



An Analysis of Joe Biden's Tax Proposals

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Key Points

- Using the Tax-Calculator (2.9.0) microsimulation model, we estimate that Joe Biden's proposals would raise federal revenue by \$3.8 trillion over the next decade (2021–30).
- Biden's proposals would increase taxes, on average, for households at every income level and make the federal tax code more progressive. His tax increases would primarily fall on the top 1 percent of income earners.
- Using the open-source OG-USA (0.6.2) model, we estimate that Biden's proposals would reduce gross domestic product (GDP) by 0.06 percent over the next decade, slightly increase GDP the second decade (0.07 percent), and result in a small reduction in GDP in the long run (0.2 percent).
- Although his proposals would raise significant revenue, they would not significantly affect the federal government's short-run and long-run debt burden.

Joe Biden, former vice president and current Democratic nominee for president, has proposed several individual income, payroll, and business tax increases aimed at financing new government programs. His proposals would raise taxes on primarily high-income households.

His proposals would repeal major provisions of the 2017 Tax Cuts and Jobs Act (TCJA) that reduced taxes for high-income households. Statutory tax rates and brackets would revert to pre-TCJA levels. As such, the top individual income tax rate would rise from 37 percent to 39.6 percent (Table 1). He would phase out Section 199A for high-income households. He would also reinstate the Pease limitation on itemized deductions.

All these changes would apply to taxpayers with taxable income over \$400,000. His plan would also limit the tax benefit of itemized deductions to 28 percent. Further, he would tax capital gains and dividends as ordinary income for taxpayers who report \$1 million or more and tax capital gains at death, subject to certain exclusions.

His proposals would enact or expand several tax credits. They would extend the earned income tax credit

(EITC) for childless filers to individuals over age 65 and reinstate the tax credit for residential energy efficiency. His proposals would increase the tax incentive to retirement saving for middle- and low-income households.

Biden's proposals would also raise payroll taxes for high-income earners. His plan would raise the old age, survivors, and disability insurance (OASDI) payroll tax of 12.4 percent by applying it to earnings over \$400,000.

Biden's proposals would raise business income taxes by both increasing the corporate tax rate and broadening the business tax base. Under his proposals, the corporate income tax rate would rise from 21 percent to 28 percent. His proposals would also increase the tax rate on foreign profits US multinational corporations earn by reducing the deduction for global intangible low-taxed income (GILTI) to 25 percent. As a result, the effective tax rate on GILTI would rise to 21 percent. He would also enact a 15 percent minimum tax on larger corporations' book profits.

His proposals would generally broaden business income taxes by eliminating numerous deductions.

Table 1. Tax Brackets, Current Law and Biden Proposal (2021–25)

Current Law					Biden Proposal				
Single		Married		Rate	Single		Married		Rate
Over	But Not Over	Over	But Not Over		Over	But Not Over	Over	But Not Over	
\$0	\$10,068	\$0	\$20,136	10%	\$0	\$10,068	\$0	\$20,136	10%
\$10,068	\$40,973	\$20,136	\$81,946	12%	\$10,068	\$40,973	\$20,136	\$81,946	12%
\$40,973	\$87,395	\$81,946	\$174,790	22%	\$40,973	\$87,395	\$81,946	\$174,790	22%
\$87,395	\$166,824	\$174,790	\$333,647	24%	\$87,395	\$166,824	\$174,790	\$333,647	24%
\$166,824	\$211,844	\$333,647	\$423,689	32%	\$166,824	\$416,700	\$333,647	\$416,700	33%
\$211,844	\$529,663	\$423,689	\$635,585	35%	\$416,700	\$418,400	\$416,700	\$470,700	35%
\$529,663	and over	\$635,585	and over	37%	\$418,400	and over	\$470,700	and over	39.6%

Source: Authors' calculations.

They would also eliminate the deduction for direct-to-consumer drug advertising and deductions for fossil fuel companies, as well as limit several deductions for the real estate industry. Lastly, he would restore the energy investment tax credit.

