Impacts of Business Tax Reform on Investment Incentives for the Retail Industry

September 18, 2017; Version 1.0

Jason DeBacker*

Bio: Jason DeBacker is an assistant professor of economics at the University of South Carolina, an economist with the Open Source Policy Center, and was formerly a financial economist in the Treasury's Office of Tax Analysis. Jason is a core maintainer of the open source models B-Tax and OG-USA, which model business taxes and macroeconomic effects of tax policy, respectively. His research focuses on tax policy and firm dynamics.

Abstract: *Business tax reform, which has loomed on the horizon for more than a decade, may finally have its chance in the next couple years. In this Quantitative Note, I explore the consequences of two business tax reform concepts on incentives to invest among C-corporations in the retail industry: a cash flow tax and a corporate income tax system with reduced rates.*

The retail industry stands to see significant changes in investment incentives if the current tax reform discussions materialize. This is largely driven by the inputs to retail: inventory investment and structures. Neither of these are as tax advantaged under the current system as equipment or intellectual property assets, which have tax depreciation schedules that are much more accelerated relative to the assets' rates of economic depreciation.

The table below presents the effect of the tax system on investment incentives, which is summarized by the marginal effective tax rate on new investments. The marginal effective tax rate is calculated as the pretax rate of return minus the after-tax rate of return divided by the pretax rate of return. The number thus represents the difference that the tax system imposes between these rates of return. The measure used here includes the full burden of the tax system on savers – both those imposed on profits of the business entity and those on the distributions or gains realized by the business owners. Note that this effective rate will differ from statutory rates due to differences between the tax depreciation schedule and economic depreciation, deferral of taxes on gains, and other factors. To compute these marginal tax rates, I use the B-Tax model.

Table 1. Marginal Effective Tax Rates for the Retail Industry Under Alternative Policies

Policy	Retail	All Industries
Current Law	**0.38**	**0.32**
Cash Flow Tax		
35% rate	0.17	0.17
30% rate	0.17	0.17
25% rate	0.17	0.17
20% rate	0.17	0.17
Corporate Income Tax		
35% rate	0.38	0.32
30% rate	0.34	0.29
25% rate	0.31	0.27
20% rate	0.28	0.25
15% rate	0.25	0.23

Source: Author's calculations using the B-Tax model.

The table reveals that a cash flow tax system presents the strongest incentives to invest for retailers. A cash flow tax places no tax burden on investments that earn the minimum required rate of return, the burden only falls on projects that earn above market rates of return. Thus we can see that the impact on investment incentives is constant regardless of the rate imposed on these above-market returns. By comparing across columns in the table, one can see that the cash flow tax is neutral in its impact on investment incentives across industries because it does not favor one asset type over another nor one form of financing over another. The fact that the marginal effective tax rate is greater than zero under the cash flow tax system reflects tax incentives on investments stemming from the individual income tax system. Lowering the corporate income tax rate (while maintaining other elements of the current CIT system) does yield positive impacts on investment incentives. But even moving the corporate income tax rate down to 15% does not yield the investment incentives that a cash flow tax does.

A few caveats to this analysis must noted. First, the analysis

Quantitative Notes is published by the Open Research Group. For more *QN*s or to arrange meetings with an expert, please contact experts@openrg.com. The author did not receive funding from any source for the production of this *Quantitative Note*.

here uses the historical mix of debt and equity financing for new investments (32% debt, 68% equity). Both a cash flow tax or the current corporate income tax system with lower rates would reduce the tax-induced bias towards debt finance and presumably result in a shift towards a larger share of equity financing. Second, the retail industry is under tremendous disruption, with larger numbers of retail establishments being closed in the last 18 months. To the extent that this shifts retail away from relatively large investments in structures, some of the incentive effects of the reforms noted above would be attenuated. But the large investments in inventories would remain and benefit from reforms that provide for expensing of those assets as a cash flow tax would. Finally, though it has seemed to fall out of favor politically, a border adjustment could have significant effects on retailers who depend heavily on imported goods. The economic impacts would vary depending on the size of the exchange rate adjustments. These exchange rate responses could potentially completely offset the border adjustment. However, I do not consider a border adjustment or impacts on exchange rates in the analysis above. If one would like to use B-Tax analyze the effects of tax reform on a particular firm, one would want to adjust the assumptions regarding financing and the mix of assets to reflect that particular firm's characteristics rather than the averages across the retail industry used here.

Modeling Notes

B-Tax

B-Tax is an open source model that computes marginal effective tax rates by asset type or industry under different financings regimes. The model can be used to calculate the effects of federal tax policy on business' incentives to invest in new structures, equipment, land, or intellectual property. B-Tax version 0.1.8 was used for this article. As an open source model, B-Tax is under constant development and improvement. Therefore, the results reported in this paper will change as improvements are made. The model relies on 2013 data from the IRS Statistics of Income and the Bureau of Economic Analysis.

Modeling Assumptions

The calculations from B-Tax represent the incentive effects on investments which earn the economic rate of return as decisions to make investments earning above market rates of return will not be affected by changes in the corporate income tax. Results assume that investments are financed by the historical mix of debt and equity financing used by C-corporations, 32% debt, 68% equity. Furthermore, interest rates and the pre-tax rates of return to equity investments are assumed to be constant across the tax policies considered.