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# Active monetary policy, passive fiscal policy and the value of public debt: Some further monetarist arithmetic ☆

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**Abstract**

We compare the properties of a 'constant money growth rule' and a 'strict inflation targeting rule' in an intertemporal equilibrium model with flexible prices in which monetary policy is 'active', while fiscal policy is 'passive'. The paper shows that dynamic properties of the economy may differ significantly between the two monetary policy rules if public debt is issued in nominal terms. Under a constant money growth rule which allows for temporary deviations of inflation from target in response to shocks there is scope for revaluations of public debt, acting as automatic stabilizers of government debt dynamics. By contrast, a policy of strict inflation targeting implements the target inflation rate also outside the steady state and precludes such stabilizing revaluations. Owing to this feature, additional fiscal restraint may be needed which is not required under a constant money growth rule.


*JEL classification:* E52; E63; H62
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## 1. Introduction

As pointed out in the seminal contribution by Sargent and Wallace (1981), monetary policy by itself will not always be in a position to control the evolution of the price level, unless being appropriately supported by the fiscal agent. This insight reflects that in any macroeconomic model the government's budget constraint entails contributions of both monetary and fiscal policy. In terms of the widely used terminology introduced by Leeper (1991), the Sargent–Wallace result says that for the monetary agent to be able to control 'actively' inflation the fiscal agent needs to behave 'passively' in the sense that he accepts the residual role within the government's budget constraint, taking as given the behaviour of the active agent. [1] But how to enforce a credible mix of active monetary and passive fiscal policy? This question is of particular importance in the context of the European Monetary Union which is characterized by potential coordination failures and additional incentive problems arising from 'one money, but many fiscal policies' (Uhlig, 2003). Within this context, many economists have argued that it would be desirable to subject the fiscal agent to some kind of a rule which imposes certain limits on the government's borrowing behaviour (Chari and Kehoe, 1998; Sims, 1999). Evidently, the requirements of the Stability and Growth Pact prevailing in the European Monetary Union reflect such concerns.

Woodford (2001) has recently reemphasized, however, that the interaction between monetary and fiscal policy can never be one-way only. Specifically, regarding the effects of monetary policy on fiscal policy, Woodford stresses the effects of monetary policy on the real value of government debt (and the real debt service associated with it) through its effects on the price level, given that public debt is largely issued in nominal terms. Moreover, these fiscal effects of monetary policy can be potentially large, even if the traditionally considered channel, the seigniorage contribution to the government's budget, is negligible.

This paper takes the desirability of a combination of active monetary and passive fiscal policy rules for granted and investigates some of the implications of the revaluation channel of government debt for the design of such rules. The key idea is that because of this channel different monetary policy rules are likely to be associated with different government debt dynamics, restraining thereby the fiscal agent in different ways. To illustrate the potential strength of these differences, we present a small general equilibrium model with strong supply-side features in which the

[1] The possibility of price level adjustments which reconcile otherwise inconsistent claims of active monetary and active fiscal policy in the government's intertemporal budget constraint is the subject of the 'Fiscal Theory of the Price Level' as advanced by Woodford (1994, 1995) and Sims (1994). The equilibrium foundations of the theory are, however, subject to a substantial controversy (Buiter, 2002; McCallum, 2001). For summary treatments of the debate on the 'Fiscal Theory of the Price Level', see Carlstrom and Fuerst (2000), Christiano and Fitzgerald (2000), Bassetto (2002). In any case, the view associated with the 'Fiscal Theory of the Price Level' makes the case for fiscal rules even more compelling.