RESEARCH SEMINAR IN QUANTITATIVE ECONOMICS UNIVERSITY OF MICHIGAN

Gabriel M. Ehrlich, Director

George A. Fulton & Saul H. Hymans Directors Emeriti

University of Michigan, Ann Arbor
Department of Economics
611 Tappan Avenue
Ann Arbor, MI 48109-1120

Isa.umich.edu/econ/rsqe 734-764-2567

For Release: 5/26/2023

The Michigan Economic Outlook for 2023–2024

Jacob T. Burton, Gabriel M. Ehrlich, and Michael R. McWilliams
University of Michigan

Introduction

Michigan's labor market is flashing unmistakable signs that it is nearing a full recovery from the pandemic recession. The state's unemployment rate has fallen from 22.6 percent in April of 2020 to just 3.8 percent in April of 2023, in line with its pre-pandemic level. Michigan lost 1,056,000 payroll jobs at the start of the pandemic, which accounted for nearly one quarter of the total. The state has now recovered 1,026,000 of those jobs, bringing its job count to within one percent of the pre-pandemic level. If the average pace of job gains over the past six months were to continue, Michigan would recover all of the jobs that it lost during the pandemic recession by this September.

Longtime observers of the state economy can be forgiven for worrying that the good news means that something is about to go wrong. They can find plenty of ammunition in the growing clouds over the national economic outlook, including the debt ceiling standoff, stress in the banking sector, and inflation that continues to exceed the Fed's target. Additionally, higher mortgage and auto finance interest rates threaten Michigan's cyclical auto and construction industries, as well as its previously booming mortgage industry. The odds of a strike in the auto industry this fall have also been rising recently.

We certainly acknowledge the rising risks that Michigan's recovery could shift into reverse, but our baseline forecast is for the state economy to keep growing over the next year and a half. We project job gains to moderate from 164,200 last year to 67,300 this year, with the state recovering to its prepandemic employment level by the end of the year. Job gains downshift further to 49,100 next year, as

the national economy flirts with recession in late 2023 and early 2024. We project Michigan's unemployment rate to edge up toward 4.5 percent by the middle of next year as labor force growth outpaces job gains and to hover near that level for the remainder of the year. Nonetheless, our forecast takes the state's job count to 1.2 percent higher than the pre-pandemic level by the end of 2024.

Index, 100 = February 2020 Michigan Payroll Employment National Payroll Employment

Figure 1
Michigan's Jobs Recovery Relative to the Nation's

Our guarded optimism rests on our evaluation that the state's blue-collar industries are better positioned for a soft patch in the national economy than they have been in the past. The auto manufacturing industry has not put its recent supply chain challenges entirely behind it. Although the situation is much improved from a year ago, the restocking process remains incomplete, and inventories remain tight for many models. Likewise, it appears that backlogs of demand in the construction industry might provide enough time for some players to reorient from residential to nonresidential projects, averting widespread job losses.

We acknowledge that most of the risks to our relatively sanguine assessment are to the downside. High interest rates could take a larger bite out of vehicle and housing demand than we expect. The banking stress could yet morph into a true crisis, especially if stubborn inflation prompts the Federal

Reserve to resume raising interest rates. And of course, if the debt ceiling standoff is not resolved successfully, all bets are off concerning the economic outlook. Still, it is important to take stock of Michigan's resilience to date in recovering from the pandemic recession. We judge that if Michigan can avoid the tail risks that it faces, its economic recovery has room left to run over the next eighteen months.

Inputs to the Forecast

Major elements from our U.S. forecast dated May 19, 2023, include the following:

- The debt ceiling was officially reached on January 19, 2023, and the Treasury could run out of "extraordinary" measures for debt management as soon as early June. The probability of a U.S. default, while still very low, is markedly higher than during previous debt ceiling fights. Ultimately, we anticipate that Democrats will compromise with Republicans on discretionary nondefense spending cuts to lift the debt ceiling before any major disruptions to the economy occur. The expected spending cuts will not be enough to lower the deficit, though, due to ballooning interest payments on debt. We expect that the federal deficit will rise from 4.3 percent of GDP in fiscal 2022 to 5.9 percent in fiscal 2024.
- In the first quarter of 2023, headline real GDP increased at an annualized rate of 1.3 percent in the second estimate (revised up from 1.1 percent in the preliminary estimate underlying our U.S. forecast). We believe that this seemingly disappointing growth masked continuing underlying momentum in the national economy. Looking ahead, we expect headline growth to slow down but remain positive over the next two quarters. As we move into the final quarter of 2023 and the first quarter of 2024, the economic momentum fades, giving way to a cumulative contraction of 0.2 percent in real GDP during that time. We anticipate that inflation will cool by early- to mid-2024, which should allow for monetary policy easing. As the Federal Reserve lets up on the brakes, real GDP growth begins to accelerate, passing the 2.0 percent pace by the final quarter of 2024.
- The Federal Open Market Committee (FOMC) has raised short-term interest rates by 500 basis points since the start of 2022 in order to rein in inflation. The committee has raised the federal funds rate by 25 basis points in each of the three meetings held this year, leaving the current target range at 5.0–5.25 percent. We expect that the Fed will leave the target range for the federal funds rate at 5.0–5.25 percent for the remainder of the year. In early 2024, however, we anticipate that gradual rate cuts will commence as inflation cools and the labor market shows signs of softening. By the end of 2024, we forecast that the target range for the federal funds rate will be at 4.0–4.25 percent.
- Demand for housing has plummeted due to the spike in mortgage rates, alongside prices that remain high. We anticipate a turnaround in demand as mortgage rates decrease over the next 12–18 months, though. The annual pace of single-family housing starts declines from nearly 1.2 million units in the first quarter of 2022 to a cyclical low of 818,000 units in the third quarter of 2023, when we expect the 30-year mortgage rate to average 6.1 percent. The pace of single-family starts then recovers to roughly 890,000 units by the end of 2024, as broad economic growth returns and the 30-year mortgage rate edges down to 5.4 percent. Single-family construction recovers to just 8.1 percent below its pre-pandemic level by the end of our forecast, despite the 30-year mortgage rate remaining nearly 50 percent higher than the pre-pandemic level.

