How Could We Improve the Federal Tax System?

What is the difference between a tax-exclusive and tax-inclusive sales tax rate?

Q. What is the difference between a tax-exclusive and tax-inclusive sales tax rate?

A. It depends on whether the tax is reported relative to the pre-tax or post-tax price.

Suppose an item costs $100 before tax and is subject to a $30 sales tax. The tax-exclusive tax rate would be 30 percent, as the tax is 30 percent of the pre-tax selling price. The tax-inclusive rate would be about 23 percent, which is obtained by dividing the $30 tax by the total cost to the consumer ($100 + $30). Thus, the difference between the two definitions is whether or not the tax paid is included in the denominator when calculating the tax rate.

Although there is no single correct way to report a sales tax rate, it is crucial to understand which approach is being used. The tax-inclusive rate will always be lower than the tax-exclusive rate, and the difference increases as the rates rise. At a rate of 1 percent, the difference is negligible, but a 50 percent tax-exclusive rate corresponds to a 33 percent tax-inclusive rate, which is a big difference.

Sales tax rates are typically quoted in tax-exclusive terms, but income tax rates are typically quoted as tax inclusive. For example, a household that earns $130 and pays $30 in income taxes would normally think of itself as facing roughly a 23 percent ($30 ÷ $130) income tax rate.

Updated May 2020

Further Reading

Gale, William G. 2005. "The National Retail Sales Tax: What Would the Rate Have to Be?" *Tax Notes* 107 (7): 889–991.

President's Advisory Panel on Federal Tax Reform. 2005. *Simple, Fair, and Pro-Growth: Proposals to Fix America's Tax System*. Washington, DC: President's Advisory Panel on Federal Tax Reform.