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UNIVERSITY of PENNSYLVANIA
Budget Model

The Revenue-Maximizing Capital Gains Tax Rate: With and Without Stepped-up Basis at Death

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Summary: Under current law, PWBM estimates that a 33% capital gains tax rate maximizes revenue, but this rate increases to 42% if stepped-up cost basis at death were eliminated.

Introduction

Recently, a number of policymakers and presidential campaigns have proposed different ways to tax high income households. In 2017, income from capital gains accounted for more than 47 percent of reported income for taxpayers with at least $10 million in adjusted gross income.

Unlike other types of income such as wages, taxpayers can choose when to realize capital gains. A large body of empirical research shows that when taxes on capital gains increase, realizations of capital gains fall (and vice versa).[1] There are two reasons for this response. First, the time value of money dictates that paying taxes later is preferable to paying taxes today, all else equal. A rate increase could exacerbate this effect, causing the frequency of realizations to fall. Second, capital gains may escape taxation altogether under current law if the asset is held until death. Upon death, the asset's cost basis is "stepped up" to its current market value when the asset is passed to heirs, thereby wiping out the taxable gains. Higher taxes on capital gains make this option more attractive, especially for wealthier taxpayers who plan to leave large bequests to their heirs.

Because the richest Americans make a large share of their income through investments rather than wages, many recent proposals include increasing taxes on capital gains as well as eliminating stepped-up basis at death. These two policies interact: without eliminating stepped-up basis, PWBM estimates that a capital gains tax rate of 33 percent would maximize revenue from taxing capital gains.[2] However, if stepped-up basis were eliminated by treating death as a realization event, the revenue-maximizing tax rate increases to 42 percent.

Realization Elasticity

The relationship between realizations and tax rates can be summarized through a *realization elasticity*, typically expressed as the percent change in realizations resulting from a one percent increase in tax rates. Though improvements in econometric methods have helped researchers move towards a consensus estimate of the

realization elasticity, there still exists substantial uncertainty over its value (especially when distinguishing between transient changes in realization trends versus permanent changes). PWBM's preferred baseline realization elasticity is -0.66.[3] This elasticity is approximately the midpoint in the range of estimates and is similar to the values used by government scorekeepers.[4]

However, the value of the realization elasticity would *itself* change if there were other changes in the tax code besides a change in the capital gains tax rate. As discussed above, a significant tax benefit of deferred realization is the advantage of stepped-up basis at death. If that provision were eliminated, investors would have less flexibility to avoid capital gains taxes and would thus be less responsive to changes in the capital gains tax rate, changing the value of the realization elasticity. Recent presidential campaigns and previous administrations have proposed ending stepped-up basis in tandem with increasing tax rates on capital gains. For PWBM and other researchers interested in projecting the revenue and economic effects of such proposals, understanding how these policies interact is key.

To our knowledge, there are no empirical estimates of how removing stepped-up basis would affect realization elasticities. The reason for this is that most estimates come from reduced-form models with parameters that reflect the policy regime under which they were estimated. There simply has not been sufficient historical variation in the tax treatment of capital gains at death for these models to estimate a change in responsiveness to tax rates.

Revenue-Maximizing Tax Rate

To illustrate how eliminating stepped-up basis would interact with capital gains tax policy, consider the concept of the revenue-maximizing capital gains tax rate—the rate at which additional tax rate increases begin to yield less revenue. Of course, the revenue-maximizing capital gains tax rate does not necessarily maximize economic activity. Rather, it is one way to see the interaction with different policies, including eliminating stepped-up basis at death.

PWBM estimates that the current-law revenue-maximizing rate is about 33 percent.[5] However, if investors can no longer pass appreciated assets to heirs tax-free, the revenue-maximizing rate would be higher. Figure 1 shows how sensitive the revenue-maximizing rate is to various assumptions about how much the realization elasticity would change in a world without stepped-up basis.[6]

Figure 1. Revenue-maximizing capital gains rate under various realization elasticity values

