TAX POLICY CENTER
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MACROECONOMIC ANALYSIS OF PRESIDENT BIDEN'S CAMPAIGN TAX PROPOSALS

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***NOTE**: This is an updated version of the analysis published November 10, 2020.*[1]

The Tax Policy Center (TPC) has analyzed the macroeconomic effects of the tax proposals that President Joe Biden advanced during his 2020 presidential campaign. We find the tax proposals would boost US gross domestic product (GDP) by about 0.2 to 0.3 percent in 2021, reduce GDP by about 0.4 to 0.5 percent, on average, over 2022-2030, and increase GDP by small amounts by 2040. The resulting net decrease in economic output over the first decade would reduce the net revenue generated from the proposals by about $161 to $419 billion from 2021 to 2030 (about 8 to 20 percent of the 10-year total). In the following decade, macroeconomic feedback on output would reduce the net revenue increase by $90 to $762 billion. Biden's spending proposals would also have important effects on the overall economy, but TPC has not estimated those.

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[1] This version incorporates additional estimates of the economic and revenue effects of Biden's tax proposals using the OG-USA overlapping generations model. These estimates maintain the same baseline economic assumptions as in the original analysis.

The tax plan proposed by President Joe Biden during his presidential campaign would increase income and payroll taxes for high-income individuals and increase income taxes for corporations. His plan would also expand tax credits for middle- and lower-income individuals and for new investments in domestic manufacturing. On net, his proposals would increase federal revenues by $2.1 trillion over the next decade, before accounting for their macroeconomic effects.

TPC has analyzed the macroeconomic effects of the tax proposals. We find the following:

- The proposals would increase GDP relative to baseline projections by between 0.2 and 0.3 percent in 2021 but would reduce GDP in each year for the remainder of the decade. By 2040 the impact of these tax proposals on GDP would again be positive.
- The decrease in output would reduce revenues over the first decade, offsetting about 8 to 20 percent of the net revenue increase projected under the proposals without accounting for macroeconomic feedbacks.
- Macroeconomic effects would, on net, reduce the projected gain in revenues over the second decade by about 2 to 18 percent.

EFFECTS ON OUTPUT

The tax proposals would affect output primarily through their influence on aggregate demand, labor supply, and saving and investment.

Aggregate Demand

The proposals would increase aggregate demand in 2021 but would reduce it in later years. TPC assumes that the tax increases included in the plan would not be effective until January 1, 2022, but a proposed temporary increase in the child tax credit would reduce taxes in 2021. Therefore, the proposals in the aggregate would increase after-tax incomes in 2021 but reduce them in subsequent years. (A variety of tax credits would continue to reduce taxes for lower-income households after 2021, but that effect would be more than offset by much larger tax increases on higher-income households and corporations.) Households would spend some of their additional income in 2021, increasing demand for goods and services, but aggregate incomes and demand would be reduced in later years. TPC assumes the effect on demand in 2021 would be attenuated somewhat by the effects of the pandemic on spending behavior, but it would also be enhanced because benefits from the child tax credit flow disproportionately to lower-income households, who spend a larger share of any increases in income than higher-income households. By contrast, almost all tax increases in the following years would flow to high-income households, who spend a smaller share of any increases in after-tax income than lower-income households; these tax increases, per dollar change, would therefore have a smaller effect on demand. Through the first several years, the changes in demand would have larger effects on output than usual because of an assumption that, with high unemployment and uncertainty from the pandemic, the Federal Reserve would maintain interest rates at very low levels. (Typically, the Federal Reserve would offset part of the macroeconomic effects of changes in tax policy by changing interest rates).

Labor Supply

For some taxpayers, the proposals would increase effective tax rates on labor income (i.e., wages and salaries for employees and self-employment income for others), primarily by increasing payroll tax rates for many higher-income workers. The resultant reduction in the after-tax wage rate would reduce labor supply for high-income earners (such as those in the top ten percent). Most households, however, would see little change to the effective tax rates on their labor income.

Saving and Investment

The proposals would increase marginal tax rates on investment income, largely by increasing the corporate income tax rate and tax rates on individual income, capital gains, and dividends for high-income households. (That impact would be partially offset by a tax credit for investment in domestic manufacturing.) The increased tax rates on those households would tend to discourage saving and investment.

Although the tax proposals would reduce incentives to save and invest, they would also substantially reduce federal budget deficits after 2021. Lower budget deficits would free up funds that would otherwise be used to purchase government bonds for use in private investment activities. That effect increasingly offsets the impact of reduced saving incentives associated with higher marginal tax rates as the effects of greater revenues on the federal budget compound, eventually turning positive the net impact on aggregate private investment.

TABLE 1

Dynamic Effects on GDP of Former Vice President Biden's Tax Proposals

Fiscal years 2021–40

	Fiscal Year										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2040
	Percentage change in GDP caused by macroeconomic feedback										
TPC macro models	0.2	-0.4	-0.7	-0.6	-0.4	-0.3	-0.3	-0.3	-0.3	-0.3	0.0
OG-USA model	0.3	-0.4	-0.3	-0.2	-0.1	-0.6	-0.5	-0.7	-0.8	-0.5	0.2

Source: The GDP forecast through 2030 is from CBO, *An Update to the Economic Outlook: 2020 to 2030* (Washington, DC: CBO, 2020); for 2031 to 2040 it is from CBO, *The 2020 Long-Term Budget Outlook* (Washington, DC: CBO, 2020); macroeconomic feedback is estimated using TPC's macroeconomic models.

