



ABSTRACT WORKING PAPER 4.4

The effect of internationalization on innovation in the manufacturing sector

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Abstract

This paper examines how Russian manufacturing firms respond to international trade with product innovations, R&D expenditures and technologies' upgrade. The discussion is guided by the theoretical models for heterogeneous firms engaged in international trade which predict that as more productive firms generate higher profit gains, therefore they are able to afford high entry costs, while trade liberalization encourages the use of more progressive technologies and brings higher returns from R&D investments. We test the theory using a panel of manufacturing Russian firms surveyed in 2004 and 2009, and use export and import entry indicators to identify the causal effects on various direct measures of technologies' upgrade. We found that probability of the firm to invest in R&D depends on the prior experience in international trade – both export and import. Importing tends to have stronger learning effects than exporting. Imported input stimulates R&D less than machinery import. Continuous traders are more likely to introduce all three types of innovation. However, we cannot identify any impact of government or foreign ownership on learning-by-exporting or importing effects. Firm location in the border region is irrelevant for the power of links between trade and innovation behavior..