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# Military versus non-military government spending and the shadow economy



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### ABSTRACT

Using recent cross-national data, this research examines the determinants of the shadow economy, focusing on the relative effects of military and non-military government spending. Results show that, other things being the same, nations with larger military spending have smaller shadow economies, while the effect of non-military government spending is statistically insignificant. These findings stand up to various robustness checks.

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## 1. Introduction

Shadow economy is rampant across the world, undermining institutions and governments' ability to raise tax revenues and manage the economy.<sup>1</sup> Businesses operating underground escape regulatory scrutiny (e.g., whether they are adhering to environment standards), fail to obtain permits or licenses

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<sup>1</sup> Shadow or underground economy refers to economic activity that is included in a country's official GNP, but is unregistered in the official sector.

and do not pay taxes (which results in under-provision of public goods). Thus, controlling the spread of the shadow economy is a goal of policymakers.

In spite of the difficulties of adequately measuring its extent (see [Frey and Weck-Hanneman, 1984](#)), various constituencies have shown an interest in the shadow economy. For instance, besides policymakers, researchers have also been interested in examining the causes and effects of the shadow economy ([Dreher et al., 2009](#); [Gërzhani, 2004](#); [Johnson et al., 1997](#); [Schneider, 2011](#); [Schneider and Enste, 2000](#); [Tanzi, 1982](#)) and there seems to be some agreement on a few significant causes and effects. For instance, better institutions and economic freedom seem to limit the shadow sector. However, not all aspects of the shadow economy are well understood, providing impetus for the present work, which focuses on the causes of the shadow economy.

This research adds to the extant literature by examining whether the type of government spending has a significant bearing as a cause of the shadow economy (for an overview of the respective literature, see [Hartley and Sandler \(1995\)](#) for military spending and [Schneider \(2011\)](#) for the shadow economy). In particular, we compare the effects of military and non-military government spending on the prevalence of the shadow sector across a large sample of nations. Government spending can affect the shadow economy when government suppliers operate in the shadow sector either via direct production or through outsourcing and when government enforcement better monitors the underground economy. However, not all government spending is alike and we distinguish between military and non-military spending.

Military spending is qualitatively different from other government spending in many ways. One, military procurements follow more stringent acquisition procedures and quality requirements than non-military spending ([Hartley, 2004](#)). Two, military spending is generally sanctioned by the government, separately from other types of spending. Three, there is relatively little flexibility in moving military spending to other uses, unlike other spending. Four, in nearly every nation, the allocation of military spending is centralized, while non-military spending may be allocated by central, state or local governments. Whereas centralization might present different oversight, decentralization can involve more middlemen ([Teobaldelli, 2011](#)). Thus, military and non-military spending are likely to have dissimilar effects on the shadow economy.<sup>2</sup>

Military spending has been changing across nations, prompted by exogenous factors (conflict) and internal factors (budgets, political factors), and this variability has been uneven across nations (see [Hewitt, 1992](#); [Kimenyi and Mbaku, 1996](#); [Sivard, 1993](#)). According to [Fig. 1](#), military spending, non-military spending and the shadow economy on average have been falling since 1999, although at different rates. For instance, the size of the shadow economy as a percent of *GDP* fell from 34% in 1999 to 31.25% in 2007. Likewise, military spending (2.8–2.1%) and non-military spending (13.55–13.4%) as a percent of *GDP* have decreased from 1999 to 2007. However, these figures vary considerably for each country. According to a recent release by the Stockholm International Peace Research Institute, while the overall military spending worldwide fell by 0.5% in real terms from 2001 to 2012, Asia, Eastern Europe, the Middle East and North Africa, as well as Latin America, China and Russia increased their expenditures over the same time period (see [http://www.sipri.org/media/pressreleases/2013/milex\\_launch](http://www.sipri.org/media/pressreleases/2013/milex_launch)). [Fig. 2](#) illustrates the (negative) correlation between military spending and the shadow economy.<sup>3</sup> These figures mask qualitative differences between military and non-military spending and the formal analysis below examines their relative effects on the prevalence of the shadow economy. In the context of this research, we will examine how the two main forms of government spending affect the prevalence of the shadow sector. Any significant differences in the impact would have useful public policy implications.

The paper proceeds as follows: Section 2 discusses the model and the data employed, Section 3 provides the empirical results, and concluding remarks are given in Section 4.

<sup>2</sup> Considering a somewhat different dimension, [Goel and Saunoris \(2013\)](#) examine the effect of military participation in politics on cross-national corruption.

<sup>3</sup> It should be noted that the potential outlier given by the data point located to the far right in [Fig. 2](#) is Eritrea and is not included in the analysis due to lack of observations for some other variables.

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