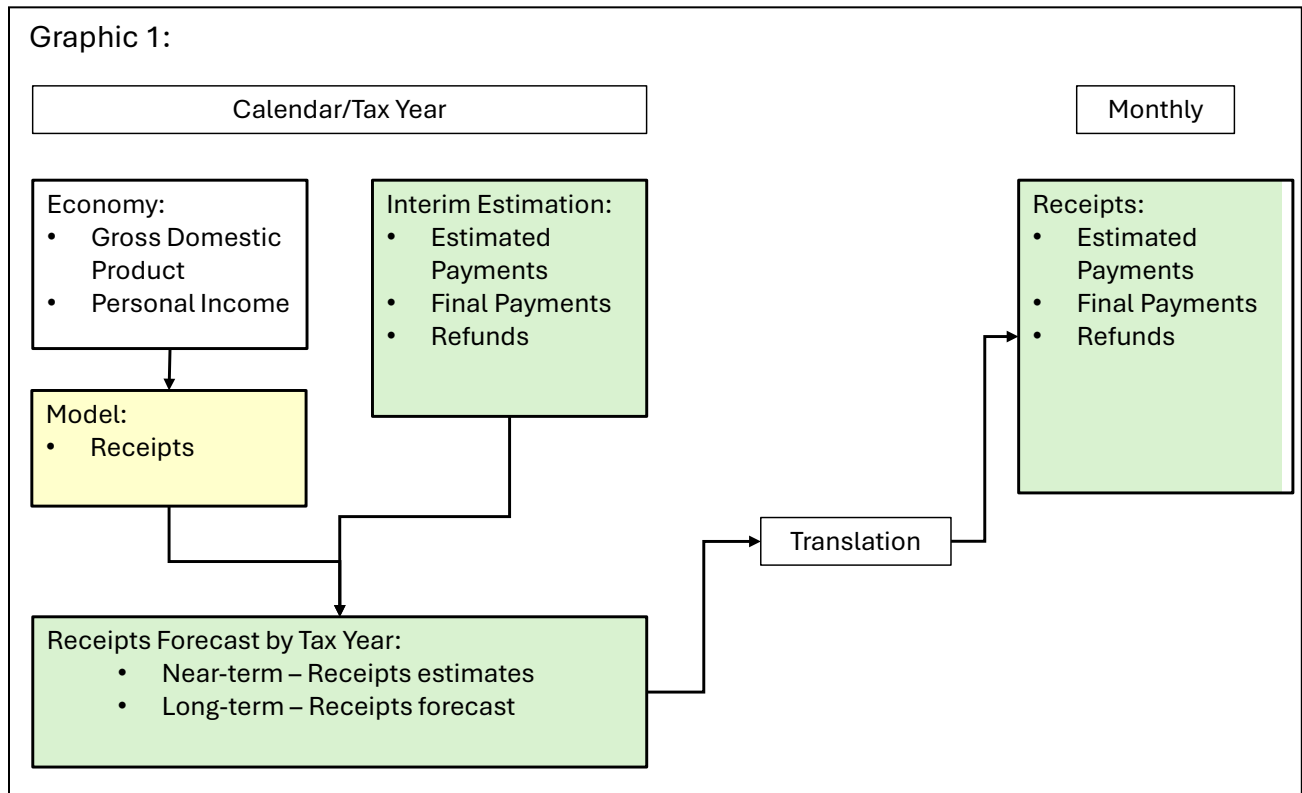


Corporate Activity Tax - Methodology

Overview

The Office of Economic Analysis tracks and forecasts various revenue sources for state budgetary and planning purposes. Corporate Activity Taxes are a significant Other Fund revenue source, enacted in 2019¹ to support education. Based on the June 2025 revenue forecast, the corporate activity tax is expected to generate around \$3.1 billion during the 2025-2027 biennium. Additional details on state tax income can be found in the [Oregon Blue Book](#).

