

Income Tax Module (Individual & Corporate)

MARA Committee: May 29, 2024



Individual & Corporate Income Tax Module

Individual Income Tax Simulation Model

- Data Source: Individual Income Tax Returns from Department of Revenue
- Dynamic Model: Parameters such as tax rates and brackets can be changed to analyze impacts to both state tax collections and taxpayer liabilities by income deciles.
- Simulation model is coded in R
- Fiscal impact of policy changes passed to individual income tax forecast model.



Individual Income & Corporate Income Tax Regression Models

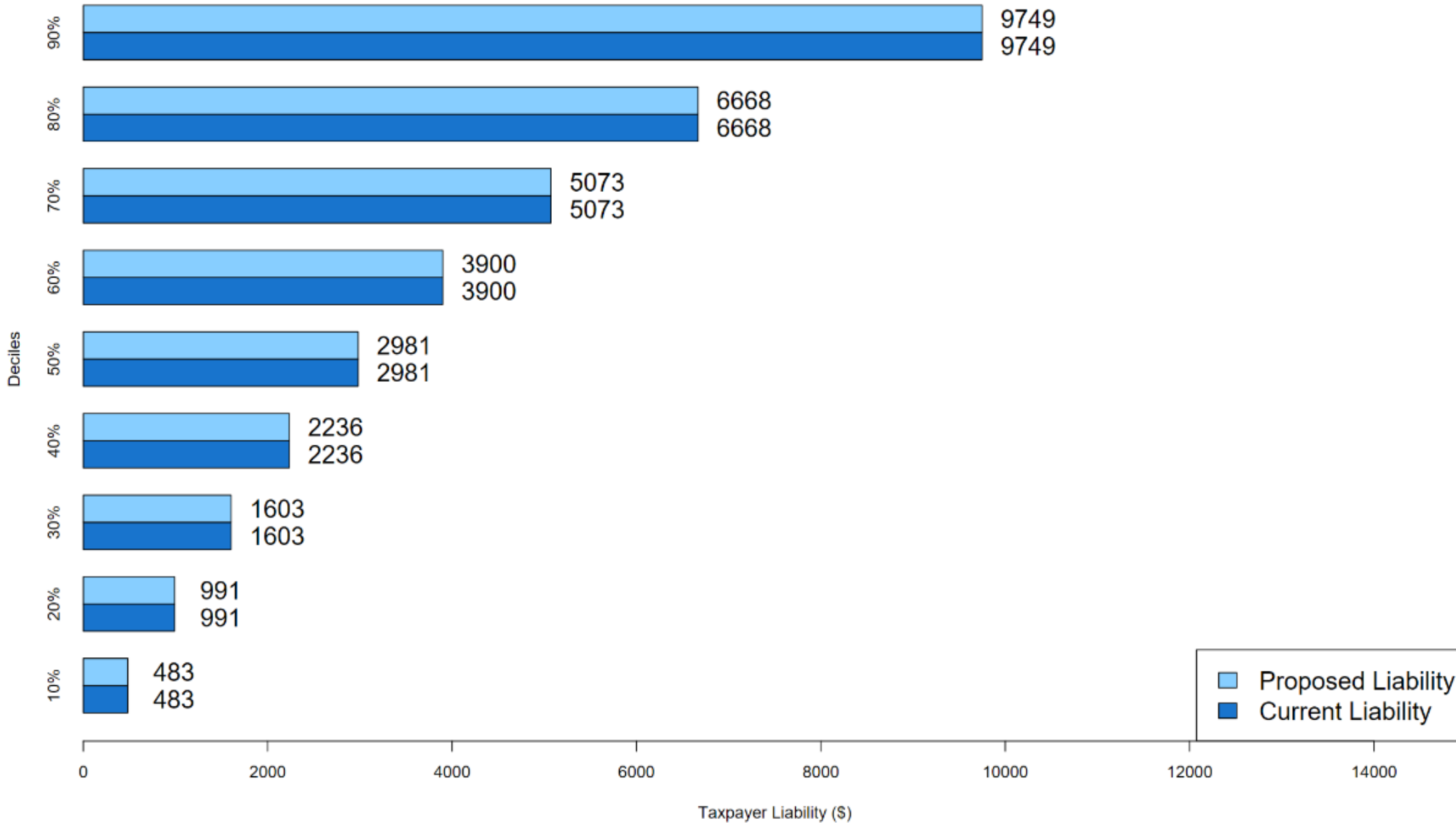
- Data Sources: SABHRS for historical individual income and corporate tax collections. Global S&P (formerly IHS) for historical data and forecasts for Montana wage disbursements, S&P 500 index, and US corporate profits.
- Individual Income Tax Forecast Model: Future collections forecasted using regression model with MT wage disbursements and S&P 500 index as independent variables.
- Corporate Income Tax Forecast Model: Future collections forecasted using regression model with US corporate profits as the independent variable.
- MT wage disbursements, S&P 500 index, and US corporate profits forecast assumptions can be changed by the user.



