Прикладная эконометрика, 2022, т. 68, с. 93–116.
Applied Econometrics, 2022, v. 68, pp. 93–116.
DOI: 10.22394/1993-7601-2022-68-93-116

S. V. Golovan, N. A. Volchkova[1]

How costly is exporting? An empirical assessment of trade model with heterogeneous firms

Foreign market access cost, explored by Melitz (2003) in the heterogeneous firm model of international trade, is one of the essential assumptions that ensure a nice fit of model results to stylized facts. Selection of more productive firms into exporters is guaranteed by the excess of export fixed costs, adjusted for variable trade costs, over fixed costs of production. While there is empirical evidence on export cost structure at the level of firms, there has been no evaluation of the overall size of these costs. This paper aims at filling the gap. First, the model of Melitz (2003) is extended to allow asymmetries between trading countries. Then, the parametric relation between aggregated economic parameters is derived, which allows estimating the ratio of fixed costs. Then the relation is estimated empirically for the universe of Russian firms from 2014 to 2019, and results indicate that the foreign market access costs are comparable to the fixed cost of production in this setting. These findings provide evidence of the empirical relevance of the partitioning condition.

Keywords: heterogeneous firms model of trade; fixed costs of export; partitioning condition; Russian exporters.

JEL classification: F12; F14.

1. Introduction

Empirical research emphasizes a very broad spectrum of sources of export costs. From a theoretical standpoint, the most important distinction is between fixed and variable costs of exporting. In the standard constant elasticity of substitution demand model of heterogeneous firms, pure variable costs of exporting do not force a partitioning of firms into exporting and non-exporting categories. The necessary condition that ensures a selection of more productive firms into exporters is the excess of trade fixed costs, adjusted for variable trade costs, over fixed costs of production. This excess is essential to the results, which show that only the subsample of firms with a productivity level from the upper tail of the distribution would be able to access foreign markets, while the less fortunate firms with lower productivity levels would be destined only to participate in the domestic market. Following Melitz (2003), we call this condition a partitioning condition. This paper addresses the issue of the empirical plausibility of the partitioning condition in a general structural way and provides a tool to estimate the ratio of fixed costs of exporting to fixed costs of production given the firm-level data.

[1] **Golovan, Sergei** — New Economic School (NES), Moscow; sgolovan@nes.ru.
Volchkova, Natalya — New Economic School (NES); Russian Foreign Trade Academy (RFTA), Moscow; nvolchkova@nes.ru.