The Economic Costs of Rapidly Growing Federal Government Debt

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Chairman Yarmuth, Ranking Member Womack, members of the Committee, thank you for inviting me to testify at this hearing on "Reexamining the Economic Costs of Debt."

At previous hearings at the House Committee on the Budget at which I testified, including a June 17, 2015 hearing entitled "Why Congress Must Balance the Budget," I showed that basic economic theory and associated empirical models with data imply that high federal government debt has a cost: it reduces real GDP and real income per household compared to what these would be with lower debt levels.

A reexamination of the economic costs conducted for this hearing yields the same results. With the Congressional Budget Office's currently projected increase in the deficit and federal debt in the United States, this reexamination implies the need for a credible fiscal consolidation strategy. Under such a strategy spending still grows, but at a slower rate than GDP at least for a while, thereby reducing both spending as a share of GDP and debt as a share of GDP compared with current projections of the Congressional Budget Office (CBO). Such a fiscal strategy would greatly benefit the American economy. It would also reduce the risk of the debt spiraling up much faster than projected by the CBO

This conclusion is robust to other considerations including situations where the relevant interest rate is less than the economic growth rate, where interest rates have declined over several decades, and where money financing of deficits is again being put forth as an option.

The Economic Costs of High Federal Debt on the Economy.

Let me begin with calculations first reported in Taylor (2015a) based on research by Cogan and Taylor (2013) using a modern economic model described in Cogan, Taylor, Wieland, and Wolters (2013a 2013b)). That model is part of an expanding and impressive collection of economic models maintained by Volker Wieland and used for policy analysis.

In that research we considered a decline in federal expenditures as a share of GDP from 22.2 percent of GDP to 19.1 percent of GDP over a ten-year period, or a 3.1 percentage point

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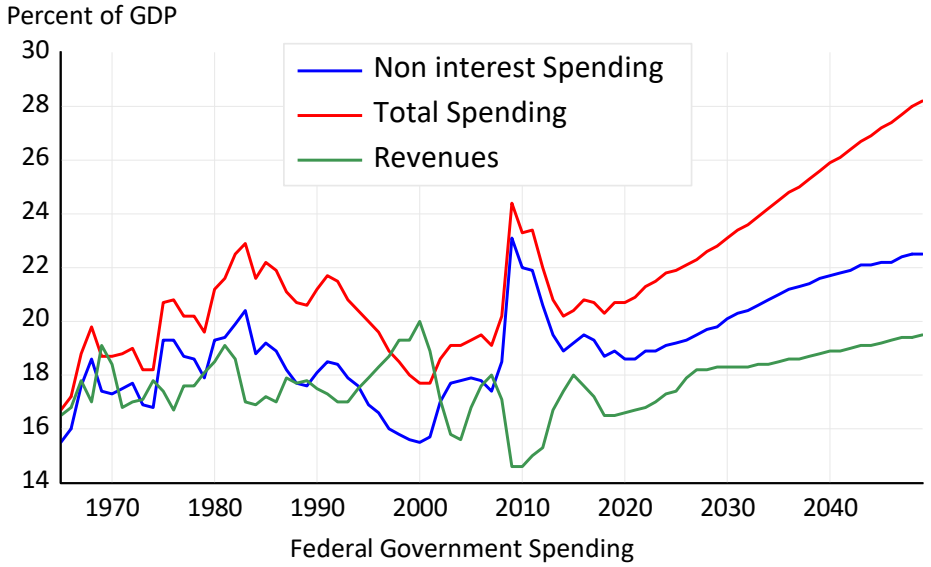
decline in expenditures as a share of GDP. Spending rose in the simulation, but less rapidly than GDP. The publicly held federal debt also declined. This fiscal consolidation plan led to an immediate increase in real GDP, according to the statistically estimated economic model, and, when combined with modest tax reform that was part of the calculation, raised GDP by 3 percent in ten years and increased GDP per household by $4,000 per household.