Conventional Revenue Estimate

We estimate that Biden's tax proposal would raise federal revenue by \$3.8 trillion between 2021 and 2030.

About half the new revenue would come from individual income and payroll tax increases (\$1.8 trillion). The largest source of new revenue from individual income and payroll taxes would be from applying the OASDI payroll tax of 12.4 percent to earnings over \$400,000 (\$797 billion over a decade). His proposal would raise another \$378.6 billion from taxing capital gains at death and raising the top tax rate to 39.6 percent. His proposals to roll back the 2017 tax act for high-income households would raise about \$358 billion over 10 years. However, repealing parts of the TCJA will raise revenue until only 2025 because these provisions are already scheduled to expire.

The business tax increases would raise the remaining half of the new revenue (\$2 trillion). The largest source of new business revenue and the largest source of new revenue in the entire proposal is the proposal to raise the corporate tax rate from 21 percent to 28 percent (\$1.3 trillion between 2021 and 2030). Biden's proposal would raise an additional \$470 billion from raising the minimum tax on foreign profits and enacting a 15 percent minimum tax on book profits. (See Table 2.)

Distributional Analysis

Biden's tax proposals would raise taxes on the majority of Americans, but the most significant tax increases would fall on the top 1 percent. Overall, his proposals would make the US tax code more progressive. Table 3 shows the average tax change, the share of the total tax change, and the percentage change in after-tax income, by income decile.

Under Biden's tax proposals, the top 1 percent would face the largest tax increase. That group's after-tax income would fall by 17.8 percent. Overall, 72 percent of new tax revenue in 2021 would come from the top

Table 2. Detailed Revenue Impact of Biden Tax Proposals (\$ Billions)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2021–30
Restore pre-TCJA rates and brackets above \$400,000 of income	18.3	19.0	19.8	20.8	21.7	0.0	0.0	0.0	0.0	0.0	99.6
Restore limitation on itemized deductions above \$400,000 of income (Pease limitation)	8.0	8.7	9.3	9.6	10.0	0.0	0.0	0.0	0.0	0.0	45.6
Phase out Section 199A deduction for taxpayers above \$400,000	38.6	40.2	42.4	44.6	46.6	0.0	0.0	0.0	0.0	0.0	212.3
Tax capital gains and dividends at ordinary income rates above \$1 million of income and tax at death	–1.6	20.8	46.2	49.7	52.1	38.0	40.1	42.2	44.4	46.7	378.6
Extend the EITC to childless workers age 65 and older	–0.5	–0.5	–0.6	–0.6	–0.6	–0.6	–0.7	–0.7	–0.7	–0.7	–6.2
Limit tax benefit of itemized deductions to 28 percent of value	19.1	19.1	19.1	19.3	19.8	31.2	32.5	33.7	35.2	36.8	265.9
Apply 12.4 percent OASDI payroll tax to earnings above \$400,000	58.6	62.5	66.4	70.7	75.0	81.5	86.9	92.7	98.6	104.5	797.3
Replace IRA/defined contribution pension contribution deductibility with 26 percent refundable credit	5.1	5.1	5.3	4.4	5.0	2.0	2.9	3.0	3.2	2.4	38.5
Reinstate energy efficiency credit	0.0	–2.4	–2.5	–2.7	–2.8	–2.9	–3.0	–3.2	–3.3	–3.4	–26.3
Total Individual and Payroll Taxes	145.5	172.4	205.4	215.8	226.9	149.2	158.7	167.8	177.4	186.2	1,805.3
Raise corporate income tax rate to 28 percent	97.0	103.7	112.5	120.8	128.4	137.0	144.4	147.0	151.2	154.8	1,296.7
Reduce GILTI deduction to 25 percent	29.6	30.8	32.2	33.7	34.8	27.6	28.7	29.7	30.9	32.3	310.4
Enact a 15 percent minimum tax on book profits	13.4	14.0	14.6	15.1	15.7	16.3	16.9	17.5	18.1	18.8	160.3
Eliminate the deduction for direct-to-consumer drug advertising	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.8	1.8	1.9	16.1
Restore energy investment tax credit	0.0	–0.2	–1.4	–2.7	–3.7	–4.4	–4.8	–5.0	–6.2	–6.5	–34.9
Eliminate tax preferences for fossil fuels	1.3	1.3	1.3	1.2	1.2	0.9	0.9	0.9	1.0	1.0	11.2
Eliminate tax preferences for real estate	23.9	24.8	25.7	26.7	27.6	28.6	29.7	30.8	32.0	33.2	283.0
Total Business Taxes	166.6	175.8	186.3	196.2	205.6	207.8	217.5	222.7	228.8	235.6	2,043.0
Combined Total	312.1	348.2	391.7	412.0	432.5	357.0	376.2	390.5	406.3	421.8	3,848.3

