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# GROWTH AND INFORMALITY: A COMPREHENSIVE PANEL DATA ANALYSIS

**Ceyhun Elgin***
*Bogazici University*

**Serdar Birinci**
*University of Minnesota*

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In this paper we empirically explore the impact of the presence of informal economies on long-run economic growth. Using a novel panel dataset of 161 countries over the period from 1950 to 2010 we obtain an inverted-U relationship between informal sector size and growth of GDP per capita. That is, small and large sizes of the informal economy are associated with little growth and medium levels of the size of the informal economy are associated with higher levels of growth. We also observe that in high (low) income economies, informal economy size is positively (negatively) correlated with growth. Moreover, when we decompose growth into several components using a simple growth accounting framework, we find that informality is mainly associated with growth in TFP and that this association is different in high and low-income economies.

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## I. Introduction

One of the most debated issues in economics is the identification of the main determinants of long-run economic growth. Although our understanding of the

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* Elgin (corresponding author): Bogazici University, Department of Economics, Natuk Birkan Kat:2, Bebek, 34342, Istanbul – Turkey; email: ceyhun.elgin@boun.edu.tr; telephone: +90-212-359-7653. Birinci: University of Minnesota, Department of Economics, 1925 4th Street S. Hanson Hall: 4-101 55455, MN, USA; email: birin001@umn.edu.

topic has improved significantly, various questions on growth still remain under-investigated. One such issue is the impact of the extent of informality on economic growth.

To address this gap in the literature, in this paper we bring two strands of the literature together and provide empirical evidence on the impact of the presence of the informal economy on growth of real GDP per capita for a panel of 161 advanced and emerging market economies in the period from 1950 to 2010. Taking into account a wide range of determinants of growth, as well as various different econometric specifications, we obtain an inverted-U relationship between informal sector size and growth of GDP per capita. That is, our results imply that small and large sizes of the informal economy are associated with little growth and medium levels of the size of the informal economy are associated with higher levels of economic growth. When we further examine the roots of this non-linearity, we observe that the level of GDP per capita significantly interacts with the relationship between informality and growth. Specifically, in high (low) income economies, informal economy size is positively (negatively) correlated with growth. Moreover, when we decompose growth into three different growth accounts using a simple growth accounting framework, i. e. growth in total factor productivity (TFP), growth in capital-output ratio and growth in labor, we find that a larger informal economy is associated with lower growth rates of labor and capital-output ratio and a higher growth rate of the TFP. In other words, informality is negatively related to two of the three growth accounts and positively related to one. Finally, we also show that the association between the three growth accounts and informality significantly interacts with GDP per capita, as well. We argue that this final observation might provide the key for the non-linearity of growth-informality relationship.

The rest of the paper is organized as follows: In the next section, we provide a comprehensive review of the related literature. In the third section, we describe the empirical methodology as well as our dataset. Next, in the fourth section we present the results of our benchmark empirical analysis. Then, in section five we describe a theoretical growth accounting framework through which the informal economy might be associated with economic growth and its accounts. In this section we also present empirical results on the relationship between informality and growth accounts. Finally, in the last section we conclude.