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Budget Model

This analysis has been updated as part of PWBM's comprehensive analysis of the Biden platform.

Summary: Penn Wharton Budget Model (PWBM) projects that former Vice President Joe Biden's tax plan would raise between $2.3 trillion (including macroeconomic effects) and $2.6 trillion (not including macroeconomic effects) in additional revenue in the 10-year window 2021 - 2030 while having very little impact on GDP over time. The majority of this tax increase would fall on the top 0.1 percent of the income distribution, increasing their annual taxes by more than $1 million and reducing their after-tax income by 14 percent.

Key Points

- Former Vice President Joe Biden has proposed a plan to raise taxes on high-income households, which the Biden presidential campaign estimates would raise $3.2 trillion over 10 years.[1] PWBM projects that this plan would raise between $2.3 trillion (including macroeconomic effects) and $2.6 trillion (not including macroeconomic effects) over fiscal years 2021-2030.

- We project that more than half of the tax change falls on the top 0.1 percent of the income distribution, corresponding to an average tax increase of more than $1 million per taxpayer and a 14 percent reduction in their after-tax income. For all groups outside of the top 5 percent, average after-tax income decreases by less than 1 percent.

- PWBM projects that this plan would have little impact on the aggregate economy, decreasing GDP by 0.1 percent by 2030 and increasing GDP by 0.1 percent by 2050.

The Biden Tax Plan: Budgetary, Distributional, and Economic Effects

Introduction

Former Vice President Joe Biden has recently proposed a new tax plan as part of his presidential campaign. The Biden tax plan contains ten specific proposals, united around the common theme of raising taxes on capital income:

- **Eliminate stepped-up basis.** Under current law, when a decedent transfers an appreciated asset, the tax basis of the asset is "stepped up" to fair market value at the time of death—thus a portion of accrued capital gains are never taxed. Under the proposal, all transfers of property would be treated as realization events, with the donor owing capital gains tax on their individual income tax return.
- **Raise the top rate on ordinary income.** The proposal would raise the top rate on ordinary income from 37 percent to 39.6 percent, the top rate prior to the 2017 Tax Cuts and Jobs Act.
- **Tax capital gains and dividends at ordinary rates.** Under current law, certain capital gains and dividends are taxed at preferential rates, with a top rate of 23.8 percent (including the Net Investment Income Tax, or "NIIT"). The proposal would remove this preference for taxpayers with more than $1 million in taxable income, raising the top rate to 39.6 percent (inclusive of the NIIT).
- **Limit itemized deductions.** Under current law, certain itemized deductions are limited individually (for example, the $10,000 limit on state and local tax deductions). The proposal would add a further limit on *total* itemized deductions. In particular, the reduction in tax *liability* per dollar of deductions cannot exceed 28 percent, even if the taxpayer is in a higher tax bracket.
- **Raise the corporate tax rate.** The proposal would increase the corporate income tax rate from 21 percent to 28 percent.
- **Impose a minimum tax on corporate book income.** The proposal would require C corporations with more than $100 million in book income to pay the greater of normal corporate tax liability and 15 percent of book income.
- **Raise the tax rate on foreign profits.** Under current law, C corporations are taxed on the portion of active income earned by their foreign affiliates that exceeds 10 percent of tangible property, known as global intangible low-taxed income (GILTI). Corporations are allowed to deduct 50 percent of GILTI and claim a credit for 80 percent of foreign taxes paid on GILTI, creating an effective rate of at least 10.5 percent.[2] Under the proposal this deduction would be lowered to 25 percent, creating an effective rate of at least 21 percent in the context of the plan's corporate rate of 28 percent.
- **Eliminate fossil fuel subsidies.** The proposal would eliminate certain tax subsidies for oil, gas, and coal production, including expensing of exploration costs and percentage depletion cost recovery rules.
- **Eliminate real estate loopholes.** Under current law, owners of appreciated real estate assets used in a trade or business can defer capital gains taxes when exchanging the asset for property of a "like kind." The proposal would eliminate this tax benefit and treat such exchanges as taxable events.[3]
- **Impose sanctions on tax havens.** The campaign intends to impose sanctions on countries that "facilitate illegal corporate tax avoidance and engage in harmful tax competition." However, no further details are provided. PWBM does not analyze this provision in this brief due to inadequate detail. If the campaign releases a more detailed plan, we will update our analysis.