We showed that such a reduction in government expenditures would increase GDP immediately compared to a policy without spending restraint. I understand that this is contrary to the views of critics of fiscal consolidation who indicate that there would be negative impacts on GDP at least in the short run. We used a modern structural model of the economy that incorporated opportunity costs, forward looking expectations, and incentives. GDP rose in the short run because households understood that the spending plan helped to avoid future increases in tax rates. Lower taxes encourage work, investment and production relative to a scenario without fiscal consolidation and thus generate higher economic growth.



Federal Government Spending
Source: Congressional Budget Office

The figure above shows spending and revenues now and in the future through 2049 according to the Congressional Budget Office. Spending growth did not diminish as much as in the 2015 calculations, and total federal spending did not come down to19.1 percent of GDP. Moreover, spending—both total and noninterest spending—has increased and is projected to rise sharply in the future under current policy. Federal spending as a share of GDP is estimated to be 20.9 percent in 2021 according to the Congressional Budget Office. Holding it at 20.9 percent in 2030 would represent a change compared to the 23.1 percent now projected for 2030, but it would still allow federal spending to continue to grow. Again, according to the previous analysis, we would expect an increase in real GDP and an increase in GDP per household, and the implied

reduction in the ratio of debt to GDP would be a benefit to the American economy compared with current projections.

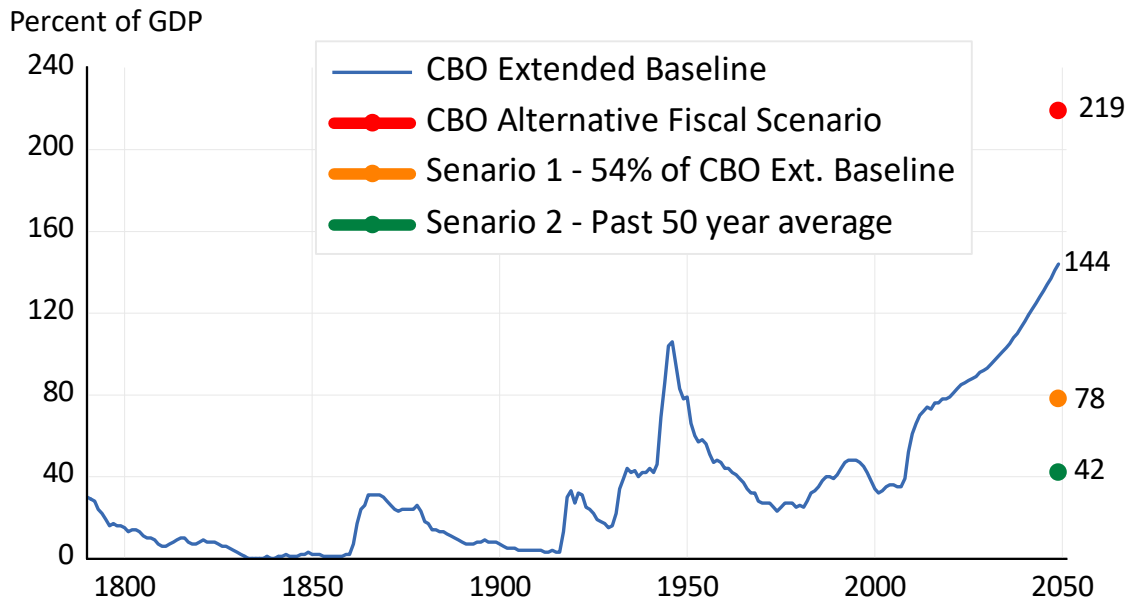
These results are not special to particular time periods. Similar fiscal consolidation strategies were simulated in later years. These model simulations regularly show a positive impact on real GDP in the short run and the long run. Real GDP increases in the short run because the consolidation of government finances boosts economic activity in the private sector sufficiently to overcome the reduction in government spending. Consumption and output increase at the start of the program. Investment rises by less in the short run, and by more in the long run.

