Chapter 10
A Panel VAR Analysis of the Shadow Economy in Europe and MENA

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ABSTRACT

The objective of this chapter is to analyze empirically the potential dynamics of the relationship among the size of the shadow economy, fiscal burden and the official economy. The empirical analysis is based on the size estimates of the shadow economy in 17 developed and 11 transition economies of Europe for the period 1999-2013 and in 16 economies of Middle East and North Africa for the period 1999-2007. Direction of causal relations among shadow and official economies and the fiscal burden is investigated by exploiting the panel vector auto-regression approach and the associated impulse response analysis, which directly account for the potential endogeneity of the variables of interest. Findings mostly confirm the view that shadow and official economies are substitutes, and the dynamic effects of fiscal burden on the shadow economy are not as strong and clear as expected in the regions in question.

INTRODUCTION

Economic activities that are named as shadow, informal, hidden, unobserved, unrecorded, underground, black, or unofficial have always been on the agenda of policy makers for years in both developing and developed economies. Estimating the size of economic activities incorrectly due to the presence of a large shadow economy may result in allocational inefficiencies in policy decisions, which put economies into the vicious circle of poor institutional quality. While poor quality of public administrations constitutes the basis for shadow economies to grow, large shadow economies, in return, erode public service quality by stimulating bribery to escape from taxation, detection and punishment, and by curbing the tax revenues that should finance public good provision and infrastructure investment. In this sense, econo-

DOI: 10.4018/978-1-5225-0053-7.ch010
mies in the Middle East and Africa, and the transition economies of Europe and Asia are of interest, as these economies are experiencing institutional transformation towards a universally accredited market mechanism with relatively large shares of shadow economies. In such immature economies, incomplete market structures together with weak institutional features discourage economic agents’ compliance to legal requirements.

Therefore, the presence of large shadow economic activities is one of the crucial problems of developing economies which should be minimized not only for the sake of national good governance, but also to achieve international credibility in order to encourage inflows of foreign investment. Moreover, the size of a shadow economy should be minimized also because it hinders economic development as a source of economic uncertainty and as a type of social capital deficiency. The reason for the presence of larger shadow economies in developing areas compared to globally integrated advanced economies can be explained by regressive dynamics resulting from conformist aspects of societies and institutions rooted in cultural and moral values as well as in economic endowments.

The presence of shadow economies in most developing countries is characterized with inertia because of unwilling authorities and institutional incompetence, beside several economic reasons, such as, heavy fiscal burdens, high unemployment rates, high costs of doing business, etc. The close association of large shadow economies with low levels of economic development can be observed in the estimates of Buehn and Schneider (2012a), where the average Gross Domestic Product (GDP) share of the shadow economies in transition countries and in emerging and developing economies appear to be about twice that of those in the high-income OECD economies. That is, the average ratios of the shadow economy to official GDP lie between 8% and 29% in OECD countries, while they lie between 17% and 62% both in transition countries and in the Middle East and African countries.

Knowledge about the size of the shadow economy is an important concern for fiscal policy makers in developing economies, particularly, in conducting effective revenue policies. However, complications due to the interrelation between shadow activities and the sizes of the tax burden and the tax base generate controversies in policy decisions. The presence of overburdened taxpayers in an economy may be either the cause or the outcome of the shadow economy. Similarly, while the presence of the shadow economy may erode the tax base in an economy due to undeclared earnings, income earned from shadow activities may increase the tax base, if it is spent immediately in the official economy (Schneider & Enste, 2000, pp. 77-78). These ambiguities constitute a basis for the discussion of optimality in the size of the shadow economy and in the level of the tax burden.

Thus, in practice, while some policy makers are reluctant to fight against shadow activities, some are keen for reducing the size of the shadow economy. One problem in measuring the size of the shadow economy is the lack of a precise definition of the shadow activities. Activities that escape from the official estimates of the GDP can be categorized depending on whether they are legal or illegal. However, because illegal activities such as, drug dealing, prostitution, gambling, and smuggling cannot be detected and quantified, the size of the shadow economy can be measured through estimating the avoided amounts of payments and obligations to public authorities (Schneider & Williams, 2013).

In a joint publication of the OECD with the International Labour Office (ILO), the International Monetary Fund (IMF), and the International Statistical Committee of the Commonwealth of Independent States (CIS), the shadow economy, the so called the non-observed economy (NOE), is defined as activities that are under-ground, illegal, informal, missed because of deficiencies in the basic data collection program, or undertaken by households for their own final use (OECD, 2002, p. 37). The non-observed size of the shadow economy is estimated frequently by a latent-variable estimation approach