

**MACROECONOMIC ANALYSIS OF H.R. 7024,
THE “TAX RELIEF FOR AMERICAN FAMILIES AND
WORKERS ACT OF 2024,” AS ORDERED REPORTED
BY THE COMMITTEE ON WAYS AND MEANS,
ON JANUARY 19, 2024**

Prepared by the Staff
of the
JOINT COMMITTEE ON TAXATION



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Contents

	<u>Page</u>
INTRODUCTION.....	1
MACROECONOMIC ANALYSIS OF H.R. 7204.....	2
EFFECTS ON ECONOMIC ACTIVITY AND REVENUES.....	5
APPENDIX: DATA, MODELS, AND ASSUMPTIONS USED IN THE ANALYSIS.....	6

INTRODUCTION

Pursuant to House Rule XIII(8)(b), this document,¹ prepared by the staff of the Joint Committee on Taxation (“Joint Committee staff”), provides an analysis of the macroeconomic effects of H.R. 7024, the “Tax Relief for American Families and Workers Act of 2024,” as ordered reported by the Committee on Ways and Means on January 19, 2024. The basis for this analysis is the projected change in tax revenues as estimated by the Joint Committee staff.²

¹ This document may be cited as follows: Joint Committee on Taxation, *Macroeconomic Analysis of H.R. 7024, the “Tax Relief for American Families and Workers Act of 2024” as ordered reported by The Committee on Ways and Means, on June 19, 2024, (JCX-6-24)*, January 23, 2024. This document can also be found on the Joint Committee on Taxation website at www.jct.gov.

² For projected changes in revenue by provision see Joint Committee on Taxation, *Estimated Revenue Effects of the Chairman’s Amendment in the Nature of a Substitute to H.R. 7024, the “Tax Relief for American Families and Workers Act of 2024,” Scheduled for Markup by the Committee on Ways and Means on January 29, 2024, (JCX-5-24)*, January 18, 2024 at www.jct.gov.

MACROECONOMIC ANALYSIS OF H.R. 7024

This report provides an analysis of the macroeconomic effects of a proposal to reform the Internal Revenue Code (“Code”). Specifically, the proposal analyzed here is summarized in JCX-2-24, *Description of H.R. 7024, The “Tax Relief for American Families and Workers Act of 2024,”* as ordered reported by the Committee on Ways and Means on January 19, 2024.³ The Joint Committee staff finds that it is impracticable to report changes to Gross Domestic Product (“GDP”) from this proposal because they are estimated to be so small relative to the size of the economy and the degree of uncertainty associated with the estimate as to be negligible over the 10-year budget window. As a result, the revenue feedback resulting from this proposal is also estimated to be negligible.

The following discussion describes the proposal and explains why the macroeconomic effects and revenue feedback that would result are estimated to be negligible. The Joint Committee Staff used three macroeconomic simulation models to analyze the effects of the proposal: (1) the Joint Committee staff’s Macroeconomic Equilibrium Growth Model (“MEG”);⁴ (2) The Joint Committee staff’s Overlapping Generations Model (“OLG”);⁵ and (3) the Joint Committee staff’s Dynamic Stochastic General Equilibrium Model (“DSGE”).⁶ A brief description of the models appears in the Appendix to this document.

The Joint Committee staff estimates that H.R. 7024 will reduce Federal revenues by about \$399 million over the budget window on a conventional basis, and that macroeconomic effects do not additionally increase or decrease this estimate.

³ Joint Committee on Taxation, *Description of H.R. 7024, the “Tax Relief for American Families and Workers Act of 2024” Scheduled for Markup by The Committee on Ways and Means* (JCX-2-24), January 19, 2024; and Joint Committee on Taxation, *Description of The Chairman’s Amendment In The Nature Of A Substitute to H.R. 7024, “The Tax Relief For American Families and Workers Act of 2024 (JCX-4-24),* January 18, 2024. These documents can also be found on the Joint Committee on Taxation website at www.jct.gov.

⁴ A detailed description of the MEG model may be found in Joint Committee on Taxation, *Macroeconomic Analysis of Various Proposals to Provide \$500 Billion in Tax Relief* (JCX-4-05), March 1, 2005, and Joint Committee on Taxation, *Overview of the Work of the Staff of the Joint Committee on Taxation to Model the Macroeconomic Effects of Proposes Tax Legislation to Comply with House Rule XIII(h)(2)* (JCX-105-03), December 22, 2003.