The Biden campaign claims that the first nine provisions listed above would collectively raise more than $3.2 trillion over ten years. The campaign claims that the last provision would raise another $200 billion over ten years, raising the 10-year total to $3.4 trillion. As noted above, barring more details, PWBM does not include the sanctions in our analysis, thereby making the $3.2 trillion estimate the correct value of comparison.

Projected Budgetary Effects

PWBM projects that together, these Biden proposal would raise about $2.6 trillion over the budget window on a conventional scoring basis—roughly $600 billion less than the $3.2 trillion estimated by the campaign. When accounting for dynamic economic feedback effects, PWBM estimates the revenue raised decreases to $2.3 trillion over the same period. Table 1 presents the year-by-year revenue estimates for these figures.

Table 1. Conventional and Dynamic Revenue Estimates, Fiscal Years 2021-2030

Billions of Dollars, Change from Current-Law Baseline

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Provision	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**Budget window**
Eliminate stepped-up basis	10	15	16	18	19	21	23	25	27	30	204
Raise the top rate on ordinary income	19	23	23	25	27	16	13	11	7	0	163
Tax capital gains and dividends at ordinary rates	14	18	18	19	20	15	15	16	17	18	173
Limit itemized deductions	8	11	12	12	13	26	31	33	34	36	217
Raise the corporate tax rate	69	104	114	118	122	132	140	142	143	146	1,230
Impose a minimum tax on corporate book income	19	15	13	15	19	22	24	26	28	30	212
Raise the tax rate on foreign profits	34	36	38	40	42	22	23	24	25	26	310
Eliminate fossil fuel subsidies	2	2	3	3	3	3	3	3	4	4	30
Eliminate real estate loopholes	2	3	3	3	4	4	4	4	4	4	36
Conventional	**178**	**227**	**240**	**254**	**269**	**261**	**277**	**285**	**289**	**294**	**2,574**
Dynamic (includes macroeconomic effects)	***160***	***205***	***216***	***229***	***242***	***235***	***250***	***257***	***261***	***265***	***2,320***

Table 1 reports conventional revenue estimates for each individual provision of the proposal. PWBM's integrated model allows for revenue estimates that are "stacked" one after the other: each estimate is relative to a baseline that includes all provisions listed above it. This stacking ensures that we are accounting for interaction effects between policies.

For example, the provision "Impose a minimum tax on corporate book income" raises less revenue under the Biden proposal than if this provision were estimated in isolation relative to current law. The reason is that fewer businesses would pay an effective tax rate less than 15 percent once the corporate tax rate was increased from 21 to 28 percent, as noted in the preceding provision, "Raise the corporate tax rate."

The Biden campaign's revenue estimate, however, does not account for such interaction effects. Instead, they appear to add together "one-off" estimates of each provision relative to current law. These lack of interactions is one reason why PWBM's revenue estimates of individual provisions—and, therefore, our total revenue estimate—differ from those of the campaign.

Projected Distributional Effects

Table 2 presents several distributional measures of the proposed tax changes. Using the radio dials, readers can see the distributional effects under two approaches. The first incorporates the burden of corporate income taxes under the assumption that 75 percent of the tax falls on returns to capital and the rest on wages; the second includes direct tax changes to individual and payroll taxes only.

Table 2: Distribution of Federal Tax Change Under Former Vice President Biden's Tax Plan, 2021

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- (•) Corporate, individual and payroll tax
- ( ) Individual and payroll tax only

Corporate, individual income and payroll taxes

Income group	Average tax change	Share with a tax increase	Percent change in after-tax income	Share of tax change	Share of federal taxes paid	Change in share of federal taxes paid
Bottom quintile	$15	31.0%	-0.5%	0.4%	-0.2%	0.1%
Second quintile	$100	93.1%	-0.4%	1.6%	0.8%	0.1%
Middle quintile	$195	95.9%	-0.4%	3.2%	7.9%	-0.4%
Fourth quintile	$385	95.3%	-0.5%	5.4%	16.3%	-1.0%
80-90%	$710	98.8%	-0.5%	4.1%	13.2%	-0.8%
90-95%	$1,275	99.3%	-0.7%	3.4%	10.3%	-0.6%
95-99%	$3,260	99.6%	-1.1%	7.1%	16.8%	-0.9%
99-99.9%	$37,830	100.0%	-4.5%	18.2%	15.3%	0.3%
Top 0.1%	$1,007,925	100.0%	-13.9%	56.0%	19.4%	3.3%

