

Is Greece Relying Too Much on Taxes to Adjust?

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Abstract

Following the debt crisis of 2009-2010, Greece is currently undertaking a large fiscal adjustment. This adjustment can occur either by cutting spending or by increasing tax revenues. I present evidence from the successful experience of several European countries that went through similar adjustments to examine how the composition of the fiscal adjustment (cutting spending vs. increasing taxes) affects macroeconomic performance and the likelihood of reducing fiscal imbalances. The conclusion is that most successful adjustments typically rely much less on taxes than the proposed Greek fiscal adjustment and that Greece would benefit from lowering taxes and cutting spending even more. In addition, the experience of countries that undertook large fiscal adjustments suggests that governments cutting spending had no problem getting reelected as the improved economic performance helped them gain popularity.

The Greek debt crisis of 2009-2010 made clear to policymakers and the general public that a strong fiscal adjustment is necessary. Because hyper-inflations and exchange rate devaluations are not feasible and the prospects of sustained growth do not seem bright, reducing the debt-to-GDP ratio requires large and long-lasting primary surpluses. The primary surplus reflects the difference between government's tax revenues and government's spending. Therefore, the Greek fiscal adjustment requires: (a) either cutting spending (b) or increasing tax revenues (or both). The Hellenic Growth and Stability Program aims to stabilize the debt-to-GDP ratio at about 150% by 2013-2015. For this, the primary surplus is projected to rebalance from -8.6% in 2009 to +5.9% of GDP by 2013, which represents an average yearly improvement of 2.86 percentage points.¹

But what is the composition of the proposed fiscal adjustment? How much do the spending side (cutting expenditures) and the tax side (increasing revenues) contribute to the total adjustment?² This is an important question because the experience of various European countries (e.g. Denmark, Ireland and Italy) shows that the composition of the fiscal adjustment affects economic performance and the likelihood of reducing fiscal imbalances. Thus, comparing the composition of the proposed Greek adjustment to the composition of the large adjustments that occurred in several European countries in the recent past is informative to policymakers. My conclusion from such a comparison is that the Greek fiscal adjustment is somewhat more tilted towards taxes relative to the fiscal adjustments of countries that avoided painful recessions and reduced imbalances.

I concentrate on episodes of large discretionary changes in fiscal policy in Europe after 1970 that resemble the large Greek fiscal adjustment in magnitude and in scope.³ Specifically, I focus on episodes in which the (cyclically-adjusted) primary surplus to GDP ratio improves by at least 1.5 percentage points relative to the previous year. The composition of the fiscal adjustment is measured by the indicator "Adjustment from Spending." This indicator is defined as the ratio of the yearly reduction of government spending to the yearly improvement of the primary surplus (all variables are cyclically-adjusted). The higher is this indicator, the more a country improves its primary surplus by cutting spending (as opposed to increasing taxes). When the indicator equals 1, the improvement of the primary surplus is due to

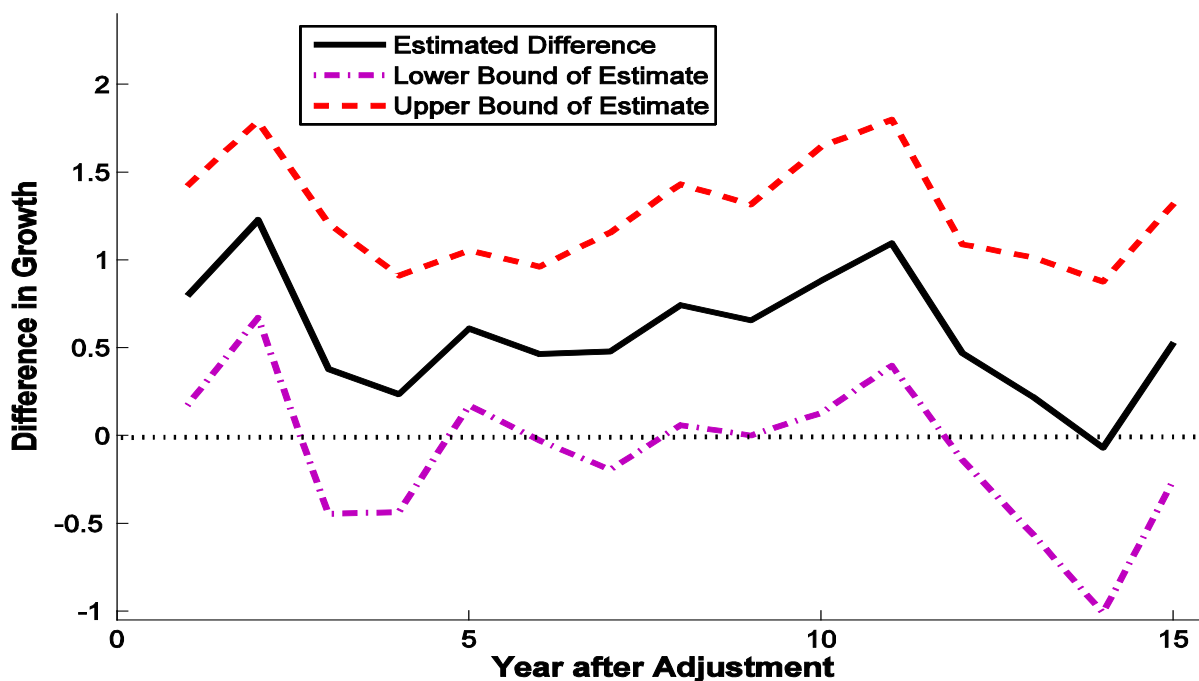
¹ The data used here comes from the EC (2010). See European Commission, May 2010, "The Economic Adjustment Programme for Greece." *European Economy*, Occasional Papers No. 61.