⁵ A detailed description of the OLG model may be found in “Macroeconomic Implications of Modeling the Internal Revenue Code in a Heterogeneous-Agent Framework,” *Economic Modelling*, vol. 87, April 2020, pp. 72-91, in Rachel Moore and Brandon Pecoraro, “A Tale of Two Bases: Progressive Income Taxation of Capital and Labor Income,” *Public Finance Review*, vol. 49, no. 3, May 2021, pp. 335-391, and in Joint Committee on Taxation, *An Overview of a New Overlapping Generations Model with an Example Application in Policy Analysis* (JCX-22R-20), October 22, 2020.

⁶ A description of an earlier version of the DSGE model may be found in: *Joint Committee on Taxation, Background Information about the Dynamic Stochastic General Equilibrium Model Used by the staff of the Joint Committee on Taxation in the Macroeconomic Analysis of Tax Policy*, JCX-52-06, December 14, 2006. There is no description available for the current version of the DSGE model.

Proposal

H.R. 7024 (“the bill”) includes 13 provisions organized under six subtitles, which are briefly described in this section.

The first subtitle includes one provision that modifies the child tax credit in several ways, each of which expire at the end of calendar year 2025. First, the per-child calculation of the additional child tax credit phase-in is adjusted while the maximum amount of the additional child tax credit per qualifying child is increased to \$1,800 and \$1,900 in calendar years 2023 and 2024, and increased to the full amount of the child tax credit for 2025. Second, the \$2,000 per-child amount of the child tax credit is temporarily indexed for inflation in 2024 and 2025. Lastly, taxpayers are temporarily allowed to elect to use earned income of the preceding year for purposes of calculating the credit, and there is a special rule for early-filed 2023 tax returns that may entitle the taxpayer to an additional credit or refund amount. Overall, these modifications have the effect of temporarily increasing the generosity of the child tax credit and the additional child tax credit. The Joint Committee staff estimates this provision will result in a \$33.5 billion revenue loss over the budget window.

The second subtitle includes three provisions that temporarily increase business deductions through the end of calendar year 2025. The deduction for research and experimental expenditures for taxable years beginning after December 31, 2021 is temporarily modified by allowing taxpayers to immediately deduct amounts paid or incurred during the taxable year instead of capitalizing and amortizing such expenditures over a five-year period.⁷ A second provision temporarily extends the ability of taxpayers to compute adjusted taxable income for purposes of the section 163(j) interest limitation without regard to deductions allowable for depreciation, amortization, or depletion in taxable years beginning after December 31, 2022. This modification has the effect of increasing the deductible amount of business interest expense during the taxable year. A third provision temporarily extends the allowance of a 100-percent bonus depreciation deduction for qualified property placed into service after December 31, 2022. Subtitle III also includes a fourth provision that permanently increases the limitation on expensing of depreciable assets. The Joint Committee staff estimates that these provisions will result in a \$32.8 billion revenue loss over the budget window.

The third subtitle entitles qualified residents of Taiwan to receive certain benefits with respect to U.S. source income. The Joint Committee staff estimates this provision to have no revenue effect.

The fourth subtitle includes three provisions that provide assistance for disaster-impacted communities. First, certain disaster-related personal casualty losses attributable to major disasters beginning any time after the date of enactment of Division EE of Public Law 116-260, the Taxpayer Certainty and Disaster Tax Relief Act of 2020 (the “2020 Disaster Act”) and through the date of enactment of the provision are provided the same treatment as qualified disaster-related personal casualty losses under the 2020 Disaster Act. The second provision provides an exclusion from gross income for amounts received as qualified wildfire relief

⁷ For expenditures outside of the United States, the current law allows for a 15-year amortization period.

payments, and is effective for payments received during taxable years beginning after December 31, 2019, and before January 1, 2026. The third provision treats East Palestine, Ohio train derailment payments as qualified disaster relief payments for purposes of section 139(b). As a consequence, the payments are excluded from gross income. The Joint Committee staff estimates the fourth subtitle to result in a \$4.9 billion revenue loss over the budget window.

