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New Model Would Aid Dynamic Scoring of Transportation Spending, but Changes Are Needed

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Congress may soon ask the Congressional Budget Office (CBO) to score a transportation bill under the new dynamic scoring rules it passed earlier this year.[1] A recent report from former CBO Director Douglas Holtz-Eakin and Michael Mandel provides a model for how the CBO could carry out that analysis.[2] The model needs important improvements to provide Congress with the most complete information on the economic impact of increased transportation spending.

The Negative Multiplier

The CBO should dynamically score large spending bills, including transportation. It is imperative that it take into account the negative impact government spending has by depriving the private market of the funds it uses to undertake the spending. This effect, known as the negative multiplier, represents the foregone economic activity that would have occurred had government not taken money out of the economy to spend—either through taxation, which has an additional deadweight loss, or borrowing, which increases debt.[3]

Analysts often use the traditional multiplier effect that measures the positive benefit government spending has as it works its way through the economy. Using only the positive multiplier, however, is one-sided and makes the benefits of government spending appear greater than they are, thereby creating a bias in favor of government spending.

When it analyzes spending on investments such as transportation spending, the CBO should also compare the returns of those investments to the returns that the private sector would have earned if it had invested the money.

After receiving analysis from the CBO that includes these two important factors, Congress should fund only transportation projects whose return exceeds what the private sector could have earned if government had not taken the money and the private sector had invested it instead. If it funds projects that do not exceed that return, it reduces the size of the economy below what it could have been.

Return to Transportation Spending Lower than Private Investment

Holtz-Eakin and Mandel have developed a methodology that dynamically scores a hypothetical increase of $100 billion in transportation spending. Though the model is consistent with the way that many analysts would estimate the revenue feedback of increased transportation spending, it does not account for the opportunity cost of government spending. Nor does their report explicitly state the rate of return the higher transportation spending would earn.

Holtz-Eakin and Mandel find that "$100 billion in new infrastructure spending could generate an extra $62.5 [billion] to $165.5 billion in national output over the next twenty years...[which] would generate a 20-year revenue offset ranging from $12.5 to $33.1 billion."[4]

This paper, in its entirety, can be found at
http://report.heritage.org/ib4433

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At the high end of their estimate, the $165.5 billion increase in output over 20 years equals a 2.6 percent annual rate of return. This is well below the average rate of return earned by businesses in nonfinancial industries.[5] New projects that businesses would consider would likely earn a much higher return than that average.

That return is also about equal to the current risk-free rate of return, meaning that an investor could earn approximately the same return by putting the money in low-risk Treasury bills for the same period of time.[6] A project in the private sector that was estimated to earn similar returns would likely not be undertaken.

The maximum rate of return implied by Holtz-Eakin and Mandel assumes that the economy is growing slowly (the optimal environment for making the initial $100 billion investment); that there is slack in labor markets; and that governments pick the most efficient projects on which to spend the money. The 2009 stimulus shows that even when the economic conditions of this assumption hold, government still has a tough time picking the most efficient projects.

Their lower-bound estimate ($62.5 billion increase in output), when assuming the economy is at full-employment and the government does not pick projects successfully, yields an annual return of *negative* 2.3 percent. Holtz-Eakin and Mandel find positive benefits to the economy and tax receipts even when the return to the investment is negative because their analysis does not account for the fact that government took the $100 billion out of the economy to spend in the first place.

Holtz-Eakin and Mandel assume a small short-term positive multiplier for transportation spending. While they do make clear in their report that government spending comes with opportunity costs since it takes money out of the private sector, they do not account for the negative multiplier in their model.

If they did account for the negative multiplier, their estimates of the positive benefits of increased transportation spending would fall markedly and further increase the relative advantage of private-sector investment over increased transportation spending. The growth created by the $100 billion increase in transportation would be smaller, as would the revenue feedback effects.

Private-Sector Investment Would Create More Jobs

These estimates show that while spending $100 billion more on transportation could increase the size of the economy and tax receipts under certain favorable conditions that are unlikely to hold, the country would still be better off allowing the private sector to invest the money because the private sector would invest it more efficiently, resulting in a higher rate of return. The economy would grow larger, businesses would create more jobs, incomes would grow more, and tax revenue feedback would be greater.

Furthermore, if Congress borrowed the $100 billion instead of reducing spending in other areas to fund the increased transportation, it would impose an increased debt burden on future taxpayers that the Holtz-Eakin and Mandel model does not account for. If the CBO dynamically scores a transportation bill, it should account for the various negative impacts that a higher debt burden creates.

Improve the Model

The CBO can improve on the model that Holtz-Eakin and Mandel used by accounting for the negative multiplier. It also should include in its analysis

1. Senate Concurring Resolution 11, 114th Cong., 1st Sess., §3112, http://www.gpo.gov/fdsys/pkg/BILLS-114sconres11enr/pdf/BILLS-114sconres11enr.pdf (accessed July 8, 2015).
2. Douglas Holtz-Eakin and Michael Mandel, "Dynamic Scoring and Infrastructure Spending," McGraw Hill Financial Global Institute, July 6, 2015, https://media.mhfi.com/documents/201507-MHFIGI-Dynamic-Scoring-AAF-PPI-Final.pdf (accessed July 8, 2015).
3. Curtis S. Dubay, "CBO Should Update Its Methodology Before Dynamically Scoring Spending Bills," Heritage Foundation *Issue Brief* No. 4631, March 5, 2015, http://www.heritage.org/research/reports/2015/03/cbo-should-update-its-methodology-before-dynamically-scoring-spending-bills.
4. Holtz-Eakin and Mandel, "Dynamic Scoring and Infrastructure Spending," p. 3.
5. Robert J. Corea and Bonnie A. Retus, "Returns for Domestic Nonfinancial Businesses," Bureau of Economic Analysis, June 2014, http://bea.gov/scb/pdf/2014/06%20June/0614_returns_for_domestic_nonfinancial_business.pdf (accessed July 8, 2015).
6. U.S. Department of the Treasury, "Daily Treasury Yield Curves," July 9, 2015, http://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=yield (accessed July 10, 2015).

a comparison of the rates of return that increased transportation spending would generate and private rates of return. This would give Members of Congress a better sense of the total costs and tradeoffs of increasing transportation spending, allowing them to make more fully informed decisions about which projects to fund.

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