PENN WHARTON
UNIVERSITY of PENNSYLVANIA
Budget Model

Summary: President Trump just announced his support for a full payroll tax holiday for the remainder of calendar year 2020, which PWBM projects would cost $807 billion while slowing the economy by 0.1 percent in 2030 and 0.2 percent in 2050. Households in the bottom 20 percent of incomes—those households with the highest willingness to spend their tax savings—would receive about 2 percent of the total tax cut, limiting the policy's stimulus potential.

Key Points

- In response to the economic effects of the coronavirus, President Trump has proposed a payroll tax holiday that would temporarily eliminate all Social Security and Medicare payroll taxes through December 31st, 2020. PWBM projects that this payroll tax holiday would cost $807 billion if the holiday were run from April 1 through December 31, 2020.

- Households in the bottom 20 percent of the income distribution—those households with the highest willingness to spend their tax savings—would receive about 2 percent of the total tax cut and only a third of these households would see any tax savings due to low levels of taxable income. Tax savings would also accumulate slowly over time relative to direct government spending.

- PWBM estimates that eliminating payroll taxes would have little net impact on the economy in the short run and would reduce the size of the economy by 0.1 percent in 2030 and 0.2 percent in 2050 due to additional debt.

President Trump's Payroll Tax Holiday: Budgetary, Distributional, and Economic Effects

Introduction

As policymakers discuss economic policy responses to the coronavirus (COVID-19) in the United States, President Trump proposed a temporary suspension of Social Security and Medicare payroll tax rates until the end of the year. On March 11, 2020, White House advisor Peter Navarro clarified that the payroll tax holiday would temporarily

eliminate all Social Security and Medicare payroll taxes. Under current law, the 12.4 percent Social Security payroll tax and 2.9 percent Medicare payroll tax on earnings are evenly split between employer and employee. In the payroll tax holiday scenario, the total payroll tax rate would fall from 15.3 percent to 0 percent beginning April 1st, 2020 and ending December 31st, 2020.[1]

Projected Budgetary Effects

A conventional estimate of the revenue lost from a payroll tax holiday is smaller than an estimate of the total payroll tax revenue that would otherwise be collected between April 1 and December 31. This difference is due to a partial revenue offset: budget scoring convention dictates that wages would rise to offset a reduction in employer-side payroll taxes—therefore increasing individual income tax revenues.[2] The increase in federal income tax revenue, however, is not enough to offset reductions in payroll tax revenue. On net, the payroll tax holiday loses revenue.

As Table 1 reports, PWBM estimates that the payroll tax holiday would cost the federal government $807 billion in calendar year 2020. This loss would be spread across *fiscal years* 2020 and 2021,[3] and the policy would not lose revenue beyond January 1st, 2021 as the payroll tax rate returns to current law.

Table 1. Conventional Revenue Estimate, Fiscal Years 2020-2029

Billions of Dollars, Change from Current-Law Baseline

Estimate type	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2020-2029
Conventional	-563	-244	0	0	0	0	0	0	0	0	-807

Projected Distributional Effects

Table 2 presents PWBM's estimates of the payroll tax holiday's distributional consequences for calendar year 2020, broken down by household income group. Average tax liabilities would fall for households in every income group. The top 10 percent of the total income distribution would receive 25.2 percent of the tax cut. The highest income households located at the top 0.1 percent of the income distribution would receive 1.1 percent of the tax cut. The reason for this relatively small cut (relative to the group's *income* share) is that the employee-side Social Security payroll tax is levied only on earnings up to the taxable maximum ($137,700 in 2020)—higher-income households' earnings will reach this maximum earlier in the calendar year, limiting their benefit from the payroll tax holiday.

Households in the bottom 20 percent of the income distribution would receive only about 2 percent of the tax cut. Moreover only about 33 percent of this group would receive any of the tax cut, as many of the lowest-income households have neither wages nor self-employment earnings and thus pay no payroll taxes under current law.

Table 2: Distribution of Federal Tax Change, Calendar Year 2020

Income group	Average tax change	Share with tax cut	Percent change in after-tax income	Share of tax change	Share of federal taxes paid	
					Under current law	Under the proposal
Bottom quintile	-$320	32.9%	10.7%	1.9%	0.1%	-0.6%
Second quintile	-$2,185	88.3%	9.6%	10.1%	2.3%	-0.6%
Middle quintile	-$4,240	91.4%	9.9%	18.8%	10.3%	7.1%
Fourth quintile	-$6,790	86.2%	8.8%	26.0%	19.1%	16.5%
80-90%	-$11,270	92.0%	9.4%	17.7%	14.9%	13.9%
90-95%	-$14,455	94.1%	8.5%	10.7%	10.9%	11.0%
95-99%	-$17,245	94.1%	6.1%	10.3%	16.4%	18.6%
99-99.9%	-$23,065	94.3%	2.8%	3.1%	12.7%	16.3%
Top 0.1%	-$70,175	92.7%	1.0%	1.1%	13.0%	17.5%

Projected Economic Effects

A payroll tax holiday is not a new idea. Social Security payroll taxes paid by employees were temporarily cut by 2 percentage points for calendar years 2011 and 2012. There is still considerable disagreement in the empirical literature over the effectiveness of a payroll tax holiday as economic stimulus. For example, a 2011 Congressional Budget Office study estimated a likely positive gain from the 2011 and 2012 payroll tax holiday, but that estimate was based on a model and conducted before the actual experience was realized. The actual relationship in the data between tax cuts and economic growth is decidedly more mixed.

As noted above, the payroll tax holiday has little impact on "borrowing-constrained" households in the bottom 20 percent of the income distribution who are more likely to spend the tax savings. The tax savings is also distributed gradually over the course of the year. Of course, households in the second quintile shown in Table 2 are more likely to receive a tax reduction and will spend some of it.

Overall, PWBM estimates very little net impact on short-run GDP from a payroll tax holiday. Over time, as Table 3 reports, PWBM estimates that the one-time increase in federal debt crowds out productive investment, reducing the capital stock by 0.2 percent in 2030 and 0.5 percent in 2050. Because of this reduction in capital, the payroll tax holiday will reduce GDP by 0.1 percent in 2030 and 0.2 percent in 2050.

Table 3. Economic Effects of Proposed Payroll Tax Holiday

Percent Change from Baseline

Year	GDP	Capital stock	Hours worked	Average hourly wage
2030	-0.1%	-0.2%	-0.1%	0.0%
2040	-0.1%	-0.4%	-0.1%	-0.1%
2050	-0.2%	-0.5%	0.0%	-0.2%

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.

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1. Under current law, these revenues are used to fund the Social Security and Medicare trust funds. PWBM assumes that the Treasury would transfer revenues from the general budget to make up for the trust funds' lost revenues. ↩
2. This assumption, which is based on a premise of competitive and perfectly flexible labor markets, may not hold in the short run. Instead, businesses may pocket the tax cut, increasing business profits and thus creating a revenue offset in corporate income tax revenues. This alternative would have a similar revenue effect. PWBM will explore this assumption more in the future. ↩
3. The federal fiscal year begins in October and ends in September. ↩