

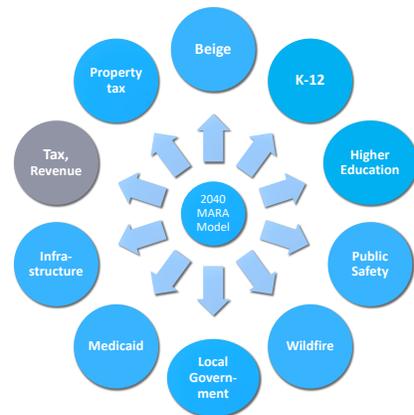
Financial Modernization and Risk Analysis (MARA) Study: Tax & Revenue Module Summary

MARA Study Overview

As directed by [HB 330](#), the Financial Modernization and Risk Analysis Committee (MARA) has undertaken a study of the long-term financial needs of the state and the local governments, while considering changes in demographics, technology, and the economy. The MARA committee relies on a **data-driven approach to identify potential financial concerns for the state and for local governments**. As such, the MARA committee has developed a forecasting model based on econometric data and capable of identifying future financial risks to the state’s revenues and expenditures, as well as considering impacts on local governments’ revenues and expenditures. This approach has a **medium- to long-term time focus**, from **present to 2040**.

MARA Revenue Module Overview

The 2040 MARA model is broken into “modules”. The modules reflect different aspects of the revenues and expenditures of state government, local government, and school districts. The diagram at left shows the components. The tax and revenue module includes tax collection data from state individual income tax; corporate income tax; vehicle taxes and fees; natural resource taxes; insurance tax; video gaming tax; consumption taxes including marijuana tax; business taxes like lodging facility sales tax; other revenue sources; and interest earnings.



Key Takeaways: MARA Tax and Revenue Module

- Recent years have experienced strong revenue growth but return to a more stable trend through FY 2040. While high inflation increases revenue tax collections in the near-term, stock market woes drive down capital gains and consequently lower income tax revenue collections.
- Individual income taxes continue to increase as a share of total general fund revenue. In FY 2021, they accounted for nearly 60.0% of total general fund revenue. This share is expected to increase to 67.0% by FY 2030 and to 74.0% by FY 2040.
- Natural resource revenues peak in FY 2023 before decreasing until FY 2026, at which point they begin to slowly increase through the forecast period. Remaining sources continue their slow growth that has been observed over the last two decades.

MARA Tax and Revenue Module – Data Sources

Data for the tax and revenue module is sourced from the Montana Statewide Accounting, Budgeting, and Human Resources System (SABHRS), eREMI population projections and IHS population and economic projections.

MARA Tax and Revenue Module – Assumptions and Methodology

The assumptions and methodology of tax and revenue collections from present – 2040 are calculated using the following:

