

Prepared for The Can Kicks Back by Giovanni Callegari, The European Central Bank, and Laurence J. Kotlikoff, Boston University August 2013

Introduction

Every country faces what economists call an intertemporal (across time) budget constraint, which requires that its government's future expenditures, including the servicing of its outstanding official debt, be covered by its government's future receipts when measured in present value. The difference between the present value of a country's future expenditures and its future receipts is called its *fiscal gap*. Thus, a country's fiscal gap measures the size of its intertemporal budget imbalance based on its current and intended future course of fiscal policy.

No household can continually spend more than it makes. At some point, those who are financing the excess of the household's expenditures over its receipts will declare "game over." The same is true of governments. Eventually they need to change their spending or their revenues or both to satisfy their intertemporal budget. The longer the delay in adjusting policy, the bigger and more painful the adjustment will be and the great will be the burden on young and future generations.

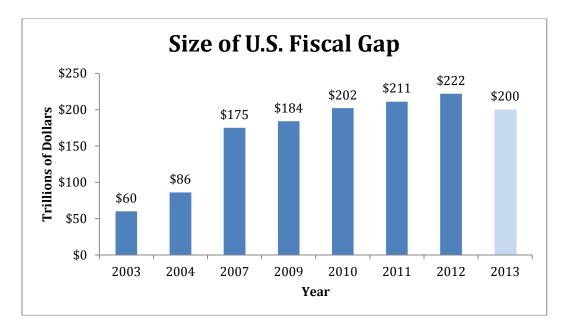
Countries whose prevailing policies produce fiscal gaps are running policies that are unsustainable. And the size of the country's fiscal gap indicates the degree to which taxes need to be raised, spending needs to be cut, or a combination of tax hikes and spending cuts need to be imposed, either immediately or over time, to achieve a sustainable course of policy.

The U.S. Fiscal Gap

In 2012, the U.S. fiscal gap was \$222 trillion based on the Congressional Budget Office's Alternative Fiscal Scenario Projection released in June 2012. By comparison, the official debt held by the public, which is included in the fiscal gap, was only \$11 trillion in 2012. Consequently, in focusing on the official debt, rather than the fiscal gap, policymakers and the public have been considering only one twentieth of our nation's true fiscal problem.

What would it take our country to pay off a \$222 trillion bill? The answer is 12 percent of its GDP on an ongoing basis. To come up with this amount would require either an immediate and permanent 64 percent increase in all federal taxes or a 40 percent immediate and permanent cut in all expenditures apart from those arising from servicing outstanding official debt. Alternatively, some combination of tax hikes and spending cuts could be used to produce \$222 trillion more in net revenue over time, but valued in the present.





How Did the Fiscal Gap Get So Big?

The federal government has spent the last six decades producing its fiscal gap. Every administration has taken money from contemporaneous young workers, called that money "taxes," handed much of it over to older generations in the form of Social Security and Medicare and Medicaid benefits and then placated the young workers by promising them even larger benefits when they retired. These promises were kept off the books because of the use of the word "taxes." Had the government labeled the taking from the young as "borrowing," much more of the fiscal gap would now be showing up in the form of official debt. But the fact that only \$1 in \$20 has been so classified is testimony to the ability of politicians to keep their promises off the books.

In contrast to measurement of "the" official debt, which is a matter of linguistics and has no real basis in economics, the fiscal gap is invariant to labeling conventions. It doesn't care what gets put on the books and what is kept off the books for one very simple reason. The fiscal gap adds together both off-the-books and on-the-books liabilities; i.e., it leaves neither out and treats both symmetrically.

Unfortunately, the CBO didn't begin providing reliable long-term fiscal projections until 2003, so forming the fiscal gap before then is not feasible. But the table below shows fiscal gaps from 2003 through 2012. It records a huge increase in the gap from \$60 trillion in 2003 to over \$175 trillion at the end of President George W. Bush's term. The growth in the fiscal gap reflects the Bush Administration's major tax cuts, sharply larger spending on defense and entitlement programs, and a failure to cover even interest on the fiscal gap. But under President Obama, the gap has also risen dramatically. This reflects the fiscal impact of the Great Recession, the



ever-closer retirement of the baby boomers, the failure to reform Social Security, Medicare, or Medicaid, the introduction of the Affordable Care Act's health exchanges, and the heavy cost of our two wars in Iraq and Afghanistan.