This document presents the methodology for the Corporate Activity Tax forecast. Appendix A presents the general overview of the process for producing the revenue forecast. For a prerequisite overview of the office’s revenue forecast, see An Overview of State Revenue



Forecasting². Fundamentally, the Corporate Activity Tax model can be broken down into

¹ See [Oregon Revised Statutes \(2019\) Chapter 122 Section 58](#)

² For those unfamiliar with state revenues or forecasting in general, the reader is advised to review this document as context for understanding the methodology papers. Paper forthcoming.

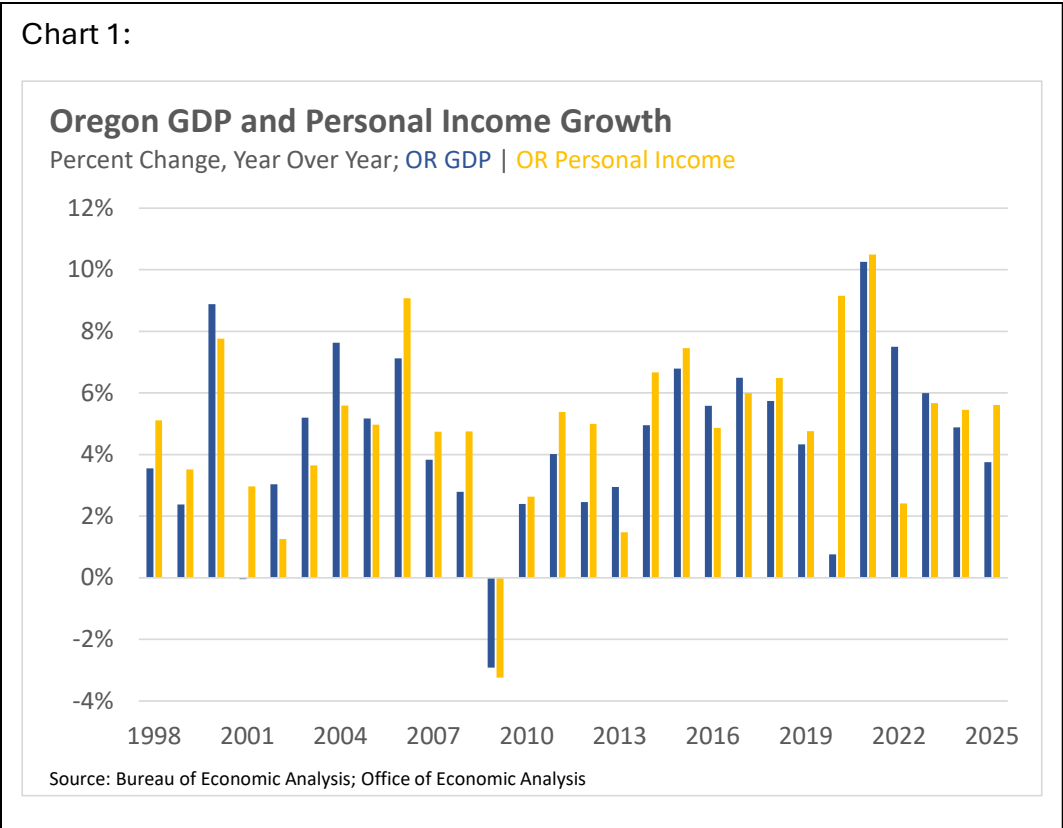
three main components: (1) the Long-run Receipts Model, (2) Interim Estimation of Tax Years in Progress, and (3) the Translation to Monthly Receipts.

Long-run Receipts Model

The purpose of the Long-run Receipts Model is to provide a direct link between tax receipts and economic activity. This link is invaluable for explaining changes in the forecast to general audiences (e.g., the legislature or the public). It also helps OEA understand emerging data trends.

