City Income Taxes and the COVID-19 Recession

Jill Roof, Citizens Research Council of Michigan
jroof@crcmich.org

Antonios M. Koumpias, University of Michigan-Dearborn
koumpias@umich.edu

Key Points

- Twenty-four Michigan cities levy an income tax, which supplements property tax and state revenue sharing and, on average, produces one-third of general-fund revenue.
- In a recession like the one we are in now, income-tax revenues will fall as unemployment rises, which will have an impact on local services.
- Income taxes tend to be strongly pro-cyclical and highly sensitive to changes in the economy.
- For several reasons, income tax revenue losses are likely to be starker for cities than for the state.

The 2020 COVID-19 recession touches people and institutions alike, and local governments are no exception. They are incurring new costs – as operations change to keep workers and the public safe – while revenues decline, related to reductions in economic activity. While property taxes remain stable in the near term, city income tax revenues are another matter entirely.

About the Tax

Any one of Michigan’s 276 cities may levy an income tax, under an ordinance approved by a city’s legislative body and with voter approval. Currently, 24 cities levy an income tax; they range in size from very small (Hudson) to the state’s largest city (Detroit). Fifteen percent of the population lives in a city that levies the tax.

The tax is a direct tax on income for residents, including salaries, net profits, investments, and other income. For nonresidents, it is a direct tax on earnings related to work or business activities conducted in the city. For corporations, it is a direct tax on income earned in the city with allocation based on property, sales, and payroll. The Michigan Supreme Court recently sided with Detroit in a case against a law firm arguing that corporations must include revenue for all services performed within the city, even if a client was in another community.

State law sets the tax rate at 1.0 percent on residents and corporations and 0.5 percent on nonresidents. Some cities are allowed to levy higher rates, but the nonresident rate cannot exceed one-half of the resident rate. For most, the revenue generated is deposited into the city’s general fund; a portion of Detroit’s city income tax revenue is earmarked for the city’s police budget.
Cities, like other Michigan local governments, rely heavily on local property taxes. A Citizens Research Council report suggests that property tax revenues are not sufficient to support local budgets and are disconnected from the local economy. These revenues are supplemented with state revenue sharing, which has been cut substantially over the years. Problems with these sources have led to calls to allow local governments in Michigan to levy more types of taxes (e.g., income, sales, gas, etc.). But so far, the state has largely limited this option to city income taxes. Further information on state revenue sharing for cities, villages and townships can be found in a companion paper here.

While property taxes are generally stable (one major exception: the Great Recession), income taxes grow with the economy and diversify city revenue sources and tax dependence. Their downside is the reverse: Since income taxes are more connected to the economy, they are more sensitive to the business cycle than property taxes and more likely to fall during recessions.

Researchers often measure the sensitivity of tax revenues to changes in the economy using a measure called “tax revenue elasticity.”¹ Past research suggests that state income tax revenue in Michigan was stable during the 1930-50 period.² Research using more recent data and more sophisticated research methods found that state income tax revenue in Michigan has been much more volatile in the short- and long-run.³ However, it must be noted that the measure of tax revenue sensitivity in this study generates substantially different results if one does not account for changes in tax rates and points toward a stable state income tax system in Michigan.⁴

Unfortunately, much less is known about the sensitivity of local income tax revenue in response to changes in income. One such study, in the context of school district income taxes in Ohio, shows that local income tax yield grows proportionally to income in the long-run but varies sharply in the short-run.⁵ Preliminary analysis using 1996 to 2018 data from eight Michigan cities suggests that city income tax revenues in Michigan are highly volatile. In the long run, a one percent increase in local GDP (used to measure aggregate income) will lead to a disproportionately large increase in city income tax revenue by 1.932 percent. This also implies that, in percentage terms, tax revenue declines will be even greater than declines in local aggregate income or gross local economic activity. In relative terms, this implies that city income tax revenue is more sensitive to income changes than state income tax revenue.

Due to this sensitivity to economic conditions, city income tax revenues will fall quickly when the economy declines. Already, more than a quarter of Michigan’s workforce has filed unemployment claims and payroll employment declined by 26 percent in the second quarter of 2020. Cities that rely on income taxes could experience deep financial pain.

City Income Tax Revenue Trends

It helps to look at revenue trends over time. The chart below shows state and city income tax revenue growth as well as city property tax revenue growth statewide. City and state income taxes largely fell from 2000 to 2010 due to Michigan’s single state recession and the immediately succeeding Great Recession. The period of economic

¹ An elasticity estimate less (greater) than unity is indicative of a(n) stable (unstable) tax system, meaning that tax revenue grows or declines slower (faster) than income.
² Elasticity = 0.53; Groves and Kahn, 1952.
⁶ Battle Creek, Detroit, Flint, Grand Rapids, Jackson, Lansing, Muskegon and Saginaw.
expansion that began around 2010 saw city income tax revenue grow faster than property tax revenue, but much more slowly than state income tax revenue.

