

STARVE THE BEAST: A FURTHER EXAMINATION

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In recent years, some fiscal conservatives have argued that reducing tax revenues and increasing budget deficits is an effective strategy for limiting federal spending. This strategy is commonly known as “starve the beast.” Niskanen (2006) convincingly demonstrates that reductions in federal revenue do not limit the growth of federal expenditures. Instead, he finds statistically significant evidence that revenue reductions actually stimulate the growth of federal spending. However, proponents of starve the beast argue that low federal revenues might be able to limit the growth of certain components of the budget, such as nondefense discretionary spending. Similarly, others argue that federal revenue reductions might be more effective at limiting expenditure growth during times of peace. However, my analysis strengthens Niskanen’s original research by finding that his results are consistent across time. Furthermore, I find that reductions in federal revenues constrain neither the growth of peacetime federal spending nor the growth of nondefense discretionary spending.

Background

Starve the beast argues that reducing tax revenues is an effective strategy for reducing, or at least limiting, government expenditures. Specifically, proponents of starve the beast argue that low revenues, and the resulting deficits, will give elected officials the incentive to

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cut spending. While a number of conservative activists have frequently used starve the beast as a justification for tax reductions, this theory has received support from some economists. The most influential academic proponent of starve the beast is Milton Friedman. Friedman (2003) argued that, if taxes are cut, “the resulting deficits will be an effective restraint on the spending propensities of the executive branch and the legislature.” Other leading economists who have voiced support for starve the beast include Harvard University’s Robert Barro (2001) who argued, “Tax cuts remove tax revenues from Washington and keep Congress from spending them.”

The first mention of starve the beast as it relates to the federal budget was in a 1985 *Wall Street Journal* article where an unnamed White House official felt that the Reagan administration had not done enough to cut spending: “We did not starve the beast,” the official said (Blustein 1985). However, the ideas behind starve the beast have had some currency in mainstream political discourse since the late 1970s. For instance, columnist George Will (1978) supported the enactment of the Kemp Roth tax reduction bill in 1978 because he thought “it would restrain the predictable growth of government that is financed by windfall revenues.” Similarly, during the 1980 presidential debates Ronald Reagan argued that tax reductions would stop spending growth saying, “If you’ve got a kid that’s extravagant, you can lecture him all you want to about his extravagance. Or you can cut his allowance and achieve the same end much quicker” (Mallaby 2006).

Much of the analysis of starve the beast has been largely anecdotal. Some observers have argued that budget deficits in the 1980s helped President Reagan reduce the growth of nondefense discretionary spending. Additionally, during the early years of the Clinton administration, some analysts argued that the Reagan-era deficits hindered President Clinton’s efforts to increase expenditures on various programs (Edsall 1993). Furthermore, some observers have argued that the income tax rate reductions that President Bush signed in 2001 were an effort to put Congress in a “spending straight-jacket” (Kinsley 2004).

As such, even though starve the beast has provided a justification for those who wish to promote tax cuts, that theory has been subject to relatively little empirical scrutiny. However, in 2006, William Niskanen, a former member of President Reagan’s Council of Economic Advisers, ran a regression where he analyzed federal

spending as a percentage of GDP from 1981 to 2005. The results provide no empirical support for starve the beast. In contrast, Niskanen actually found that *reductions* in federal revenue result in statistically significant *increases* in federal spending. He theorizes that this result might be because lower tax rates reduce the perceived costs of additional government expenditures (Niskanen 2006: 556).

However, some proponents of starve the beast may not be entirely persuaded by Niskanen's analysis for two reasons. First, it is plausible that revenue reductions might be able to limit some components of the federal budget more effectively than others. For instance, federal interest payments would not be sensitive to the amount of revenue the federal governments collects, since interest payments are a function of interest rates and the size of the national debt.¹

Additionally, annual spending on entitlement programs such as Medicare, Medicaid, and Social Security is partly a function of demographics. Because Medicaid, Medicare, and Social Security are entitlements, Congress does not appropriate money for these programs on an annual basis. Furthermore, since these programs enjoy broad popular support, elected officials might be reluctant to reduce entitlement expenditures in response to changing fiscal conditions.

Also, defense spending is partly a function of whether or not the United States is at war or engaged in a foreign conflict. Defense spending is also partly a function of the strength of perceived military threats to the United States and U.S. allies. Furthermore, during times of budget deficits, some elected officials may be unwilling to propose substantial cuts in defense spending, for fear of appearing weak on national security.