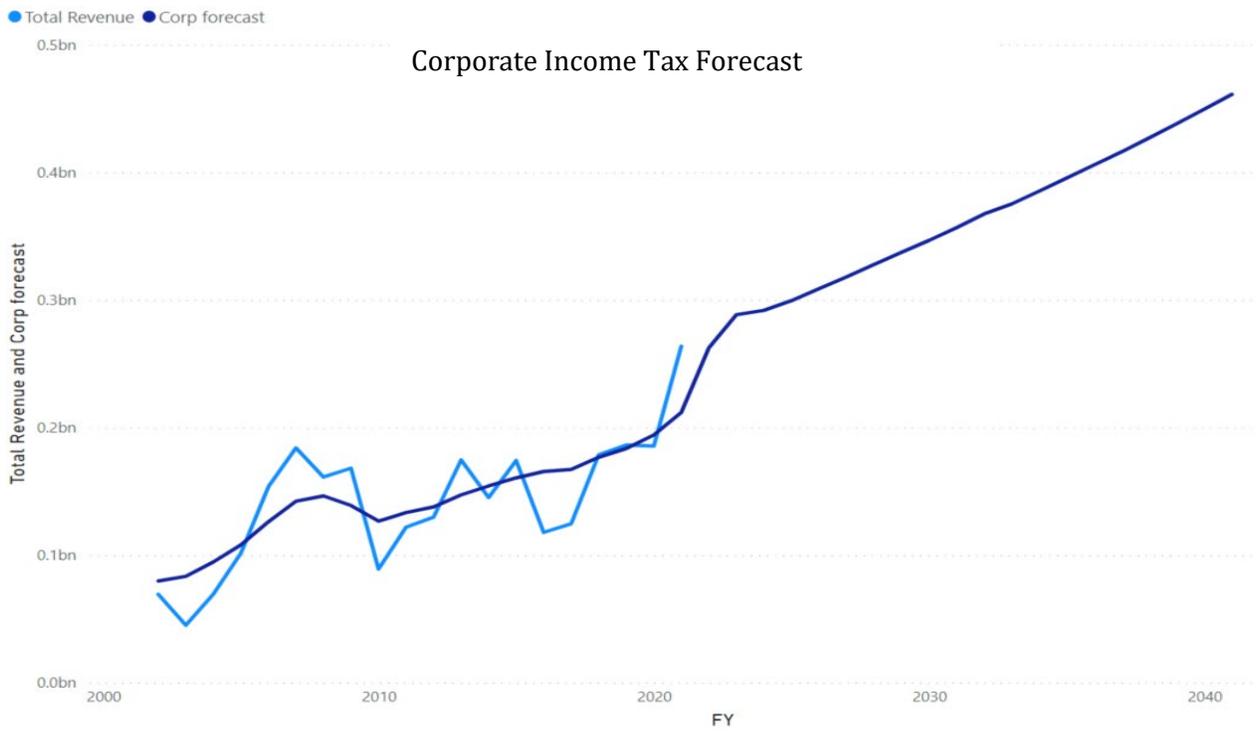
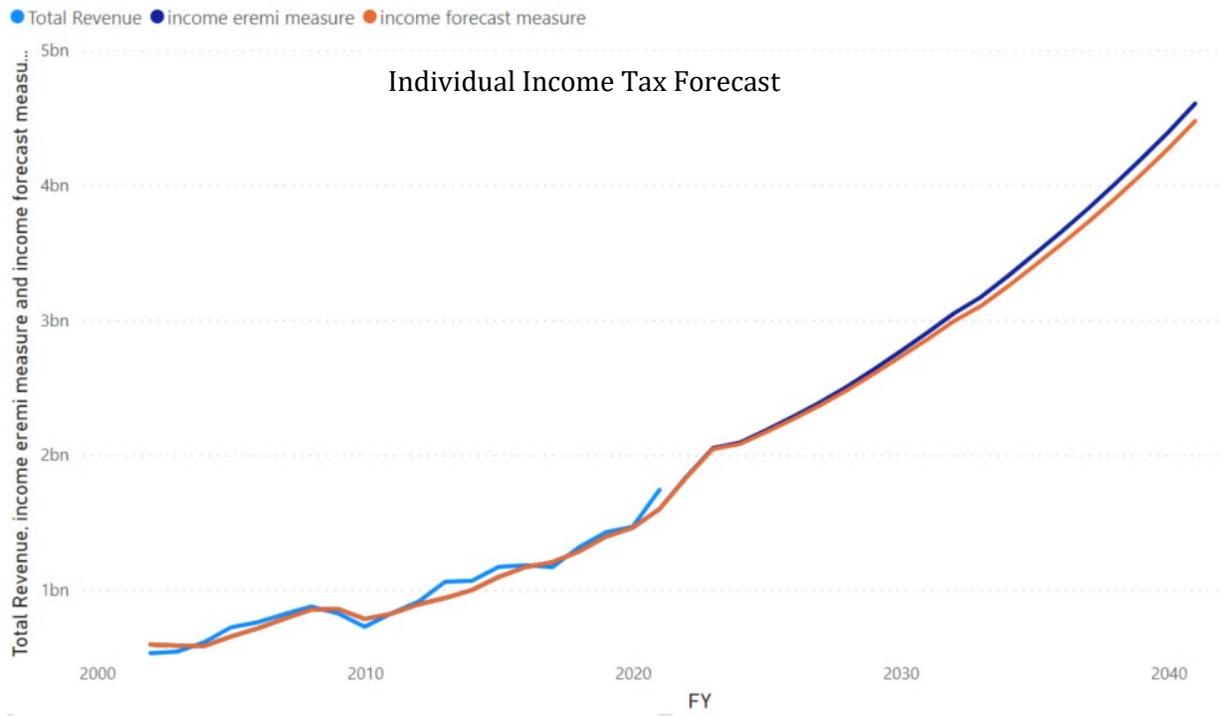
1. Applied multivariate regression assumptions for individual and corporate income tax collection projections and energy sector variables.
2. Individual income taxes were modeled using IHS Montana wage disbursements and the S&P 500 index. Wage estimates increase commensurately if the eREMI population estimate is used. Corporate income taxes were forecast using IHS projections for U.S. corporate profits and Montana median home price. Finally, the energy and natural resource sector was modeled using the IHS estimate for West Texas Intermediate (WTI) prices.
3. The remaining general fund revenue sources are forecasted using both eREMI and IHS population projections.