The fifth subtitle includes two provisions related to the low-income housing tax credit. The first increases the State housing credit ceiling for calendar years 2023 through 2025. The second temporarily lowers the 50-percent-bond-financing threshold requirement for certain buildings placed in service after 2023. These two provisions are estimated to result in a \$6.3 billion revenue loss over the budget window.

The last subtitle includes two provisions related to tax administration. The first increases the threshold for requiring information reporting, and results in an estimated revenue loss of \$1.5 billion over the budget window. The second provision is related to the enforcement of rules applicable to the employee retention tax credit ("ERTC"), and allows penalties for certain misleading behavior related to ERTC claims. This provision also provides that no credit or refund of the ERTC shall be allowed or made after January 31, 2024, unless such claim for such refund or credit is filed on or before that date. This provision is estimated to result in a \$78.6 billion revenue gain over the budget window.

As a result of the relative magnitude of revenue effects across subtitles, the macroeconomic effects resulting from the bill are primarily due to the provisions in the first two subtitles. Under the first subtitle, the increase in the rate at which the refundable additional child tax credit phases in with earned income decreases the effective marginal tax rate on labor income, particularly for low-income taxpayers, but increases the effective marginal rate for some others because of the shortened phase-in region. This causes competing labor supply incentives for different taxpayers. For all taxpayers affected by the overall increase in generosity of the credit, there will be a positive income effect that decreases desired labor supply.

The increase in the business deductions included in the second subtitle temporarily decreases the after-tax cost of capital investment for both corporations and pass-through businesses, resulting in a temporary increase in the after-tax rate of return on business investment. Because these provisions expire after calendar year 2025, there is an incentive for businesses to increase investment and shift the timing of already planned investment forward. In addition, while the retroactivity created by effective dates prior to the date of enactment increases businesses' current cash flow, it implies that some of the revenue loss has limited effect on incentives for new investment because the after-tax rate of return is not directly affected.

EFFECTS ON ECONOMIC ACTIVITY AND REVENUES

The estimates of the effects of this proposal on economic activity and revenues were produced using an average of those effects generated by the OLG, MEG, and DSGE models, each with equal weights. This weighting scheme was chosen because no model has a clear advantage over the other in terms of modeling the provisions included in the bill.

The estimated macroeconomic effects of the bill on GDP are so small relative to the size of the economy and the degree of uncertainty associated with the estimate as to be insignificant within the context of a model of the aggregate economy. While the temporary business provisions in the second subtitle decrease the cost of capital and encourage investment in the first three years after enactment, some of this increased investment reflects a forward timing shift of planned investment rather than additional investment that would only occur upon enactment of the bill. In addition, the retroactive component of these provisions only has an inframarginal effect on business activity. After these provisions sunset at the end of calendar year 2025, the after-tax rate of return to investment returns to its present-law value. The Joint Committee staff estimates that while the bill would increase the aggregate stock of capital relative to the baseline forecast over the first half of the budget window, the size of the effect is too small to be significant over that period as well as on average over the budget window.

While the increase in productive capital increases labor demand over the first half of the budget window under the bill, and the proposed expansion of the child tax credit on net increases labor supply, the increase in after-tax household income has a small, offsetting income effect that reduces labor supply. Therefore, the Joint Committee staff estimates that the increase in aggregate effective labor supply⁸ relative to the baseline forecast is too small to be significant. Similarly, while household income is estimated to increase slightly and temporarily because of an increase in after-tax wages and returns on investment during the first half of the budget window, the Joint Committee staff estimates no significant effect on consumption in any part of the budget window.

The estimated macroeconomic revenue feedback is related to the degree of productive capital response in each model. However, because the estimated changes in aggregate variables are impracticably small to report, the overall estimated revenue feedback effect is estimated to be so small as to be negligible over the 10-year budget window.

Second and third decade effects

Because the major provisions of the bill expire at the end of calendar year 2025, any macroeconomic and revenue effects projected beyond the first decade are too small to estimate with a reasonable degree of certainty.

⁸ Effective labor supply is a aggregate productivity-weighted equilibrium labor employed, and does not directly correspond to a standard measure of labor hours.

