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The unbearable tightness of being in a monetary union: Fiscal restrictions and regional stability

Evi Pappa[a,*], Vanghelis Vassilatos[b]

[a]CEPR, Departament de Economia y d' Historia Economica, Universitat Autonoma de Barcelona, Edifici B - Campus de UAB, 08193 Bellaterra, Barcelona, Spain
[b]Department of Economics, Athens University of Economics and Business, Patission Street 76, Greece

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Abstract

We study how constrained fiscal policy can affect macroeconomic stability and welfare in a two-region model of a monetary union with sticky prices and distortionary taxation. Both government spending and taxes can be used to stabilize regional variables; however, the best welfare outcome is obtained under some tax variability and constant regional inflations. We use a variety of rules to characterize constrained fiscal policy and find that strict fiscal rules coupled with a monetary policy that targets union-wide inflation result in regional inflation stability and the welfare costs of such rules are not as unbearable as one would expect. Fiscal authorities can enhance welfare by targeting the regional output gap, while targeting regional inflation is less successful since inflation stability is guaranteed by the central bank.

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1. Introduction

The creation of a monetary union implies that domestic monetary policy cannot be used to respond to region-specific economic disturbances. Interest rates, in fact, can no longer serve to meet regional targets for inflation and output and, for a region wishing to exert

*Corresponding author. Tel.: +34 93 5814695; fax: +34 93 5812012.
E-mail addresses: evi.pappa@uab.es (E. Pappa), vvassila@aueb.gr (V. Vassilatos).

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influence over its domestic economic conditions, fiscal policy is the only instrument left for maneuver.

The use of fiscal policy as a stabilization tool in a monetary union poses several questions: Can regional fiscal policy affect domestic macroeconomic conditions and how? Are country-members bound by fiscal constraints (as the ones imposed by the Stability and Growth Pact (SGP) in the European Monetary Union, EMU) able to offset the effects of shocks to regional variables? Can fiscal constraints be sustainable? What are their welfare consequences? Are there alternative arrangements to fiscal constraints that are welfare improving?

All these questions arise naturally in the EMU. The fiscal framework exemplified in the SGP attempts to combine flexibility, for coping with cyclical downturns, with discipline, for deterring negative externalities produced by individual members' irresponsible policies. This paper addresses these questions: It investigates how regional fiscal policy can affect regional inflation and output in a two-region model of a monetary union where agents derive utility from private and public spending, prices are sticky and taxes are distortionary, and analyzes the macroeconomic and welfare properties of different types of fiscal constraints.

In particular, we construct a DSGE model of a monetary union where regional government spending is financed with distortionary (income) taxation and study the dynamics of the economy under alternative fiscal rules when regions are subject to asymmetric productivity shocks.

We first obtain an analytical expression for the welfare criterion that can be used to compare outcomes of different policies and characterize the optimal monetary and fiscal policy problem under commitment. In the optimal solution regional inflations are stabilized, while taxes and government spending vary relatively smoothly. We, then, consider general rules for fiscal policy in the two regions that try to imitate the SGP requirements for fiscal policy performance and study the welfare and stability properties for different specifications of these rules. We formulate the fiscal policy rules using taxes and/or government spending as instruments. We assume that the fiscal instrument in each region responds simultaneously to changes in the real debt, or deficit, from some target level and/or can be used for regional stabilization purposes.

The tightness of fiscal constraints is not that unbearable in terms of welfare losses. Yet, when we contrast more flexible with rigid fiscal rules, we find that the fiscal authorities can improve domestic welfare by targeting the regional output gap, while targeting regional inflation is less effective when the central bank targets union-wide inflation. Our results are robust to the fiscal instrument used and to the fiscal target adopted. We also find that using government spending to consolidate debt might result in instability and the welfare losses associated with a government spending rule that targets regional debt are positively related with the usefulness of public expenditure. Finally, our theoretical predictions are consistent with the empirical results for US states in Canova and Pappa (2006) who find that the second moments of macroeconomic variables in states with different budgetary restrictions are economically and statistically similar.

The literature so far has mostly concentrated in analyzing monetary–fiscal interactions in a monetary union. Most studies highlight that countercyclical fiscal policy may create coordination failures between the central bank and regional fiscal authorities. Dixit and Lambertini (2001, 2003) provide an excellent review of this literature. Others have studied the desirability of fiscal constraints in a monetary union and reached conflicting