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Tax evasion and Ricardian equivalence

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Abstract

This paper studies whether the Ricardian equivalence holds in a context with tax evasion. In such a context, the degree of uncertainty becomes endogenous since agents control the distribution of their future income through their income report. We find that Ricardian equivalence holds when proportional fines are imposed on evaded taxes, but does not hold when the fines are on the amount of unreported income. We also show that it is possible to explain the empirical negative relation between tax rates and declared income when the path of government spending remains unchanged.

JEL classification: E62; H26
Keywords: Tax evasion; Ricardian equivalence

1. Introduction

The aim of this paper is to analyze when the Ricardian equivalence proposition holds in a framework where uncertainty arises as a consequence of tax evasion. The Ricardian equivalence proposition says that, if a change in current taxes is completely offset by a change in future taxes, the consumption path of individuals remains unchanged when the government spending path is not modified (Barro, 1974). There is a large body of literature that analyzes whether this proposition holds under uncertainty. For example, Barsky et al. (1986) introduce individual uncertainty about future income and show how a tax cut coupled with a future

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income tax increase can stimulate consumer spending through the precautionary motive for saving. Feldstein (1988) considers a model with altruistic individuals where income uncertainty implies that bequests are also uncertain and that there is a positive probability of leaving zero bequests. The resulting corner solution for equilibrium bequests causes a failure of Ricardian equivalence since individuals cannot offset the change in the calendar of payments to the government by means of intergenerational transfers. Finally, Strawczynski (1995) analyzes the sources of the Ricardian equivalence failure when either current or future income is uncertain and the non-negativity constraint on bequests is binding in some states of nature.

In all the aforementioned models, the nature of income uncertainty is exogenous. In this paper we will present a model where uncertainty about future income arises because taxpayers can evade taxes and they may be audited by the tax authorities. Thus, whereas uncertainty is completely exogenous in the previous models, in our model the degree of uncertainty can be controlled at some extend by the taxpayers, since the amount of declared income determines the distribution of future income.

I consider a model where individuals live for two periods. The young individuals must decide both the amount of income they want to report to the tax authorities and the amount they want to save. There is uncertainty in the second period since, if an agent is inspected by the tax authorities, his saving will be reduced by the fine that he has to pay. In this context, we will investigate the effects both on savings and on declared income (and, as a by-product, on consumption) of a variation in the tax rate that leaves unchanged the level of government spending. This means that, if the tax rate is increased individuals will be compensated by a reduction in their future lump-sum taxes. Note then that our analysis is the typical Ricardian one: we study the effects of changing the financing policy for a given path of government spending. Of course, all the fiscal unbalances incurred by the government generate the corresponding change in the outstanding public debt.

We find that the Ricardian equivalence proposition fails to hold when the penalties on evaders are proportional to the amount of unreported income, while the proposition holds when penalties are proportional to the amount of evaded taxes. When fees are set on evaded income, the result we obtain is similar to the one appearing in the aforementioned papers. However, the mechanism at work is now endogenous. In fact, we show that evasion increases with the tax rate and this generates more uncertainty in the second-period income, since there is an increase in the gap between the disposable income of an audited individual and the disposable income of an individual who has not been inspected. Therefore, in this context the income tax is harmful, since it forces taxpayers to misreport their income, and consequently to increase their precautionary savings. Such precautionary savings are indeed costly, since young agents are forced to consume less that they would have chosen if proportional taxes and fees were absent. On the other hand, the Ricardian equivalence proposition holds under penalties that are