APPENDIX: DATA, MODELS, AND ASSUMPTIONS USED IN THE ANALYSIS

The Joint Committee staff analyzed the proposal using the Joint Committee staff MEG, DSGE, and OLG models. While the models are based on economic data from the National Income and Product Accounts, taxable income in the models is adjusted to reflect taxable income as measured and reported on tax returns. All three models start with the standard, neoclassical production framework in which the amount of output is determined by the quantity of labor and capital used by firms, and the productivity of those factors of production. Both individuals and firms are assumed to make decisions based on observed characteristics of the economy, including wages, prices, interest rates, tax rates, and government spending levels. In particular, labor supply is determined by individuals' preferences and expectations, as well as current and future after-tax income and wealth. Similarly, the capital stock is determined by investors' expectations (or knowledge if perfect foresight) of after-tax returns to capital, which depend on anticipated gross receipts, costs of factor inputs, and tax rates that affect those factors. The underlying structure of the MEG model relies more on reduced-form behavioral response equations, while the OLG and DSGE models are built on theoretical microeconomic foundations.

The degree to which the Joint Committee staff relies more heavily on the results of one model versus the others depends on the specifics of the proposal being analyzed. The MEG model aggregates four separate types of labor, using separate marginal and average tax rates for all major individual and business income tax sources. The availability of investment capital to firms is determined by individuals' savings decisions, which depend on the after-tax rate of return on investment as well as on foreign capital flows. Monetary policy conducted by the Federal Reserve Board is explicitly modeled, with delayed price adjustments to changes in economic conditions allowing for the economy to be temporarily out of equilibrium in response to fiscal and monetary policy. The myopic expectation framework in the MEG model represents the extreme case of the degree of foresight individuals have about future economic conditions, in which individuals assume in each period that current economic conditions will persist permanently.

At the other end of the foresight spectrum, in the OLG model, individuals are assumed to make consumption, labor supply, and residential decisions to maximize their expected lifetime well-being given the resources they can foresee will be available to them. They are assumed to have complete information, or "perfect foresight," about economic conditions, such as wages, prices, interest rates, tax policy, and government spending, while they have uncertainty over their length of life. The OLG model represents a class of models with "micro-foundations" and life-cycle effects modeled separately for 76 "generations," each with two household types (married or single), eight labor productivity types, and 10 wealth endowment types. Individuals in each household optimally choose their labor supply from a discrete set of options—unemployed, part time, or full time. For married households, that labor supply decision is made jointly by primary and secondary earners. This indivisible labor assumption implies that the aggregate labor supply elasticity is endogenous and depends on the distribution of reservation wages⁹ across households. Tax liability on household income is determined by an internal tax calculator that

⁹ A "reservation wage" is the lowest after-tax wage at which an individual is willing to work.

incorporates key aspects of income tax law. The OLG model includes a business sector with distinct corporate and non-corporate entities that produce output at profit maximizing levels under perfect foresight by choosing the optimal amount of labor and private capital to be used in production. The OLG model is a large open-economy model where foreign entities purchase a portion of new debt issued by the Federal government, thereby reducing the crowding-out effect relative to that of a closed-economy model. Although debt may be held abroad, there is no additional income or investment shifting beyond what is estimated conventionally.

The DSGE model has a stochastic feature that captures some of the effects of uncertainty about future fiscal policy on the modeling outcome, representing a less extreme foresight assumption than either of the other models. In any given period agents within the model are assumed to know policy variables four years into the future, and believe policy variables will slowly return to their steady state values thereafter. In the DSGE model, there are two types of households who make decisions about labor supply, “savers” and “non-savers,” where only the former has the ability to make investment decisions. As in the OLG model, these two types of households make consumption and labor supply decisions to maximize their discounted present value of lifetime well-being. Labor supplied by each household type differs in productivity, but is substitutable in the production process. As with the MEG model, the DSGE model incorporates a monetary policy reaction function, which responds to deviations in output and inflation from their long-run values. It also features nominal rigidities in goods prices, allowing for the equilibrium quantity of goods purchased to be relatively more demand-determined in the short-run than in a flexible price model.