Income Tax Module

Individual Income Tax Simulation

Statewide Liability Difference (\$ Millions) = 0



Bottom Rate

Top Rate

Bracket Single

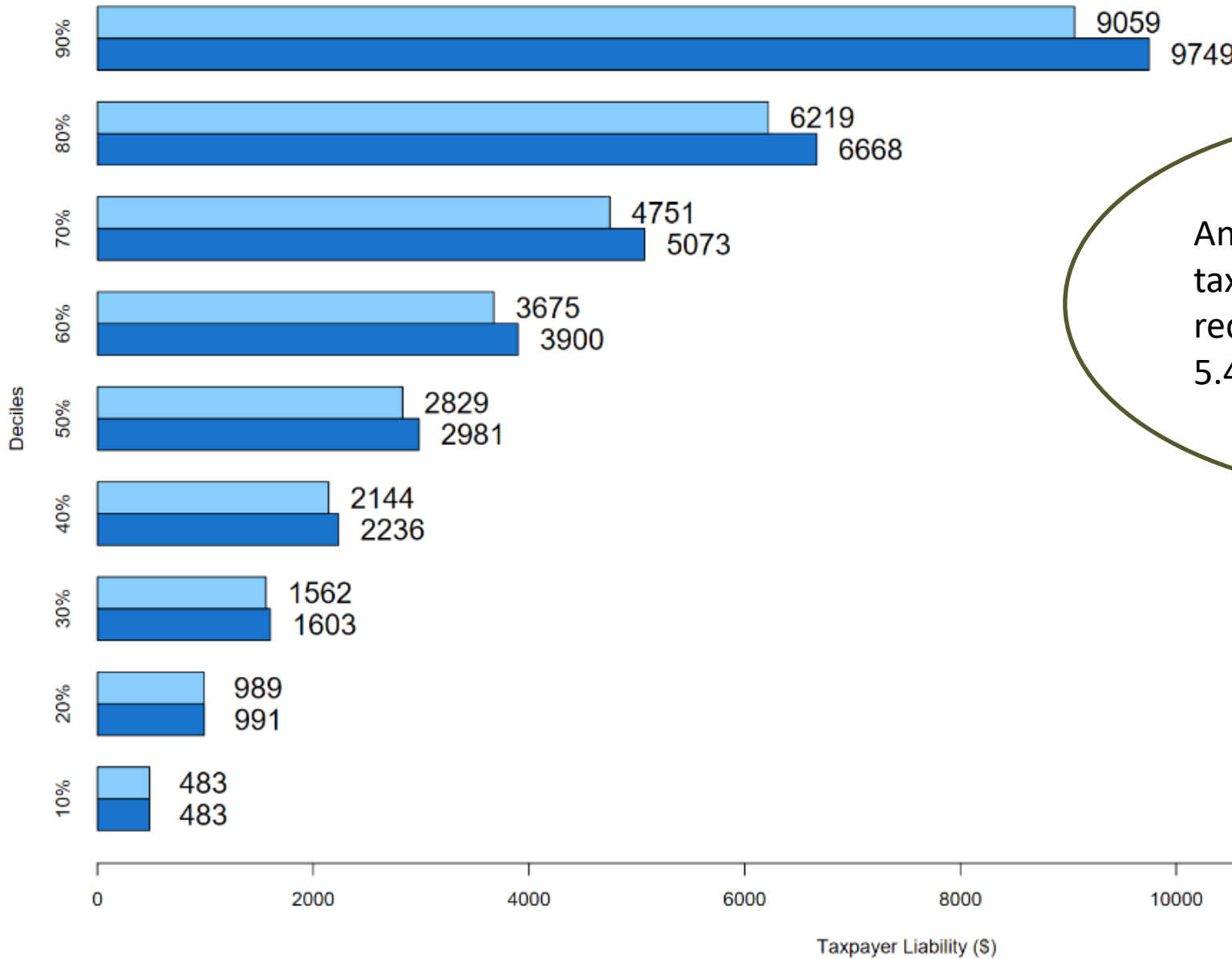
\$41,000
Joint_Bracket

Capital Gains Rate 1

Capital Gains Rate 2

Individual Income Tax Simulation

Statewide Liability Difference (\$ Millions) = -109.12



Annual impact to state and taxpayers if the top rate was reduced from 5.90% to 5.40%.

