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The growth impact of discretionary fiscal policy measures☆

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ABSTRACT

This paper looks at the impact of discretionary fiscal policy on economic growth for a sample of 18 EU countries over the period 1998–2011. The main novelty of this paper is the use, on the revenue side, of a dataset of fiscal measures based on the yield of actual legislative and budgetary measures, rather than approximations, such as changes in cyclically-adjusted variables. Using static and dynamic panel data techniques, we find that fiscal consolidation generally has a negative impact on growth in the short run, although some specific budget categories are not found to be statistically significant. In general, expenditure-based measures are found to have a slightly lower detrimental effect on growth compared to revenue measures, although the difference is not statistically significant. Among expenditure cuts, reductions in government investment and consumption are found to be growth reducing. Among revenues, indirect tax increases are found to have a particularly strong negative impact. Dynamic specifications suggest that consolidation reduces growth mainly in the year of fiscal adjustment, while future growth rates are affected only through the usual time persistence. Non-linear specifications indicate that spreading out consolidation may reduce the negative impact on growth slightly, and there is weak evidence that this is especially the case for revenue-based adjustment.

1. Introduction

This paper presents an empirical investigation of the growth impact of fiscal policy using a panel of 18 European countries over the period 1998–2011. Although this is not a new question, there is still a gap in the literature. In particular, most of the existing papers use changes in the cyclically-adjusted fiscal balances as a proxy for fiscal policies. On the revenue side, Riera-Crichton et al. (2012) argue that cyclically-adjusted revenues, which are usually computed using simple statistical adjustment methods based on times series, do not reveal the underlying policy choices very well. To overcome this difficulty, they suggest using tax rates, which are a better measure of the government's choice, rather than its outcome. Changes in tax rates, however, are only a small subset of the possible revenue reforms, as governments could also change thresholds, allowances or access to special tax regimes. We therefore use a new measure, which contains direct estimates of the yields of all legislative and budgetary fiscal policy changes, which are obtained from a unique data set developed within the European System of Central Banks (ESCB), the use of which was pioneered by Agnello and Cimadomo (2012). In this

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data set, the estimated yields of legislative changes have been vetted by ESCB experts. On the expenditure side, the paper defines a measure of discretionary spending as the gap between actual primary spending (net of social payments) and its trend defined as the previous year's spending uprated by inflation.

We look at the growth effect of actual measures, controlling for time and year effects and taking into account dynamic effects. We find that fiscal consolidation generally has a negative impact on growth, although some specific budgetary categories are found to be statistically insignificant. We never find a positive effect of consolidation on growth. Among expenditure measures, reductions in government investment and consumption are found to be growth reducing and among revenue measures, indirect tax increases are found to have a particularly strong impact. Dynamic specifications suggest that most of the effect occurs in the current year, with growth reductions in later years only due to persistence over time, i.e., a significant lagged dependent variable. Non-linear specifications indicate that spreading out consolidation may reduce the negative impact on growth only slightly, and there is weak evidence that this is especially the case for revenue-based adjustment.

The rest of the paper is structured as follows. Section 2 covers the related literature on fiscal consolidation and growth. Section 3 discusses the data and the empirical strategy used in this paper. Section 4 describes the empirical results and Section 5 concludes.

2. The literature on fiscal multipliers

The economic and sovereign debt crises, and the discretionary use of fiscal policy that followed, revamped the debate on the size and determinants of fiscal multipliers. A rather general consensus has emerged that in the short run, fiscal consolidation can be a drag on growth. Renewed attention has been given to the fact that there is not a single fiscal multiplier, but instead a multitude of multipliers, the size of which depends on a number of factors, such as the type of fiscal measure and the economic environment.

While the traditional Keynesian framework (i.e., a standard IS-LM model) predicts positive and large fiscal multipliers, as private consumption is assumed to increase in response to a spending shock, in neoclassical Real Business Cycle models (Baxter and King, 1993), fiscal policy is unable to influence output as government spending crowds out private consumption via a Ricardian (negative) wealth effect. Multipliers somewhere in between those predicted by the Keynesian theory and the RBC models are found when assuming some heterogeneity across private agents by including so-called "non-Ricardian" households (which consume their after-tax disposable income in each period) in New-Keynesian models (see Coenen and Straub 2005). In a recent study Riera-Crichton et al. (2012) summarize the findings of the literature and note that estimates of multipliers range from −2.5 to 4.0 in the theoretical literature, and from −2.3 to 3.6 in the empirical literature.

In this paper the main focus of analysis is on the composition of consolidation and its growth implications, and whether such effects are non-linear and affected by the economic environment. Still, the literature points to a number of other factors which matter for the size of the fiscal multipliers. Corsetti et al. (2012) and Ilzetzki et al. (2013) find supportive evidence of the Mundell–Fleming predictions as regards the differences in fiscal multipliers across exchange rate regimes. For a sample of 17 OECD countries Corsetti et al. (2012) find that under a fixed exchange rate the fiscal multiplier is positive and larger than under a flexible regime, net exports decrease while the real exchange rate appreciates. Unlike the traditional Mundell–Fleming model, the authors find that monetary policy becomes less accommodative under fixed exchange rate which leads to a real exchange rate appreciation. Differently from Corsetti et al (2012), Ilzetzki et al. (2013), for a sample of 44 industrialized and developing countries, find strong evidence of monetary policy accommodation under the fixed exchange rate regime. The authors conclude that differences in monetary policy accommodation are the main cause for differences in the size of fiscal multipliers across exchange rate regimes. Contrary to the prediction of the Mundell–Fleming model, the authors do not find evidence of a significant response of the current account to a spending shock under a flexible exchange rate, but rather of a negative response of private consumption. This is explained by the monetary policy response since when controlling for the role of monetary policy, private consumption increases in response to a government spending shock only when monetary policy is accommodating. The notion that an accommodative monetary policy leads to larger fiscal multipliers has been widely established in the literature. In this vein, a number of studies assessing the effects of fiscal policy at the zero lower bound confirm that fiscal multipliers are larger in a situation of liquidity trap. For example, Christiano et al. (2011) and Woodford (2011) find that in a liquidity trap, when the nominal interest rate is at zero, the increase in inflation that follows the rise in government spending reduces the real interest rate and stimulates private consumption.

The degree of trade openness also matters for the size of the fiscal multipliers. For example, Ilzetzky et al. (2013) find that the multiplier is smaller for countries more open to trade, this is explained by the fact that in this case part of the increase in aggregate demand leaks abroad via higher import demand. Financial fragility also contributes to larger fiscal multipliers. Corsetti et al. (2012) find that fiscal multipliers are markedly higher during financial crisis episodes and this might be due to the fact that a larger fraction of the population may be affected by liquidity constraints. Focusing only on the recent global financial crisis, Pyun and Rhee (2015) investigate the size of fiscal multipliers for a sample of 21 OECD countries. The analysis aims to shed more light on the interaction between the fiscal and monetary policy and their relevance for the size of the fiscal multipliers. Differently from the studies reviewed above, the analysis abstracts from the specific exchange rate regimes and aims to analyze independently the role of the fiscal-monetary policy interaction for the size of the multipliers. The authors find that during normal economic times, government spending is crowded out by reductions in net exports and investment. During crisis periods, when monetary policy is more accommodating, the size of the crowding out is negligible