The system can be conceptualized as corporate taxpayers generating gross receipts and consequently incurring tax liability in the process. These receipts can be seen as direct results of economic activity, such as selling goods and services. Given the recent inception of the Corporate Activity Tax, receipts data by tax year are only available for a few years. As such, an econometric model of receipts on economic variables via the Corporate Income Tax model is not feasible.

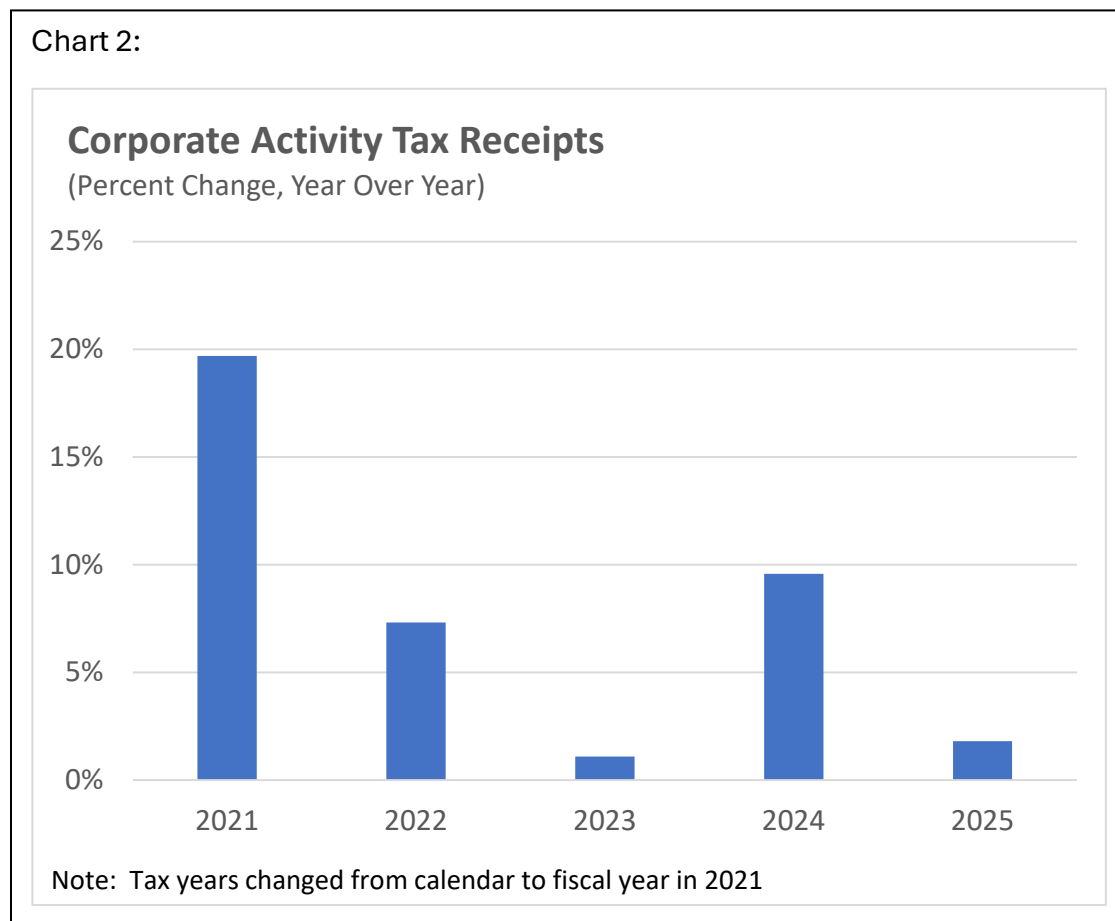
For forecasting purposes, gross receipts by tax year are specified as a function of nominal state gross domestic product (GDP), the most effective proxy for aggregate economic activity available. Oregon GDP is not a variable produced in the Oregon Economic Model. To derive a GDP series, a relationship between GDP and Oregon personal income is



developed. Chart 1 depicts the historical comparison of growth rates from these two variables.