- The labor market has remained fairly hot despite the Fed's rapid monetary tightening. We suspect that the Fed's success in cooling off inflation over the next year will come partially at the expense of the labor market. We anticipate the unemployment rate to climb from 3.4 percent this April to 4.1 percent by mid-2024. Payroll employment growth has remained solid, with an average of 285,000 job gains per month in 2023. Still a downward trend has been evident recently, and we expect it to continue. We forecast that the national economy will shed 522,000 jobs during the final quarter of 2023 and the first three quarters of 2024 before seeing a modest increase of 90,000 jobs in the final quarter of the year.
- Above-target inflation is driving declines in real disposable income across the country. Real disposable income decreased by 6.1 percent last year, when headline CPI inflation peaked at 8 percent and pandemic-related fiscal stimulus faded into the rearview mirror. We anticipate that real disposable income will display limited growth throughout the remainder of 2023, given the economic slowdown we expect. As the economy gradually recovers from the slowdown, real disposable income growth is expected to turn over a new leaf, reaching an annualized pace of 1.9 percent by the end of 2024.

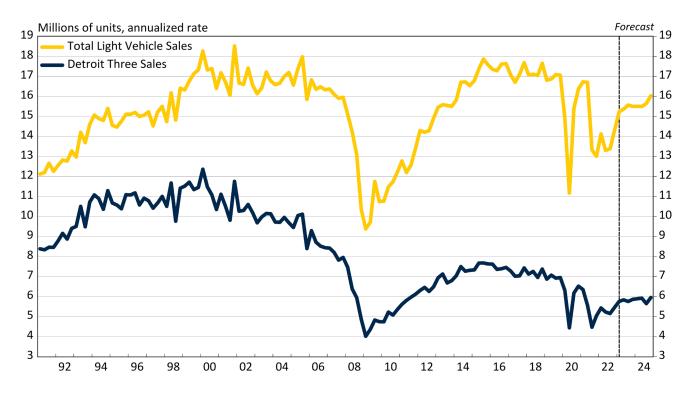
The Forecast of the State Economy

Detroit Three Light Vehicle Sales

Figure 2 illustrates our quarterly forecast for total U.S. and Detroit Three light vehicle sales. In 2022, sales totaled 13.8 million units, marking the lowest annual count since 2011. We anticipate a choppy recovery during our forecast, with a projected sales pace of 16 million units in the final quarter of 2024. That rate would still be roughly 1.0 million units shy of the pace set in the final quarter of 2019. Despite the incomplete sales recovery, we expect that automakers will maintain solid profit margins as they invest more in battery-electric vehicles and continue to focus on high value-added light trucks. We project that light trucks will account for 80.6 percent of all light vehicle sales in the fourth quarter of 2024, up from 74.7 percent in the first quarter of 2020.

The Detroit Three's share of the market increased from 35.9 percent in 2021 to 38.6 percent in 2022 as supply constraints eased throughout last year. Looking forward, we anticipate that the Detroit Three's market share will resume its longer-term decline, falling to 37.7 percent in 2023 and 37.4 percent in 2024. In terms of unit sales, we forecast that Detroit Three light vehicle sales will increase from 5.3 million units in 2022 to 5.8 million in 2023 and 5.9 million in 2024.

Figure 2
Total U.S. vs. Detroit Three Light Vehicle Sales



Our current forecast for Detroit Three light vehicle sales is rooted in relatively optimistic expectations. Our baseline forecast assumes that there will not be a prolonged work stoppage in the course of the upcoming contract negotiations between the United Auto Workers (UAW) and the Detroit Three automakers later this year. Unfortunately, the likelihood of a potential strike this fall appears to have increased over the past few months. In September 2019, UAW members went on strike against General Motors (GM) for 40 days, which was the longest domestic auto strike in over 50 years. We will monitor the upcoming discussions and statements by the UAW and the Detroit Three manufacturers closely this summer and fall to get a better sense of what is in store for the contract negotiations. We remain hopeful that the sides will be able to reach an agreement without damaging the local economy.