In the OLG and DSGE models, the ability of agents to foresee changes in fiscal conditions means that the agents in the models will be unable to make optimal economic decisions if they can foresee a permanently unstable economic future, thus preventing the models from “solving” - or completing their simulations. This problem arises in a situation where deficits or surpluses are expected to indefinitely increase faster than the rate of growth of GDP, which is a characteristic under present law as well as the bill. Thus, it is necessary to make counter-factual “fiscal balance” assumptions about the expected path of debt for these models. In the MEG model, however, agents are assumed not to foresee that eventually the growing government debt-to-GDP ratio under present law will become so large that it becomes unsustainable, and the model can generate forecasts up until that point.

For models that require a fiscal balance assumption, imposing the fiscal balance assumption outside the budget window can have effects inside the window, because agents can foresee that it will occur. This “anticipation effect” is stronger the closer in time it is to agents’ decision making. In recent years, developmental work on the OLG model has allowed the fiscal balance assumption to be made decades after the budget window, thus reducing the effect of this assumption on behavior inside the budget window.¹⁰ For purposes of the simulations in this report, fiscal balance is achieved in the OLG model by allowing government consumption to adjust in 2057 as necessary to stabilize the debt-to-GDP ratio. Fiscal balance is achieved in the

¹⁰ See Rachel Moore and Brandon Pecoraro, “Dynamic Scoring: An Assessment of Fiscal Closing Assumptions,” *Public Finance Review*, vol. 48, no. 3, April 2020, pp. 340-353.

DSGE model by allowing government consumption to slowly begin adjusting in 2043 to eventually stabilize the debt-to-GDP ratio in the long-run.

The estimate of the impact of the growth effects from this proposal on its budget effects was produced using an average of those effects generated by the MEG, OLG, and DSGE models with equal weights. As described above, each model provides a somewhat different perspective on savings/investment and labor responses. The MEG model allows simulation of the proposal as drafted, with no offsetting fiscal balance assumption, and it models cross-border capital flows that can partially offset the effects of a growing deficit on interest rates. The OLG model provides detailed focus on household heterogeneity and allows for the purchase of domestic government debt by foreign entities. The DSGE model, which does not model cross-border capital flows, captures the variation in behavioral responses by savers and non-savers. It also adds imperfect foresight to the analysis, an assumption sitting between the perfect foresight assumption of the OLG model and the myopic foresight in the MEG model.

Each major tax bill potentially presents a unique combination of changes in the definition of the taxable base for different sources of income, as well as changes in tax rates on different sources of income. Because the Joint Committee staff uses these models to facilitate analysis of tax policy, and to estimate the revenue consequences of the macroeconomic effects of tax policy, the Joint Committee staff has devoted a considerable amount of time and attention to modeling the specific types of income flows affected by proposals, to the extent allowed by other sets of assumptions within each macroeconomic model. Information about the effects of the proposal on average tax rates and effective marginal tax rates on each source of income, and on after-tax returns to capital and labor, is obtained from various Joint Committee staff tax models¹¹ (used in the production of conventional revenue estimates) to characterize the effects of the bill within the each of the models.

¹¹ Descriptions of the Joint Committee staff's conventional estimating models may be found in JCX-46-11, *Testimony of the Staff of the Joint Committee on Taxation before the House Committee on Ways and Means Regarding Economic Modeling*, September 21, 2011, JCX-75-15, *Estimating Changes in the Federal Individual Income tax: Description of the Individual Tax Model*, April 24, 2015, and other documents at www.jct.gov under "Estimating Methodology."

Table 1. Key Parameters in the MEG Model			
Household		Income	Substitution
Labor Supply Elasticities			
Low income primary		-0.1	0.2
Other primary		-0.1	0.1
Low income secondary		-0.3	0.8
Other secondary		-0.2	0.6
Wage-weighted population average		-0.1	0.2
Annual rate of time preference	0.015		
Intertemporal elasticity of substitution	0.350		
Production			
Business Capital share	0.412		

Table 2. Key Parameters in the OLG Model			
Household			
Annual rate of time preference			0.060
Aggregate leisure share of time endowment			0.309
Intratemporal elasticity of substitution (consumption and housing)			0.487
Production			
Private Capital share			0.355
Public Capital share			0.078

Table 3. Key Parameters in the DSGE Model		
Household	Annual rate of time preference	0.030
	Intertemporal elasticity of substitution	0.500
	Frisch elasticity of labor supply	0.400
	Fraction of non-Ricardians	0.233
Production	Capital share	0.360
	Intermediate firm markup	0.111