Income and Property Tax Revenue Growth, 1996-2017

Why the mismatch between state and city? Because income taxes in Michigan are often levied by the state’s struggling cities. The local data captures population out-migration and economic losses in core cities. For example, when we pull Detroit out of the equation, we can see growth improves for the other income tax cities.

If we take a close look at total general fund revenue generated (see table below), we find that these cities get approximately 16 percent of their revenue from the property tax, 34 percent from the income tax, and 19 percent from state revenue sharing.

2018 City General Fund Revenue in Income Tax Cities

<table>
<thead>
<tr>
<th>City</th>
<th>2018 Population</th>
<th>2018 City Revenue</th>
<th>% from Property Tax</th>
<th>% from Income Tax</th>
<th>% from State Revenue Sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albion**</td>
<td>8,477</td>
<td>$4,328,120</td>
<td>23.6%</td>
<td>22.4%</td>
<td>25.6%</td>
</tr>
<tr>
<td>Battle Creek</td>
<td>51,247</td>
<td>$50,035,818</td>
<td>31.3%</td>
<td>33.4%</td>
<td>11.6%</td>
</tr>
</tbody>
</table>

Source: Citizens Research Council of Michigan, Outline of the Michigan Tax System; Michigan Department of Treasury
<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
<th>Total Revenue</th>
<th>General Fund Share</th>
<th>Other Revenue Share</th>
<th>Other Expenditure Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benton Harbor*</td>
<td>9,826</td>
<td>$7,694,016</td>
<td>26.2%</td>
<td>5.5%</td>
<td>30.1%</td>
</tr>
<tr>
<td>Big Rapids*</td>
<td>10,395</td>
<td>$8,079,497</td>
<td>40.6%</td>
<td>28.4%</td>
<td>19.3%</td>
</tr>
<tr>
<td>Detroit</td>
<td>672,662</td>
<td>$1,005,999,069</td>
<td>11.8%</td>
<td>30.8%</td>
<td>19.9%</td>
</tr>
<tr>
<td>Flint</td>
<td>95,943</td>
<td>$50,936,640</td>
<td>9.1%</td>
<td>30.4%</td>
<td>29.8%</td>
</tr>
<tr>
<td>Grand Rapids</td>
<td>200,217</td>
<td>$131,146,695</td>
<td>10.5%</td>
<td>62.2%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Grayling**</td>
<td>1,838</td>
<td>$1,665,545</td>
<td>52.2%</td>
<td>0.0%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Hamtramck</td>
<td>21,716</td>
<td>$17,455,737</td>
<td>37.9%</td>
<td>15.7%</td>
<td>19.5%</td>
</tr>
<tr>
<td>Highland Park**</td>
<td>10,806</td>
<td>$12,543,287</td>
<td>21.9%</td>
<td>30.3%</td>
<td>24.5%</td>
</tr>
<tr>
<td>Hudson***</td>
<td>2,217</td>
<td>$1,963,609</td>
<td>37.2%</td>
<td>0.0%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Ionia*</td>
<td>10,952</td>
<td>$5,517,281</td>
<td>11.8%</td>
<td>45.5%</td>
<td>19.9%</td>
</tr>
<tr>
<td>Jackson*</td>
<td>32,605</td>
<td>$24,794,433</td>
<td>33.9%</td>
<td>36.5%</td>
<td>18.6%</td>
</tr>
<tr>
<td>Lansing*</td>
<td>118,427</td>
<td>$130,362,534</td>
<td>29.5%</td>
<td>29.5%</td>
<td>14.5%</td>
</tr>
<tr>
<td>Lapeer**</td>
<td>8,621</td>
<td>$12,218,788</td>
<td>23.4%</td>
<td>26.7%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Muskegon</td>
<td>37,287</td>
<td>$28,729,919</td>
<td>25.9%</td>
<td>30.5%</td>
<td>14.5%</td>
</tr>
<tr>
<td>Muskegon Heights**</td>
<td>10,731</td>
<td>$7,185,955</td>
<td>30.3%</td>
<td>13.5%</td>
<td>21.7%</td>
</tr>
<tr>
<td>Pontiac*</td>
<td>59,772</td>
<td>$35,241,739</td>
<td>24.3%</td>
<td>37.8%</td>
<td>28.2%</td>
</tr>
<tr>
<td>Port Huron</td>
<td>28,927</td>
<td>$22,843,436</td>
<td>29.3%</td>
<td>28.4%</td>
<td>19.4%</td>
</tr>
<tr>
<td>Portland***</td>
<td>3,927</td>
<td>$2,095,367</td>
<td>51.1%</td>
<td>0.0%</td>
<td>20.4%</td>
</tr>
<tr>
<td>Saginaw</td>
<td>48,323</td>
<td>$33,620,591</td>
<td>10.7%</td>
<td>40.8%</td>
<td>24.9%</td>
</tr>
<tr>
<td>Springfield**</td>
<td>5,203</td>
<td>$4,093,232</td>
<td>34.6%</td>
<td>24.3%</td>
<td>17.9%</td>
</tr>
<tr>
<td>Walker*</td>
<td>24,880</td>
<td>$17,827,957</td>
<td>10.4%</td>
<td>66.6%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$1,616,379,265</td>
<td>15.7%</td>
<td>33.6%</td>
<td>19.1%</td>
</tr>
</tbody>
</table>