Payroll Employment

Figure 3 shows our forecast of Michigan's quarterly payroll job count. On a calendar year basis, job growth totaled 164,200 in 2022, a bit higher than the 159,400 job gains in 2021. Most of the improvement in 2022 happened during the first half of the year, after which the recovery began to slow. Job growth registered a paltry 5,700 jobs in the fourth quarter of last year. Thankfully, though, Michigan's labor market picked up in the first quarter of 2023 with a gain of 23,900 jobs. Even so, we expect quarterly job growth to slow to an average of 13,600 jobs per quarter for the remainder of 2023 as the national economy cools. Job growth in the state continues to lose steam in 2024, averaging 10,500 new jobs per quarter.

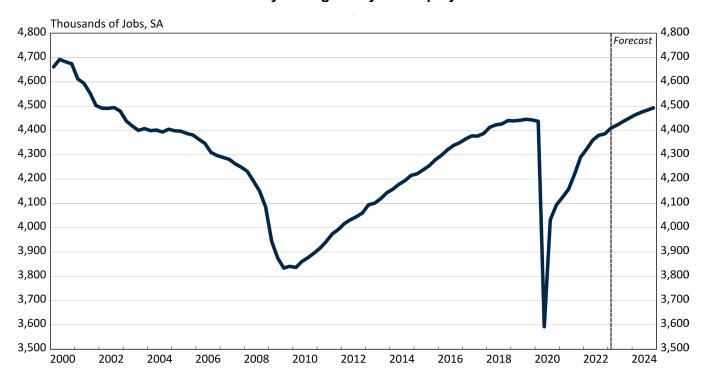


Figure 3

Quarterly Michigan Payroll Employment

Despite the deceleration we are forecasting, we expect that Michigan's payroll job count will recover to its pre-pandemic level during the second half of this year. By the end of 2024, the state's job count exceeds its pre-pandemic level by 55,200, or roughly 1.2 percent. Nonetheless, at the end of our forecast period the state remains 4.3 percent (200,100 jobs) shy of its all-time employment peak in the second guarter of 2000.

Table 1 below displays our forecast for annual job growth for Michigan's individual industries, while Figure 4 splits the state's industries into three groups: "Blue-Collar Industries," "Lower-Education Services Industries," and "Higher-Education Services Industries." The figure plots the recent history and our quarterly forecast for each of these industry groups as index values, with the first quarter of 2020 normalized to a value of 100.

Michigan's **blue-collar industries** recovered their pandemic job losses in the first quarter of 2022 and stood 23,800 jobs higher in the first quarter of 2023. The construction and manufacturing sectors account for nearly 70 percent of the blue-collar industry group's employment in Michigan. Both of those industries have struggled historically in an environment of monetary tightening.

So far, however, there have been few discernible effects in construction employment in Michigan, even with the run-up in mortgage rates over the past year. The state averaged 1,300 new construction jobs per quarter in 2022 and added another 3,900 construction jobs in the first quarter of 2023. Statewide building permits, on the other hand, plummeted by nearly 30 percent in the fourth quarter of 2022 after spending most of 2021 and 2022 above pre-pandemic levels. The good news is that we believe the cyclical bottom for building permits is now behind us—building permits rebounded by 13 percent in the first quarter of 2023. The bad news is that we expect an extremely slow recovery from here. By the end of 2024, statewide building permits remain roughly 18 percent lower than the 2019 average.

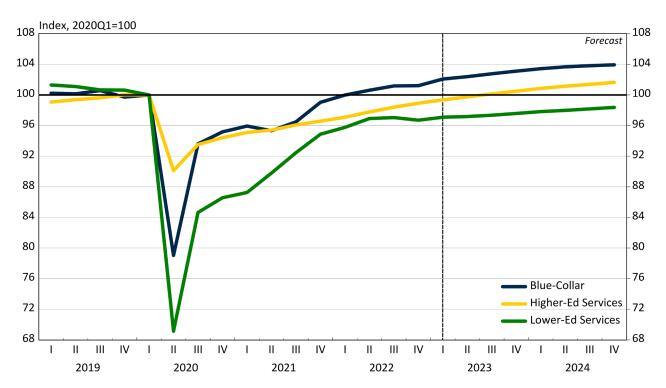
We forecast the slowdown in permitting to hold construction employment relatively flat over the remainder of 2023 and 2024. Nonresidential construction projects, a remaining backlog of incomplete residential projects, and labor hoarding amid a tight labor market should all cushion employment in the construction industry as conditions deteriorate nationally. We expect the industry to gain 4,000 jobs on a fourth-quarter-to-fourth-quarter basis in 2023, mostly due to the strength of the first quarter. During 2024, the construction industry treads water, adding just 800 jobs.

¹ The blue-collar industries comprise mining; construction; manufacturing; and wholesale trade, transportation, and utilities. The higher-education services industries (which generally require employees to hold a bachelor's degree or higher educational level) comprise information; finance; professional, scientific, and technical services; management of companies and enterprises; private education and health services; and government. The lower-education services industries (which typically do not require a college education) comprise retail trade; leisure and hospitality; administrative support services and waste management; and other services.

