

Прикладная эконометрика, 2023, т. 69, с. 28–47.
Applied Econometrics, 2023, v. 69, pp. 28–47.
DOI: 10.22394/1993-7601-2023-69-28-47

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Price elasticities revisited: The effect of price changes caused by taxation on the amount of alcohol consumed

Price elasticity is an important indicator of alcohol consumption. The success of an alcohol policy largely depends on how sensitive the demand is to the price. The purpose of this paper is to determine the effect of vodka price changes on the amount of vodka and pure alcohol consumed by Russian citizens exploiting the variation caused by price regulations, and in particular, taxation. Demand for alcohol is sensitive to its price, as abundant research has shown. However, the price of alcohol, in turn, may depend on demand. To overcome the endogeneity, we used a sharp change in excise tax observed in Russia in 2011 to model the price of vodka using the regression kink design. Based on nationally representative households and individual survey data, we also used the Arellano–Bond method to take into account habit formation. Our results are close to those obtained in other countries but differ from price elasticity values calculated in some work based on Russian data. The results confirm the effectiveness of the tax policy in those years when it increased the real prices of alcohol.

Keywords: alcohol consumption; excise tax; price elasticity; regression kink design; Arellano–Bond method; Russia.

JEL classification: H39; I12; I18; D12.

1. Introduction

Russia is one of the countries with high alcohol intake and the most severe consequences of alcohol abuse. However, in the last decade, there has been a clear trend toward a reduction in the consumption of pure alcohol per capita (APC). Many researchers believe it to be the result of the alcohol policy and call it a ‘success story’ (WHO, 2017). However, alcohol consumption is influenced by numerous factors. In 2009, Russia faced a decline in GDP, and then a period of economic stagnation, which could reduce alcohol consumption (Rhum, Black, 2002). Also, the group of potential alcohol consumers included new young cohorts refusing alcohol or preferring light drinks (Radaev et al., 2020; Kueng, Yakovlev, 2021). Regardless, Russia remains one of the countries suffering from excessive alcohol consumption and requires alcohol policies to be implemented and correctly evaluated.

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