Tax return data are available for tax years 2020 and 2021. Gross receipts averaged roughly 102.7 percent of GDP over the two years. While tenuous, due to the lack of history, this relationship is used to produce a forecast of gross receipts for the ten-year horizon.

An effective tax rate projection is used to generate a tax-receipts forecast by tax year. The gross effective tax rate observed for the two years was 0.41 percent. This differs from the statutory tax rate of 0.57 percent due to various deductions, subtractions and exclusions. Chart 2 illustrates the historical growth in receipts.



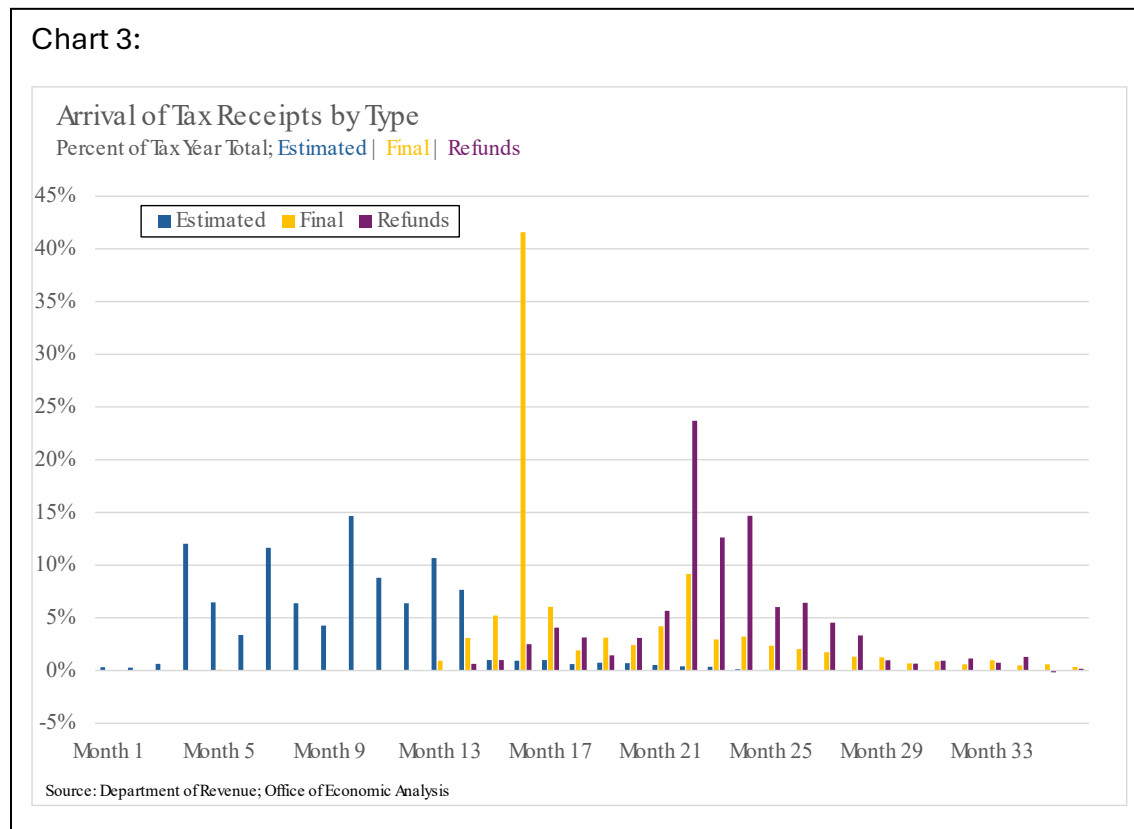
Interim Estimation of Tax Years in Progress

While the receipts model is invaluable for informing the forecast based on economic expectations, it has two shortcomings: (1) total receipts are not known for a given tax year until a year or more after the tax year is complete, and (2) economic data are subject to

significant revision for years after they first become available. This introduces potential for error into the forecast. The issue is addressed by analyzing historical receipts patterns and estimating total receipts for tax years in progress.

