Learning about fiscal multipliers during the European sovereign debt crisis

voxeu.org/article/fiscal-multipliers-during-european-sovereign-debt-crisis

Lucyna Gornicka, Christophe Kamps, Gerrit Koester, Nadine Leiner-Killinger, *voxeu*, 23 January 2020

Recent studies have highlighted that the fiscal multipliers used by institutional forecasters were gradually adjusted upwards as the European sovereign debt crisis developed. This column confirms this finding, using a new dataset compiled from European Commission forecasts under the Excessive Deficit Procedure of the Stability and Growth Pact. In contrast to previous claims that the fiscal multiplier rose well above one at the height of the crisis, however, the authors argue that the 'true' ex-post multiplier remained below one.

National government debt increased to substantial and often unprecedented levels following the 2008 financial crisis, and many euro area countries decided to raise taxes and/or cut public services in order to combat the escalating situation. As recently reviewed in Ramey (2019), the crisis reignited the debate on the impact of discretionary fiscal policies on economic growth. The fact that the impact of fiscal policies on growth is not directly observable, but instead must be estimated, lies at the heart of this debate.

In 2011 and 2012, at the height of the sovereign debt crisis, real GDP growth was much lower than forecasters had initially expected, especially in countries worst affected by the crisis. In an influential contribution to the policy debate at the time, Blanchard and Leigh (2013, 2014) argued that the forecasting errors came about largely because forecasters had underestimated the adverse effects of fiscal consolidation on economic growth. Their results indicated that forecasters had underestimated the 'true' fiscal multipliers ('ex-post fiscal multipliers').[1] At the same time, they found that the underestimation of these negative feedback effects declined as the crisis wore on. They proposed that this was a reflection of the lessons learned by forecasters during the course of the crisis about the size of fiscal multipliers.

In a new paper (Gornicka et al. 2019), we test this hypothesis. We identify the fiscal multipliers ('implicit fiscal multipliers') used by forecasters at the European Commission between 2009 and 2015 and investigate their role in explaining forecast errors during consolidation episodes.

A new dataset

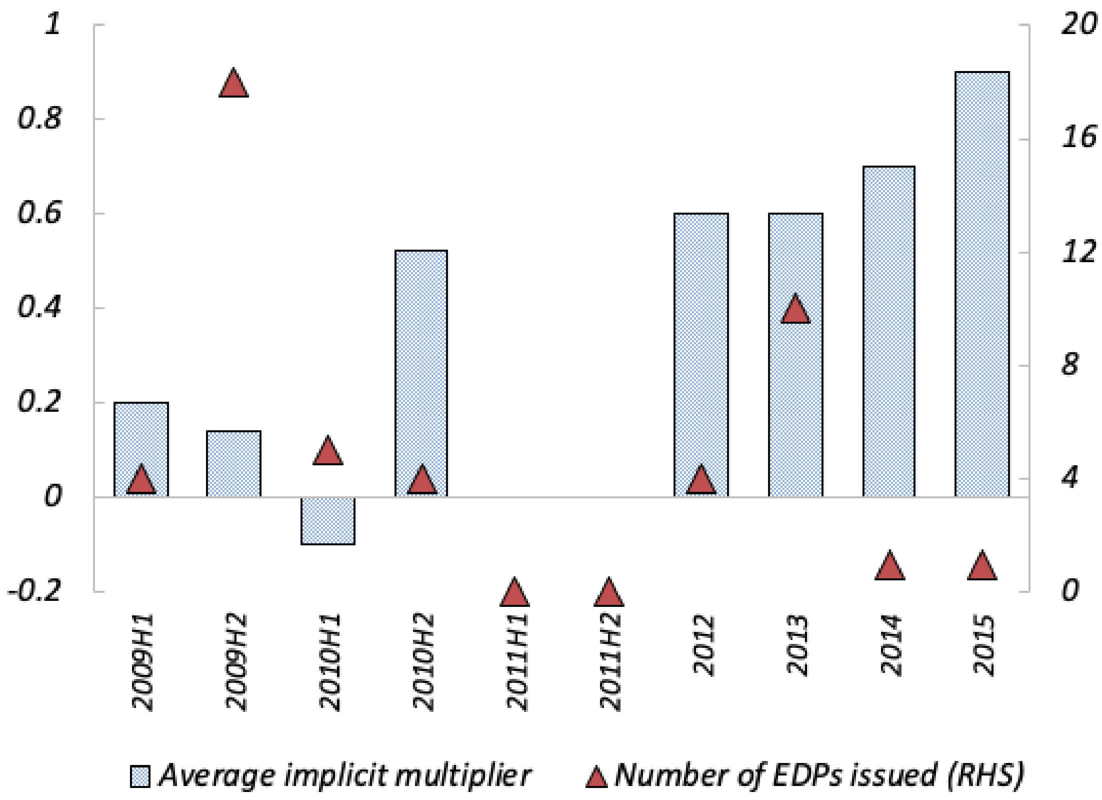
Our research provides a major contribution to the debate through its use of a new dataset and this provides our work with an advantage over previous studies, such as the recent work by Blanchard and Leigh. Our dataset is new in that it combines the two forecast scenarios published by the European Commission when conducting its surveillance of fiscal policies in the EU: the regular forecasts, and the forecasts made under the Excessive Deficit Procedure (EDP). In the regular Commission forecasts, the economic outlook is based on the assumption that no fiscal consolidation measures will be undertaken beyond those already legislated for. In the forecasts under the EDP, the Commission specifies the size of the additional fiscal consolidation required in order to reduce an excessive deficit to below the threshold of 3% of GDP by a certain year.[2] This additional fiscal consolidation is the only exogenous impulse when transitioning from the baseline to the EDP forecast. At the same time, the Commission allows this exogenous impulse to have an impact on the real GDP forecast in the EDP scenario.

