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Fiscal policy rules for stabilisation and growth: A simulation analysis of deficit and expenditure targets in a monetary union

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Abstract

We analyse the effectiveness of fiscal policy rules for business cycle stabilisation in a monetary union using a quarterly macro-econometric model of Germany. The simulations compare a deficit target and an expenditure target under a range of supply, demand and fiscal shocks. Their effects are evaluated by their impact on prices and output. The analysis demonstrates that in general the deficit target of the stability pact leads to less stabilisation than an expenditure target. The results suggest that the deficit rule of the stability pact should be replaced with an expenditure rule augmented by medium-term debt targets.

JEL classification: E37; E62; F42

Keywords: Fiscal policy; International policy coordination; Simulation

1. Introduction

The paper compares the effectiveness of two fiscal policy regimes for business cycle stabilisation in a monetary union using simulation methods. This issue has become particularly important with the adoption of the stability and growth pact (SGP) in the euro zone in 1997. What had been intended to safeguard the stability of the core euro economies from time-inconsistent fiscal policies in peripheral member states has ironically become a constraint on the governments and on growth in the large euro zone economies. Most strikingly, Germany is undergoing a prolonged

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phase of stagnation while the German government is pursuing a pro-cyclical fiscal policy. In the German case, the SGP hence appears to reduce the effectiveness of the automatic stabilisers. We posit that fiscal consolidation using the SGP is feasible but it is achieved at a great cost in terms of foregone output growth.

The main focus of the paper is the analysis of two fiscal policy rules under the SGP. Fiscal policy is defined to encompass the level and composition of government spending. Using a quarterly macro-econometric model of Germany with seasonally unadjusted national accounts data, the simulation compares a deficit target and an expenditure target under a range of macro-economic scenarios, including temporary and permanent supply, demand and fiscal shocks. The effects of these shocks are evaluated by their impact on prices and output. We thus extend the usual comparison of alternative monetary policy rules to the area of fiscal policies within a monetary union (Haber, 2001; Taylor, 2000).

The simulation analysis demonstrates that in general the deficit target of the growth and stability pact leads to less stabilisation (that is less variation of output growth) than an alternative expenditure target. The results are clear for a negative demand shock with a deficit target having pro-cyclical and the expenditure target having anti-cyclical effects. The results are more complicated for a supply shock. Here it is not so obvious whether fiscal policy should stabilise economic development. The results suggest that the stability and growth pact in its current shape should be re-interpreted. Deficit targets should be replaced with expenditure targets and complemented by medium-term debt targets.

As a word of caution, we would like to state explicitly which questions the paper does and does not attempt to answer. First, we compare the effects of two obvious and relevant policy rules but we do not derive from first principles an optimal policy rule for a large, indebted euro zone economy. Second, we focus on an evaluation of two types of policy rules, not on the need for or the effectiveness of fiscal coordination itself. Third, we focus on the level and the composition of government spending, not on the taxation and revenue side of the economy. Fourth, we simulate the medium-term effects of two policy rules but we do not include in our simulation possible long-term behavioural responses of economic agents to each of these policy rules. Finally, we only simulate the effects of each policy rule for the German economy, not for the whole euro zone or the world economy. Having said this, we believe that our paper identifies an important shortcoming of the stability pact, which is often neglected in the policy debate.

The paper is structured as follows. Section 2 reviews key features of the stability and growth pact while Section 3 assesses the role of fiscal policy in a monetary union with a special focus on the advantages and disadvantages of deficit and expenditure targets. The empirical methodology and data concerns are presented in Section 4 while Section 5 analyses the main results. Section 6 concludes with a review of the policy implications of our findings.

2. The stability and growth pact

The current macro-economic policy debate in Europe is characterised by the stability and growth pact agreed in June 1997 in Amsterdam (Allsopp, 2002; Brück et al., 2003; Brück & Stephan, 2006; Brunila et al., 2002; Creel, 2002; Engwerda et al., 2002; Gatti and van Wijnbergen, 2002; Hughes Hallett & Piscitelli, 2002; Marín, 2002; Pisani-Ferry, 2002; Uhlig, 2002). The main purpose of the SGP is to coordinate fiscal policy in the euro zone to reduce the ability of individual euro-countries to boost spending while other euro-countries run a tight fiscal policy.

The pact requires each member state to consolidate its public finances (that is minimise its budget deficits) by aiming for a medium-term budget position of “close-to-balance or in-surplus”