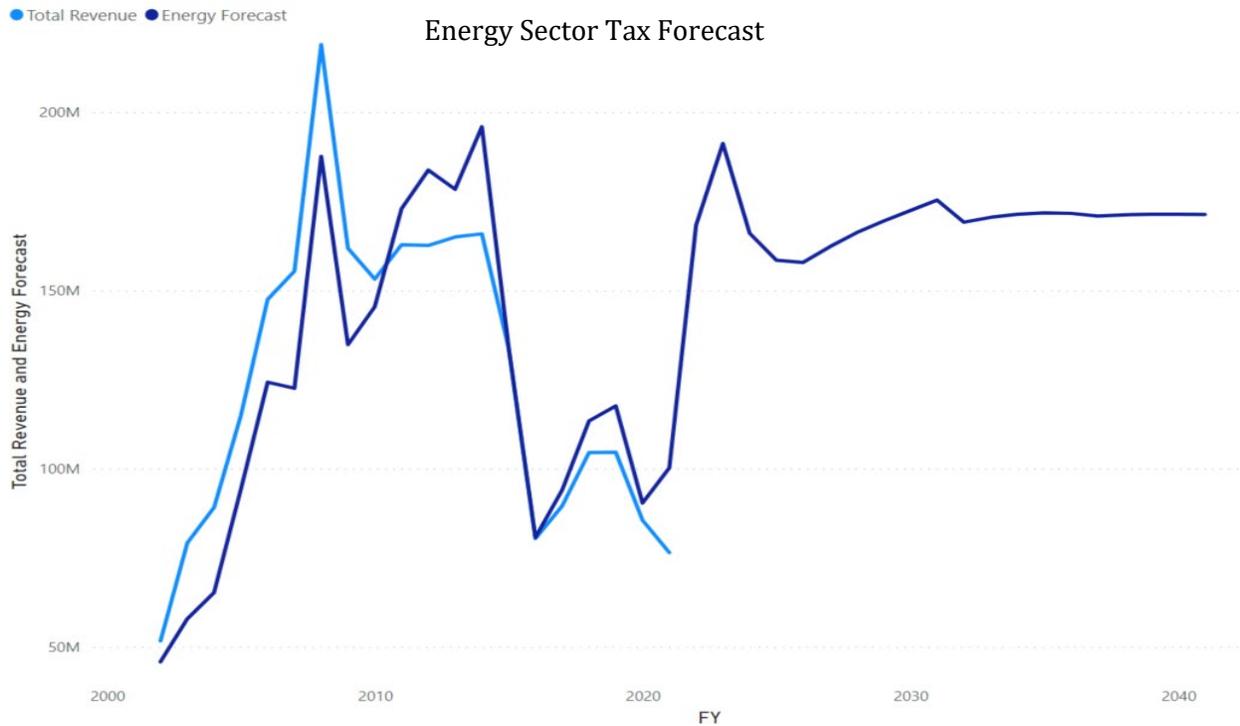
MARA Tax and Revenue Module: Multi-variant projections and “beige” projections

- Many of the tax and revenue collection projections of state and local government in the MARA forecasting model will be modeled with a “status quo”-based methodology which assumes “business as normal.”
- In the tax and revenue module, “non-status quo” projections are made for the energy and natural resource sector, and individual and corporate income tax collections.