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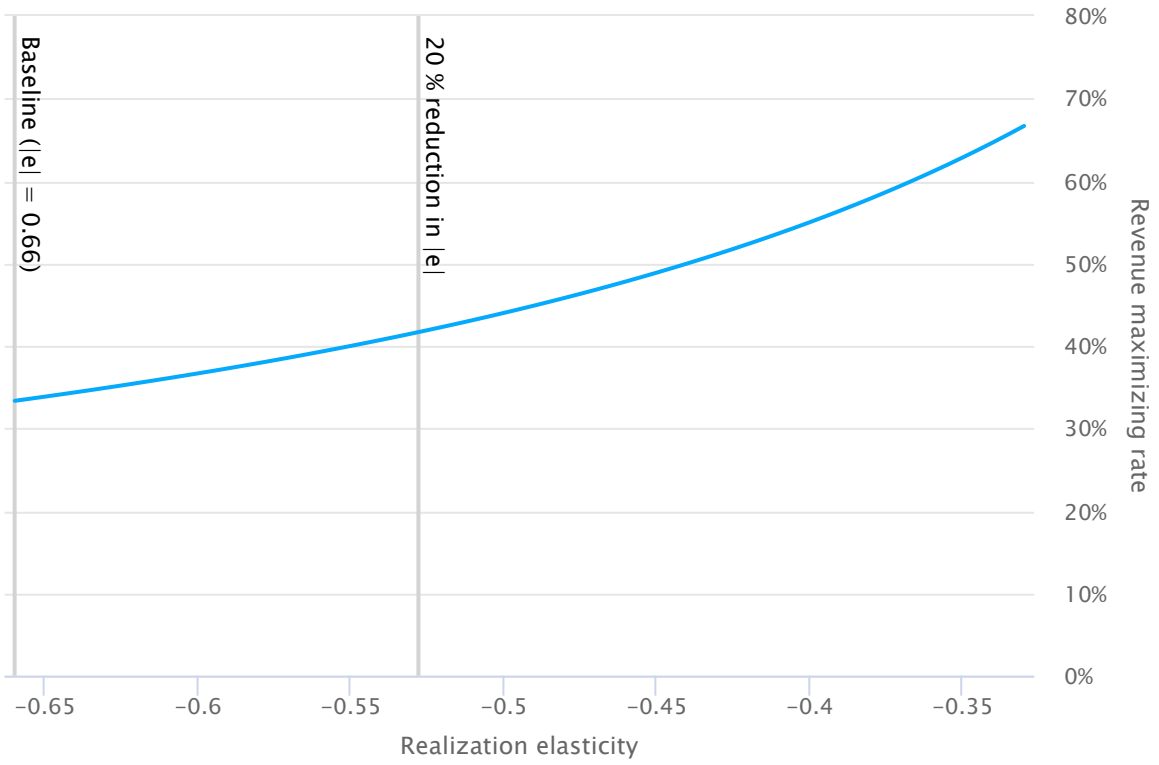

When modeling changes to capital gains tax rates in the context of a policy package that eliminates stepped-up basis, PWBM reduces the absolute value of the realization elasticity by 20 percent (-0.528 elasticity). This reduction yields a revenue-maximizing rate of about 42 percent. Our estimate of the revenue-maximizing rate under this policy reflects our application of current empirical research and our informed judgment of current tax strategies, including discussions with leading tax lawyers and other experts.

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1. Gravelle, Jane (2019). *Capital Gains Tax Options: Behavioral Responses and Revenues*. CRS Report No. R41364. Retrieved from Congressional Research Service website here. ↩
2. This value includes the 3.8% Net Investment Income Tax. ↩
3. Bakija, Jon M. and William M. Gentry (2014). *Capital Gains Realizations: Evidence from a Long Panel of State-Level Data*. Working Paper, Williams College. Available here. ↩
4. Gravelle, Jane (2019). *Capital Gains Tax Options: Behavioral Responses and Revenues*. CRS Report No. R41364. Retrieved from Congressional Research Service website here. ↩
5. Evaluated at a rate of 22%, PWBM's estimate of the dollar-weighted average marginal tax rate on capital gains under current law. Note that this does not necessarily correspond to the top statutory rate, as some taxpayers face a lower marginal rate. For a detailed explanation of the math behind this calculation, see Appendix A in Gravelle (2019), *Capital Gains Tax Options: Behavioral Responses and Revenues*. ↩
6. The figure ignores any potential increase in the *level* of realizations at the current-law capital gains tax rate under stepped-up repeal. ↩