Figure 4

Job Growth in Michigan

Blue-Collar, Higher-Education Services, and Lower-Education Services Industries



The recovery of Michigan's transportation equipment manufacturing industry has been rocky lately. In the third quarter of 2022, the job count in transportation equipment manufacturing stood over 2,000 jobs above the pre-pandemic level. After a loss of 4,000 jobs in the fourth quarter, however, the sector fell to nearly 2,000 jobs below the pre-pandemic level. Thankfully, the sector clawed back 1,500 jobs in the first quarter of this year. Although the pace of domestic vehicle assemblies has made tremendous progress, it is still not back to pre-pandemic levels because of the different supply chain shortages this sector has faced over the past two years. Inventory levels are also recovering, but they are doing so unevenly across manufacturers. With emerging signs of strain on auto purchases and borrowers, we expect restrained employment growth in Michigan's auto industry over the next year and a half. On an annual average basis, the state's transportation equipment manufacturing industry adds 4,100 jobs in 2023 and 2,700 jobs next year, ending 2024 with 6,000 more jobs than before the pandemic.

We caution once again that our forecast assumes that there will not be a prolonged work stoppage associated with the negotiation of new labor contracts at the Detroit Three automakers later this year. Like many industry observers, we judge that the likelihood of a strike has increased in recent months. If

a significant work stoppage does come to fruition, we would expect it to put downward pressure on our projections for the next 12–18 months.

Michigan's non-automotive manufacturing sector has been slower to recover than the state's auto sector. It remained over 10,000 jobs short of its pre-pandemic level through the first quarter of 2023. Still, the sector has been gradually adding back jobs. It averaged 2,200 job gains per quarter in 2022 and added another 1,600 jobs in the first quarter of this year. We forecast job growth in the state's non-automotive manufacturing sector to subside somewhat over the remainder of 2023 and 2024, for similar reasons as in the auto sector.

Table 1
Forecast of Payroll Jobs in Michigan by Major Industry Division
(Thousands of Jobs)

(Hibusanus (Forecast Employment Change		
	2022	'22-'23	'23–'24	'22-'24
Total Jobs	4362.9	67.3	49.1	116.5
Total Government	589.5	16.6	7.8	24.4
Total Private	3773.4	50.7	41.4	92.1
Natural resources and mining	7.2	0.1	-0.1	0.0
Construction	183.8	5.8	0.4	6.2
Manufacturing	603.0	7.9	8.1	15.9
Transportation equipment manufacturing	184.6	4.1	2.7	6.8
Other manufacturing	418.4	3.8	5.4	9.2
Trade, transportation, and utilities	805.3	4.4	0.6	5.0
Retail trade	454.9	-2.8	-3.7	-6.6
Transportation, Warehousing, and Utilities	178.1	-0.1	3.2	3.0
Wholesale trade	172.3	7.4	1.2	8.5
Information	56.4	0.7	-0.2	0.5
Financial activities	232.0	-3.8	1.5	-2.3
Professional and business services	658.1	5.2	6.1	11.3
Professional, scientific & technical services	314.7	4.9	2.7	7.6
Management of companies & enterprises	70.9	-0.2	0.6	0.4
Admin & support & waste mgmt.	272.5	0.5	2.8	3.4
Private education and health services	661.5	18.9	13.5	32.4
Leisure and hospitality	403.1	13.1	9.8	22.9
Other services	162.9	-1.5	1.6	0.1
Addendum: Percent Change in Total Jobs	3.9	1.5	1.1	2.7

RSQE: May 2023

We expect Michigan's blue-collar industries as a whole to grow to about 44,800 jobs, or 3.9 percent, above their pre-pandemic employment level by the end of 2024. Our forecast of continued

growth in Michigan's overall job count depends on our projection that the state's blue-collar industries will weather the upcoming national slowdown better than in the past. Jobs in these industries tend to generate spillover effects in the state's services industries, so if employment in Michigan's blue-collar industries falters, our overall forecast is likely to turn out to be too optimistic.

Michigan's **higher-education services industries** have been recovering steadily, but they remained 12,400 jobs short of their pre-pandemic level in the first quarter of 2023. We anticipate a complete recovery in the second half of this year. In total, these industries added 44,300 jobs in 2022. We expect growth in these industries to continue over the next two years but at a slower pace going forward, with 37,100 job gains this year and 25,800 next year.

We project the state's finance industry to lose 3,800 jobs this year as rising interest rates take their toll on the state's mortgage industry. Finance recovers 1,500 jobs next year as inflation moderates substantially and mortgage rates dip into the mid-5 percent territory by yearend.

Employment in Michigan's government sector remains well below its pre-pandemic level, which was also far below its high-water mark established early in the millennium. Government's share of statewide employment last year was the lowest since 1957. We expect government employment to add a healthy 16,600 jobs this year and another 7,800 next year. Our forecast would take government employment to within half a percent of its pre-pandemic level by the end of next year.

Michigan's private education and health services added just under 10,000 jobs last year. That was a respectable pace but somewhat underwhelming considering the remaining shortfall from the initial COVID-19 job losses. We project the sector to add a whopping 18,900 jobs this year, though, based on its strong performance since late last year. Job gains moderate a bit to 13,500 next year, as the sector recovers to its pre-pandemic employment level early in 2024.