Source: Authors' calculations using Tax-Calculator, "Federal Individual Income and Payroll Tax Microsimulation Model," <https://github.com/erinmelly/Tax-Calculator/tree/Biden>.

Table 3. Distributional Impact of Biden’s Tax Plan, 2021 and 2030

	2021			2030		
Expanded Income Decile	Average Tax Change (\$)	Share of Total Change (%)	Percentage Change in After-Tax Income (%)	Average Tax Change (\$)	Share of Total Change (%)	Percentage Change in After-Tax Income (%)
0–10%	18	0.1	–0.6	37	0.1	–0.9
10–20%	31	0.2	–0.3	47	0.2	–0.3
20–30%	49	0.3	–0.3	70	0.3	–0.3
30–40%	79	0.5	–0.3	106	0.5	–0.3
40–50%	121	0.7	–0.3	178	0.9	–0.4
50–60%	222	1.4	–0.5	274	1.4	–0.5
60–70%	310	1.9	–0.5	423	2.1	–0.6
70–80%	454	2.8	–0.6	597	3	–0.6
80–90%	725	4.4	–0.6	924	4.6	–0.6
90–95%	1,368	4.2	–0.8	1,761	4.4	–0.8
95–99%	3,372	8.2	–1.8	5,832	11.6	–2
Top 1%	118,194	72.2	–17.8	131,875	65.6	–13.8
All	1,637	100	–4	2,012	100	–3.3

Source: Authors’ calculations using Tax-Calculator, “Federal Individual Income and Payroll Tax Microsimulation Model,” <https://github.com/erinmelly/Tax-Calculator/tree/Biden>.