The economic rationale for these positive results is straightforward: With a gradually phased-in and credible budget plan, households take account of future reductions in government spending and higher expected future incomes. Of course, to realize these benefits, it is essential that the consolidation plan be credible.

Again, these are not new ideas in the debate over the debt as I stated at the Senate Budget Committee in 2008. At the House Budget Committee on July 1, 2010 I argued that, "A clear and credible path of fiscal consolidation is clearly needed and would do much to remove uncertainty about future policy and thereby build confidence. The reason why such a plan is not being articulated and carried out now is an apparent concern that such a consolidation would remove needed stimulus from the economy." (Taylor (2010a).

There is also evidence of long run positive effects in recent Congressional Budget Office calculations, again based on simulations of models. The calculations of the economic costs of the federal budget debt are reported the in CBO (2019a, 2019b) in terms of foregone economic

growth and income per capita. They are consistent with the results in Cogan and Taylor (2013)



Federal Debt in Relation to GDP: 1790 - 2049

Source: Congressional Budget Office

The figure above shows four possibilities examined by the CBO. The "extended baseline" is the blue line going forward and thus extending the ten-year CBO baseline; it is spliced with the earlier years representing U.S. history. The debt to GDP ratio goes up to 144 percent under that path as explained in CBO (2019a).

The CBO's "extended alternative fiscal scenario," shown by the red dot in the graph, has the federal debt rising to 219 percent of GDP compared with 144 percent in its extended baseline. In the alternative fiscal scenario, the CBO projects a primary deficit of 6.1 percent of GDP in 2049 compared with 3.0 percent of GDP in its extended baseline. The total deficit in 2049 is equal to 15.5 percent compared with 8.7 percent of GDP in the extended baseline.

CBO estimated the economic effects using a long run growth model. They find that real GNP is 3.6 percent lower in 2049 and real GNP per person is about $3,400 lower in the same year than in the extended baseline. Thus, the higher level of debt has real economics costs.

The CBO also analyzed two other scenarios in which deficits are lower as a share of GDP. These are also illustrated in the previous figure. These scenarios reduce the deficit by constant percentages of GDP in order to lower the debt in 2049 to 42 percent of GDP and 78 percent of GDP. (Note that 42 percent is the average level of debt over the past 50 years.) To achieve the 42 percent target, the primary deficit is 2.9 percent of GDP less than in CBO's extended baseline projections every year beginning in 2020. To meet that 78 percent target, the

primary deficit would be 1.8 percent of GDP smaller than in the extended baseline every year beginning in 2020.

In the scenario in which debt falls to 42 percent of GDP, real GNP in 2049 would be 5.8 percent higher, and real GNP per capita would be about $5,500 higher, than in the extended baseline projections where the debt is 144 percent of GDP.

In the scenario in which debt falls by a smaller amount—to 78 percent of GDP, real GNP would be 3.7 percent higher in 2049, and real GNP per capita would be about $3,600 higher in the same year, compared with the extended baseline projections.

The results are summarized in the following table with the impact on real GDP and income measured relative to the extended baseline. Note that there is a clear inverse relationship between real GDP and the federal debt as a share of GDP as shown by the impact in 2049. The higher is the debt the larger is the negative effect on the economy; the lower is the debt the larger is the positive effect on the economy.

