



Budget Model

Policy Options: A 1% Value-Added Tax

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Summary: We estimate the budgetary and economic effects of a new broad-based 1 percent value-added tax (VAT) with a progressive universal rebate calculated based on earnings, which is enacted on January 1st, 2021. We project that it will raise \$700 billion of additional revenue on a conventional basis over the 10-year budget window and increase GDP by 0.8 percent by 2050.

What is a VAT?

A value-added tax (VAT) is a consumption tax that is effectively levied at each stage of production on the *value added* to the creation of a good or service at that stage, measured as the sales price received minus expenditures. Each intermediate producer is entitled to a credit against the VAT paid on their inputs, and so there is a built-in incentive for compliance. VATs, therefore, are generally thought to be easier to enforce than other forms of consumption taxes, including a sales tax that is levied on the sales price of the final good or service at the time of purchase. Sales taxes can lead to higher evasion if the seller and buyer agree to hide the purchase using a cash-only transaction.

Consider, for example, how a 1 percent VAT might work in the market for car tires. Tire "Retailer" purchases the tire from a tire "Producer" for \$80 plus the value of the 1 percent VAT, or \$80.80. With no offsetting credit, Retailer would have to pay a 1 percent VAT of \$1.00 on \$100. However, Retailer receives a credit of \$0.80 for the VAT it paid to Producer, reducing Retailer's tax liability to just \$0.20, which is equal to 1 percent of Retailer's own value add of \$20. The government collects \$1 in total, equal to \$0.80 paid by Producer plus \$0.20 paid in net (after credits) by Retailer.

Current law:

Currently, the United States is the only member of the Organisation for Economic Co-operation and Development (OECD) that does not impose a VAT.

Most countries with VATs have opted for a tax base that *excludes* large shares of consumption goods, like food and clothing, in order to address distributional issues. These narrower bases, however, necessarily raise less revenue than a broader base for a given tax rate. Excluding products like food and clothing also distorts household consumption decisions toward these products and away from taxed products. Moreover, it is

challenging for the government to identify products that are consumed by lower-income households, thereby making targeting potentially inefficient.

An alternative approach to address distributional concerns is to keep the base broad while implementing a *targeted rebate* based on household income. This approach generally addresses distributional concerns more efficiently than a VAT with categorical exclusions.

Proposal:

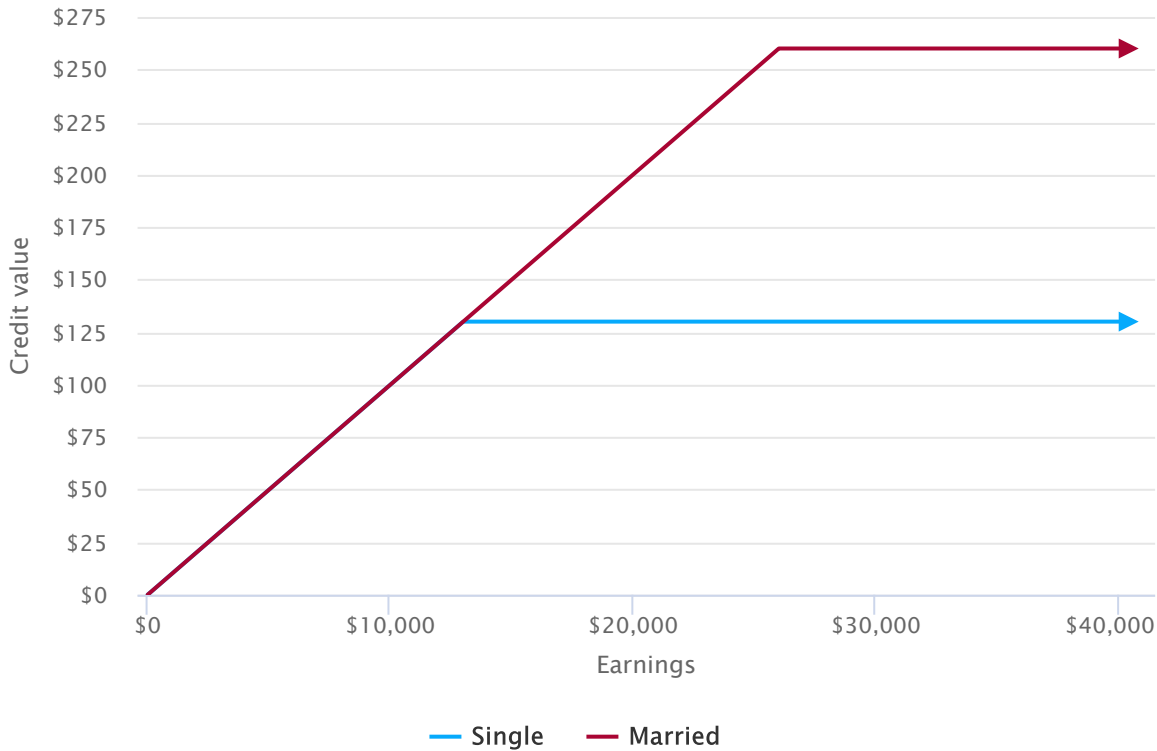
We examine a proposal that would levy a new 1 percent VAT to a broad base that includes most goods and services. The base excludes only government health expenditures, education spending and nonprofit activities.¹ Considered alone, VATs are modestly regressive because lower-income households consume a greater fraction of their income than do richer households. In order to address distributional concerns, the proposal offers a rebate designed to offset the VAT liability for poor households. The rebate is structured as a refundable tax credit equal to the VAT rate *times* the lesser of:

