

Shadow economies around the world: novel insights, accepted knowledge, and new estimates

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Abstract This paper is a first attempt to study the impact of enforcement on the shadow economy. Using a MIMIC model, we find that a higher share of sub-national government employment and the aspiration of public employees to follow rules significantly deter shadow economic activities. Our results also confirm previous findings: Increased burdens of taxation and regulation as well as the state of the “official” economy are important determinants of the shadow economy. The estimated weighted average informality in 162 countries around the world, including developing, Eastern European, Central Asian, and high-income OECD countries, is 17.1% of “official” GDP.

Keywords Shadow economies · Quality of institutions · Enforcement · MIMIC Model

JEL Classification O17 · O5 · D78 · H11 · H26

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1 Introduction

Information about the extent of the shadow economy, who is engaged, the frequency of these activities, and their magnitude is crucial for making effective and efficient decisions regarding the allocations of a country's resources in this area. Unfortunately, it is very difficult to get accurate information about shadow economy activities on the goods and labor market, because all individuals engaged in these activities do not wish to be identified. Hence, doing research in this area can be considered as a scientific passion for knowing the unknown.

Although substantial literature exists on single aspects of the hidden or shadow economy and comprehensive surveys have been written by Schneider and Enste (2000) as well as Feld and Schneider (2010), the subject is still quite controversial as there are disagreements about the definition of shadow economic activities, the estimation procedures, and the use of their estimates in economic analysis and policy aspects.¹ Large shadow economies in developing countries are associated with a number of serious problems, e.g. insufficient fiscal capacities, which may result in poor growth performance (Besley and Persson 2010). Shadow economic activities are also significant and alarming in developed countries. The recent debt crisis in Greece has demonstrated the negative outcomes of a significant shadow economy (around 30% of official GDP in 2007) on tax bases and social security systems. Spain, Portugal, and Italy also face a critical budgetary situation.

Facing budgetary pressure, governments are likely to search for effective instruments controlling the shadow economy in order to increase the tax base and relax their budget constraint. Reforming the tax and social security systems and reducing the regulatory burden are established and widely used policy instruments to improve the dynamics of the official economy. However, in most countries not registering or paying taxes is a punishable offense and governments therefore try to uncover those agents that are operating informally. Hence, a further effective direct policy instrument to deter the shadow economy might be enforcement as increasing the probability that working in the shadow economy will be discovered reduces the expected gains from informality (Allingham and Sandmo 1972). Surprisingly, the literature has not paid much attention to this policy instrument.

The goal of this paper is twofold. First and most importantly, we empirically study—alongside taxation and regulation—the important determinant of enforcement using different measures. To our knowledge, this has not been done in the literature and this paper is a first attempt to fill this gap. Second, we undertake the challenging task of estimating the shadow economies for 162 countries all over the world and to provide some insights into the main causes as well as sizes and trends of the shadow economies between 1999 and 2006/2007 using a unique database. This is an improvement compared to previous work, because we successfully “created” a unique dataset and used the Multiple Indicators Multiple Causes (MIMIC) estimation method for all countries with the explicit goal to have a comparable shadow economy data set.²

¹ Compare the different opinions of Tanzi (1999), Thomas (1999), Giles (1999a, 1999b) and Pedersen (2003).

² A more comprehensive version of this article has been published in Schneider et al. (2010a, 2011).