At its core, the Corporate Activity Tax forecast is a receipts forecast. As depicted in Graphic 1, the culmination of the first two components of the model is a forecast of receipts by tax year. Considerable receipts data are available for tax years 2021 through 2024 to estimate what receipts will ultimately look like when all is said and done. This is done by looking at receipt patterns for past tax years and extrapolating each of the payment types (Estimated Payments, Final Payments and Refunds) to arrive at a receipts projection that will prove more accurate than that produced by the econometric model.

Chart 3 illustrates how each of these payment types arrives during the first three years following the start of the tax year³. Estimated payments occur roughly quarterly. The year following the tax year, as taxpayers file their returns, final payments and refunds occur concurrent coincident with the respective filing deadlines. Note that refunds are more evenly distributed throughout the months relative to final payments due to the increased



³ Note that corporate taxpayers can be on a fiscal year that differs from the calendar year. For Corporate Activity Tax, fiscal year filing became available after the first year of the tax (2020).

incentive to file. Estimating total receipts for interim tax years based on average historical patterns provides a bridge between the latest actual data in the model and the first pure forecast year for which no receipts data are available.

Translation to Monthly Receipts

The final component of the forecast model is converting the receipts forecast by tax year to a monthly receipts forecast. This is essential to tabulating the number of receipts that will arrive during each biennium but is also critical for assessing how the forecast is tracking in real time. This translation is straightforward: historical arrival patterns like those exhibited in Chart 3 are used to translate each payment type's total to its monthly counterpart.

Tax Law Changes

The Office of Economic Analysis produces forecasts consistent with current state law. The forecast assumes that current law will remain static regardless of the likelihood of impending actions. This includes sunsets to existing law where specific policies are scheduled to end. Additionally, modeling is based on historical relationships where specific legal regimes occur during specific time periods. As noted elsewhere, these regime changes can be handled econometrically using control factors.

