The impact of austerity policies in the Eurozone: fiscal multipliers and ‘adjustment fatigue’

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This article seeks to compare the significance of the links between fiscal policies and economic growth in the Eurozone before and after the imposition of adjustments on the countries bailed out, in an effort to estimate the scale of fiscal multipliers and to evaluate pro-cyclical or counter-cyclical orientation of the measures. The results of the regression serve to bear out the theoretical forecasts of those authors who warned of high fiscal multipliers in a context of recession, also characterized by a credit crunch, massive deleveraging in the private sector and near-zero interest rates.

Keywords: European economic governance; impact of austerity policies; adjustment fatigue

JEL Classification: E62; F15; H62

I. Introduction

European Union’s vulnerable architecture of governance has had to face a crisis that came close to bringing down the euro. The official crisis exit strategy is based on a demand for severe austerity plans and structural reforms in the periphery countries, along with maintaining of a prudent monetary policy adjusted to the letter of the relevant treaties, though subsequently – due to urgent circumstances – a greater degree of freedom has been admitted.

It was against this background that the bail-out plans were implemented for Greece (2010), Ireland (2010), Portugal (2011) and Cyprus (2013), preceded in each case by the relevant Memorandum of understanding. A bail-out for Spanish banks (2012) was also approved, with a relatively low level of conditions. These countries were forced into taking wide-ranging austerity measures, i.e. into adopting a pro-cyclical fiscal policy. However, the impact of austerity measures on growth remains a major concern because the process of public deleveraging coincided with private-sector deleveraging and further intensified the crisis (In’t Veld, 2013). Thus, fiscal multipliers may be higher at the present time than was initially envisaged by the IMF and the European Commission. That is why the IMF is speaking openly of ‘adjustment fatigue’ in the EMU (IMF, 2013, p. 14).

This article seeks to compare the significance of the links between the fiscal policies (proxied via the structural balance of annual budgets) and the economic growth (annual rates of increase in GDP) in the Eurozone as a whole, before and after the imposition of adjustments on the countries bailed out (2010), in an effort to estimate the scale of fiscal multipliers and to evaluate pro-cyclical or counter-cyclical orientation of the measures.

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1 Given those countries that were bailed out after 2010 received urgent letters from the ECB or recommendations from ECOFIN calling on them to make substantial cuts in public spending or raise certain taxes.
II. Theoretical Forecasts

The austerity measures imposed on countries bailed out were based on the attributing of prime responsibility for the euro crisis to the high levels of government debt run up by many member states, as a result of over-expansive fiscal policies, in the context of heavy private borrowing deriving from the financialization of economies. The papers by Reinhart and Rogoff (2010) and Alesina and Ardagna (2010) have become official references for these positions, as they associate high levels of cumulative borrowing with economic stagnation. These papers look to be a development of the so-called Ricardian equivalence theorem, from which a loss of potential effectiveness of expansive fiscal policies in the long term can be deduced.

When estimating the scale of multipliers, the experts were mostly divided into two camps:

1. Some (based on econometric studies from the previous boom period) considered that fiscal multipliers were low, and below one in all cases. This was clearly the dominant opinion in the academic debate until very recently, and it inspired EU leaders and front-line international economic organizations in the measures taken in response to the crisis in the European setting.

2. Others, however, estimated considerably higher multipliers, particularly in view of the circumstances of recession and private deleveraging with which the contractive budgetary measures coincided: the authors in this camp warned that the austerity policies prescribed in the EU would coincide with poor economic growth in Europe in recent years:

- Almunia and others (Almunia et al., 2010), based on data for 27 economies during the 1930s (a period during which interest rates were at or near the zero lower bound), conclude that fiscal multipliers were about 1.6.
- Christiano et al. (2011) state that the government-spending multiplier can be much larger than one (perhaps in excess of 3) when the nominal interest rate does not respond to an increase in government spending.
- Auerbach and Gorodnichenko (2012) find that fiscal multipliers associated with government spending can fluctuate from near zero in normal times to about 2.5 during recessions.
- De Grauwe and Ji (2013) believe that there is a clear correlation between the intensity of austerity plans (estimated by the changes in the structural balance introduced by discretionary fiscal policy since 2009) and the trend in output in the euro area countries. In their econometric regression, it can be observed that the multiplier for budgetary adjustments is 1.92.
- Semmler and Semmler (2013) estimate that the fiscal multiplier was really far higher than estimated in the main studies drawn up prior to the crisis.