Note: East Lansing is omitted from the table because it passed a city income tax in 2019 and did not start levying the tax until 2020.
Source: Comprehensive Annual Financial Reports; U.S. Census Bureau; CRC calculations
* State revenue sharing data includes intergovernmental and/or all state revenue from CAFR and may overstate unrestricted state revenue sharing.
** Data from Michigan Department of Treasury F-65 data as reported to Munetrix
*** Portland has a City Income Tax Fund where the $978,774 in 2018 income tax revenues went to support debt service and general government.
+ These cities use income tax revenue for purposes other than to support their General Fund.
Issues That Could Impact City Income Tax Revenue

As the 2018 data show, income taxes make up approximately one-third of general fund revenue, on average, for income tax cities. However, this number ranges from zero percent in cities that use their income tax revenue for other funds to over 60 percent in Grand Rapids and Walker. Given this large share, local services will be impacted because of the current recession as income tax revenues dry up in the short term. The outlook for city income tax collections is worse than that for the state tax. Unemployment insurance benefits are not taxable under a local income tax, but they are for state purposes. Thus, cities will experience greater contraction of their tax bases than the state.

Another challenge presented for cities is the extension of the income tax filing deadline (from April 15 to July 15), which could create cash flow problems (strategies for short-term cash-flow borrowing are described here). While this extension provides valuable relief to taxpayers, it shifts settlement of tax obligations into a new fiscal year for those cities with a July-to-June fiscal year.

For the 2020 tax year, revenues will be affected by the migration to at-home work during the pandemic. Nonresidents are taxed on the income earned while working in the city; those who have transitioned work to their homes will count less of their income as being earned in the city, which will likely be especially problematic for Detroit, Grand Rapids, and Lansing. If people return to the office later this year, this will be a one-time impact; however, if telecommuting and work-from-home becomes more pervasive, this will have a more permanent effect on city finances.

How individual cities fare may also be dependent on their population growth and percentage of residents versus nonresidents. Cities in Michigan levying an income tax have experienced substantially different population changes with cities such as Detroit and Flint suffering severe population declines while others such as Grand Rapids have enjoyed mild population increases. Thus, it is reasonable to expect that population changes are mechanically driving increases or decreases of gross income tax revenue, a “population size effect”. Our preliminary analysis confirms that population growth is an important determinant of the responsiveness of city income tax revenues. When explicitly accounting for population growth in the empirical analysis, we find a much stronger association of city income tax revenue with population growth than per capita city income. Lastly, there is descriptive evidence that income tax revenue in cities with a greater proportion of nonresidents, such as Detroit, is more resilient to sudden income changes.

While the short-term outlook is bleak and will depend on how far income tax revenues fall overall, income-tax cities will benefit from having more diversified revenue sources once the economy begins improving. Unfortunately, we do not know when this economic shutdown will end and how far income tax revenues will fall before that happens.

Sources and Additional Information

• Michigan Compiled Laws (MCL) 141.501-141.787.

Updated May 19, 2020

This memo is part of a series of memos in the Local Government COVID-19 Fiscal Strategy and Resource Guide, available at closup.umich.edu/COVID-19. CLOSUP has partnered with public finance experts from universities, consulting firms, and research institutions from around the state to provide local governments up-to-date information as well as a set of ideas and tools that will help them strategically navigate the new fiscal landscape.

Have additional questions or issues you think we should address?

Email: localgov-COVID-19@umich.edu

closup.umich.edu/COVID-19
The Center for Local, State, and Urban Policy (CLOSUP), housed at the University of Michigan’s Gerald R. Ford School of Public Policy, conducts and supports applied policy research designed to inform state, local, and urban policy issues. Find CLOSUP on the web at www.closup.umich.edu and on twitter @closup.