² In this article I don't address the optimal size of the adjustment or whether Greece should undertake a large fiscal adjustment relative to the alternative of restructuring its debt. Rather, I examine the optimal composition of an adjustment of a given size. Calomiris (2010) argues that spending cuts and tax increases need to be larger than those announced and that Greece may have to exit the Euro. See Charles Calomiris, 18 March 2010, "The Painful Arithmetic of Greek Debt Default." *Economic Policies for the 21st Century*.

³ Alesina and Ardagna (2010) recently examined episodes of large fiscal adjustments in OECD countries in much detail. See Alberto Alesina and Sylvia Ardagna, 2010, "Large Changes in Fiscal Policy: Taxes vs. Spending." *Tax Policy and the Economy*. I thank the authors for providing me with their data. My methodology differs somewhat from that of the authors, but I reach similar conclusions.

reduced spending only. When the indicator equals 0, the improvement of the primary surplus is due to increased taxes only. Intermediate values denote a combination of reduced spending and increased taxes. As discussed below, this indicator is somewhere between 0.33 and 0.50 for the current Greek adjustment.

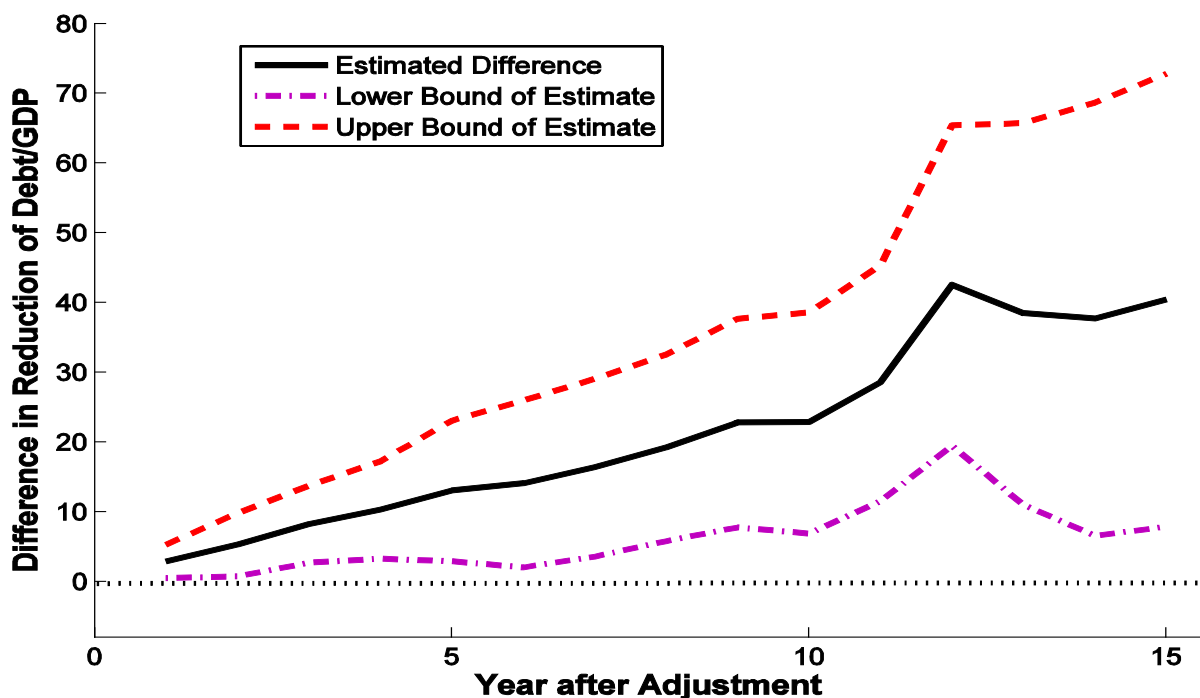
Based on the experience of European countries after 1970, I summarize the relationship between the composition of the fiscal adjustment and real GDP per capita growth in the Figure below.⁴ The horizontal axis indicates the year after the adjustment (e.g. 5 means “5 years after the adjustment”). The vertical axis measures the (percentage point) difference between the real GDP per capita growth of countries that adjusted only through the spending side (when “Adjustment from Spending” takes the value 1) and the real GDP per capita growth of countries that adjusted only through the revenue side (when “Adjustment from Spending” takes the value 0), taking into account any differences in countries’ economic fundamentals at the time of the adjustment (debt-to-GDP ratio, real GDP per capita, short real interest rate and inflation). The estimated difference also takes into account global economic fundamentals (measured by the real GDP per capita growth in the G7 economies) as some adjustments occurred in times of high world growth and others in times of low world growth. The solid line in the middle depicts the estimated difference through time. The two other lines denote upper and lower bounds of the estimate due to statistical uncertainty.