However, it seems possible that revenue reductions might be able to limit the growth in nondefense discretionary spending. The non-defense discretionary portion of the budget encompasses a range of federal activities including environmental protection, space exploration, federal courts, federal prisons, health research, and categorical grants to states and localities (Reischauer 1997: 124). Many of these programs lack the popularity of entitlement programs, and stories about government waste often include programs, that fall into

¹ In his 2006 analysis, Niskanen holds federal interest payments as a percentage of GDP constant.

this category of the budget. Furthermore, politicians seeking to limit federal expenditures often pledge to cut nondefense discretionary spending. For instance, when he was running for the Republican nomination for president in 2008, Mitt Romney pledged to cap nondefense discretionary spending at the rate of inflation minus 1 percent (Lambro 2007).

As such, it is not surprising that when deficit reduction packages are enacted, much of the proposed savings comes from reductions in nondefense discretionary spending. In 1990, the Omnibus Budget Reconciliation Act, which at the time was the largest deficit reduction package ever enacted, extracted 45 percent of its savings from discretionary accounts (Reischauer 1997: 123). At that time, nondefense discretionary spending was only 16 percent of the federal budget (Office of Management and Budget 2007: 136). Also, each of the balanced budget plans proposed during 1995 and 1996 called for disproportionate reductions in nondefense discretionary spending (Reischauer 1997: 123). Overall, it seems plausible that nondefense discretionary spending might be more sensitive to changes in federal revenue than other components of the federal budget.

The second reason why proponents of starve the beast might be skeptical of Niskanen's findings is because the effects of revenue fluctuations on federal spending might not be consistent across time. For instance, federal spending might be less sensitive to revenue shortfalls during times of war. This is because during wartime, elected officials can more easily justify expenditure increases and budget deficits. Furthermore, it is possible that during times of war, voters might place a lower priority on fiscal policy and be less inclined to punish elected officials for increased budget deficits.

To see if either of these criticisms have any merit, I run a series of regressions. In the first regression model, I attempt to replicate Niskanen's original findings using data from 1981 to 2005. The dependent variable is the change in federal expenditures as a percentage of GDP. The independent variable that is of most interest is the level of federal receipts as a percentage of GDP. This variable allows us to determine if low levels of revenue actually reduce the growth of federal spending.

Two other independent variables are included in this regression model. The change in the annual interest payments as a percentage of GDP is included because interest payments are a function of both

interest rates and the size of the national debt, and are independent of the conditions that would affect other types of government spending. Also, the change in the unemployment rate is included because federal expenditures increase and tax revenues decline during economic slowdowns.

The second and third regression models analyze an identical statistical model for 1981 to 1990, and 1993 to 2000, respectively. The results of these models will allow us to determine if Niskanen's findings are consistent across time. Additionally, these models will indicate how the level of federal revenues affects expenditure growth during time periods that do not include the expenditure increases associated with the first Gulf War and the military interventions that followed the September 11th attacks.

The fourth, fifth, and sixth regression models keep the same set of independent variables but use the annual change in nondefense discretionary spending as a percentage of GDP as the dependent variable. As I argued earlier, revenue reductions might be better able to limit the growth of nondefense discretionary expenditures than other categories of federal spending. The fourth model analyzes data from every year from 1981 to 2005. The fifth and sixth models analyze data from 1981 to 1990, and 1993 to 2000, respectively. These models will allow us to see if the results from model 4 are consistent across different time periods. The regression results are reported in Table 1.

Analysis

In the first model, I almost perfectly replicate Niskanen's original findings. Both of our models indicate that increases in the unemployment rate lead to statistically significant increases in federal expenditures. Similarly, in both of our models, increases in net interest payments are correlated with increases in federal spending. Most important, in both of our models, the coefficient for the level of federal receipts is negative and statistically significant. This is exactly the opposite of what starve the beast predicts. Both of our models provide solid evidence that reductions in federal revenues increase, rather than decrease, spending.