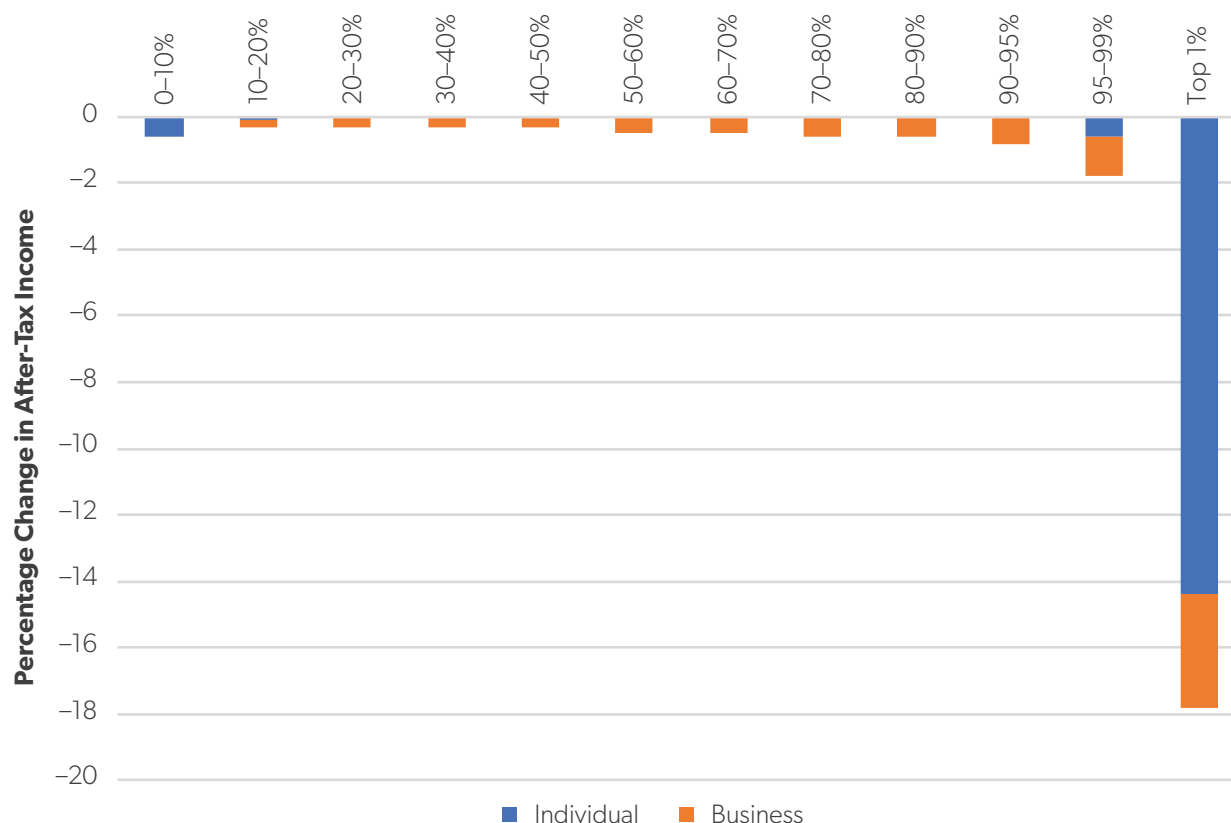
1 percent of tax filers. This group would face an average tax increase of \$118,674. This group would continue to face the largest tax increase in 2030.

The bottom 99 percent of taxpayers would also face tax increases, but they would be modest. In 2021, tax filers in the bottom 95 percent (income declines from 0 percent to 10 percent to 90 percent to 95 percent) would see a reduction in after-tax income of between 0.3 percent and 0.8 percent. The next income group (95 percent to 99 percent) would see a slightly larger reduction in after-tax income of 1.8 percent. The average size of tax increase ranges from \$18 for the bottom decile (0 percent to 10 percent) to \$3,372 for the 95 percent to 99 percent group. Overall, 24.7 percent of new tax revenue in 2021 would come from the bottom 99 percent of taxpayers. These taxpayers face roughly the same increase in tax burden in 2030.

Nearly all the income and payroll tax increases in Biden’s proposals target the top 1 percent of taxpayers. The modest tax increases for the bottom 99 percent are primarily due to business tax increases. Figure 1 shows the percentage change in after-tax income for each income decile in 2021 and 2030 split between corporate and individual payroll provisions. The bottom 95 percent of taxpayers would generally face a tax increase due entirely to the corporate income tax increases. In contrast, tax filers in the 95 percent to 99 percent and the top 1 percent face a tax increase due to income, payroll, and corporate tax changes.

In our analysis, we assume that 80 percent of the corporate tax falls on owners of capital and 20 percent falls on workers in the form of lower compensation.

Figure 1. **Change in After-Tax Income from Business and Individual Tax Reforms, 2021**



Source: Authors' calculations using Tax-Calculator, "Federal Individual Income and Payroll Tax Microsimulation Model," <https://github.com/erinmelly/Tax-Calculator/tree/Biden>.