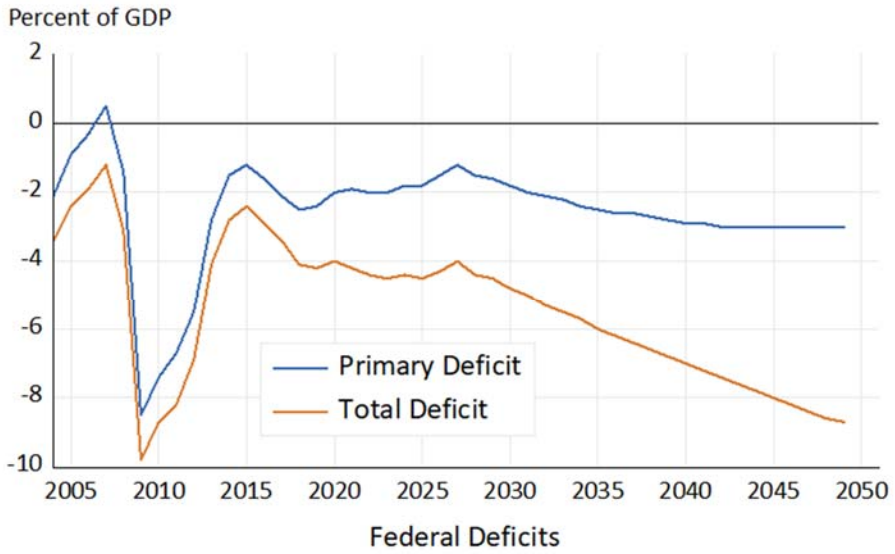
	Primary deficit	Total Deficit	Debt	Impact on real GNP, income	
				Percent	Per capita
Extended baseline	3.0	8.7	144%		
Alt. fiscal scenario	6.1	15.5	219%	-3.6	- $3,400
Scenario 1	2.9		42%	+5.8	+$5,500
Scenario 2	1.2		78%	+3.7	+$3.600

Source: CBO (2019a) and CBO (2019b)

In reporting these results the CBO indicates (CBO 2019b) that shorter run Keynesian effects are not considered, and that these would likely be negative. It would be useful for the CBO to have a model which combines long run and short run as explained in Taylor (2015b) and as often used in public policy research. While the CBO has done an excellent job of incorporating long-term issues through a growth model, having models which handle both the short run and the long run would be significant improvement (Taylor 2016).

The Interest Rate and the Growth Rate

Blanchard (2019) has pointed out and emphasized that if the growth rate of the economy is greater than the relevant interest rate on the public debt, then there will be a tendency for the debt to GDP ratio to decline over time. He illustrates this with simple and easy to understand debt dynamic equations. He also shows that interest rate is often lower than the growth rate in U.S history.



Federal Deficits

Source: Congressional Budget Office

In many of the debt to GDP simulations reported by Blanchard (2019), the primary surplus is held to zero, and in that case the debt dynamics are clearest. However, as is evident in the above chart, the primary deficit is far from zero and it is getting larger according to CBO.

Moreover, the economic costs reported earlier in this testimony do not distinguish between the primary and the total deficit. It is the increase in the debt via the total deficit that creates economic costs. Bringing the primary deficit to zero may be an important part of a good fiscal consolidation plan, but different views of the relative size of the growth rate and the interest rate on the debt does not diminish the estimated costs of high debt.

Other Views of Debt and Money

Another view that has bearing on reexaminations of the economic costs of debt is the set of ideas that are sometimes called "Modern Monetary Theory." The ideas pertain to major countries that can borrow in their own currency—and that certainly includes the United States. A basic principle of the theory is that countries should not borrow in other country's currencies. These ideas are often associated with proposals for government programs such as a jobs guarantee program or a reconstruction of the economy to deal with environmental risks. To move the resources from one part of the economy to another, controls over prices and wages as in wartime are often suggested

The basic idea is that money or deposits at the central bank could be used to finance the budget deficit, and thus a link between monetary policy and fiscal policy is created. The automatic stabilizers of fiscal policy would still work.

It is difficult to determine how this approach would work in the future, and Bernstein (2019), Rogoff (2019), Shiller (2019), Summers (2019) have considered alternative

implementations. I think history can be a guide. In the 1970s the United States imposed wage and price controls and the Federal Reserve helped finance the federal deficit by creating money. The result was a terrible economy in the 1970s with unemployment and inflation both rising. This only ended when money growth was reduced in the late 1970s and early 1980s. As explained by Shultz and Taylor (2020), it was an example where poor economic reasoning led to poor economic policy and poor economic performance. It was reversed when good economics again prevailed, and policy changed.

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