

# Impact of Income Tax on Economic growth

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**Abstract:** *This paper explores the impact of changes to the individual income tax on economic growth over the long run. In order to achieve economic growth, the structure and finance of a tax reform are crucial. Tax rate cuts may motivate individuals to work, save, and invest; however, if they are not accompanied by rapid spending cutbacks, they will likely increase the federal budget deficit, which will reduce national saving and increase interest rates in the long run. Much estimation indicates that the influence on growth is either negligible or negative. Base-broadening policies can minimise the effect of tax rate decreases on budget deficits, but they also diminish the impact on labour supply, savings, and investment, so reducing the direct influence on economic growth. However, they also reallocate resources across sectors to their highest economic value utilisation, resulting in higher efficiency and maybe a larger economy overall. Results indicate that not all tax reforms will have the same effect on economic development. Reforms that increase incentives, eliminate existing subsidies, minimise windfall gains, and avoid deficit financing will have more favourable long-term effects on the size of the economy, but may also generate tradeoffs between equity and efficiency.*

**Keywords:** Economic Growth, Income Tax, Reforms, Budget

## I. INTRODUCTION

Policymakers and economists have long been interested in the impact of proposed changes to the personal income tax system on the size of the economy as a whole. Representative Dave Camp (R-MI) proposed a major reform to the income tax system earlier this year that would decrease rates, drastically reduce tax code subsidies, and retain revenue- and distributional- neutrality (Committee on Ways and Means 2014).

This article examines the impact of tax changes on economic growth. We focus on two sorts of tax changes: individual income tax rate reductions and "income tax reform." This expansion may involve an increase in the yearly growth rate, a one-time boost in the size of the economy that does not effect future growth rates but places the economy on a higher growth trajectory, or both. Our emphasis on the supply side of the economy and the long term contrasts with the short-term phenomena, sometimes known as "economic growth," by which an increase in aggregate demand in a sluggish economy can enhance GDP and enable real GDP align with potential GDP.

The significance of the issues discussed stems from the income tax's important role in revenue collection, its influence on the distribution of after-tax income, and its consequences on a wide range of economic activities. Recent sluggish economic performance, concerns about the long-term economic growth rate, and worries about the federal government's long-term fiscal health only serve to heighten its significance.

While there is no doubt that tax policy can impact economic choices, we find that it is by no means evident, ex ante, that tax rate decreases will ultimately result in a larger economy. While the rate reductions would increase the after-tax returns of working, saving, and investing, they would also increase the after-tax income people obtain from their existing level of activities, reducing their need to work, save, and invest. The first effect typically increases economic activity (via so-called substitution effects), whereas the second effect typically decreases economic activity (through so-called income effects). In addition, if they are not covered by spending cutbacks, tax cuts will raise government borrowing, which will further limit long-term growth. The historical evidence and simulation analyses are consistent with the notion that tax cuts that are not immediately funded by spending reduction will have minimal positive influence on economic growth. In contrast, tax rate reductions paid by immediate reductions in nonproductive spending will increase output.

### **A. Income Tax Rate Reductions**

Reductions in income tax rates influence the behaviour of individuals and enterprises via income and substitution impacts. Lower tax rates increase the after-tax benefit for working, saving, and investing, which has a beneficial effect on the size of the economy. As a result of substitution effects, these higher after-tax rewards result in increased labour effort, savings, and investment. This is the "intended" consequence of tax cuts on the size of the economy. A further positive effect of pure rate cuts is that they reduce the value of existing tax distortions and induce an efficiency-improving shift in the composition of economic activity (even if the level of economic activity remains unchanged) away from currently tax-favored sectors, such as health and housing. However, pure rate reductions may also have positive income (or wealth) consequences, reducing the need to labour, save, and invest.

Incorporating all of these benefits, for instance, is a reduction in income tax rates across the board. Through the substitution effect, it raises the marginal return to employment and increases the labour supply. It diminishes the value of existing tax subsidies, hence altering the composition of economic activity. In addition, it increases a household's after-tax income at all levels of labour supply, which reduces labour supply via the income impact. Uncertainty surrounds the net effect on labour supply. Tax rate reductions have comparable effects on savings and other activities.

The original tax rate will have an effect on the effectiveness of a given tax cut. For instance, if the original tax rate, say on wages, is 90 percent, a 10 percentage point reduction in taxes doubles the after-tax wage from 10 percent to 20 percent of the pre-tax wage. Nevertheless, if the beginning tax rate is 20%, the same 10-percentage-point reduction in taxes only increases the after-tax wage by an eighth, from 80% to 90% of the pre-tax wage. Although income impacts would be the same in both scenarios, the substitution effect on labour supply and saving would be greater when tax rates are higher, so the net gain in labour supply from a tax cut would be greater (or the net loss would be smaller in absolute value) when tax rates are high. Moreover, because the economic cost of the tax rises with the square of the tax rate, the efficiency gains from lowering tax rates are greater when tax rates are already high.

### **B. Tax Reform**

Tax reform, as stated above, entails reductions in income tax rates as well as efforts to broaden the tax base; that is, to reduce the use of tax expenditures and other items that restrict the base.