Total employment in Michigan's higher-education services industries climbs by 1.9 percent this year and 1.3 percent in 2024. That growth takes total employment in these industries to 32,100 jobs, or 1.6 percent, above the pre-pandemic level by the end of next year.

Michigan's **lower-education services industries** seemed to lose a lot of steam in the second half of 2022, when their employment level declined by 2,900 jobs. We expect these industries to return

to growth over the next eighteen months, but we believe that the pace will be modest. Job gains average 9,900 per year in 2023 and 2024, leaving the lower-education service industries still 1.6 percent (21,700 jobs) below their pre-pandemic job count by the end of next year.

We project leisure and hospitality to be the major job gainer among these industries, with 13,100 job additions this year and another 9,800 next year. Our forecast takes leisure and hospitality to just 0.1 percent below its pre-pandemic job count by the end of next year.

After a partial recovery from the steep job losses during the pandemic, Michigan's retail trade sector appears to have resumed its slow trend toward lower employment. We expect job losses in the retail sector to continue amid the ongoing shift toward e-commerce. We project retail trade to lose an average of 3,300 jobs per year in 2023 and 2024.

The other two sectors we categorize in Michigan's lower-education services industries are administrative support services and waste management and other services. Administrative support services and waste management adds an average of 1,700 jobs per year in 2023 and 2024, while the other services industry ekes out an average of just 100 job gains per year. Both industries fare better next year, as the national economy picks up after flirting with recession later this year.

Unemployment and Labor Force Participation Rates

Figure 5 shows history and our forecast for Michigan's quarterly unemployment rate. In the first quarter of 2023, the state's jobless rate averaged 4.2 percent, roughly on par from one year ago. April's unemployment data brought signs of an early summer in Michigan, though. The state's jobless rate averaged 3.8 percent, returning to its pre-pandemic level for the first time. Unfortunately, Michigan residents are all too familiar with false hopes of an early summer, and we expect that a spring chill and gray clouds are forming on the horizon.

We anticipate that Michigan's unemployment rate will climb to 4.2 percent by the end of the year as the national economy gradually softens. We expect that the upcoming slowdown will be mild from a historical perspective. Unlike the Great Recession and its aftermath, when Michigan's quarterly unemployment rate peaked at 13.8 percent, we expect the state's unemployment rate to top out at 4.5 percent during the second half of 2024. Additionally, we are projecting that the state's household

employment count will exhibit growth in each quarter of the forecast, in stark contrast to the period surrounding the Great Recession.

Percent **Forecast**

Figure 5
Quarterly Michigan Unemployment Rate

Michigan's labor force participation rate has risen from 59 percent in early 2021 to 60.2 percent in April 2023. We anticipate that the state's labor force participation rate will edge down modestly over the remainder of the year, reaching 60.1 percent in the fourth quarter. As Michigan's economy continues its gradual recovery from the pandemic and the national economy picks up speed, Michigan's labor force participation rate is expected to increase to 60.3 percent during 2024. Unfortunately, the state's labor force participation rate at the end of our forecast remains substantially lower than its 2019 average of 61.8 percent. We anticipate that Michigan will face ongoing challenges related to its aging population and slow population growth in the years ahead. The state's shrinking working-age population is among one of the most important obstacles it must overcome to re-attain its all-time employment peak in the second quarter of 2000.

Personal Incomes and Inflation

Figure 6 displays our forecast for Michigan's personal income per capita, in nominal dollars, and real disposable income per capita, in 2021 dollars. Michigan's personal income per capita increased by 14.8 percent between 2019 and 2021, from \$49,300 to \$56,500 due to the federal stimulus injected into the economy during the COVID-19 pandemic. On a quarterly basis, personal income peaked in the first quarter of 2021 and then fell in each subsequent quarter of the year as the federal stimulus waned. The increase in labor income over the subsequent two years pushed personal income back into modest growth territory in 2022, with an average per capita income of \$56,800 for the year. Michigan's income per capita is expected to increase by an average of 3.4 percent per year in 2023 and 2024, as wage gains continue, proprietors' income increases, and other labor income remains strong. That trajectory would bring Michigan's personal income per capita to \$60,700 in 2024, or 23.3 percent higher than in 2019.

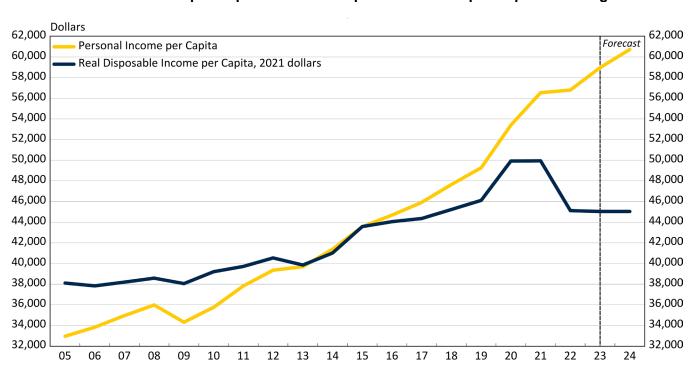


Figure 6
Personal Income per Capita and Real Disposable Income per Capita in Michigan