Bottom Rate

Top Rate

Bracket Single

\$41,000
Joint_Bracket

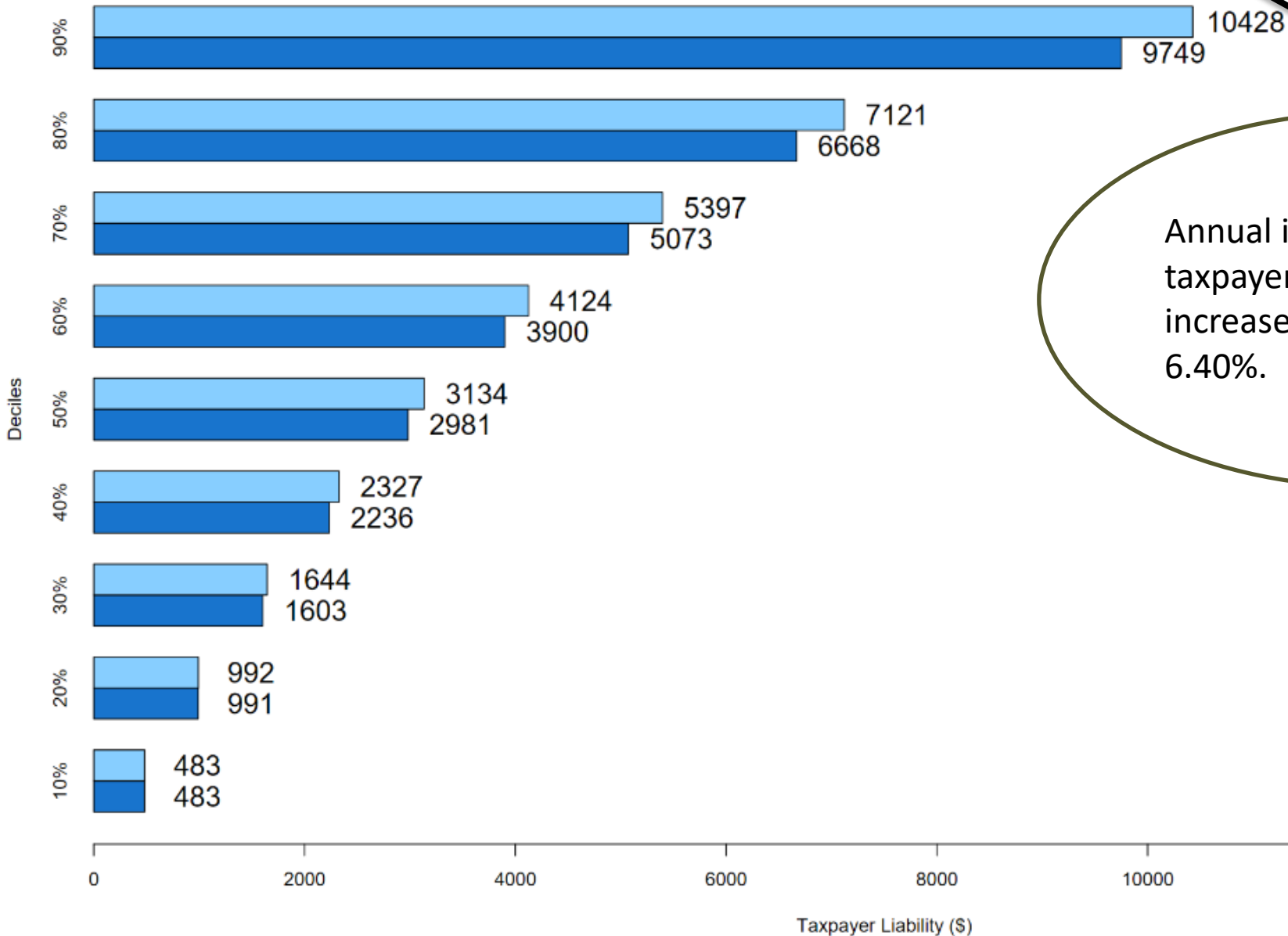
Capital Gains Rate 1

Capital Gains Rate 2

Proposed Liability
Current Liability

Individual Income Tax Simulation

Statewide Liability Difference (\$ Millions) = 109.12



Annual impact to state and taxpayers if the top rate was increased from 5.90% to 6.40%.