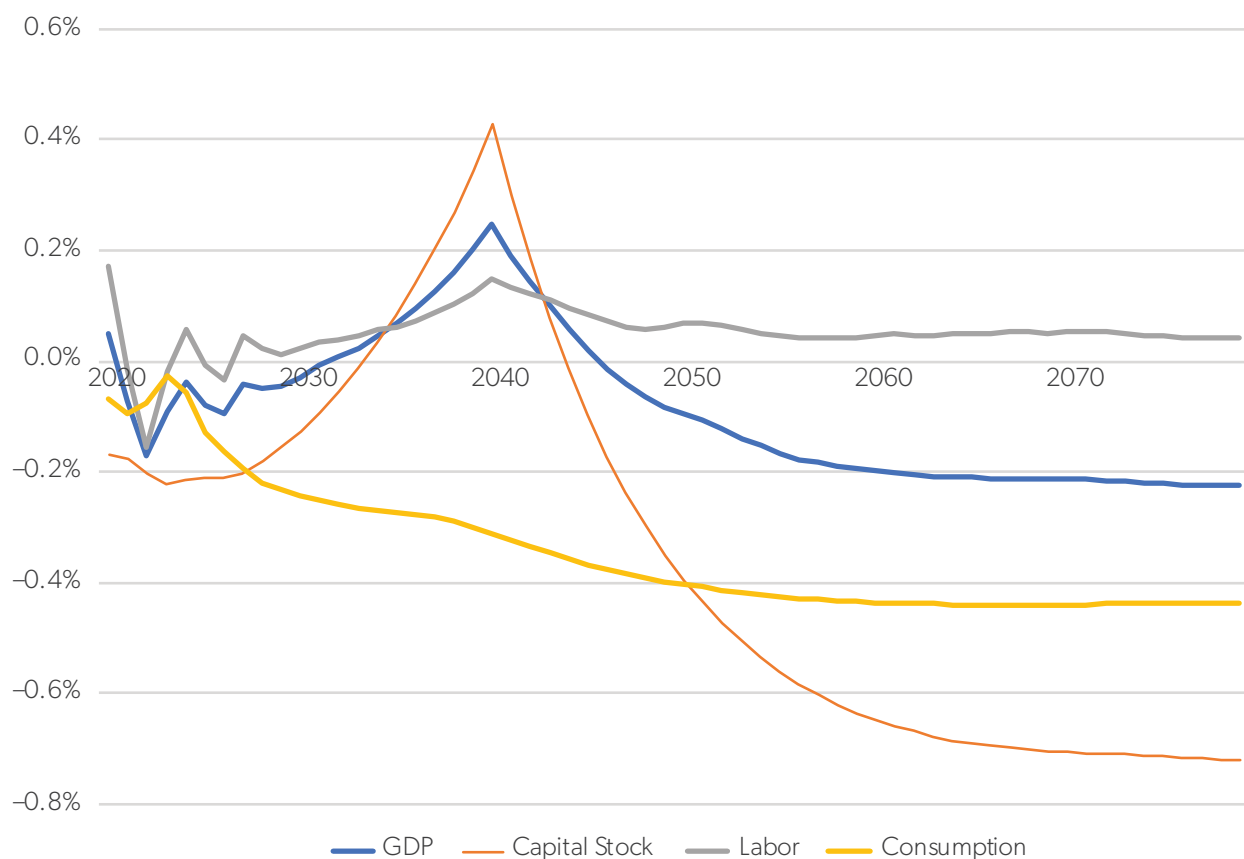
Macroeconomic Analysis

Biden's tax proposals would represent a significant increase to effective tax rates on high-income households and corporations. The higher effective tax rates would result in a short-run reduction in gross domestic product (GDP) relative to the baseline, followed by a medium-run increase in GDP due to the reduction in debt and its reduced drag on investment. But the long-run effect of the Biden plan is a slight reduction in GDP relative to the baseline. The lower output over the first decade would result in slightly less tax revenues than predicted by the conventional estimate. The Biden plan reduces US debt but not enough to stabilize the dramatically increasing debt-to-GDP ratio.

