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Macroeconomic effects of fiscal adjustment: A tale of two approaches ☆

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We investigate the short-term effects of fiscal adjustment on economic activity in 20 OECD countries from 1970 to 2009. We compare two approaches: the traditional approach based on changes in cyclically adjusted primary balance (CAPB) and the narrative approach based on historical records. Proponents of the latter argue that it captures discretionary fiscal adjustment more accurately than the traditional approach. We propose a new definition of CAPB that takes account of fluctuations in asset prices and reflects idiosyncratic features of fiscal policy in individual countries. Using this new definition, we find that fiscal adjustments always have contractionary effects on economic activity in the short term; we find no evidence of expansionary (non-Keynesian) fiscal adjustments. Spending-based fiscal adjustments lead to smaller output losses than tax-based fiscal adjustment. These results are in line with the literature using the narrative approach, suggesting that the CAPB, when correctly specified, can be used as a measure of fiscal adjustments.

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1. Introduction

The recent global economic and financial crisis and the associated fiscal austerity in the Eurozone and elsewhere have resulted in a renewed interest in the relationship between fiscal reform and economic growth. Although there is widespread agreement that reducing public deficits and debt has important benefits in the long term, there is less of a consensus regarding the short-term effects of fiscal adjustment. In part, this is because of the oft-quoted examples of Denmark and Ireland, which experienced improved growth performance after periods of strict fiscal austerity in the 1980s.[1] Their experience defies the conventional Keynesian theory which predicts negative short-run economic effects of restrictive fiscal policy. Subsequently, Giavazzi and Pagano (1990), Alesina and Perotti (1997), Alesina and Ardagna (1998, 2010) and others sought to find other examples of such expansionary fiscal adjustments and argued that fiscal adjustment can stimulate economic growth even in the short term, in a phenomenon referred to as 'Non-Keynesian effects' or 'expansionary fiscal contraction'.

Typically, the empirical studies seeking evidence of expansionary fiscal adjustments rely on observing changes in the cyclically adjusted primary balance (CAPB). The CAPB is an indicator that captures discretionary fiscal policy and other noncyclical factors by excluding the automatic effects of business cycle fluctuations (through transfers, taxes and interest payments) on the budget.[2] However, Guajardo et al. (2014) criticize this approach on the grounds that using the CAPB can yield misidentified fiscal adjustment episodes. In particular, they argue that improvements in the CAPB due to stock-market booms and/or one-off fiscal revenues can be misclassified as fiscal reforms. They favor a narrative approach, based on careful study of historical documents to identify fiscal adjustments episodes. Applying this to a sample of OECD countries, they fail to identify any expansionary fiscal adjustments.

In this paper, we build on and extend the work of Guajardo et al. (2014). We consider 20 OECD countries so that our scope is similar to that of their paper. In contrast to their approach, we use the CAPB instead of the narrative approach. However, we modify the CAPB to take account of the problems that Guajardo et al. (2014) point out. In particular, we construct the CAPB measure so that it reflects fluctuations in asset prices and takes into account the heterogeneity of fiscal policy across countries. Using this new measure of fiscal adjustment, we obtain results that are very similar to those that Guajardo et al. (2014) obtain with the narrative approach. With our modified CAPB measure, we find no evidence of Non-Keynesian effects. Nevertheless, our results confirm that spending-based fiscal adjustments have more beneficial macroeconomic effects than tax-based fiscal adjustments, which is in line with the previous theoretical and empirical evidence.

This paper is organized as follows. Section 2 reviews the theoretical and empirical literature on the effects of fiscal adjustments. In section 3, we explain our new measure to identify fiscal adjustments and list the fiscal adjustment episodes that we identify. Section 4 outlines the empirical framework and presents the results. Section 5 examines the robustness of our results. Finally, section 6 concludes.

2. Related literature

2.1. Theory

There is a general agreement that fiscal consolidation and the resulting reduced government debt contribute to long-run economic growth. However, there is disagreement about the short-term effect. Keynesian economics predicts that a cut in government spending or an increase in taxes reduces the aggregate demand and income directly, which leads to negative multiplier effects on the output in the short term. As a result, government debt to output ratio may not be reduced much or at all because both output and tax revenues fall due to the contractionary effects of the fiscal adjustment.

[1] According to Giavazzi and Pagano (1990), the sharp fiscal contractions (primary fiscal deficit reduction equal to 10% of GDP in Denmark during 1983–1986 and 7% of GDP in Ireland during 1987–1988 were accompanied by average real growth of 3.6% and 3.7%, respectively.

[2] The CAPB is calculated by taking the actual primary balance (balance minus net-interest payment) and subtracting the estimated effects of business cycles on the budget.