More recently, a report by an expert from the European Commission (In’t Veld, 2013) has quantified the losses in economic growth across all EU Member States (not just those which have been forced to implement severe adjustment plans) as a result of the negative spillovers entailed by the adjustments made (spillovers in demand, competitiveness and international financial flows).

III. Model and Estimates

The variable to be explained in the estimation process is the annual rate of increase in GDP in each country (in %), and the explanatory variables is the structural budget balance\(^2\) expressed as a percentage of national GDP. The period selected is 2006–2013, enabling the study to cover the business cycle from the end of the period of growth to the emergence and management of the crisis. Observations were obtained for 15 countries\(^3\) divided

\(^2\)The actual budget balance net of the cyclical component and one-off and other temporary measures: this gives a measure of the underlying trend in the budget balance.

\(^3\)They were all the Eurozone countries at the time of the bail-outs with the exception of Cyprus, where specific circumstances (a hyper developed financial system with a majority presence of capital of Russian origin) left the country facing extreme volatility. Cyprus did not sign up to the adjustment plans until 2013.

The following data sources were used:


The main results can be summed up as follows (Table 1):

(1) Between 2006 and 2009, the structural balance has no significant influence in explaining the growth rate in GDP, i.e. it fails to explain it satisfactorily. It is not a statistically significant variable, and the $R^2$ is 1.23%. If the fictitious variable for the countries bailed out is added, the two variables together are statistically significant and explain almost 30%. The multiplier is $-0.61$ (first column).

(2) Two models are also estimated for the period between 2010 and 2013:

(i) If a fictitious variable is included for the countries bailed out to include the effect of adjustment plans on the growth rate in GDP, the variable is statistically significant at the 10% level, the multiplier is $-2.06$ and the $R^2$ is 73.29%.

(ii) If no fictitious variable is included, the structural balance also has a significant influence in explaining the rate of growth in GDP: it explains 67.66%, and the multiplier is $-2.56$.

We believe that the models which include fictitious variables for the countries bailed out fit better. Figure 1 shows that from 2006 to 2009, there was no general correlation between the sign of fiscal policies and economic results, especially because most countries (except for Greece, which acknowledged budgetary discrepancies, and

**Table 1. Regression estimates of impact of fiscal policy on economic growth**

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<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Constant</td>
<td>4.92756 (3.857)***</td>
<td>5.15037 (3.016)***</td>
</tr>
<tr>
<td>Structural balance</td>
<td>$-0.613889$ (0.2750)</td>
<td>$0.0449885$ (0.7257)***</td>
</tr>
<tr>
<td>Bail-out country</td>
<td>$-7.98917$ (0.2750)</td>
<td>$-4.70951$ (0.2750)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.2995</td>
<td>0.0123</td>
</tr>
</tbody>
</table>

Notes: Heteroscedasticity-robust SEs. $t$-Statistics are in parentheses. $***$, ** and * represent significance at the 1%, 5% and 10% levels, respectively.

Fig. 1. Structural balance and GDC growth in Eurozone countries (2006–2009)
Ireland, which had to face a bank bail-out on a huge scale) had fiscal policies which were very moderate in terms of their intensity in circumstances that were not so critical.

Figure 2 (for 2010–2013) clearly shows that the countries bailed out (with Greece as the most extreme case but also including Portugal and, to a lesser extent, Italy and Spain) adopted more contractive and pro-cyclical fiscal policies (adjustments), and also obtained proportionally worse results in terms of economic growth. By contrast, the countries that adopted fewer cutbacks obtained positive growth rates.

IV. Conclusions

The results of the regression serve to bear out the theoretical forecasts of those authors who warned of high fiscal multipliers in a context of recession, also characterized by a credit crunch, massive deleveraging in the private sector and near-zero interest rates. Cross-border spillovers seem to have exacerbated the negative effects of successive consolidations, which have depressed growth in the Eurozone.

Underestimating the fiscal multiplier has led to incorrect forecasts: for instance, the IMF calculated that Portugal would grow 1.2% in 2013 and 2.5% in 2014, while in reality, the Portuguese economy is expected to shrink by 1.8% in 2013 and grow just 0.8% in 2014. The hypothesis can therefore be accepted that the impact of austerity policies has shrunk economic activity more than expected, leading to an ‘adjustment fatigue’ that has turned the Eurozone into the most stagnant area in the world in economic terms.

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References


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