We produce our forecast for Michigan's real disposable income per capita by combining our forecast of nominal personal income with our forecasts for taxes and local inflation. Real disposable income per capita provides a way to measure the standard of living of the state's residents over time, and it shows a distinctly different picture of Michigan's financial well-being than nominal personal income. Real disposable income per capita peaked in the first quarter of 2021 before declining sharply over the remainder of the year due to inflation and waning fiscal stimulus. It fell by a whopping 9.6 percent in 2022, as nominal income growth was hit hard by skyrocketing inflation. Unfortunately, we expect elevated inflation to continue to chip away at nominal income growth, with real disposable income per capita decreasing by a cumulative 0.3 percent over the next two years. Our forecast would take real disposable income per capita in 2024 to an average of \$45,000, or roughly \$1,100 less than 2019's average. Thus, we project that state residents will experience a decrease in living standards over a period of five years, from 2019 to 2024, despite the rise in nominal incomes during that time.



Figure 7
Local Inflation, Detroit CPI

Figure 7 shows the history and our forecast of Detroit CPI inflation. Following a period of relative stability prior to the pandemic, local inflation accelerated to 4.4 percent in 2021. The increase was driven

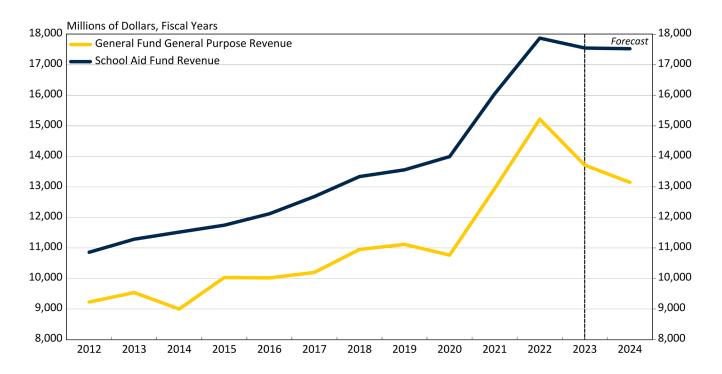
by robust consumer demand for durable goods, ongoing federal stimulus measures, and widespread disruptions in the supply chain. Russia's invasion of Ukraine generated a second surge in 2022, pushing local inflation to 8.2 percent, its highest rate since 1981. Fortunately, local inflation has begun to decelerate as the Federal Reserve's monetary tightening has begun to bear fruit. Despite our expectations of the Federal Reserve's ultimate success in controlling inflation, we anticipate local inflation to average 5.8 percent in 2023. By the end of this year though, we expect that year-over-year inflation will cool to 5.1 percent, or 2.6 percent at an annualized pace. During 2024, we expect the pace of inflation to move closer to the Fed's 2.0 percent target, as higher interest rates and an elevated unemployment rate take a bite out of consumer demand. Year-over-year local inflation is projected to decelerate to 2.4 percent by the end of 2024.

The State Revenue Outlook

The Consensus Revenue Estimating Conference (CREC) took place on May 19 in Lansing, during which state officials agreed on final revenue forecasts for fiscal years 2023–25. From fiscal year 2019 to fiscal year 2022, combined General Fund General Purpose (GFGP) and School Aid Fund (SAF) revenues soared by \$8.4 billion, as shown in Figure 8 below. The state, however, expects that party to come to an end in fiscal 2023. Combined revenues are forecast to fall by \$1.5 billion in fiscal 2023 and another \$400 million in fiscal 2024. RSQE's revenue forecast is a touch more conservative, but the overall story is similar. We project combined revenue losses of \$1.8 billion and \$600 million in fiscal years 2023 and 2024, respectively. While those are sizeable drops in revenue, we still expect the state to collect \$6 billion more in tax revenue in fiscal 2024 than it did in 2019, well above the pre-pandemic trend.

Readers may wonder why we and state officials have such a gloomy outlook for tax revenue while simultaneously maintaining cautious optimism for the broader economy. The softening national economy and changing consumer patterns are contributing to the moderation in state tax revenue growth, but sweeping changes to the state's tax laws that were adopted in early March are playing a much more significant role. Overall, the new revenue changes combine to lower our forecast by nearly \$3 billion over the next two fiscal years, which is more than the expected total decline in revenue.

