How Can We Make a Progressive Tax System More Efficient?

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Key Takeaways

- In a progressive tax system, taxes as a share of income increase as income increases.
- A progressive tax system reduces inequality but also diminishes the incentive for individuals to strive for higher incomes.
- I discuss ways to maintain a progressive tax system without imposing such disincentives on workers.

In the U.S., income tax rates rise as households earn more. However, such a system means workers have a reduced incentive to increase their earnings. In this article, I discuss a finding from one of my papers that explores the possible effects of targeting tax rates on additional characteristics besides income.

The U.S.'s Progressive Income Tax System

Federal income taxes are the primary source of revenue for the federal government. According to estimates from 2022, 54 percent of federal revenues came from individual income taxes, 30 percent from Social Security taxes, 8 percent from corporate income taxes, and the remaining from other types of taxation such as estate taxes.[1]

A fundamental characteristic of the U.S. income tax system is its progressivity. A tax system is considered progressive if the tax burden as a share of income rises as income increases. For example, in a progressive tax system, a family with an income of $100,000 might pay a total of 20 percent in taxes, while a family with an income of $200,000 might pay a total of 25 percent of its income in taxes.

In contrast, a proportional (or flat) tax system maintains a constant tax rate regardless of income, and a regressive tax system decreases the tax rate as income rises. The degree of progressivity is linked to the concept of vertical equity, which concerns how the tax burden is distributed among households with different levels of well-being.

Income Inequality and the U.S. Tax System

Many view a progressive tax system as fair because an extra dollar holds less value for a high-income household than for a low-income household. Therefore, asking higher-income households to contribute a larger fraction of their additional income is seen as a reasonable policy. However, some argue it is unfair to require certain taxpayers to pay more than others or pay a larger share of their income.

One principle guiding economists in evaluating tax policy fairness is the benefit principle, which suggests that the tax burden should correspond to the benefits received from government services. Based on this principle, it is argued that higher-income individuals — who benefit from public infrastructure and government spending — should contribute more significantly to the tax burden.

The public discussion about how progressive the tax system should be is often motivated by the rise in income inequality. The top 10 percent of earners in the U.S. now receive around 45 percent of national income, up from 35 percent 50 years ago.[2] Economist Thomas Piketty attributes this rise in inequality primarily to an unprecedented increase in wage disparity, stemming from the income rise of top executives and managers.[3]

Of course, inequality itself may not be problematic if there is sufficient economic mobility. For instance, if low-income and high-income workers frequently change places, income inequality is less concerning. However, mobility at the top of the income distribution has remained stable, not offsetting the rise in inequality since the 1970s.[4]

Taxes can also impose hidden economic costs. When high-income levels are taxed more heavily, it can diminish the incentive for individuals to strive for higher incomes. Conversely, if everyone pays the same amount of taxes, there is no disincentive to work harder, as one's efforts do not affect the amount of tax paid. Every economic tax system needs to resolve this trade-off: A more progressive tax system may reduce income inequality but often imposes larger disincentives to economic agents.

A More Efficient Income Tax System?

A basic principle of public finance is that the government should decrease tax distortions on workers who are more likely to respond adversely to a rise in their taxes. (In economics jargon, these would be workers with a larger value of labor supply elasticity.)

But how can the government distinguish between workers with a low or high elasticity of labor supply? In my 2016 paper "A Road Map for Efficiently Taxing Heterogeneous Agents," I propose using information on the observable characteristics of the workers. For example, workers closer to retirement are more likely to quit their jobs if their taxes increase. Also, secondary earners in dual-income households may be the first to drop out of the labor market if their taxes increase.

So, how could a more efficient tax system work? Think of an economy with 10 potential workers. Each worker has a wage level that makes the worker exactly indifferent between participating in or staying out of the labor market. And this "reservation wage" is not the same across workers. For example, young workers may be willing to work for lower wages to build experience and skills. Other workers may not accept a job unless it is high paying, such as workers with enough accumulated assets or financial support who can afford to stay out of the labor force.

Let's rank workers in terms of reservation wages from bottom to top and consider a company that offers a wage equal to the reservation wage of worker 5. How many workers can the company attract? Workers 1 to 4 would happily accept the job position, worker 5 would be just indifferent about accepting, and workers 6 to 10 would decline to work.

Now, imagine that the government levies taxes of 1 percent of workers' labor income. These taxes effectively reduce the (after-tax) wage received by the workers. As a result, worker 5 now also rejects the offer, so the company's pool of workers becomes even smaller.

But there is a way to impose taxes while also keeping worker 5 in the workforce: increase taxes only on workers 1 to 4. This tax system would keep taxes low for workers who are the most likely to respond to a lower after-tax wage (worker 5 in our example).

How can such a tax system be implemented in practice? Since labor supply elasticity is unobservable, the government can rely on information on workers' age and wealth holdings, which are strong predictors of how low or high workers' reservation wages are.

Summary of Findings

In my paper, I evaluate the potential of a tax system that explicitly depends on such characteristics. I find that, regarding age, the tax rates should be lower for young and old households and higher for mid-career households. Tax rates should additionally decrease in household assets and as households get closer to retirement. Finally, I suggest that when a spouse joins the workforce, households should get a tax credit. Using a quantitative model, I find that these reforms have significant economic gains: Capital increases by up to 20 percent, and labor supply increases by up to around 3 percent.

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1 *See the 2023 article "Your Income Taxes Are Due. Here's Who Pays the Most." by Laura Saunders.*

2 *See the 2017 paper "Distributional National Accounts: Methods and Estimates for the United States" by Thomas Piketty, Emmanual Saez and Gabriel Zucman.*

3 *See Piketty's 2013 book Capital in the 21st Century.*

4 *See the 2010 article "Earnings Inequality and Mobility in the United States: Evidence from Social Security Data Since 1937" by Wojciech Kopchuk, Emmanuel Saez and Jae Song.*

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