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Economics Letters 89 (2005) 207–211

economics letters

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Some implications of the unofficial economy–bureaucratic corruption relationship in transition countries

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Received 23 November 2004; received in revised form 6 December 2004; accepted 18 May 2005
Available online 27 June 2005

Abstract

This paper shows why some countries are trapped in an equilibrium with high unofficial economic activity and corruption while other countries are not. The potential for different outcomes follows directly from the complementary nature of unofficial economy and corruption activity.

Keywords: Tax evasion; Bureaucratic corruption; Complementary activities; Transition countries

JEL classification: H26; K42

1. Introduction

There is strong evidence that the unofficial economy is positively related to bureaucratic corruption in transition economies (Johnson et al., 2000; Friedman et al., 2000). One explanation for this linkage is that a complementary relationship exists between these activities, which in turn affects the nature of the impact on these activities of a common set of factors such as firm profitability, the tax burden (Johnson et al., 2000), auditing rates and penalties (Becker, 1968), and culture (Casson, 1991).

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0165-1765/$ - see front matter
doi:10.1016/j.econlet.2005.05.027

The purpose of this paper is to develop a model that formally links the unofficial economy with bureaucratic corruption, and to investigate the impact of key variables on these two activities. The paper focuses on tax evasion as the unofficial economic activity, while bureaucratic corruption takes the form of bribery.[1] The model differentiates firms/tax inspectors so they can be separated into those that evade taxes/take bribes and those that do not. The model also explicitly links the decisions of firms and tax inspectors;[2] the resulting complementary relationship between their decisions is critical to the results of the model.

The paper shows that while higher profits and taxes result in more tax evasion and greater corruption, the standard intuitive result that greater auditing of firms and larger penalties will reduce tax evasion and corruption only holds when both tax evasion and corruption are relatively low. When tax evasion and corruption are high, the seemingly perverse result emerges that greater auditing and larger penalties lead to more cheating and corruption. This result provides additional insight into why some countries appear trapped in an equilibrium characterized by high unofficial economic activity and corruption (see Friedman et al., 2000, for alternative explanations).

2. The model

Consider two sets of agents: firms, whose profits are subject to taxation; and tax inspectors, who audit firms and enforce penalties for tax evasion. Firms must decide whether to pay taxes; those that cheat and are caught by a corrupt tax inspector can offer to pay a bribe to escape the penalties. Tax inspectors that detect cheating must decide whether to accept the bribe and engage in corruption or to enforce the penalty.

In their decision to cheat, firms consider how widespread corruption is among tax inspectors. Likewise, in making their bribery decision, tax inspectors consider the degree of tax evasion. We first examine the firms' decision, followed by an examination of the tax inspectors' decision and the resulting equilibrium. Comparative static analysis is then undertaken to show the conditions under which greater auditing and larger penalties lead to more cheating and corruption.

2.1. Firms' decision

Firms differ in their individual costs of cheating on taxes, where the individualized cost of cheating is $c(\beta)=\mu\beta$, $\beta(\beta\in[0,1])$ is a differentiating attribute and μ is a non-negative cost parameter that is constant across firms.

This differentiated cost is related to a number of factors, such as the firm's attitudes toward the state and its laws (Casson, 1991), as well as the ability of the firm to engage in the transactions associated with tax evasion (e.g., keeping two sets of books).

[1] A survey in seven Balkan counties ranks custom offices and tax inspectorates as the most corrupt state institution; in 2002, 69.6% of custom officers and 63.9% of tax inspectors were believed to be corrupt (SELDI, 2002).

[2] Models that examine the linkage between decisions of firms and inspectors are found in Besley and McLaren (1993), Mookherjee and Png (1995), and Chander and Wilde (1992). The first two studies focus on the nature of the inspector's compensation, while the latter examines the auditing undertaken, the taxable income reported and the tax revenue generated.