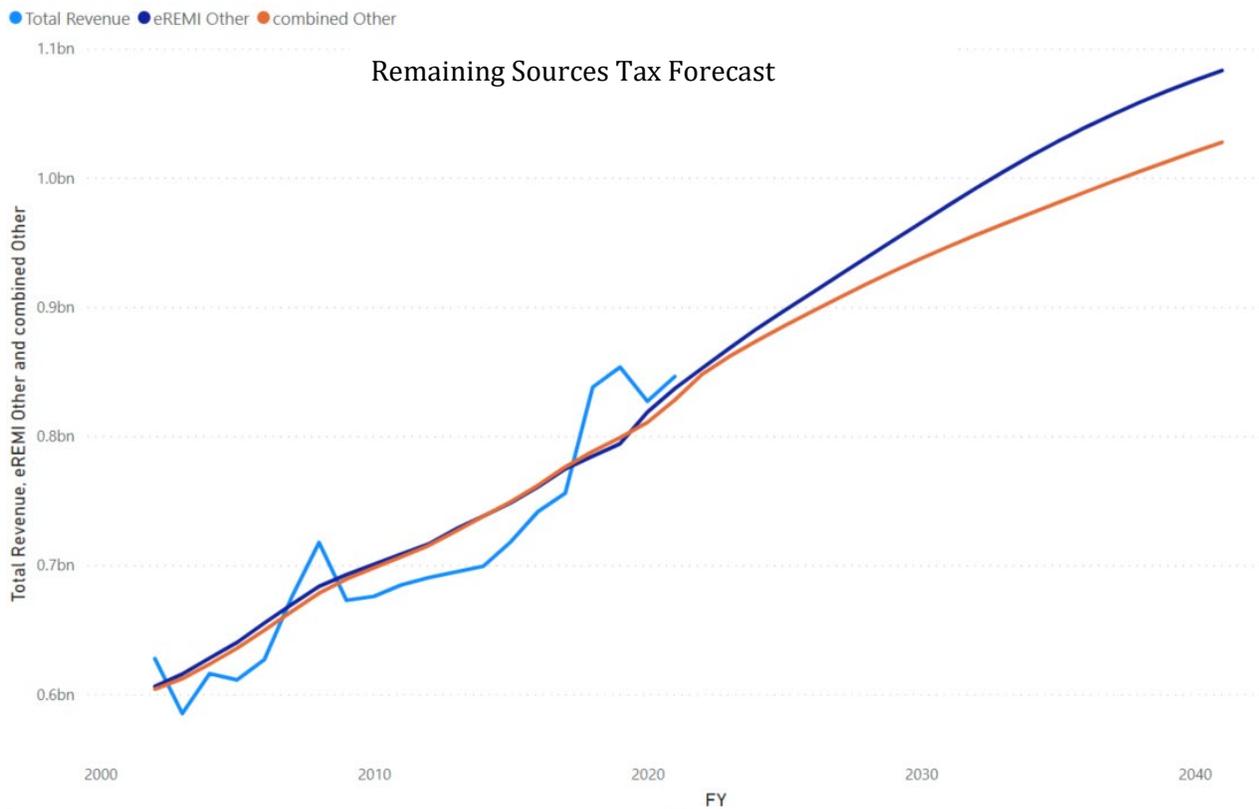
The following graphs show the forecasts for the four different models (individual income tax, corporate income tax, energy and natural resources, and all other general fund revenue) as well as historical collections for each source.

The individual income tax model has two different forecasts, one based on IHS population projections and one based on eREMI population projections.





All remaining sources are combined for the final forecasting model. Similar to individual income tax, there are two models, one based on IHS population projections and one based on eREMI population projections.