⁴ The Figure plots estimated coefficients from linear regressions of “Real GDP per capita Growth” at various years on “Adjustment from Spending” and controls (initial values of debt-to-GDP, real GDP per capita, short real interest rate, inflation and real GDP per capita growth in the G7). The bounds depict 85% confidence intervals (robust standard errors) for the estimated coefficients.

In the first few years following the large fiscal adjustment, the growth performance of countries that adjusted by cutting spending seems better than the growth performance of countries that adjusted by increasing taxes. Interestingly, the difference is magnified over the longer-term (5 to 10 years). The composition of the fiscal adjustment has very persistent effects on a country's economic performance.

To examine which fiscal adjustments are more successful in reducing fiscal imbalances, I look at the cumulative reduction of European countries' debt-to-GDP ratio following their major fiscal adjustments after 1970.⁵ In the Figure below, the horizontal axis measures the year after the adjustment. The vertical axis measures the difference between the percent reduction of the debt-to-GDP ratio of countries that adjusted only through the spending side (when "Adjustment from Spending" takes the value 1) and the percent reduction of the debt-to-GDP ratio of countries that adjusted only through the revenue side (when "Adjustment from Spending" takes the value 0). The estimated difference takes into account differences in countries' initial economic fundamentals (debt-to-GDP ratio, real GDP per capita, short real interest rate and inflation) and the fact that global economic fundamentals (measured by the real GDP per capita growth in the G7) differed across fiscal adjustments.



The evidence suggests that cutting spending helps to stabilize the debt-to-GDP ratio more than increasing taxes. For instance, the Figure shows that 10 years after the adjustment countries that cut spending

⁵ The Figure plots estimated coefficients from linear regressions of the "Cumulative Reduction in the Debt-to-GDP ratio" on "Adjustment from Spending" and controls (initial values of debt-to-GDP, real GDP per capita, short real interest rate, inflation and real GDP per capita growth in the G7). The bounds depict 85% confidence intervals (robust standard errors) for the estimated coefficients.

reduced their debt-to-GDP ratio relative to the year of the adjustment by around 23% more than countries that increased taxes.

Several theories explain why the composition of the fiscal adjustment affects economic performance and the likelihood of reducing fiscal imbalances.⁶ Adjustments in public sector employment and social transfers are politically costly which implies that only governments committed to carrying out long-lasting fiscal adjustments undertake them. Reducing the overall size of the government is considered much more difficult than increasing it. Because cutting spending reduces the size of the government while raising taxes increases it, distortions arising from tax increases are difficult to reverse in the future. This may explain the large effect of the composition of the adjustment on long-term growth shown above. In addition, in highly unionized economies like Greece, a cut in the wages of the public sector lowers the bargaining power of unionized workers in the private sector which, in turn, stimulates business investment and hiring and improves competitiveness in the international commodity markets. On the other hand, increases in labor or consumption taxes that reduce the labor supply of union members may increase real wages, depress business investment and hiring and deteriorate competitiveness. If adjustments on the spending side lead to higher GDP growth, then the debt-to-GDP ratio is easier to reduce. Surprisingly, and contrary to the Keynesian view which views fiscal adjustments as depressing demand, in several of these episodes spending cuts were ultimately associated with expansions of the economic activity (e.g. Denmark and Ireland in the 1980s). These expansions can occur for a variety of reasons. One is that a tightening of the fiscal stance today implies lower taxes in the future. Under well-functioned capital markets, the resulting increase in permanent income stimulates current consumption. A second reason, which may be more relevant for a country like Greece, is that fiscal adjustments increase a country's credibility in the financial market which lowers lending rates and stimulates demand.

