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THE ECONOMIC ROLE OF TECHNOLOGY IN INTERNATIONAL TRADE: THEORY AND PRACTICE

Abstract:

The aim of the article is to analyze the impact of technological changes and restrictions on the freedom of technology transfer in the contemporary world economy on international trade in the context of the trade conflict between the United States and China.

Interrelationships between the role of technological changes and trade, the issue of monopoly rent resulting from the technological advantage of some countries, were examined on the basis of the theory of international trade (Ricardian model, Heckscher-Ohlin) and subsequent theories, in particular the approach of Posner, Krugman, Melitz. To analyze the problem of technology transfer limitations in the modern world economy, mainly due to China's trade practices, a quantitative and qualitative method was used as well as a review of statistics of international trade in high-tech goods. Foreign direct investment in China was conditioned by the transfer of knowledge and advanced technologies from the United States.

Technological changes and the spread of technology as a result of the intensification of international trade are associated with a specific impact on the benefits and losses for the state with a technological advantage as a result of the phenomenon of "learning by doing". To examine the economic effects of the growing importance of technology in international trade, the theoretical and empirical approach to analyzing the demand in selected countries, including the United States, European Union countries, Japan and China, for the level of employment and wages of highly qualified labor force was used. The problem of spreading technology between the state with the technological advantage and the rest of the countries was also examined. The activities of states in the field of increasing spending on research and development and regulating patent protection, which can strengthen the technological position of states, were analyzed.

The impact of states on supporting the development of advanced technologies is associated with specific dilemmas regarding the shaping of international trade flows and the impact on the level of wages in the economy. An appropriately shaped economic policy involving an increase in expenditure on research and development and the use of trade policy instruments will significantly contribute to an increase in the competitiveness of the US economy, in particular in the context of strengthening its technological position in the contemporary global economy.

In the article, the analysis covered the issue of the possibility of regulating the rules of technology transfer at the multilateral level, in the provisions of the World Trade Organization. State initiatives to create new regulations on technology transfer at the level of multilateral negotiations will depend on the position of the United States, which has a technological advantage, and on the position of developing countries benefiting from the process of technology diffusion in the global economy.

Keywords:

international trade, technological change, World Trade Organization, trade war, United States

JEL Classification: F13, F16