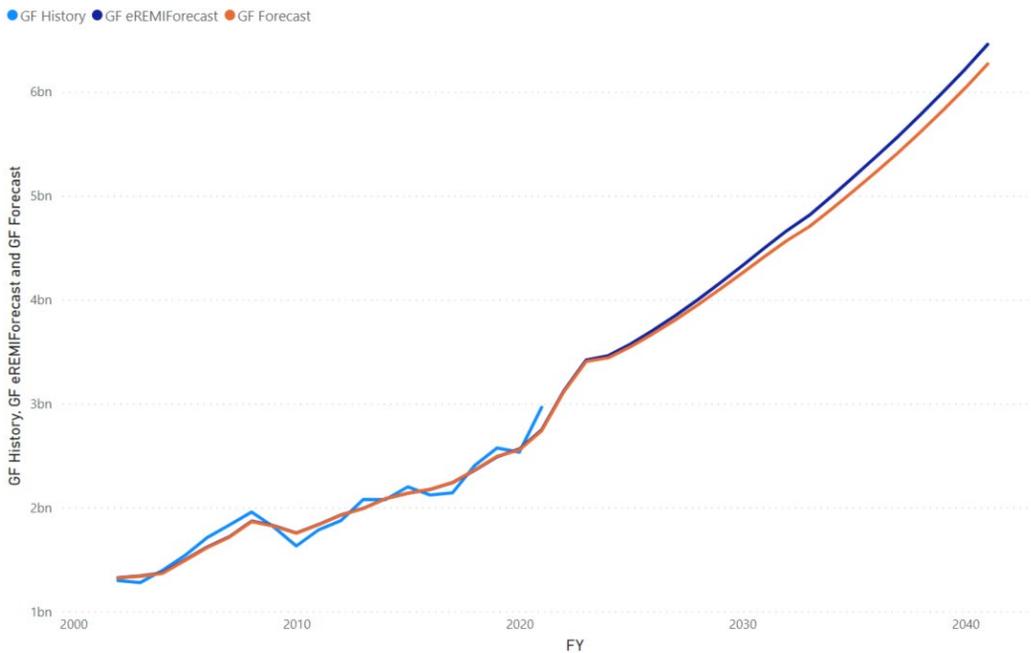
MARA Revenue Module – Stakeholder Awareness and Participation

Legislative Fiscal Division met with Office of Budget and Program Planning (OBPP) analysts to discuss appropriate forecasting variables to use.

MARA Tax and Revenue Module – Findings

Under the IHS baseline population scenario, from FY 2021 to FY 2040, general fund revenues grow at an average annual compound rate of 3.9%, reaching \$4.2 billion in FY 2030 and \$6.1 billion in FY 2040. Under the eREMI population projections, general fund revenues grow by an average annual compound rate of 4.1% and reach \$4.3 billion in FY 2030 and \$6.3 billion by FY 2040.

General Fund Revenue Forecast

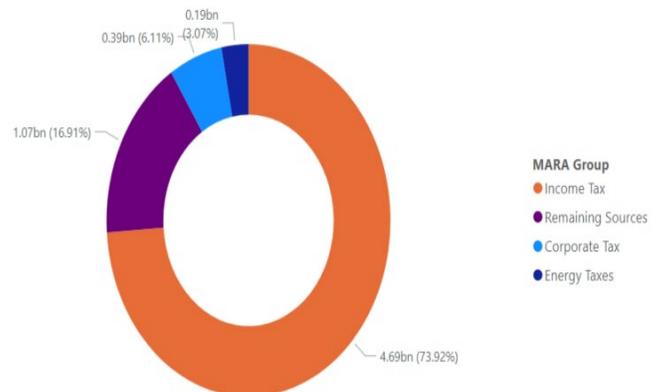


By FY 2030, the forecast using eREMI’s population projections is \$83.0 million larger than the forecast produced using the IHS population projection. By FY 2040, this difference grows to \$204.0 million.

Prior to the COVID-19 pandemic, the doubling time for general fund revenues was sixteen years. Under the IHS population estimates, the new doubling time compared to FY 2019 general fund revenues is seventeen years and is sixteen years using the eREMI population baseline forecast.

Reliance on individual income taxes continues to grow under both the IHS and eREMI population assumptions. Under both scenarios, by the end of FY 2030, individual income taxes make up 67.0% of general fund revenue, compared to 60.0% at the end of FY 2021. By FY 2040 this share grows to 74.0%.

General Fund Revenue (FY 2040)



MARA Tax and Revenue Module – Limitations

Excluding individual income tax and corporate tax, the MARA revenue module does not forecast sources individually. Instead, the majority of the sources are forecast in aggregate, and their long-term relationship with the state's population is expected to continue. Due to this modeling methodology, expected deviations from trend in the near-term for a particular revenue source will not be captured by the model. As a result, these modules should not be used to estimate fiscal impacts of policy changes, nor should be used as part of the budgeting process during legislative sessions.

MARA Tax and Revenue Module – Future Research

The state special revenue funds are currently forecast using a simple linear trend. Moving forward, those specific state special funds that are expected to deviate from trend, like fuel taxes, will have a more nuanced model than a time trend. Furthermore, many state special funds that receive a distribution from certain general fund sources, especially those that fund local governments, will eventually interplay with the general fund models.