Comment on Christina and David Romer’s “Do Tax Cuts Starve the Beast?”

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In this paper Christina Romer and David Romer investigate the hypothesis that tax cuts curtail government spending. To do so, they study the experience of the federal government since 1945. They stress, quite rightly, that the empirical relationship between tax and spending changes depends greatly on why the changes occurred. Some tax change episodes are potentially informative about the hypothesis, and others are not.

This observation underlies their two-step empirical strategy. First, Romer and Romer use contemporaneous narrative sources to determine the motives for legislated tax changes. The goal is to identify tax changes that aim to spur productivity growth or promote other long-run objectives. They argue that such tax changes are less likely to be correlated with other factors that drive government spending and, hence, are more informative about the effect of tax changes on government spending. In the second step, they examine the response of government spending to these informative tax change episodes. They consider a variety of statistical specifications, and they supplement the statistical analysis with a detailed examination of four large tax changes.

The authors execute this empirical strategy with considerable care and skill. They conclude that the results provide “virtually no evidence” that tax cuts restrain government spending. Instead, the results suggest that tax cuts motivated by long-run objectives are

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1 I encourage the reader to consult their closely related paper (Romer and Romer 2008) to gain a fuller appreciation for the care and skill that they bring to the first step of their empirical strategy.
largely offset in the ensuing years by tax increases. They provide a balanced summary of these and other results in their concluding section.

In my view, legislated tax cuts have done little to restrain U.S. government spending in the postwar era. I reach this view based mainly on the arguments sketched in Romer and Romer’s section III.C. These arguments rely on economic reasoning about the force of the mechanisms that link current tax cuts to future government spending. I place less weight on the results of the two-step empirical strategy outlined above. The strategy is a sensible one, but it does not yield sharp inferences in a sample focused on the postwar U.S. experience. This fact shows up as large standard errors for the estimated spending responses to tax cuts. In addition, and despite the authors’ careful effort, it is hard to fully dispel concerns about the classification of tax change episodes and concurrent developments that influence the estimates.

Section III.C describes two mechanisms whereby tax cuts might curtail future government spending. One mechanism works through the link between current tax cuts and future debt-servicing costs. In particular, a deficit-financed tax cut today means higher debt-servicing costs in the future, leading future policymakers to choose a lower level of noninterest government spending than otherwise. A second mechanism rests on the political and economic costs of reversing a tax cut.

To assess the force of the first mechanism, assume linear marginal schedules for the costs and benefits of government spending:

\[ MC = 1 + cg, \quad c > 0, \]
\[ MB = m - bg, \quad m > 0 \text{ and } b \geq 0; \]

where \( g \) is the ratio of government spending to GDP, and \( c, b, \) and \( m \) are parameters.

Treating output as exogenous and equating benefits and costs at the margin, the policymaker chooses \( g^* = (m - 1)/(b + c) \) for the size of government. This outcome need not be optimal from the perspective of the median voter or a utilitarian social welfare criterion. It simply reflects the policymaker’s preferred outcome in light of budgetary and political pressures.

When a policymaker implements a deficit-financed tax cut, it raises the MC schedule facing future policymakers. In the example offered in section III.C, the policymaker cuts taxes by 2 percent of GDP for five years, raising the debt-GDP ratio by
about 10 percentage points. Given a real interest rate that exceeds the output growth rate by 2 percentage points a year, the implied rise in debt-servicing costs amounts to about 0.2 percent of GDP and 1.0 percent of government spending. Accounting for this upward shift in the MC schedule, the effect is to lower future government spending by $c/(c+b)$ multiplied by 0.2 percent of GDP, that is, by at most 0.2 percent of GDP. This is a very small starve-the-beast effect. Relaxing the assumption of exogenous output and allowing for tax cuts to stimulate growth yields an even smaller restraint on government spending.

Since the example is similar in size to the largest tax cut episodes in the postwar U.S. experience, this analysis implies that tax cuts have not, through their effects on debt-servicing costs, significantly restrained government spending. It also implies that the mechanism is much too weak to be detected in a sample of postwar U.S. tax changes. Of course, the mechanism operates with greater force when there is a bigger rise in the debt-GDP ratio or the government faces a higher real interest rate. In the postwar U.S. setting, however, the first mechanism has little force.