Figure 8
Michigan Tax Revenues, General and School Aid Funds



The changes to Michigan's tax structure with the largest impacts on state revenue are mostly derived from Public Act 4 of 2023 and include the following:²

- Exemptions for certain **retirement income** were expanded by Public Act 4 of 2023. Because the act was not passed with immediate effect, the new exemptions will not take effect until 90 days after the adjournment of the current legislative session. We anticipate that the legislative session will adjourn in December 2023, resulting in the exemptions taking effect in March 2024. That adjustment will reduce fiscal year 2024 revenue by \$281 million.
- Beginning with tax year 2022, the state's Earned Income Tax Credit (EITC) was expanded from 6 percent of the federal credit to 30 percent. This change was also included as part of Public Act 4 of 2023. Even though the change affects payments related to tax year 2022, it will only come into play once the act itself takes effect, as discussed in the previous bullet. As a result, two years' worth of expanded EITC payments are expected to be paid around tax time in March and April 2024, reducing state tax revenue by an estimated \$768 million in fiscal 2024.
- Various earmarks to Michigan's Corporate Income Tax were also adopted in Public Act 4. The
 earmarks include distributions to the Michigan Housing and Community Development Fund, the
 Revitalization and Placemaking Fund, and the state's Strategic Outreach and Attraction Fund

https://www.senate.michigan.gov/sfa/Publications/BudUpdates/CRECMay2023/CRECMay2023.html

² The dollar value impacts of Michigan's tax changes can be found in the joint presentation document for the May 2023 CREC prepared by economists at the Michigan Department of Treasury, the Michigan House Fiscal Agency, and the Michigan Senate Fiscal Agency. The presentation can be accessed at

(SOAR). In total, the earmarks are expected to reduce state tax revenue by \$600 million each year beginning in fiscal 2023.

- Though not stipulated in Public Act 4, the state's **Individual Income Tax rate** has been lowered from 4.25 percent to 4.05 percent for calendar year 2023. The change arises due to a provision of the state's 2015 road funding law, which set a cap for general fund revenues in any year. In summary, total GFGP revenue in fiscal 2022 grew too fast with respect to an adjusted inflation rate, automatically triggering the lower income tax rate for one calendar year. The lower tax rate is expected to reduce state tax revenue by \$428.2 million in fiscal 2023 and \$218.7 million in fiscal 2024. Adjustments to the income tax rate are not expected to be triggered again during the forecast period.
- Public Acts 20, 21, and 29 of 2023 provide new **sales and use tax** exemptions for most delivery and installation charges in Michigan. The new exemptions are expected to decrease sales and use tax revenue by \$18 million in fiscal 2023 and \$62.9 million in fiscal 2024.

We now describe our forecast of state revenues in more detail. Table 2 breaks down the recent history as well as our forecast for fiscal years 2023–24. The upper portion details GFGP revenues, and the lower portion summarizes SAF revenues.

Net Personal Income Tax Revenue

- After exceptional growth of 12.9 percent in fiscal 2021 and 17.6 percent in fiscal 2022, we expect net personal income tax revenue to decline by 9.9 percent in fiscal 2023. Growth in personal income tax withholding is held back by the tax rate adjustment to 4.05 percent—withholding stays mostly flat for the fiscal year. Annual payments for April 2023 were significantly less than expected, and quarterly estimated payments have also experienced year-over-year declines for eight straight months. Revenue from the state's flow-through entity tax is also expected to fall in fiscal 2023 compared with the previous year, but that is largely due to factors related to timing and initial payments from when the tax was created in late December 2021.
- We forecast net personal income tax revenue to decline an additional 3 percent in fiscal 2024.
 Although we expect withholding growth to recover somewhat, the expansion of the EITC and the revised exemptions on retirement income restrain overall net personal income tax collections.
- After removing the allocation to the School Aid Fund, the GFGP's share of personal income tax revenue falls by 11.7 percent in fiscal 2023 and 5.1 percent in fiscal 2024. The allocation of personal income tax revenue to the SAF, on the other hand, fares better over the forecast period. It falls by 7.6 percent in fiscal 2023 but manages growth of 1.1 percent in fiscal 2024. The differing outcome for the SAF is due to its allocation being calculated from gross revenue (before refunds), as well as an adjustment contained in Public Act 4 of 2023. The adjustment gradually increases the percentage of gross income tax revenue deposited into the SAF over fiscal years 2024–27, compensating the fund for the modifications to retirement income tax revenue.

Consumption Tax Revenue

- GFGP consumption tax revenue in Michigan is driven by distributions from the sales and use taxes, with smaller contributions from excise taxes on cigarettes and alcohol.
- Gross sales tax revenue experienced explosive growth in fiscal 2021 and fiscal 2022 due to the combination of resilient consumer demand, a shift in spending away from services to taxable goods, and inflationary pressures in goods markets.
- We expect gross sales tax revenue to stay mostly flat over the forecast period as consumers transition back to services and the overall economic environment softens. The story for gross use tax revenue is similar, although we expect a more moderate decline in fiscal 2024. Taken together, we forecast combined gross sales and use tax revenue to inch up by 0.1 percent in fiscal 2023 before retreating by 1.3 percent in fiscal 2024. Even so, gross sales and use tax revenue in fiscal 2024 is projected to total \$3.1 billion higher, or 30.5 percent, than in fiscal 2019. We expect gross sales and use tax revenue to remain above its pre-pandemic trend for the foreseeable future.
- Combining the General Fund's share of gross sales and use tax revenue with the excise taxes on cigarettes and alcohol, we forecast GFGP consumption tax revenue to contract by 2.1 percent in both fiscal 2023 and fiscal 2024.