The 2013 Fiscal Gap

The CBO won't be releasing a new long-term Alternative Fiscal Scenario projection until the Fall of this year. But one may be able to discern the likely change in the fiscal gap between 2012 and 2013 from considering differences in the CBO's ten-year baseline budget projection of June 2012 and the latest one released in May 2013. Over the next ten years, the CBO projects less spending each year, ranging from .2 percent of GDP to .8 percent. This reflects the sequestration and other policies and policy outcomes including slower growth in Medicare and Medicaid per capital benefits. We assume, in forming my estimate of the 2013 fiscal gap, that after 2013, non-interest spending is .8 percent of GDP less each year than under the 2012 Alternative Fiscal Scenario.

The CBO's revenue projections actually show a larger decline in baseline revenues over the next ten years than in non-interest spending. The reason is that the baseline forecast takes current law as given and back in June 2012, current law entailed all, not part, of the Bush tax cuts expiring in January of 2013. But rather than apply this difference in baseline revenue forecasts, We simply compare the 2012 Alternative Fiscal Scenario ten-year revenue forecast with the current baseline forecast. The reason is that tax law is reasonably settled for now based on the January 2013 legislation. So it seems likely that the CBO's 2013 Alternative Fiscal Scenario forecast of revenues will be close to those in the May 2013 Baseline. The bottom line adjustment is one of .6 percent of GDP more revenue from 2023 on and a somewhat larger annual adjustment between now and 2023.

Incorporating these two sets of changes to projected non-interest spending and revenues from 2013 onward, updating the CBO's forecast of GDP from 2013 onward, and incorporating the 2013 level of official debt produces a \$200 trillion fiscal gap for 2013.

This estimate entails a \$22 trillion decline in the fiscal gap, which is certainly a large number. Unfortunately, the remaining fiscal gap is still absolutely massive, representing 10 percent of the present value of all future GDP. Hence, a proper description of the fiscal adjustments made over the last year is "too little too late."

Closing America's Fiscal Gap

Coming up with 10 percent of GDP year in and year out is a big fiscal order. To do so via spending cuts, alone, requires an immediate and permanent 36 percent cut in all non-interest spending. To do so via tax hikes, alone, requires an immediate and permanent 55 percent increase in all federal taxes.



As the table below shows, the longer Congress waits to either raise taxes or cut spending, the larger the adjustments that will be needed to eliminate the fiscal gap. For example, waiting until 2043 to begin raising taxes will require, starting at that time, a 72 percent permanent tax hike. And waiting until that point to cut all spending, apart from debt service, requires a 44 percent permanent cut.

Percentage Revenue Increases or Spending Cuts Needed to Eliminate Fiscal Gap for Different Adjustment Starting Years

Start Year	Revenue Increase All N	on-Interest Spending Cut
2013	54.8 %	36.2 %
2023	59.7 %	38.4 %
2033	65.3 %	41.2 %
2043	71.6 %	44.4 %

U.S. Generational Accounts

The table below presents U.S. generational accounts for 2013. It shows that, except for people in their twenties and early thirties, all currently living cohorts are on the receiving end of the government's largess. I.e., their projected receipt of transfers exceeds their projected tax payments, with the generational accounts displaying the remaining lifetime tax payments net of transfer payments received, all discounted to the present.

Since paying the government's bills is, generationally speaking, a zero-sum game, generational accounting calculates what future generations must pay over the lifetimes assuming each future generation's lifetime net tax payment rises in proportion to its labor earnings. Stated differently, people born in the future are assigned higher absolute lifetime net tax payments such that their lifetime net tax rate – the ratio of their lifetime net tax payment to their lifetime labor earnings – is the same regardless of when they are born.

The table's next to last row shows the absolute lifetime net tax payment facing those born next year under this scenario. The bill for this group is \$421,600 or \$479,900 more than what today's newborn is facing under current policy. These figures indicate a massive imbalance in the implied treatment of those now alive and our unborn children. Expecting future generations to pay vastly more than those now alive is not just generationally immoral, it's also economically infeasible. It would require hitting up future generations for, on average, roughly 60 cents of every dollar they earn in taxes net of transfers received.



(Thousands of dollars)		
Age	Lifetime Net Tax Burden	
0	- \$59.2	
5	- \$41.9	
10	- \$26.6	
15	- \$6.2	
20	\$14.7	
25	\$25.8	
30	\$12.4	
35	- \$14.4	
40	- \$49.4	
45	- \$87.3	
50	- \$138.1	
55	- \$209.3	
60	- \$282.9	
65	-\$327.4	
70	-\$302.3	
75	-\$268.0	
80	-\$236.3	
85	-\$205.5	
90	-\$166.5	
95	-\$115.8	
100	-\$30.3	
Future Generations	\$420.6	
Difference Between Future Generations and Current Newborns	\$479.9	

2013 U.S. Generational Accounts