ESTIMATING AND FORECASTING THE NEW YORK STATE PERSONAL INCOME TAX

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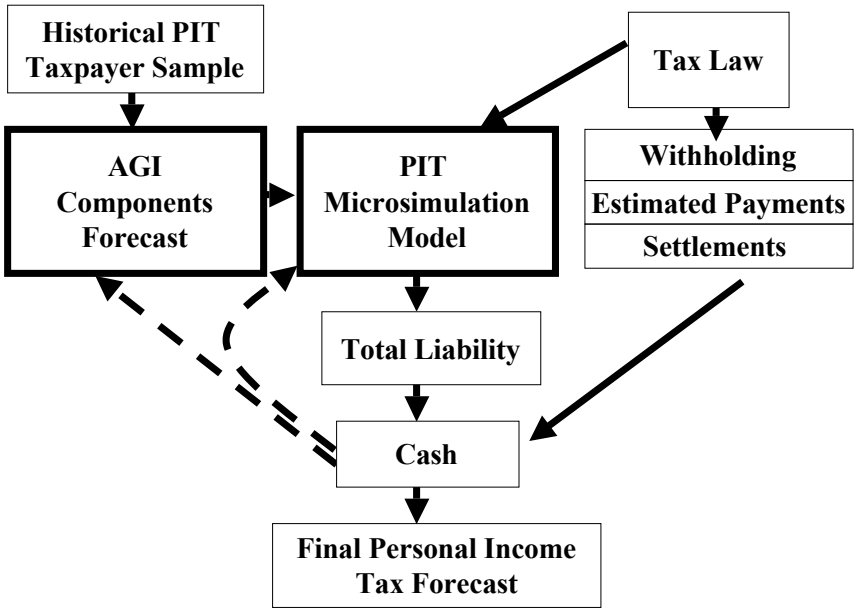
HOW WE FORECAST NY STATE PIT



AGI ECONOMETRIC FORECAST

• DOB/NY uses single-equation econometric models to project the future number of returns and all the components of income except for wages.

• Annual data are based on a stratified statistical sample of about 100,000 income tax returns by the New York State Department of Taxation. Currently, the latest available sample data are for tax year 2002.

• Because of nonstationarity, a logarithmic transformation of the series is first-differenced. Series with less than 20 observations are modeled in levels.

• The largest components of AGI are wages, partnership and S corporation income, capital gains realizations, dividends, interest, and business and farm income.

• To ensure consistency with DOB's NY economic forecast, DOB/NY's forecast growth rate for wages and salaries is applied to the 2002 wage base derived from the taxpayer sample.

• Forecast risks include misspecification bias, sampling error, estimation error, instability in the tax code, and volatility in the series across time. Monte Carlo simulations are applied to evaluate the risk to the forecast due to the random variation in both the forecast errors and the parameter estimates.

MICROSIMULATION TO CASH LIABILITY

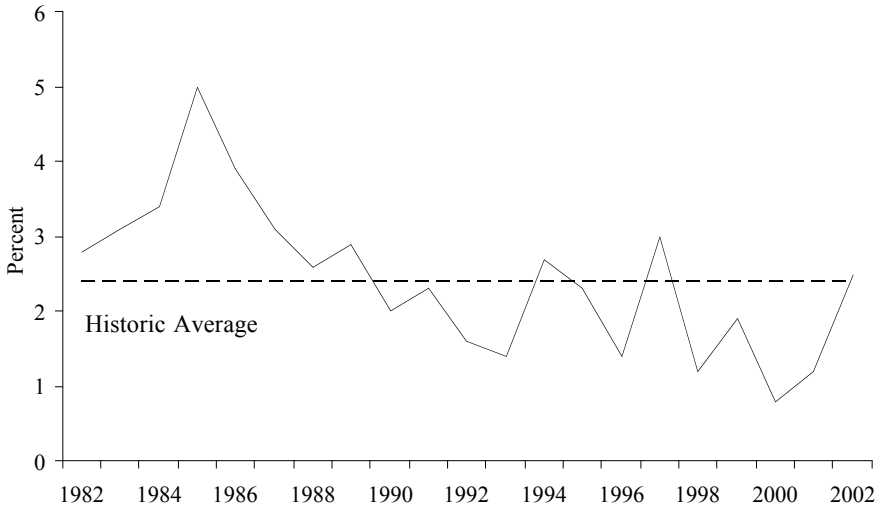
1. **Trend forward the weighted PIT taxpayer sample data**
   1) Hit targets for income components from AGI forecast models
   2) Reflect correct distribution of returns across income classes
   3) Methodology is based on U.S. Treasury model

2. **Calculate PIT liability based on current law**
   1) Provides baseline for assessing impact of tax law changes
   2) Used for simulating and evaluating alternative scenarios

3. **Determine the cash components of PIT liability**
   1) Estimates are based on the liability estimates and the historical relationships between the cash and liability components

3. **Reconcile cash projections with simulated liability**
   1) Cash tends to exceed liability
   2) The ratio of cash to liability varies over time (but we keep the estimated ratio constant throughout the forecast period to keep us honest.)

PERCENT BY WHICH CASH EXCEEDS LIABILITY



Source: NYS Department of Taxation and Finance; DOB staff estimates.