Department of Treasury

• Revenue Estimates for Major Taxes
  Jim Stansell, House Fiscal Agency

• Revenue Estimates by Fund
  David Zin, Senate Fiscal Agency

Per Capita Personal Income Growth

Yearly Percent Change

<table>
<thead>
<tr>
<th>Year</th>
<th>US</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>4.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2008</td>
<td>3.1%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>2009</td>
<td>3.2%</td>
<td>2.7%</td>
</tr>
<tr>
<td>2010</td>
<td>5.4%</td>
<td>3.6%</td>
</tr>
<tr>
<td>2011</td>
<td>6.3%</td>
<td>4.3%</td>
</tr>
<tr>
<td>2012</td>
<td>3.5%</td>
<td>0.5%</td>
</tr>
<tr>
<td>2013</td>
<td>1.3%</td>
<td>1.0%</td>
</tr>
<tr>
<td>2014</td>
<td>4.5%</td>
<td>4.1%</td>
</tr>
<tr>
<td>2015</td>
<td>4.2%</td>
<td>3.7%</td>
</tr>
<tr>
<td>2016</td>
<td>1.6%</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

January 2018 Consensus Conference
Retail Sales Trending Up

Year-Over-Year Change

Source: Michigan Department of Treasury. January 2018 Consensus Conference

Michigan Per Capita Credit Card Debt

Per Capita Credit Card Debt on pace to increase more than 10%.

Michigan Building Permits Continue to Recover

12 month moving annual average

Source: U.S. Census Bureau and Michigan Department of Treasury.
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GDP Forecasts

Annual Percent Change

2017 2.3% 2018 2.4% 2.4% 2.4% 2.6% 2019 2.2% 1.9% 2.3% 2020 1.9% 1.9% 2.0%

January 2018 Consensus Conference
Light Vehicle Sales Forecast

 Millions of Units

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
<td>17.1</td>
<td>16.9</td>
<td>16.9</td>
<td>16.6</td>
</tr>
</tbody>
</table>

HFA  SFA  Admin.  

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Vehicle Sales at Historically High Levels

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Millions of Units</td>
<td>15.4</td>
<td>17.4</td>
<td>17.2</td>
<td>16.8</td>
<td>16.6</td>
<td>16.9</td>
<td>16.9</td>
<td>16.5</td>
<td>16.1</td>
<td>16.7</td>
<td>15.5</td>
<td>17.4</td>
</tr>
</tbody>
</table>

Source: Automotive News.

January 2018 Consensus Conference
MI Motor Vehicle Production & Employment

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Inflation Expected to Increase

Detroit Consumer Price Index
Fiscal Year Growth

2017 2018 2019 2020
Actual □ HFA □ SFA □ Admin.

January 2018 Consensus Conference
Michigan Wage and Salary Employment

Annual Percent Change

<table>
<thead>
<tr>
<th>Year</th>
<th>HFA</th>
<th>SFA</th>
<th>Admin.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1.5%</td>
<td></td>
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</tr>
<tr>
<td>2018</td>
<td>1.0%</td>
<td>0.9%</td>
<td>0.9%</td>
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<tr>
<td>2019</td>
<td>0.8%</td>
<td>0.9%</td>
<td>1.1%</td>
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<tr>
<td>2020</td>
<td>0.9%</td>
<td>0.9%</td>
<td>1.3%</td>
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Actual

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Michigan Job Gains Expected Through 2020

Change in Michigan Wage and Salary Employment
Thousands

<table>
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<tbody>
<tr>
<td></td>
<td>-112.0</td>
<td>-105.6</td>
<td>-63.4</td>
<td>-58.7</td>
<td>-17.0</td>
<td>-9.3</td>
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<td>-3.0</td>
<td>6.7</td>
<td>13.1</td>
<td>20.3</td>
<td>27.4</td>
<td>34.5</td>
<td>41.6</td>
<td>48.7</td>
<td>55.8</td>
<td>63.0</td>
<td>70.2</td>
<td>77.4</td>
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<tr>
<td></td>
<td>88.0</td>
<td>88.5</td>
<td>81.6</td>
<td>76.0</td>
<td>72.3</td>
<td>61.5</td>
<td>64.5</td>
<td>40.9</td>
<td>42.4</td>
<td>46.1</td>
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</tbody>
</table>

Average Agency Forecasts

January 2018 Consensus Conference
Forecast of Major Taxes

- Income tax withholding slower in FY 17 compared to FY16 but is expected to grow through FY20.
- Sales tax growth rate was strong in FY17 after being very weak in FY15 and FY16 but is expected to grow modestly through the forecast period.
- CIT/MBT remains the most volatile major tax for both economic and non-economic reasons.
- IIT transportation earmark and homestead property tax credit change reduces GF-GP revenue in FY19 & FY20.