Using the open-source OG-USA model of US fiscal policy, we project that Biden's proposal would reduce the level of GDP relative to the baseline by 0.06 percent from 2021 to 2030 by reducing the labor supply and the capital stock (Figure 2). The increase in taxes introduces disincentives to both work and save, which result in a reduction in aggregate labor and the aggregate capital stock. The OG-USA model predicts some fluctuations in labor supply and savings over the first eight years of the policy. This is due to the abrupt increases in effective and marginal tax rates on income over \$400,000, which induces behavioral changes that take advantage of other expiring policies at different years in that window.

In the second decade, the model predicts that Biden's proposals would increase US GDP relative to

Figure 2. The Economic Impact of Biden’s Tax Proposals, Percentage Change in Macro Aggregates, 2021–80



Source: Authors’ calculations using OG-USA, “Overlapping Generations Model for Evaluating Fiscal Policy in the United States,” <https://github.com/PSLmodels/OG-USA>.

the baseline. GDP would be 0.07 percent larger than baseline on average between 2031 and 2040. This is because the increased tax revenue decreases the trajectory of US debt, which means that more of household savings can be used for private capital accumulation and less has to be used to service the debt interest. In these years, the Biden plan reduces the classical crowding out effect of debt on investment. Debt-to-GDP would be 4.87 percentage points lower than baseline between 2031 and 2040.

In the long run, the model predicts that Biden’s plan would reduce GDP by 0.2 percent. Under the Biden plan, the US will continue to have structural deficits. A realistic feature of the dynamic macroeconomic model is that the debt-to-GDP ratio cannot increase forever. As such, our model needs to impose an adjustment

to ensure that the debt-to-GDP ratio stabilizes in the long run.

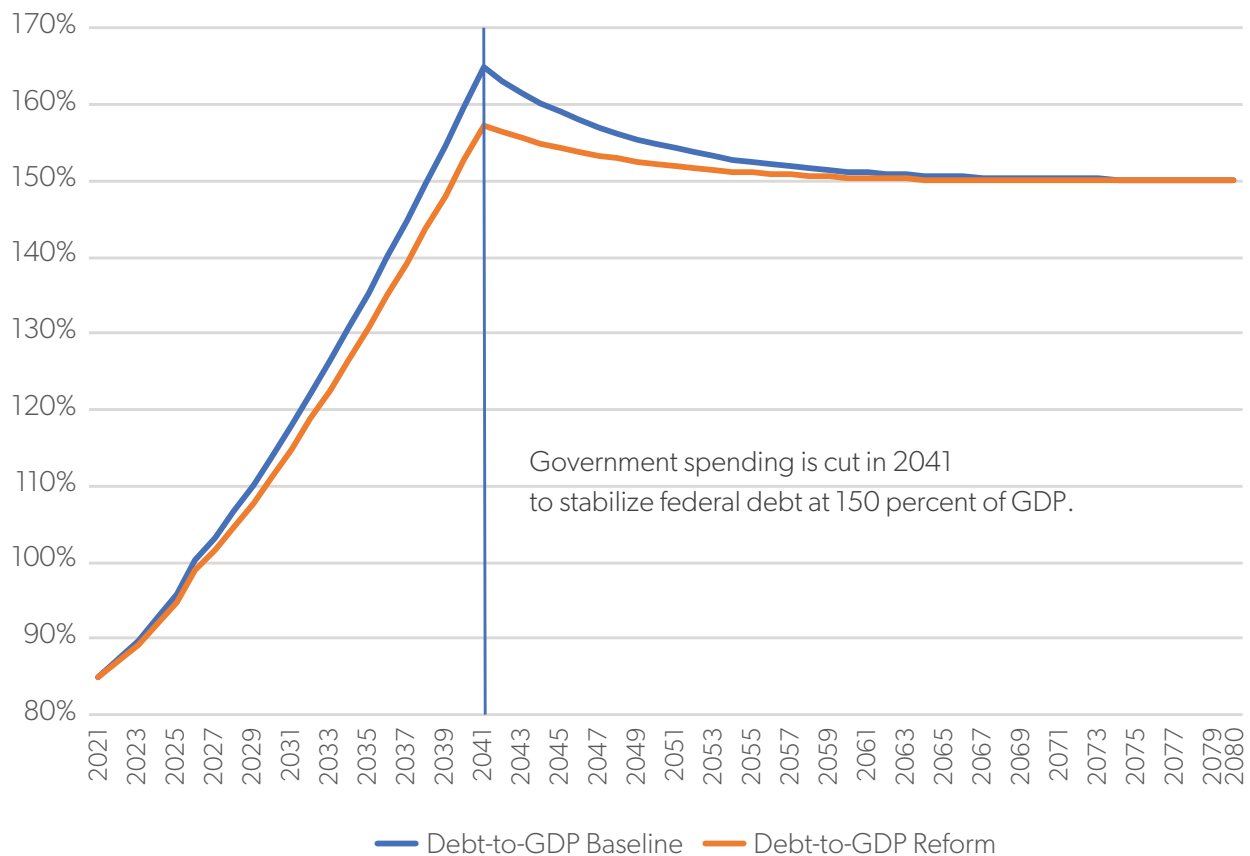
We assume that the debt-to-GDP ratio is stabilized at 150 percent in the long run and that this is done by reducing government spending gradually after 2041. This is why after 2047, the Biden plan no longer improves GDP. Beyond that point, the government budget closure rule we have imposed leads to low enough debt levels that the reduced crowding out benefit is outweighed by the distortionary effects of the increased taxes relative to the baseline.