Bottom Rate

Top Rate

Bracket Single

\$41,000

Joint_Bracket

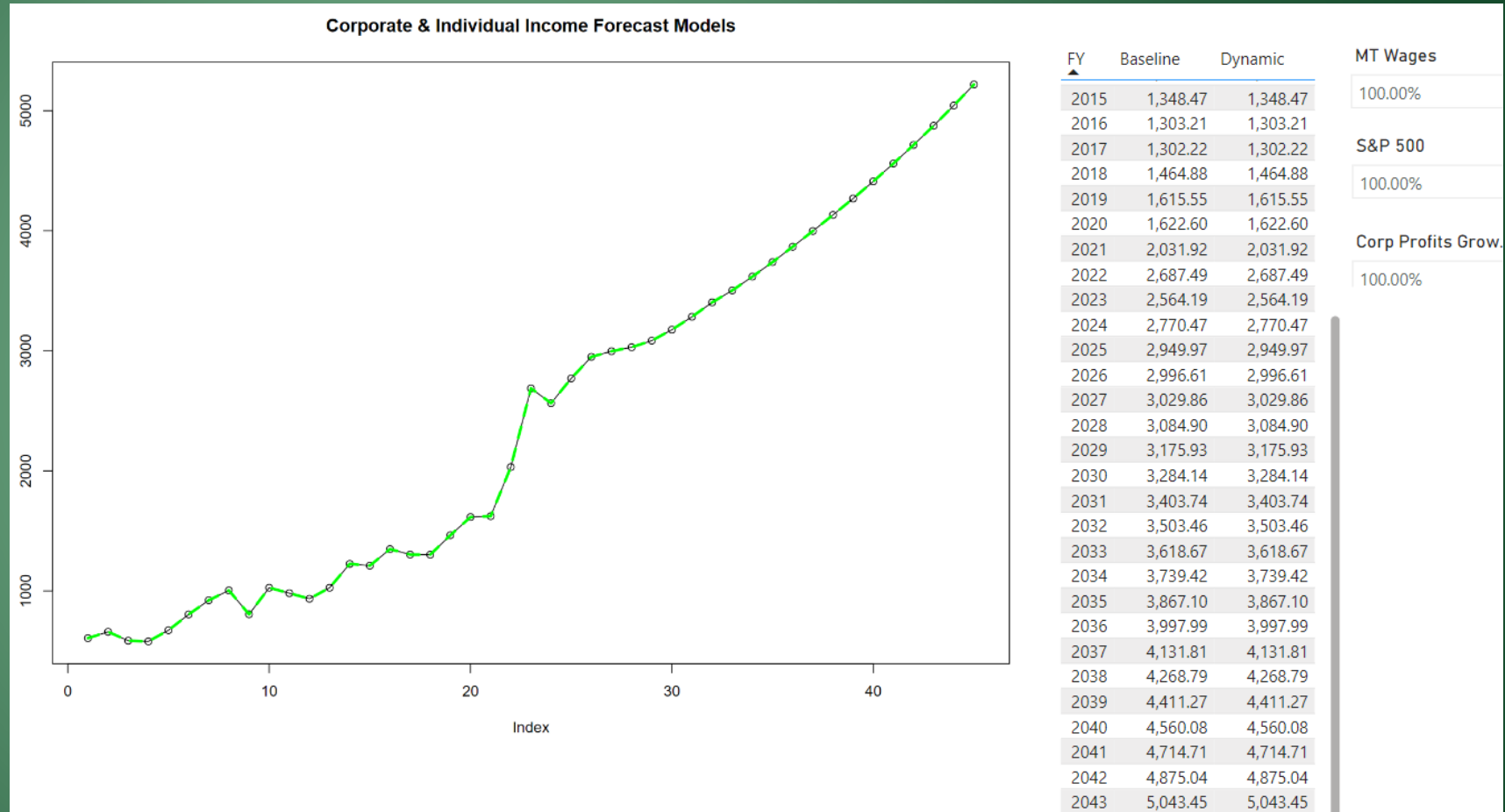
Capital Gains Rate 1

Capital Gains Rate 2

Proposed Liability
Current Liability

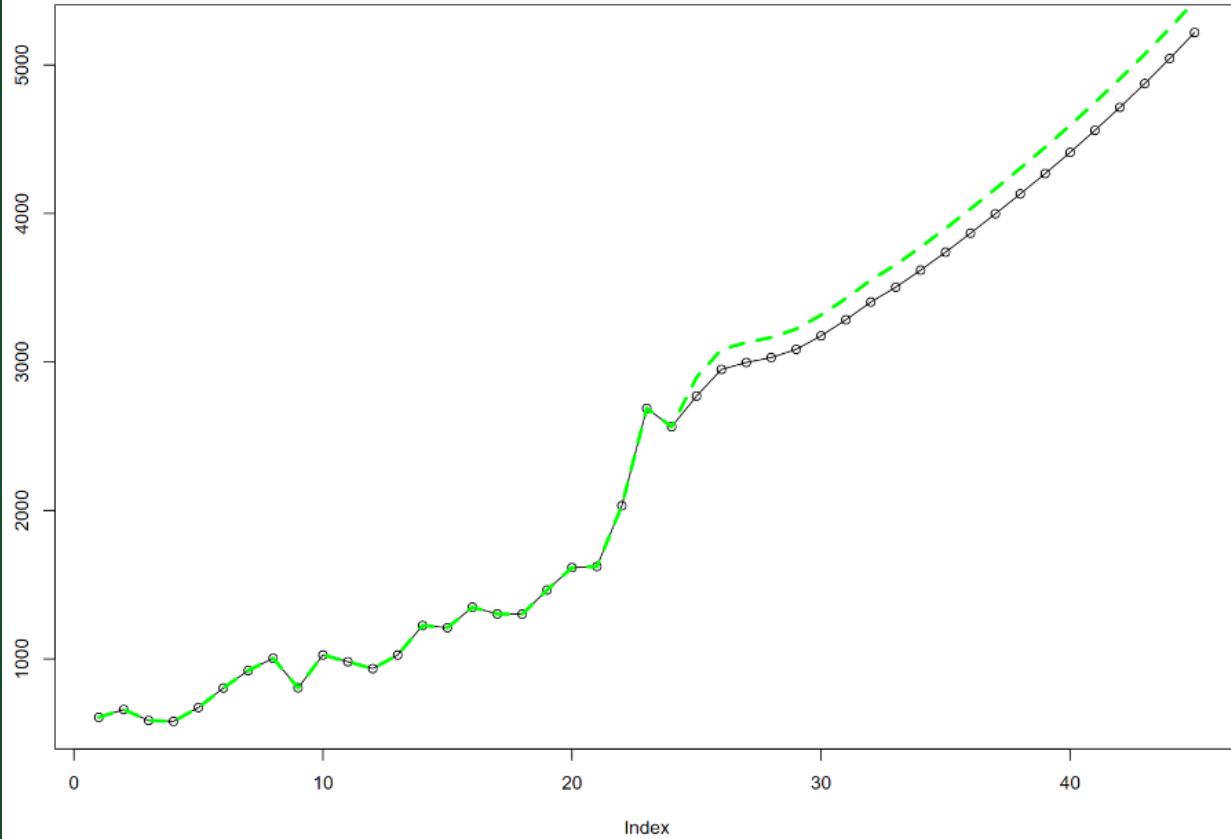
Income Tax Forecast Model (Individual & Corporate)

- Linear regression models for both individual income tax and corporate income taxes.
- Individual income taxes are forecast using S&P Global forecasts for MT wages and stock market (S&P 500) performance.
- Corporate income taxes are forecast using S&P Global's forecast for US corporate profits.
- The user can choose to change the assumptions for MT wages, stock market, and corporate profits.
