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Financing government expenditures in an open economy

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Abstract

We study the growth and welfare effects of alternative modes of government finance within a small open economy. Using a model that allows for currency substitution and income-tax evasion, we find that seigniorage finance has stronger negative implications for growth over income-tax finance, in countries with less-developed financial markets. This result is reinforced when in these countries income-tax evasion is limited, a large share of foreign currencies is circulating, and when foreign currencies are close substitutes to the domestic currency. From a welfare perspective, the least distortionary method of financing a given amount of government expenditures is by means of income taxes.

JEL classification: E63; F43

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1. Introduction

Different modes of public finance may have different implications for the macroeconomy. Consequently, assessing the relative costs of alternative forms of

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government finance is an important issue. This paper compares the long-run growth and welfare effects of seigniorage finance versus income-tax finance in the provision of a productive government input that is employed in private production. In this developing economy, the government's ability to collect revenue is affected by the fact that agents can evade an inflation tax by holding a foreign currency, as well as evade income taxes.[1]

A few studies have compared the effects of fiscal and monetary financing policies of government spending on growth and welfare. This research has concluded that both methods of finance are growth-distorting. The results, however, appear to be conflicting as to the preferred financing scheme. For example, Palivos and Yip (1995) and Espinosa-Vega and Yip (1999, 2002) suggest that seigniorage financing distorts growth less than income-tax financing. De Gregorio (1993), on the other hand, indicates that seigniorage is more detrimental to growth as long as changes in the rate of inflation have a substantial effect on the rate of return of bonds. Pecorino (1997) combines these views by recommending a simultaneous use of both policies.

A common characteristic of these studies is the use of a closed-economy framework. This, however, restricts the analysis since the economies that tend to rely on inflation taxation to generate a substantial portion of their revenue are small open economies. These economies are likely to face serious choices about alternative modes of government finance due to a low tax base, a corrupt tax administrative mechanism, or even a high level of political instability. Moreover, many of the theoretical studies on seigniorage and endogenous growth abstract from the feedback effect of inflation on seigniorage. Hence ignoring the fact that in an open economy inflation often leads to currency substitution.[2] As a result, these studies fail to account for the negative impact of currency substitution on revenue raised by seigniorage, and subsequently on the ranking of the financing policies. Furthermore, the costs associated with collecting income taxes may alter the economic effects of such a financing policy, and hence its effectiveness against the alternatives. Therefore, accounting for both income-tax evasion and currency substitution is important when ranking the financing options for governments in developing economies.

The current paper extends the existing growth literature on the relative costs/merits of different forms of government finance by building on the work of Palivos and Yip (1995). In particular, our analysis departs in three major directions. First, we abandon the closed-economy framework, and instead consider the effects of government revenue policies in a small-open-economy environment. Second, we model the presence of currency substitution, where we also allow the elasticity of substitution between domestic and foreign currencies to vary. In this framework, we introduce the use of money through a liquidity-in-advance constraint that requires

[1] Balino et al. (1999) provide compelling evidence of the pervasiveness of currency substitution in many developing countries. Giovannini and Turtelboom (1994) and Calvo and Végh (1996) both provide extensive reviews of the very broad theoretical and empirical literature on currency substitution.

[2] Barnett and Ho (1998) provide a notable exception. The authors address asset substitution in a two-country, endogenous growth framework.