The reduction in output over the first decade would result in a smaller increase in tax revenue than what is found in the static analysis (Table 4). We estimate that federal revenue would increase by \$3.6 trillion between 2021 and 2030 under Biden’s proposals on

Table 4. Conventional and Dynamic Revenue Estimate, Biden Tax Proposals, 2021–30

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2021–30
Conventional Revenue Estimate	\$312.1	\$348.2	\$391.7	\$412.0	\$432.5	\$357.0	\$376.2	\$390.5	\$406.3	\$421.8	\$3,848.3
Dynamic Revenue Feedback	–\$11.5	–\$12.5	–\$14.8	–\$22.1	–\$32.7	–\$16.3	–\$20.0	–\$28.1	–\$32.3	–\$42.8	–\$233.1
Net Dynamic Revenue	\$300.6	\$335.7	\$376.9	\$389.9	\$399.8	\$340.7	\$356.2	\$362.4	\$374.0	\$379.0	\$3,615.2

Source: Authors' calculations using Tax-Calculator, "Federal Individual Income and Payroll Tax Microsimulation Model," <https://github.com/erinmelly/Tax-Calculator/tree/Biden>; and OG-USA, "Overlapping Generations Model for Evaluating Fiscal Policy in the United States," <https://github.com/PSLmodels/OG-USA>.

Figure 3. Impact on Federal Debt-to-GDP, Biden's Tax Proposals, 2021–80

Source: Authors' calculations using OG-USA, "Overlapping Generations Model for Evaluating Fiscal Policy in the United States," <https://github.com/PSLmodels/OG-USA>.

a dynamic basis. This is \$233 billion smaller than the conventional estimate.

Biden's proposals would result in a modest reduction in debt-to-GDP over the first 10 years (Figure 3). The model estimates that debt-to-GDP would fall by 1 percentage point by 2024 and 3 percentage points by 2030. After the first decade, debt-to-GDP would fall to as much as 5 percentage points by 2041. Although the Biden plan raises a significant amount of revenue, it does not solve the major structural imbalances of the current US fiscal environment. This imbalance is driven primarily by the high government spending and transfer programs and the relatively low tax regime.

Conclusion

Biden's tax proposals would raise roughly \$3.8 trillion between 2021 and 2030. His proposals would primarily raise taxes on high-income households and make the tax code more progressive. Biden's proposals would raise effective tax rates on both individuals and businesses, resulting in lower output in the first decade. His plan would reduce debt-to-GDP in the second decade, leading to slightly higher GDP. However, in the long term, his plan would not raise enough to stabilize debt-to-GDP and would lead to a 0.2 percent smaller economy.