Notes: CBO = Congressional Budget Office; GDP = gross domestic product.

Modes of Analysis

TPC has analyzed the macroeconomic effects of Biden's Presidential campaign tax proposals in two ways. TPC's macroeconomic models are based on historical relationships between macroeconomic variables, and empirical estimates of behavioral responses (for example, the amount the output changes in response to an increase in aggregate demand, or the amount that labor supply changes in response to changes in marginal tax rates on labor income). By contrast, the OG-USA overlapping generations model incorporates simulated households that make choices about how much to work and save based on current and future tax policy and macroeconomic conditions. The two approaches yield similar estimates for the effect of the tax proposals on output, but sometimes for different reasons. For example, both approaches estimate a positive effect on output in 2021. However, in TPC's models that increase stems from an increase in aggregate demand due to tax cuts (primarily on low-income households). In the OG-USA model, the boost to output in 2021 stems primarily from people working more in 2021 in anticipation of increased taxes on labor income in 2022. That type of forward-looking behavior is an important feature of that type of model. However, the degree to which such forward-looking behavior governs real economic behavior (as opposed to accounting transactions that shift income from one year to another) remains uncertain.

Output

Accounting for all these effects, we estimate that the proposals would boost GDP by about 0.2 to 0.3 percent in fiscal year 2021, for the reasons discussed in the previous section (table 1). By 2022, the effect on demand turns negative as net aggregate tax increases take effect, reducing incomes. Further, higher tax rates discourage working and saving. The

negative impact on output diminishes after the first few years as the effects on aggregate demand fade and the reduced federal budget deficits begin to boost private investment. The net impact on GDP is estimated to become positive in 2040.

President Biden's 2020 campaign also proposed several measures that would increase federal spending, but TPC's macroeconomic analysis includes only the effects of his campaign tax proposals. If the spending increases had been included in the analysis, the estimated effect on output would have been more positive (or less negative) over the first few years, because higher spending would increase aggregate demand. But the estimated effect on output in later years would be more negative because if additional revenues from the tax measures were spent, federal budget deficits would not decline by as much, reducing the funds available for private investment. (Some of the spending proposals, however, such as those for infrastructure investment or education, would add to the economy's productivity, offsetting some of the adverse effect of greater spending on federal budget deficits and private investment.)

EFFECTS ON THE BUDGET

The economic effects of the tax proposals would alter taxable incomes for individuals and businesses. That would in turn affect the impact of the proposals on aggregate revenues. After a positive impact in 2021, the macroeconomic effects of the proposals would reduce the projected increase in revenues by a net total of $161 to $419 billion over 2021-2030 and by $90 to $762 billion over 2031-2040 (table 2). Macroeconomic feedback effects would reduce the increase in federal revenues from the plan about 8 to 20 percent over the first decade and 2 to 18 percent over the second decade. The OG-USA model estimates predict a larger effect on revenues because in that model the change in taxable income from macroeconomic effects—which stems largely from reduced labor supply and returns to saving for high-income households—is projected to be taxed at higher rates, on average, than it is in TPC's macroeconomic models. By 2040, however, the annual impact of the tax proposals on federal revenues would be positive under either modeling approach.

TABLE 2

Revenue Effects of former Vice President Biden's Tax Proposals

Billions of dollars, fiscal years 2021–40

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2021–30	2031–40
Change in revenues without macroeconomic feedback	-37	28	150	271	295	267	254	271	288	304	2,092	4,297
Impact of macroeconomic feedback on revenues												
TPC macro models	5	-15	-29	-27	-18	-15	-15	-16	-16	-16	-161	-90
OG-USA	36	12	3	-4	-8	-71	-55	-103	-157	-72	-419	-762
Change in revenues with macroeconomic feedback												
TPC macro models	-32	14	122	244	278	253	239	255	271	288	1,931	4,206
OG-USA	-1	40	153	267	288	197	199	169	130	232	1,674	3,534

Sources: Urban-Brookings Tax Policy Center macroeconomic models, Microsimulation Model (version 0920-1), OG-USA macroeconomic model, and Tax Policy Center estimates.

Note: The OG-USA estimate of dynamic feedback effects on revenues has been modified for the purposes of combining them with TPC's conventional revenue estimate in order to avoid double counting. The OG-USA estimate of the dynamic effect incorporates the impact on revenues of increased corporate taxes reducing taxable incomes for households (who would receive lower returns from owning shares of businesses as a result of the higher corporate taxes). However, that effect is already included in TPC's conventional estimate of the effect on revenues. Therefore, the OG-USA estimates of the dynamic effect on revenues have been adjusted to remove the effect of the change in corporate taxes on taxable household incomes.

REFERENCE

Mermin, Gordon B., Janet Holtzblatt, Surachai Khitatrakun, Chenxi Lu, Thornton Matheson, and Jeffrey Rohaly. 2020. "An Updated Analysis of Former Vice President Biden's Tax Proposals." Washington, DC: Urban-Brookings Tax Policy Center.

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