2 By removing preferential treatment for certain types of income or consumption, widening the tax base has the tendency to increase the average effective marginal tax rates on labour supply, savings, and investment. This has two effects: the average substitution effect will be smaller for a revenue-neutral tax reform than for a tax rate cut, because a lower tax rate increases incentives to work, etc., while broadening the tax base decreases such incentives; and the average income effect from a truly revenue-neutral reform should be zero.

Broadening the base has a secondary effect that should contribute to economic growth. Specifically, it would diminish the allocation of resources to sectors and industries that currently enjoy favourable tax status. A system with a flatter rate and a broader base would stimulate the movement of capital away from tax-favored sectors and into other sections of the economy with better pre-tax returns. The reallocation would result in a larger economy.

### **C. Financing**

In addition to their impacts on private agents, tax increases have an impact on the economy via changes in federal budgets. If the change is revenue-neutral, there are no funding effects because the reformed system would generate the same amount of income as the current system.

Nevertheless, every tax cut must be paid by a mix of future spending cutbacks and future tax increases, plus borrowing to bridge the gap between expenditures and receipts. The linked, necessary policy changes may not have been specified in the initial tax cut legislation, but they must exist in some form in order for the government to achieve its budget limit. Because fiscally unsustainable policies cannot be maintained permanently, the financing of a tax cut must be factored into estimates of the impact of the tax cut itself.

### **D. Other Government organisations**

In addition to eliciting responses from the central bank, state governments, and foreign governments, federal tax cuts can also elicit responses from other governmental organisations. The Joint Committee on Taxation (2014), for instance,

investigates how different Federal Reserve Board policies would influence the effect of Representative Camp's tax reform plans on economic development.

Frequently, the potential responses of foreign governments are disregarded. Reductions in U.S. taxes that encourage capital inflows from overseas, for instance, may inspire other nations to decrease their own taxes in order to retain capital or recruit U.S. funds. Insofar as other nations respond, the net effect of income tax reductions on economic growth will be less than it would be otherwise.

## II. CONCLUSION

Both changes in the volume of revenues and the structure of the tax system can have an impact on economic activity, although not all tax adjustments have similar or even favourable effects on long-term growth. The notion that income tax cuts stimulate economic growth has been stated so frequently that it is sometimes regarded as a truism. However, theory, evidence, and simulation studies present a different and more complex narrative. Tax reductions have the ability to increase economic growth by enhancing the incentives to work, save, and invest. But they can produce income effects that lower the need to engage in productive economic activity, and they may subsidise existing capital, so providing windfall returns to asset owners that weaken incentives for new activity. Moreover, tax cuts as a stand-alone policy (i.e., not accompanied by spending reductions) will often increase the federal budget deficit. The increase in the national deficit will lower national saving, along with the capital stock owned by Americans and future national income, and increase interest rates, which will have a negative impact on investment. Thus, the net effect of the tax reduction on economic growth is theoretically unclear and dependent on both the shape of the tax cut and the time and structure of its funding.

Several empirical researches have tried to quantify the above-mentioned effects in various ways and with varied models, but have generally reached the same conclusion. Long-lasting tax cuts backed by larger deficits are expected to diminish, not raise, the national income over time. According to the simulation models, however, reductions in income tax rates supported by spending cuts can have a favourable effect on economic growth. In the modern history of the United States, however, significant tax cuts (in 1964, 1981, and 2001/2003) were accompanied by increases in federal spending, not reductions. The notion that income tax cuts stimulate economic growth has been stated so frequently that it is sometimes regarded as a truism. However, theory, evidence, and simulation studies present a different and more complex narrative.

The impacts of income tax reform — revenue- and distributionally-neutral base-expanding, rate-reducing reforms — are more complex than the effects of tax cuts, but build upon them. The impacts of rate cuts are identical to those described above. The effect of rate decreases on budget deficits will be nullified by broadening the base in a way that is revenue neutral. It will also lessen the impact of the rate cuts on effective marginal tax rates and, therefore, on labour supply, savings, investment, etc.

However, broadening the base will have an additional effect; by reducing the extent to which the tax code subsidises alternative sources and uses of income, broadening the base will reallocate resources to their highest-value economic use, thereby expanding the economy and resulting in a more efficient allocation of resources. Theoretically and in simulations, these consequences can be substantial, particularly for severe policy measures such as abolishing all personal deductions and exemptions and adopting a flat tax rate. However, there are few empirical analyses of broad-based income tax reform in the United States, in part because there has been just one major tax reform in the previous fifty years. A expansion of the tax base and a reduction in tax rates can boost long-term performance, according to a good theoretical assumption and substantial simulation data. The point, however, is not that it increases labour supply, saving, or investment, as it raises the same amount of income from the same people as before, but rather that it results in a more efficient distribution of resources across economic sectors by eliminating targeted subsidies.

Reforms that increase incentives, remove existing subsidies, minimise windfall gains, and avoid deficit financing will have more favourable effects on the long-term size of the economy, but may also create trade-offs between equity and efficiency in certain instances. These results highlight both the possible benefits and risks of income tax reform on long-term economic growth.

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