

Tax evasion and the optimal inflation tax

Juan Pablo Nicolini^{a,b,*}

^a *Universidad Torcuato Di Tella, Minones 2159, (1428) Buenos Aires, Argentina*

^b *Universitat Pompeu Fabra, Barcelona, Spain*

Accepted 11 September 1997

Abstract

We developed a simple monetary model to study the effects of tax evasion on the optimal inflation tax. The model is constructed so that inflation might be an indirect way of taxing the underground sector of the economy. We show that while there are theoretical reasons for positive optimal inflation rates, the effects are quantitatively small, even in countries with large underground sectors. We calculate the optimal nominal interest rate for Peru to be between 7% and 19%, despite the fact that its underground sector is close to 40% of measured GNP. According to our calculations, the welfare gain of using inflation to tax the underground sector is also very small. © 1998 Elsevier Science B.V.

JEL classification: E31; E52; H26

Keywords: Inflation; Underground economy; Friedman rule

1. Introduction

In this paper, we explore the relationship between tax evasion and the optimal inflation tax. We construct a model in which, following Chari et al. (1993), in the absence of an underground sector the Friedman rule, i.e., a zero nominal interest rate, is optimal. We then show that if there is an underground sector where cash is used for transactions, the optimal nominal interest rate is positive. A nice feature of our model is that we can easily match the key parameters that determine the

* Corresponding author.

optimal nominal interest rate to observations on real economies. Thus, we can quantify the effect of tax evasion on the optimal inflation tax. The main conclusion we draw from the numerical work is that the effect seems to be very small, even in countries like Peru where, according to the work of de Soto (1987), the underground sector accounts for roughly 40% of GDP.

The question of the optimum inflation rate has been a central issue in monetary theory since the seminal contribution of Friedman (1969). He argued that the optimal monetary policy, defined as the one that maximizes consumer surplus, is characterized by a nominal interest rate equal to zero. The conditions under which this policy, known as the Friedman rule, is optimal, has been the subject of many studies in the last twenty years.¹ For example, it has been shown that if the tax system is inefficient, in the sense that ordinary taxes are costly to implement, the Friedman rule is not optimal—see Vegh (1989) and Aizenman (1983). In these models, the inefficiencies were introduced through ad hoc collection costs functions. A problem with that modeling strategy is that, as there is no clear mapping from the ad hoc cost function to real data, it does not offer a reasonable framework for quantitative evaluations. Thus, these models are unable to say how far apart from the Friedman rule the nominal interest rate should be. In addition, by assuming a single cost function, these models cannot isolate the effect of tax evasion from the effects of, say, tax collection or tax enforcement costs. Our model considers tax evasion only and offers a natural way to quantify its effects on the optimal inflation rates.

In our model, there is a continuum of markets with locations indexed by the unit interval. We model tax evasion by assuming that the government cannot be present in a subset of the markets, and therefore cannot enforce the tax laws in those markets. To the extent that cash is used in the underground markets, inflation may be an indirect way of taxing the underground goods. The idea of using inflation to tax the underground economy has already been used by Canzoneri and Rogers (1991). They focused on the cost and benefits of building currency unions, and did not address the issue of the optimal inflation rate. There is no interesting trade-off between inflation and alternative taxes in their model. We do explore more deeply the relationship between tax evasion and the optimal inflation tax.

The analysis of the paper is normative; it does not aim at explaining why inflation rates in, say, Peru, were very high during the eighties. Rather, its aim is to determine whether the high degree of tax evasion should be considered in the design of optimal monetary policy when there are alternative ways to finance expenditures. Along the paper, to make the Ramsey problem interesting, we

¹ Phelps (1973); Lucas and Stokey (1983); Woodford (1990); Chari et al. (1993) and Correia and Teles (1994, 1996) are examples of this.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات