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Under-reported income of Russian households

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Abstract

In the proposed paper, an attempt is made to estimate the proportion of unstated income for Russian households based on micro data. An overview of microeconomic approaches to estimating the scale of under-reported income is provided. These approaches are weakly represented in the national literature, so their strengths and weaknesses are also analyzed. A theoretical model of household consumer behavior is described that allows the size of under-reported income to be estimated. The structure of household incomes and expenditures is studied based on an RLMS sample for 2012. The model is estimated using household subsamples based on the type of household and household income. The estimation technique utilizes regression variables and random effects. The resulting subsample estimates were applied to the general population and compared with those obtained by other researchers using alternative methods and other data. A comparison is made to estimates of under-reported income developed for British households.
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1. Introduction

Under-reported income for households is one side of the shadow economy, whose definition includes those economic activities and the income derived from them that circumvent or otherwise avoid government regulation, taxation or observation (Del'Anno, 2003). Although these activities are unrelated to the production of criminal goods and services, they are conducted in a clandestine manner and remain outside of the social and pension security system. The shadow

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economy includes covert production, income and expenses for end consumption and accumulation that are hidden from the statistics.

Typically, the size of the shadow economy is assessed in proportion to the gross domestic product. Conventional wisdom says that in developed countries it does not exceed 10% to 12% of GDP; in developing countries, it can reach 40% to 45%; and in transition economies, it accounts, for 22% to 25% of GDP (Burov, 2012).

In modern Russia—where, according to survey by the World Bank, 2012, half of the GDP is produced in the informal sector—the prevailing shadow economy is a particularly acute problem. In addition to adversely affecting the sociopolitical and economic life of the country, this phenomenon also undermines its international reputation.

The majority of Russian and foreign research papers on the shadow economy address the macroeconomic level, revealing that part of the economy—measured as a share of the GDP—that is hidden from taxes. The methods for evaluating the size of the shadow economy are based on certain macroeconomic indicators linked to the amount of goods and services produced within the country. Macroeconomists have a wide array of officially published statistical data at their disposal, and they utilize an extensive set of theoretical methods. However, the aggregate nature of macroeconomic data, while revealing the big picture, does not take into account the heterogeneity of contributions made by different social groups to the shadow economy, thus impeding the development of targeted measures that could pull household activities out from the shadows.

The alternative approach studies microeconomic data obtained from household budget surveys. It determines the size of the shadow economy based on the estimated share of income hidden by households. Unlike macroeconomics, the microeconomic approach provides access to the individual characteristics of surveyed subjects and analyzes the particular aspects of their consumer behavior. The advantage of this approach is that it is not linked to the direct accounting of tax revenues paid by households, thereby potentially enabling a more realistic estimate of the size of the shadow economy. Sample surveys to assess the shadow economy are used in many countries. The inconvenience of these methods is associated with the standard defects in all surveys. The results largely depend on the willingness of respondents to cooperate; however, the majority of respondents are reluctant to acknowledge fraudulent behavior, and thus, their responses are of questionable reliability. (On the other hand, the respondents' cooperation is not for issues related to their sources of income and spending on major purchases). Another disadvantage is that surveys cannot cover all clandestine activities and all income groups (respondents from high-income segments of the population who have the largest proportion of concealed revenue are not available for interviews). For these reasons, this approach always produces an underestimation.

As research for the OECD countries (Kirienko and Ivanov, 2013) shows, the highest estimates of the shadow economy are yielded by monetary methods (demand for cash, volume of transactions in the economy, and the ratio between cash and deposits). Additionally, there are the tax gap methods (measuring the discrepancy between declared income and income after inspection), with the lowest estimates obtained in the analysis of sample population surveys. Table 1 illustrates the gap in the estimated scale of the shadow economy in Russia, as obtained by different methods in different years.