Now let's consider the details of the proposed Greek fiscal adjustment. While in its first stages adjustment occurs mostly through the spending side, social transfers are projected to increase sharply during 2011. This does not even take into account the fact that many public employees consider an earlier retirement because they fear that they will receive a reduced (or no) pension if they retire later. A first look at the Hellenic Stability and Growth Program reveals that approximately 2/3 of the total fiscal adjustment is projected to occur through revenue increases and only 1/3 is projected to occur through spending cuts. However, one has to take into account that part of the projected revenue increase comes from an increasing willingness of the government to fight tax evasion, which at face value is a positive policy

⁶ Francesco Giavazzi and Marco Pagano, 1990, "Can Severe Fiscal Adjustments Be Expansionary?" *NBER Macroeconomics Annual*, 75-110. Alberto Alesina and Roberto Perotti, 1995, "Fiscal Expansions and Adjustments in OECD Countries." *Economic Policy*, 10(21): 207-240. Roberto Perotti, 1996, "Fiscal Consolidation in Europe: Composition Matters." *American Economic Review*, 86(2): 105-110.

initiative. But even excluding any revenue effect of this policy and the revenues from EU's structural funds, increases in direct taxes, excise and VAT taxes, taxes on properties and taxes on profitable businesses are projected to account for more than half of the total fiscal adjustment. Typically, successful fiscal adjustments rely much less on tax increases.

Additionally, the Greek tolerance towards corruption and the widespread tax evasion makes increases in taxes difficult to materialize as increased revenues.⁷ Putting too much faith in the anti-evasion program makes one wonder what has changed since previous unsuccessful attempts to fight tax evasion and why Greece had to accumulate such a large debt before its politicians realize that tax evasion is a serious problem. Unless Greeks outsource tax collection to improve incentives or implement major anti-corruption reforms or change their culture of doing day-to-day businesses (all highly unlikely), the projections on revenues from the large anti-evasion program seem too optimistic.

Are further spending cuts politically feasible? Many will say no, but the current cut in public sector wages and pensions is impressive by any historical standard. The accumulated evidence from the 1980s and 1990s shows that governments implementing large fiscal adjustments by cutting spending had no problem being reelected.⁸ In fact, the evidence suggests that governments adjusting by cutting spending may have even gained popularity, perhaps as a result of the better economic performance that follows these types of adjustment.

Overall, drawing from the successful experience of European countries that faced fiscal austerity in the recent past, the conclusion is that Greece could benefit from rebalancing the composition of its large fiscal adjustment by lowering taxes and cutting spending even more. To give a rough estimate implied by the calculations shown above, suppose that Greece moved from a spending cut that accounts for, say, 40% of the given total adjustment (that is, when "Adjustment from Spending" takes the value 0.4) to a spending cut that accounts for, say, 70% of the given total adjustment (that is, if "Adjustment from Spending" took the value 0.7). Then, over the next 15 years real GDP per capita growth would improve, on average, by approximately 0.18 percentage points per year. The debt-to-GDP ratio would be approximately 18.1 percentage points lower than in the initial scenario that stabilizes the debt-to-GDP ratio at 150%. Changing the mix of taxes vs. spending in favor of additional spending cuts sounds like a good deal.

⁷ Meghir, Vayanos and Vettas (2010) emphasize the costs of tax evasion and the need to fight it. See Costas Meghir, Dimitri Vayanos and Nikos Vettas, 5 August 2010, "The Economic Crisis in Greece: A Time of Reform and Opportunity." *Greek Economists for Reform*.

⁸ Alesina (2010) makes this important point in relation to the large adjustments that some European countries are expected to undertake following the global financial crisis. See Alberto Alesina, April 2010, "Fiscal Adjustments: Lessons from History." *Ecofin Meeting Madrid* (15th April 2010).