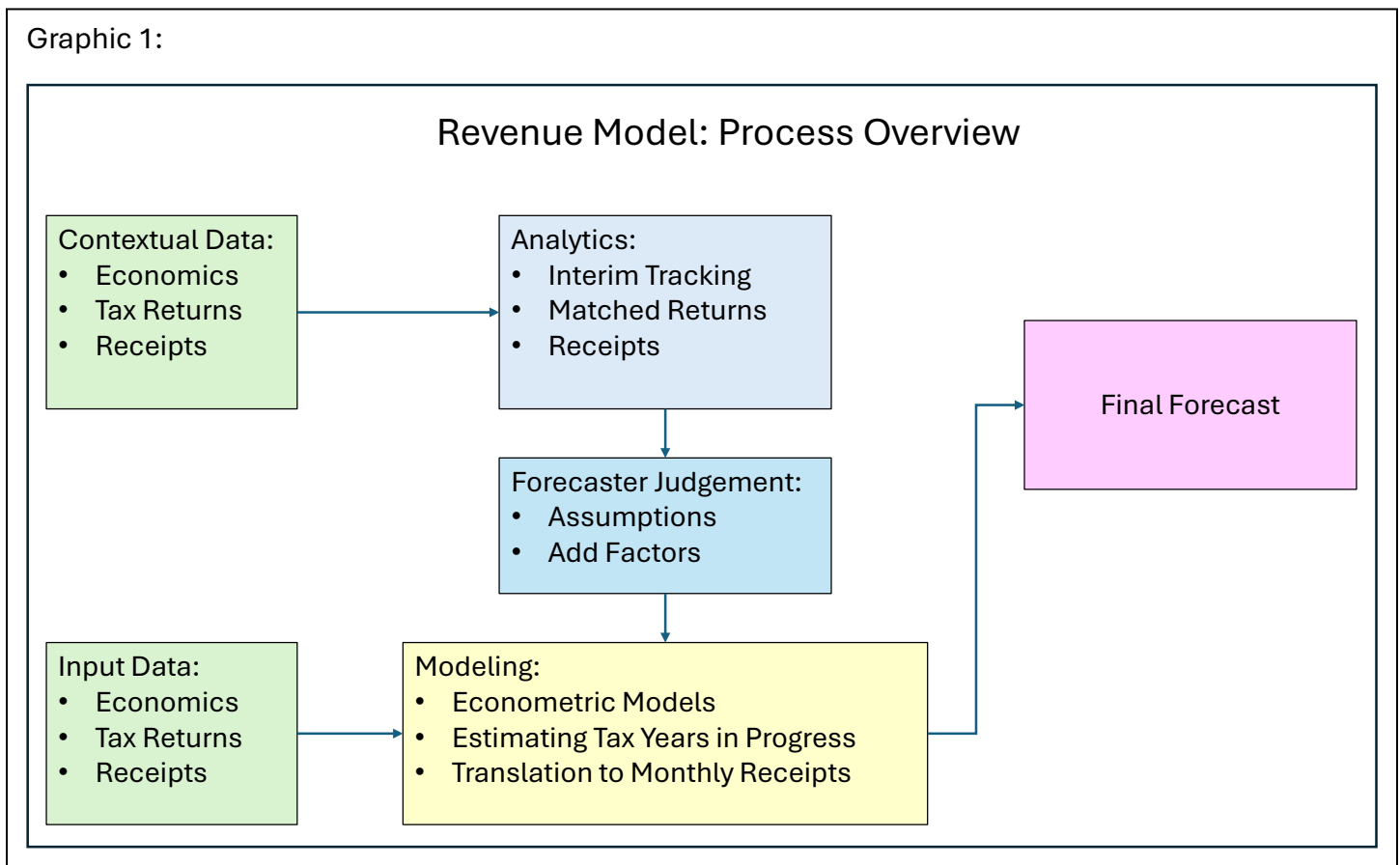
For forecasting purposes, adhering to federal law would pose extreme challenges. First, the office relies on national forecast information from vendors such as Standard and Poor's. The forecasts from these vendors do not adhere strictly to current federal law but instead assume the most probable outcome. Second, federal law often entails imminent sunsets that are regularly extended. Assuming these sunsets in the forecast and then eliminating them would induce unnecessary oscillations in the forecast. As such, the OEA forecast assumes the most likely outcome for federal policy and adheres strictly to current state policy.

Periodically, the state legislature or congress will enact law changes that affect the tax system. The Legislative Revenue Office is responsible for producing impact estimates for all prospective law changes. When a law is passed, these impact estimates are incorporated into the baseline forecast to make it once again consistent with existing law. As the effects of a law change are realized in the payments data, the impacts must be phased out to avoid double counting the effects.

Appendix A: Process Overview of Revenue Forecast

The process for producing the revenue forecast for Personal and Corporate Income Tax, as well as the Corporate Activity Tax, has been standardized so that once one forecast has been assimilated, the other two are very straightforward. Graphic 1 exhibits the flow of information and activities involved in producing any of the revenue forecasts.

Graphic 1:



At the root of any forecasting process are the historical data that are being modeled and projected, as well as the ancillary data that inform the forecast. See the methodology document proper for more information about the modeling.

The ancillary analytics that inform the manual adjustments are as critical to producing the forecast as the formal modeling. As critical to producing the forecast as the formal modeling are the ancillary analytics that inform the manual adjustments necessary to any forecast. Statistical models generally rely on historical regularities and patterns to predict future outcomes. Where systematic shifts have occurred or are occurring, these outside-the-model analytics help to produce forecasts that are reasonable and consistent with new norms.