1. a household's wage and self-employment income,² or
2. \$26,000, indexed for inflation (\$13,000 for single filers)

Since \$26,000 is the poverty line for a family of four,³ the rebate offsets the economic burden of the VAT for any working household up to the poverty line. Figure 1 shows the value of the credit relative to earnings. Notice that the rebate does *not* phase out for households once they reach a certain income level, as many tax credits under current law do (e.g. the Earned Income Tax Credit and the Child Tax Credit). Instead, the rebate is capped based on the formula described above.

Figure 1. Rebate schedule for a 1 percent VAT

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Budget estimates:

On a conventional basis, PWBM estimates this policy would raise about \$700 billion over the period 2021 to 2030. This figure includes the budgetary costs of the rebate, which costs about \$350 billion.

Table 1. Conventional Budget Estimate, FY2021-2030

Billions of Dollars, Change from Current-Law Baseline

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Policy	2021-										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
A 1% value-added tax (VAT)	46	63	66	67	70	72	75	78	80	84	700

Economic effects:

As shown in Table 2, PWBM estimates that this policy increases GDP, the capital stock and hours worked over time. GDP increases by 0.8 percent by 2050. These positive effects are the result of the debt reduction that the extra revenue affords. A lower level of debt [increases the economy’s capital stock](#) in the long run. Furthermore, unlike the corporate income tax, the VAT does not increase the tax on the normal return to investment, therefore, allowing the VAT to get the full benefit of reducing debt.

Table 2. Dynamic Macroeconomic Effects

Percent Change from Baseline

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Year	GDP	Capital stock	Labor income	Hours worked	Consumption
2030	0.1%	0.4%	0.1%	0.0%	-1.6%
2040	0.4%	1.0%	0.4%	0.0%	-2.1%
2050	0.8%	2.2%	0.8%	0.1%	-3.6%

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. PWBM assumes the same VAT base as described in Table 4 in Eric Toder, Jim Nunns and Joseph Rosenberg (2012), "[Implications of Different Bases for a VAT.](#)" All calculations are created by PWBM. [↩](#)
 2. Since the VAT is meant to track labor income, only two-thirds of self-employment income is includable, based on a $\frac{2}{3}$ labor, $\frac{1}{3}$ capital income split rule of thumb. [↩](#)
 3. Source: [U.S. Department of Health & Human Services.](#) [↩](#)