About the Authors

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Appendix A. Modeling Notes

Individual income and payroll tax estimates were made with Public Simulation Library’s Tax-Calculator release 2.9.0, with modifications to account for the changes to the taxation of wealth at death.¹ Tax-Calculator is an open-source microsimulation model for static analysis of USA federal income and payroll taxes.² Business tax estimates were all produced off models using data from multiple sources.³

The macroeconomic estimates were produced with the OG-USA, version 0.6.2.⁴ The version of OG-USA used in this analysis assumes that the United States is a large open economy, with foreign investors purchasing 40 percent of new issues of government debt and a varying degree of private capital to firms (which depends on differentials in the US interest rate and the prevailing interest rate elsewhere).

The macroeconomic analysis is based on a model in line with Congressional Budget Office forecasts as of January 2020 and does not account for the sharp downturn in economic activity and increase in fiscal imbalances since that time. One should thus read the following as a comparison of current law policy and the Biden plan under conditions expected in early 2020.

Additionally, some elements of the Biden plan are outside the scope of the OG-USA model. On the corporate income tax side, these include the international corporate tax provisions, changes to preferences for the fossil fuels and real estate industries, the elimination of drug advertising, and restoring the energy credit. On the individual income tax, these include the reinstatement of tax credits for residential energy efficiency.

Policy Assumptions

Joe Biden’s campaign has not provided all the details necessary to fully analyze his proposals. As a result, we needed to make assumptions about how his proposal would be structured. For the most part, we assumed the same policies as the Tax Policy Center did in its analysis.⁵

Appendix B.

Table B1. Macroeconomic Aggregates, Joe Biden’s Tax Proposals

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2021–30	2031–40	Long Run
GDP	0.05%	–0.07%	–0.17%	–0.09%	–0.04%	–0.08%	–0.10%	–0.04%	–0.05%	–0.05%	–0.06%	0.07%	–0.20%
Capital Stock	–0.17%	–0.18%	–0.20%	–0.22%	–0.22%	–0.21%	–0.21%	–0.20%	–0.18%	–0.15%	–0.19%	0.08%	–0.70%
Labor	0.17%	–0.01%	–0.16%	–0.02%	0.06%	–0.01%	–0.03%	0.05%	0.02%	0.01%	0.01%	0.07%	0.10%
Consumption	–0.07%	–0.10%	–0.07%	–0.03%	–0.06%	–0.13%	–0.16%	–0.19%	–0.22%	–0.23%	–0.13%	–0.27%	–0.40%
Debt-to-GDP (Percentage Points)	–0.04%	–0.30%	–0.50%	–0.90%	–1.10%	–1.30%	–1.60%	–2.00%	–2.30%	–2.60%	–1.26%	–4.87%	—

Source: Authors’ calculations using OG-USA, “Overlapping Generations Model for Evaluating Fiscal Policy in the United States,” <https://github.com/PSLmodels/OG-USA>.

Notes

1. Tax-Calculator, “Federal Individual Income and Payroll Tax Microsimulation Model,” <https://github.com/erinmelly/Tax-Calculator/tree/Biden>.
2. Tax-Calculator, <https://PSLmodels.github.io/Tax-Calculator>.
3. Tax-Calculator, “Final Business Tax Estimates,” https://github.com/erinmelly/Tax-Calculator/tree/Biden/business_tax_estimates.
4. OG-USA, “Overlapping Generations Model for Evaluating Fiscal Policy in the United States,” <https://github.com/PSLmodels/OG-USA>, version 0.6.2.
5. Gordan B. Mermin et al., “An Analysis of Former Vice President Biden’s Tax Proposals,” Tax Policy Center, March 5, 2020, <https://www.taxpolicycenter.org/publications/analysis-former-vice-president-bidens-tax-proposals>.

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