The comparison of the two forecast scenarios, along with the limited number of assumptions, makes it possible to calculate the fiscal multipliers for individual countries (and years) as applied by the forecasters at the European Commission. It transpires that all EU member states (except Estonia, Luxembourg and Sweden) were under the EDP at the height of the sovereign debt crisis. As a result, we could then derive the fiscal multipliers as actually applied by the European Commission for almost all member states in the period 2009-2015.

Changes in implicit fiscal multipliers during the crisis

Our results show that, over the course of the crisis, the Commission forecasters almost certainly adjusted their views on the effects of fiscal consolidations on economic growth. This can be seen from the increases they made to the fiscal multipliers used in the European Commission's recommendations. In the early years of the crisis, between 2009 and 2011, the recommendations were based on assumptions of a fiscal multiplier of around 1/4 on average. This rate is notably below what forecasters often consider to be the 'standard' value of 1/2. By contrast, between 2012 and 2015, most forecasts under the EDP were based on fiscal multiplier assumptions that were much higher than this level at around 2/3. As shown in Figure 1, 18 EDP forecasts issued in the second half of 2009 are based on an implicit fiscal multiplier of around 0.1. The five EDP forecasts issued in the first half of 2010 are based, on average, on an even lower implicit fiscal multiplier of close to zero. It is likely that, at the time, these low fiscal multipliers applied in forecasts reflected the widely held assumption that fiscal retrenchment would have only very limited negative effects on growth. In fact, given that the private sector was concerned about the state of public finances in light of soaring deficit and debt levels, fiscal tightening was actually expected to raise confidence and ultimately growth.[3] However, as the crisis continued, it became apparent that the negative impact of fiscal adjustment on growth in the early years of the crisis had been greater than first anticipated. It is likely that the broad-based rise in implicit fiscal multipliers during the later years of the crisis is reflective of the fact that, as previously posited by Blanchard and Leigh, forecasters gradually adjusted the fiscal multipliers they applied to their forecasts as the crisis progressed.