Now consider the second mechanism. If tax cuts are hard to reverse for political or economic reasons, it is easy to see that they exercise more restraint on future government spending. Building on the previous example, if it takes five years for a new policymaker to reverse a previous tax cut, so that it remains in effect for ten years rather than five, the starve-the-beast effect roughly doubles. In the extreme case where tax cuts cannot be reversed, government spending cuts must eventually absorb the entire adjustment. Clearly, then, tax cuts can produce large starve-the-beast effects if they are sufficiently sticky. Thus, the force of the second mechanism depends on the difficulty of reversing tax cuts in practice.

Romer and Romer address this issue in their section III.B. Figures 9 and 10 provide strong evidence that tax hikes usually follow in the wake of tax cuts motivated by long-run concerns. The bottom right panel of figure 9 suggests that about three-quarters of the tax cut is reversed within five years, and it provides little evidence against the hypothesis of full reversal. This evidence, coupled with the analysis above, indicates that tax cuts of the sort that dominate the postwar U.S. experience are not sticky enough to generate large starve-the-beast effects.
In short, neither mechanism operates with much force under the conditions that have prevailed in the postwar United States. This conclusion has important implications for economic policymaking and for models of fiscal behavior, as the authors discuss. However, the conclusion also has limited scope. In particular, it does not apply to tax changes or other fiscal policy actions that are hard to reverse. My remaining remarks develop this point.

Most developed economies rely on a national value added tax (VAT) as a major source of government revenue. The United States is a large outlier in this respect. Many, perhaps most, economists look on the VAT with favor because of its broad tax base, ease of administration, and pro-saving incentive effects. These observations motivate many proposals to introduce a national VAT or other broad-based consumption tax in the United States. In contrast, Gary Becker and Casey Mulligan (2003), among others, question the desirability of introducing a broad-based consumption tax, which in their view would lead to substantial increases in federal spending. I share this view, and I see it as fully consistent with the evidence produced by Romer and Romer’s two-part empirical strategy and with my analysis of the mechanisms whereby tax cuts restrain government spending.

Two observations are important in this regard. First, I expect that a new national consumption tax, once introduced, would be hard to reverse. In all likelihood, it would become a permanent feature of the U.S. fiscal landscape. In this respect, U.S. experience with “routine” tax changes in the postwar era is not a good guide to the reversibility of a new national consumption tax. Second, I agree with most other economists that the VAT and other broad-based consumption taxes rank highly on standard economic efficiency criteria. In addition, the VAT is less visible and less salient to taxpayers than the personal income tax and hence less likely to generate political pressure for lower taxes. For this reason, as well, the VAT generates lower marginal costs of government revenue as perceived by the policymaker.

To parameterize the effects of introducing a broad-based consumption tax, rewrite the marginal cost schedule for government revenues as

$$\text{MC}' = 1 + (1 - \gamma)cg.$$
The new parameter $\gamma$ captures the effect of introducing the VAT on the marginal cost of funds, again as perceived by the policymaker. Comparing outcomes under $MC$ and $MC'$, it is easy to show that the introduction of a VAT increases the size of government by

$$\frac{\Delta g}{g} = \frac{b + c}{b + (1 - \gamma)c}.$$ 

As an example, suppose $\gamma = 0.2$, which corresponds to a reduction in the marginal cost of funds from 1.5 to 1.4 with $c = 0.5$. Using the formula above and $\gamma = 0.2$, the introduction of a VAT causes government spending to rise by 25 percent when $b = 0$, and by 11 percent when $b = c$. Obviously, these are large effects on the size of government.

There is certainly room to improve and deepen this analysis by embedding it in a fuller model and by grounding the choice of parameter values. The analysis is sufficient, however, to support two conclusions. First, there are good reasons to anticipate that the introduction of a national consumption tax would lead to a large expansion in the size of government. Second, this first conclusion is fully consistent with the evidence in this paper and with my analysis of the mechanisms that link current tax cuts to future government spending.

As a final remark, it should be clear that a similar analysis applies to other new sources of government revenue that lower the marginal cost of government revenue from the perspective of policymakers. Cap-and-trade proposals to limit carbon emissions and other pollutants are a good case in point. These proposals have the potential to raise large amounts of government revenue in ways that are opaque to most taxpayers and that will make it easy for politicians to deflect the blame for higher energy costs onto energy producers, electric utilities, and others. These features of cap-and-trade proposals are likely to lower the marginal cost of government revenue from the perspective of policymakers and to lead to higher government spending as a result.

References