- Two regression models are combined to form a final income tax forecast.



Income Tax Forecast Model (Individual & Corporate)

Corporate & Individual Income Forecast Models



FY	Baseline	Dynamic
2015	1,348.47	1,348.47
2016	1,303.21	1,303.21
2017	1,302.22	1,302.22
2018	1,464.88	1,464.88
2019	1,615.55	1,615.55
2020	1,622.60	1,622.60
2021	2,031.92	2,031.92
2022	2,687.49	2,687.49
2023	2,564.19	2,564.19
2024	2,770.47	2,896.17
2025	2,949.97	3,083.48
2026	2,996.61	3,131.43
2027	3,029.86	3,165.22
2028	3,084.90	3,221.71
2029	3,175.93	3,315.81
2030	3,284.14	3,427.94
2031	3,403.74	3,552.00
2032	3,503.46	3,654.95
2033	3,618.67	3,774.12
2034	3,739.42	3,899.01
2035	3,867.10	4,031.02
2036	3,997.99	4,166.37
2037	4,131.81	4,304.73
2038	4,268.79	4,446.36
2039	4,411.27	4,593.65
2040	4,560.08	4,747.49
2041	4,714.71	4,907.31
2042	4,875.04	5,073.02
2043	5,043.45	5,247.06
2044	5,218.46	5,427.91

MT Wages
103.00%

S&P 500
105.00%

Corp Profits Grow.
107.00%

Impact of assuming that MT wages, the stock market, and corporate profits perform 3%, 5%, and 7% better respectively than what S&P Global assumes in their baseline forecast.

Final Module: Bringing it all Together

- Final module combines inputs from previous two models.
- Income tax regression model is adjusted for SB 121 (2023 Legislative Session)
- Final outputs (baseline and dynamic) exported to table that can be pulled into bigger MARA model.