Business Tax Revenue

- Business tax revenue comes primarily from the state's corporate income tax (CIT), insurance company premiums, and oil and gas severance tax payments. Certain businesses continue to pay taxes and claim credits under the previously used Michigan Business Tax (MBT) instead of the CIT. Variability in the timing of when MBT refunds are claimed can lead to swings in the state's overall business tax revenue. All business tax revenue accrues to the General Fund.
- Business tax revenue jumped by 25.7 percent in fiscal 2022, most of which came from a sharp
 rise in CIT payments. CIT collections have continued to be strong in fiscal 2023, but the new
 earmarks discussed above will subtract \$600 million per year moving forward. As a result, we
 expect business tax revenue to give back 24.5 percent in fiscal 2023 and an additional 2.5 percent
 in fiscal 2024.

Total General Fund Revenue

- In fiscal 2022, exceptionally strong collections from the personal income tax, the sales tax, and the corporate income tax combined for a total GFGP revenue gain of nearly \$2.3 billion, or 17.5 percent.
- We forecast most of the GFGP's revenue sources to decline in fiscal 2023, resulting in an overall loss of \$1.5 billion, or 9.9 percent. Total GFGP revenue drops another 4.1 percent in fiscal 2024, resulting in a total loss of nearly \$2.1 billion over the next two fiscal years. The tax law changes that take effect during that period, however, account for just under \$3 billion of lost tax revenue. In the absence of those changes, we would be projecting total GFGP revenue to grow through fiscal 2024, though not at the elevated rates of the past two years. Even so, our forecast puts total GFGP revenue more than \$2 billion higher in fiscal 2024 than in fiscal 2019, still above the prepandemic trajectory.

Total School Aid Fund Revenue

- About half of total SAF revenue comes from sales and use tax collections, while one-fifth derives
 from the personal income tax, and about one-seventh comes from the state education property
 tax. Other taxes, such as the real estate transfer tax, liquor tax, casino tax, and tobacco tax, as
 well as lottery transfers, all contribute smaller amounts.
- In fiscal 2022, total SAF revenue grew by over \$1.8 billion, or 11.4 percent, with over half of that coming from sales tax growth and a third coming from contributions from the personal income tax.
- State education property tax (SEP) contributions to the SAF grew by 7.8 percent in fiscal 2022, while real estate transfer tax revenue expanded by 11.5 percent.
- For homeowners in Michigan, the annual growth of a property's taxable value is limited to the lesser of inflation or 5 percent for property that is not sold or transferred. Elevated inflation, therefore, means that the state is likely to see continued gains in state education property tax (SEP) revenue.
- We expect that SEP revenue growth will decelerate to 3.2 percent in fiscal 2023 and 2.4 percent in fiscal 2024 as the pace of inflation abates. Elevated mortgage rates and cooling home sales, however, lead real estate transfer tax revenue to decline by 31.0 percent in fiscal 2023 and another 9.1 percent in fiscal 2024.
- We forecast total SAF revenue to contract by 1.8 percent this fiscal year due mostly to the drops in real estate transfer tax revenue and the personal income tax contribution. Total SAF revenue stays mostly flat in fiscal 2024 as gross income tax revenue advances, but sales and use tax revenues retreat. Still, total SAF revenue is forecast to finish fiscal 2024 almost \$4.0 billion higher than in fiscal 2019.

Table 2
State Revenues by Fiscal Year
(Millions of dollars, except as noted)

	Actual		RSQE Forecast	
	2021	2022	2023	2024
General Fund General Purpose				
Personal income tax	7,723	9,212	8,137	7,719
(% change)	(12.4)	(19.3)	(-11.7)	(-5.1)
Consumption taxes	3,049	3,176	3,109	3,045
(% change)	(29.1)	(4.2)	(-2.1)	(-2.1)
Sales	1,498	1,705	1,664	1,687
Use	1,244	1,192	1,166	1,067
Other consumption	307	279	279	291
Business taxes	1,585	1,993	1,505	1,467
(% change)	(55.3)	(25.7)	(-24.5)	(-2.5)
MBT/SBT/Corporate income	1,210	1,531	1,033	990
Other business	376	462	472	477
Other GFGP taxes	164	182	170	180
GFGP tax revenue	12,521	14,563	12,921	12,412
(% change)	(20.9)	(16.3)	(-11.3)	(-3.9)
Nontax revenue	429	656	793	740
GFGP revenue	12,951	15,219	13,714	13,152
(% change)	(20.3)	(17.5)	(-9.9)	(-4.1)
School Aid Fund				
SAF taxes	14,632	16,628	16,330	16,316
(% change)	(14.2)	(13.6)	(-1.8)	(-0.1)
Lottery transfer	1,420	1,248	1,220	1,213
(% change)	(20.3)	(-12.1)	(-2.3)	(-0.6)
Earmarked state SAF revenue	16,052	17,876	17,550	17,529
(% change)	(14.7)	(11.4)	(-1.8)	(-0.1)
<u>Addendum</u>				
Combined GFGP and SAF revenue	29,003	33,096	31,264	30,680
(% change)	(17.1)	(14.1)	(-5.5)	(-1.9)
Gross sales and use taxes	12,031	13,358	13,367	13,189
(% change)	(18.7)	(11.0)	(0.1)	(-1.3)

RSQE: May 2023