Individual and payroll tax only

Income group	Average tax change	Share with a tax increase	Percent change in after-tax income	Share of tax change	Share of federal taxes paid	Change in share of federal taxes paid
Bottom quintile	$0	0.0%	0.0%	0.0%	-0.3%	0.0%
Second quintile	$0	0.0%	0.0%	0.0%	0.4%	0.0%
Middle quintile	$0	0.0%	0.0%	0.0%	8.0%	-0.4%
Fourth quintile	$0	0.0%	0.0%	0.0%	16.9%	-0.9%
80-90%	$0	0.0%	0.0%	0.0%	13.8%	-0.7%
90-95%	$5	0.1%	0.0%	0.0%	10.6%	-0.5%
95-99%	$140	2.9%	0.0%	0.6%	17.2%	-0.9%
99-99.9%	$21,945	83.8%	-2.6%	19.9%	15.2%	0.2%
Top 0.1%	$754,530	99.3%	-10.4%	79.4%	18.1%	3.2%

Note: "Income" is defined as AGI plus: above-the-line deductions, nontaxable interest income, nontaxable Social Security benefits, nontaxable pensions and annuities, employer-side payroll taxes, and corporate liability. Seventy-five percent of the corporate income tax is assumed to be borne by the owners of capital; the rest is assumed to fall on wages. Federal taxes included are individual income, payroll, and corporate income taxes.

Including the distribution of the corporate income tax at the household level, we project that more than half of the tax change would fall on the top 0.1 percent of the income distribution, corresponding to an average tax increase of more than $1 million. Average after-tax incomes for the top 0.1 percent of the income distribution would fall by nearly 14 percent. In contrast, the share of federal taxes paid by each other income group would largely remain unchanged. All groups outside of the top 5 percent of the income distribution see their after-tax incomes fall by less than 1 percent.

Projected Economic Effects

Table 3 reports PWBM's projections of how the Biden tax plan would affect the macroeconomy. We apply the standard, long-standing scoring convention used by the Congressional Budget Office (CBO) and PWBM of applying the additional revenue toward deficit reduction.

Table 3. Economic Effects of Former Vice President Biden's Tax Plan

Percent Change from Baseline

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Year	GDP	Capital stock	Hours worked	Average hourly wage
2030	-0.1%	0.0%	0.0%	-0.1%
2040	-0.1%	-0.1%	0.0%	-0.1%
2050	0.1%	0.4%	0.2%	0.0%

Note: Consistent with empirical evidence, the projections above assume that the U.S. economy is 40 percent open and 60 percent closed. Specifically, 40 percent of new government debt is purchased by foreigners.

The Biden proposal has two opposing effects on the macroeconomy. On one hand, reducing federal deficits increases investment, leading to greater capital accumulation and, therefore, increasing GDP. On the other hand, the increase in marginal tax rates discourage labor and savings. We project that these two effects are largely offsetting over time. More specifically, the second effect slightly dominates in the short run, thereby reducing GDP by 0.1 by 2030 and 2040. However, the first effect slightly dominates in the long run as more debt is reduced over time, thereby increasing GDP by 0.1 by 2050.

John Ricco, Alexander Arnon and Xiaoyue Sun produced this analysis under the direction of Efraim Berkovich, Richard Prisinzano and Kent Smetters. Kody Carmody contributed to the report. Calculations are based on PWBM's model that is developed and maintained by PWBM staff.

1. The Biden tax plan includes language to impose sanctions on tax havens, which they argue increases their tax revenue from $3.2 to $3.4 trillion. However, their tax plan does not define the related mechanism, and so we describe their language but do not model it. ↩

2. The deduction decreases from 50 percent to 37.5 percent in 2026. ↩

3. The linked Bloomberg report also hints at changing the treatment of real estate pass-through income for the purposes of Section 199A. The description is not adequately detailed for PWBM to score. ↩