Figure 1 Implicit fiscal multipliers in EDP recommendations issued by the ECOFIN Council between 2009 and 2015



Note: The left vertical axis reflects the average size of the implicit fiscal multiplier across EDP recommendations issued. For 2012H2, the average multiplier excludes Finland, for which the EDP rests on an implicit multiplier of close to 2. The reason we exclude Finland is that strictly speaking Finland did not need any structural effort to get out of EDP. Given that the recommended additional structural effort was in this case close to zero (and the structural effort enters the multipliers calculations in the denominator), the multiplier calculated is extremely sensitive to even small changes in structural effort around zero.
Source: European Commission, own calculations.

Implications for the estimation of 'true' ex-post fiscal multipliers

In terms of implications with regards to the unobservable 'true' ex-post fiscal multipliers, our results provide some insightful lessons that contrast with the previous research surrounding the debate. As a point of comparison, to infer meaning from the 'true' ex-post fiscal multipliers, Blanchard and Leigh's conclusions start from two hypotheses. First, they suggest that fiscal forecasters applied a 'standard' fiscal multiplier of 0.5 in their projections. Second, growth rates that sit below the initial projections indicate the extent to which this 'standard' fiscal multiplier has been underestimated, compared to the actual impact of governments' fiscal consolidation plans on growth. They conclude that, for a country sample broadly comparable to our own, and across forecasts by different international institutions, the 'true' multipliers were markedly above 1, implying that each euro of fiscal consolidation reduced output by more than this amount.

In contrast, our findings suggest that the 'true' ex-post multiplier remained below 1 at the height of the crisis. In concordance with Blanchard and Leigh, our analysis shows that the impact of fiscal retrenchment on growth was indeed larger than initially assumed by forecasters. However, we show that their initial assumption at the time was not what experts consider the 'standard', but markedly below this benchmark. These highly optimistic beliefs regarding the limited impact of consolidation on growth imply that the 'true' impact was larger, but not quite to the extent that Blanchard and Leigh suggest.

Our analysis benefited from the European Commission's increased transparency regarding the fiscal policy recommendations that are issued to EU member states under the EDP. More transparency regarding the applied fiscal multipliers would serve to enhance our understanding of the impact of forecasting by international institutions. It is our belief that this would, in turn, ultimately help to further improve policymaking.

Authors' note: The views expressed here are those of the authors and do not necessarily represent the views of the European Central Bank and the Eurosystem, and should also not be attributed to the IMF, its Executive Board, or its management.

References

Alesina, A and A Ardagna (2010), "Large Changes in Fiscal Policy: Taxes versus Spending", *Tax Policy and the Economy* 24(1): 35-68.

Blanchard, O and D Leigh (2013), "Growth Forecast Errors and Fiscal Multipliers", *American Economic Review Papers and Proceedings* 103(3): 117-120.

Blanchard, O and D Leigh (2014), "Learning about Fiscal Multipliers from Growth Forecast Errors", *IMF Economic Review* 62 (2): 179-212.

Gornicka, L, C Kamps, G Koester and N Leiner-Killinger (2019), "Learning about fiscal multipliers during the European sovereign debt crisis: evidence from a quasi-natural experiment", *Economic Policy* (forthcoming).

Gornicka, L, C Kamps, G Koester and N Leiner-Killinger (2018), "What did forecasters learn during the European sovereign debt crisis about the impact of fiscal policies on economic growth?", ECB Research Bulletin No. 49.

Ramey, V A (2019), "Ten years after the financial crisis: What have we learned from the renaissance in fiscal research?" *Journal of Economic Perspectives* 33(2): 89-114.

Endnotes

1 Blanchard and Leigh's findings first appeared in the October 2012 IMF World Economic Outlook and shortly thereafter in the American Economic Review Papers and Proceedings. An expanded version of the paper was published in the IMF Economic

Review in 2014. In the short paper, Blanchard and Leigh conducted their analysis primarily for the IMF forecasts. They also reported results for other forecasters, including the European Commission, which is the focus of our analysis.

2 The EDP scenario does not prescribe to what extent the recommended consolidation effort is to be distributed across government expenditure and revenue measures.

3 This was the conclusion of Alesina and Ardagna (2010), the main conclusions of which Alesina presented to European Finance Ministers at an ECOFIN meeting in spring 2010.