IIT Withholding & Sales Tax FY Growth Rates

Source: Michigan Department of Treasury

January 2018 Consensus Conference
Baseline Income Tax Growth

Fiscal Year Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>2017 Actual</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.9%</td>
<td>4.5%</td>
<td>5.1%</td>
<td>4.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.7%</td>
<td>3.6%</td>
<td>3.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.8%</td>
<td>3.5%</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

January 2018 Consensus Conference

Net Income Tax Revenue Estimates

Fiscal Year Billions

<table>
<thead>
<tr>
<th>Year</th>
<th>2017 Actual</th>
<th>2018</th>
<th>2019</th>
<th>2019</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>$9.45</td>
<td>$9.88</td>
<td>$9.94</td>
<td>$10.02</td>
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<tr>
<td></td>
<td></td>
<td>$10.07</td>
<td>$10.06</td>
<td>$10.38</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>$10.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$10.53</td>
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January 2018 Consensus Conference
Baseline Sales Tax Growth

Fiscal Year Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>6.9%</td>
<td>2.9%</td>
<td>3.1%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

January 2018 Consensus Conference

Net Sales Tax Revenue Estimates

Fiscal Year
Billions

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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<tr>
<td></td>
<td></td>
<td>$7.80</td>
<td>$8.04</td>
<td>$8.05</td>
<td>$8.30</td>
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January 2018 Consensus Conference
Net SET Revenue Estimates

Fiscal Year
Billions

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>$1.96</td>
<td>$2.03</td>
<td>$2.02</td>
<td>$2.10</td>
<td>$2.18</td>
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</table>

Net CIT/MBT Revenue Estimates

Fiscal Year
Billions

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$0.49</td>
<td>$0.20</td>
<td>$0.09</td>
<td>$0.27</td>
<td>$0.34</td>
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January 2018 Consensus Conference
GF-GP and School Aid Fund Revenue

- Growth rate comparisons.
- Level comparisons.
- Budget Stabilization Fund calculation.
- Constitutional Revenue Limit calculation.

January 2018 Consensus Conference

GF-GP and School Aid Revenue

Baseline Growth Rates Before Tax Changes

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GF-GP Net Revenue Growth

Fiscal Year Growth

2017 2018 2019 2020

\[ \text{HFA} \quad \text{SFA} \quad \text{Admin.} \]

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GF-GP Net Revenue Estimates

Fiscal Year
Billions

2017 2018 2019 2020

\[ \text{Actual} \]

\[ \text{HFA} \quad \text{SFA} \quad \text{Admin.} \]

January 2018 Consensus Conference
School Aid Fund Net Growth

Fiscal Year Growth

- 2017 Actual
- 2018
  - HFA
  - SFA
  - Admin.
- 2019
  - HFA
  - SFA
  - Admin.
- 2020
  - HFA
  - SFA
  - Admin.

January 2018 Consensus Conference

School Aid Fund Net Revenue Estimates

Fiscal Year
Billions

- 2017 Actual
- 2018
  - HFA
  - SFA
  - Admin.
- 2019
  - HFA
  - SFA
  - Admin.
- 2020
  - HFA
  - SFA
  - Admin.

January 2018 Consensus Conference
FY 2019 Changes Since May Consensus Estimates

Millions

[Diagram showing changes in billions]

School Aid

$45.4

$125.8

$137.6

$162.5

$93.1

$245.3

GF-GP

□ HFA □ SFA □ Admin

January 2018 Consensus Conference

Revenue Forecast Comparison

Millions

<table>
<thead>
<tr>
<th>Revenue</th>
<th>FY 2018</th>
<th></th>
<th></th>
<th>FY 2019</th>
<th></th>
<th></th>
<th>FY 2020</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>House</td>
<td>Fiscal</td>
<td>Senate</td>
<td>Treasury</td>
<td>House</td>
<td>Fiscal</td>
<td>Senate</td>
<td>Treasury</td>
<td>House</td>
</tr>
<tr>
<td>GF-GP</td>
<td>$10,953.4</td>
<td>$10,194.7</td>
<td>$10,218.4</td>
<td>$10,166.4</td>
<td>$10,327.0</td>
<td>$10,246.2</td>
<td>$10,458.9</td>
<td>$10,429.9</td>
<td>$10,382.8</td>
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<tr>
<td>School Aid Fund</td>
<td>$13,105.9</td>
<td>$13,082.9</td>
<td>$13,078.8</td>
<td>$13,448.1</td>
<td>$13,475.9</td>
<td>$13,459.8</td>
<td>$13,818.1</td>
<td>$13,852.9</td>
<td>$13,803.3</td>
</tr>
<tr>
<td>Difference from May</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GF-GP</td>
<td>($55.2)</td>
<td>($103.9)</td>
<td>($177.2)</td>
<td>($33.1)</td>
<td>($62.5)</td>
<td>($245.1)</td>
<td>($58.1)</td>
<td>($429.9)</td>
<td>($382.8)</td>
</tr>
<tr>
<td>School Aid Fund</td>
<td>$131.3</td>
<td>$112.2</td>
<td>$106.8</td>
<td>$112.0</td>
<td>$46.8</td>
<td>$128.8</td>
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<tr>
<td>Combined</td>
<td>$801.2</td>
<td>$8.4</td>
<td>($70.9)</td>
<td>$445.5</td>
<td>($17.3)</td>
<td>($185.5)</td>
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</table>

January 2018 Consensus Conference
Budget Stabilization Fund

- In FY 2018, the Agencies estimate no pay-ins.
- In FY 2019, the Agencies estimate pay-ins ranging from $53 to $75 million.
- In FY 2020, the Agencies estimate pay-ins ranging from $36 to $83 million.
- No BSF pay-outs are estimated by any of the Agencies during FY 2017 through FY 2020.

Constitutional Revenue Limit Calculation

Billions

January 2018 Consensus Conference
Forecast Risks

- Federal fiscal and monetary policy uncertainty
- International economics uncertainty
  - Trade Policy
  - Exchange Rates
- How tight are labor markets?
- Housing: How will it respond to higher interest rates?
- Business tax volatility

Economic and Revenue Forecasts

FY 2018 * FY 2019 * FY 2020

Consensus Revenue Estimating Conference
January 11, 2018