Likewise, the results from my second and third regression provide no evidence that lower levels of federal revenues reduce expenditure growth. In both models, the coefficient for federal revenues is negative and statistically significant, providing evidence, again, that

TABLE 1
ANALYZING FLUCTUATIONS IN FEDERAL SPENDING

Dependent Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	1981–2005 Δ Federal Spending	1981–1990 Δ Federal Spending	1993–2000 Δ Federal Spending	1981–2005 Δ Nondefense Disc. Spending	1981–1990 Δ Nondefense Disc. Spending	1993–2000 Δ Nondefense Disc. Spending
Years	1981–2005	1981–1990	1993–2000	1981–2005	1981–1990	1993–2000
Level of Current Federal Receipts (As a percentage of GDP)	-0.145*** (0.045)	-0.254** (0.073)	-0.099* (0.041)	-0.053 (0.031)	0.023 (0.144)	-0.027 (0.026)
Change in the Unemployment Rate	0.598*** (0.056)	0.568*** (0.036)	0.895*** (0.118)	0.017 (0.038)	-0.038 (0.071)	0.201** (0.076)
Change in Net Interest Payments (As a percentage of GDP)	0.516** (0.198)	0.945*** (0.187)	1.187** (0.379)	-0.500*** (0.136)	-0.554 (0.369)	0.146 (0.242)
Constant	2.753*** (0.855)	4.737** (1.363)	2.035** (0.753)	0.933 (0.589)	-0.519 (2.686)	0.595 (0.481)
Number of Cases	25	10	8	25	10	8
Adjusted R ²	.848	.978	.868	.338	.093	.420

NOTES: ** significant at the 5 percent level; *** significant at the 1 percent level. The dependent variables all measure federal spending as a percentage of GDP. The standard errors are in parentheses. Constants (not shown) were included in each regression model. The Durbin-Watson coefficient was calculated for each regression model. There was no evidence of positive serial correlation in the residuals.

federal expenditures grow faster when revenues are relatively low. These results strengthen Niskanen's original findings by showing that his results are fairly consistent across time. Moreover, since 1991, 1992, and the years after 2000 are excluded from these regressions, they demonstrate that Niskanen's original findings are not significantly affected by expenditure increases or fiscal policy shifts associated with either the first Persian Gulf War or the military interventions that followed the September 11th attacks.

Regression models 4, 5, and 6 analyze the effects of revenue shifts on the annual change in nondefense discretionary spending. Once again, the results provide no empirical evidence to suggest that reducing federal revenues lowers the growth of nondefense discretionary spending. In fact, model 4, which analyzes data from 1981 to 2005, finds the exact opposite. The coefficient for federal revenues is negative and approaches conventional levels of statistical significance. This finding indicates that lower levels of federal revenue result in greater increases in nondefense discretionary spending. Again, this result is the exact opposite of what starve the beast would predict.

Similarly, the coefficient for federal revenues in model 6 is negative as well. The coefficient in model 5 is positive, but small, and comes nowhere near conventional levels of statistical significance. The results of models 5 and 6 show that fiscal fluctuations associated with military conflicts overseas do not substantially affect the results of model 4. Overall, these results clearly and persuasively indicate that reducing federal revenues is *not* an effective strategy for limiting the growth of nondefense discretionary spending.

Conclusion

The results from this analysis support Niskanen's original findings that revenue reductions are not an effective mechanism for limiting the growth of government spending. Like Niskanen, I find statistically significant evidence that low levels of federal revenues actually stimulate expenditure growth. This conclusion is in direct contrast to the predictions by proponents of starve the beast. Furthermore, my findings strengthen Niskanen's original analysis in a few important ways. First, I show that the results from his 2006 study are fairly consistent across time. Second, my results indicate that Niskanen's results were not dramatically affected by any fiscal fluctuations during times of war.

Finally, another series of regressions indicates that low federal revenues fail to limit the growth of nondefense discretionary spending. This finding is important because elected officials who seek to cut expenditures often propose reductions in nondefense discretionary spending. As such, it seems plausible that revenue reductions might be more effective at limiting nondefense discretionary spending than other components of the federal budget. However, the results indicate the exact opposite. Revenue reductions actually appear to increase the growth of nondefense discretionary spending. Furthermore, these findings are fairly consistent across time.

Overall, tax reductions might well be good politics or good policy. However, the evidence presented in both Niskanen's study and this study indicate that revenue reductions, by themselves, are not an effective mechanism for limiting expenditure growth. In addition, the evidence suggests that lower levels of federal revenue may actually lead to greater increases in federal spending. All these results indicate that empirical evidence does not support the theory of starve the beast. As such, individuals seeking to effectively limit the growth of government should give serious consideration to alternative strategies.

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