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PROSPECTS FOR TRANSFORMING THE INTERNATIONAL DIVISION OF LABOR IN THE CONTEXT OF THE FORMATION OF THE DIGITAL ECONOMY: CHALLENGES FOR INEQUALITY

ПЕРСПЕКТИВИ ТРАНСФОРМАЦІЇ МІЖНАРОДНОГО ПОДІЛУ ПРАЦІ В УМОВАХ СТАНОВЛЕННЯ ЦИФРОВОЇ ЕКОНОМІКИ: ВИКЛИКИ ДЛЯ НЕРІВНОСТІ

The growing technological gap between countries is due not only to the classical innovative development of individual entities of the global economy, but also to the extensive introduction of artificial intelligence systems and technologies into the economy and life of society. At the same time, the rate of technological progress remains higher than the growth in productivity, which is partly explained by high costs, especially at the initial stage, for a country to implement new technologies. Although the costs of the digital transition period will be offset by the aggregate benefits of using AI, the fragmentation of the global economy and the slowdown in economic growth pose new challenges for digital development on a global scale. Changes in global industrial production lead to increased income inequality in developed and developing countries. Changes in the shares of factor income within the GVC in global industry at the turn of the century brought more profit to capital owners in all groups of countries [1]. This is confirmed by studies of how added value is distributed through capital and labor (divided into high- and low-skilled),

represented by the «smiling curve». The relative increase in the share of income from employing less skilled workers is due to the increase in employment in assembly plants (the quantity effect), rather than to the increase in the relative income in the form of wages of these workers compared with highly skilled workers and capital owners (the price effect).

Trade in the context of hyperglobalization has increased the polarization of incomes among countries and led to an uneven distribution of wealth not only in developed countries but also in developing countries, and inequality within groups of countries is now increasing. In the context of digital transformation, developing countries will continue to lag behind developed countries, since the digital infrastructure in this group of countries has not yet been established, investment opportunities are limited, and wages are low, which does not increase incentives for labor automation. The more the use of AI will positively affect GDP growth, the more uneven the distribution of income will be [2]. Social inequality will increase in terms of the gap between the income of unskilled and skilled labor. This contradicts the conclusions of neoclassical theory, which shows that the accumulation of traditional capital leads to an increase in demand for labor. The real sector of the world economy is increasingly detached from the financial sector, and the volume of speculative transactions based on the use of derivative financial instruments has tended to increase in recent years. In the context of countries increasingly using mutual protectionist measures, the external debt of many entities in the global economy is growing, and financial markets are becoming increasingly unstable, imbalances and contradictions in the global economy are becoming increasingly aggravated. In the context of the development of the digital economy, an important role is played by reassessing the role of traditional factors of production. The underlying factor of economic growth should be an increase in labor productivity.

The modern international division of labor is predominantly structured within global value chains (GVCs). Today, much more significant than the type and nature of the exported goods is the governance in GVCs, when many leading firms operating in global production networks stimulate oligopoly. They do not seek to involve new firms in GVCs, thereby not stimulating wage growth and improving labor standards. The introduction of AI technologies will mean a partial loss of incentives for transnational corporations to open their divisions in developing countries, citing the low cost of production factors (mainly labor) in these countries [3]. Despite the fact that in the context of AI development, income inequality between countries will increase, given the growth of the digital economy and technological development in leading countries, the use of low-skilled and low-paid workers from abroad will become less and less justified. In this regard, the main challenge from the development of AI markets is the growth of unemployment in developing countries (they will not be able to quickly adapt specializations and the growth of demand for new types of work to such changes). Modern AI technologies are much more complex than previous industrial technologies; it is more

difficult for developing countries to copy them, and it is much more difficult to reduce the gap with developed countries in the services sector, which today accounts for the majority of added value created in the world. It seems important not only and not so much to involve new high-tech goods in the global trade turnover: much more fundamental, as rightly noted in modern studies, is the formation of a new world market – the market of artificial intelligence systems and technologies, the most important factors of which have become the intensive development of the market of information and communication services and nanomaterials, the widespread distribution of the Internet.

Digital transformation is affecting an increasing number of industries, changing traditional international trade in goods and services and creating a new, digital trade. Digital globalization – the «second Unbundling» – is developing on the basis of a new, unprecedented technological revolution [4]. The main manifestations of the digital transformation of international trade are: large-scale development of e-commerce, in which B2B deliveries account for a large share; intensive development of foreign trade in information and communication services; development of digital e-commerce platforms. Under the influence of new technologies, communication costs have decreased, so the degree of vertical integration of companies has decreased, which has led to the transfer of various functions of companies to external contractors. The differentiation between expectations and results from participation in GVC is a partial reflection of the fact that the interests of international companies do not necessarily coincide with the interests of the host countries. Therefore, developing countries often occupied a place in GVC at the low levels of the so-called «smiling curve», i.e. they were involved in the production of goods (they were «assembly shops»), without being involved in research and development, marketing, sales (those areas of GVC that are characterized by the highest share of created added value). Digitalization is often understood as a change in production processes within GVC, namely, it is assumed that the importance of intangible assets (assets related to research and development, branding, databases, data, embodying these intangible assets that relate to the provision of services) in GVC increases. This means that in the digital economy, services are increasingly penetrating the goods sector, blurring the boundaries between goods and services in the production process. The economic benefits of owning data in terms of converting it into a profitable asset increase as the volume of this data grows.

In the «pre-production» segment, digital technologies make product design more flexible and cost-effective. Digital design modeling reduces the amount of labor required to create new products (in particular, the expertise required to design products). Under the influence of ICTs related to the «Internet of Things», cloud computing, and big data analytics, the post-production segment is becoming more significant. These ICTs help reduce management costs, increase the efficiency of production schedules, logistics, inventory management, and equipment maintenance. Digital infrastructure, becoming

increasingly intangible (e.g., through cloud computing), is also becoming cheaper, even for companies in developing countries. This circumstance, which applies equally to foreign and domestic markets, dramatically increases the number of interactions between companies and customers, which further personalizes advertising and sales, which are developing outside traditional marketing and thereby help reduce marketing costs and increase the effectiveness of advertising expenditures.

Effective implementation of digitalization is expedient from the point of view of reducing the costs of individual entities, but not from the point of view of social costs. In the context of the digital economy, a new specialization of countries in the international division of labor is gradually beginning to form. The USA is developing the «Internet of Things», China is specializing in the export of digital technologies, Singapore is developing digital technologies in the field of finance. Only a few countries have a digital specialization, while most entities in the global economy do not produce any new digital technologies at all. The sectoral structure of the economies of countries should also be taken into account, since the greatest increase in profits based on the use of AI technologies is expected in the fields of healthcare, financial services and retail. Therefore, the benefits of increased productivity based on the use of AI will be more likely to be enjoyed by those countries where these sectors predominate. Although digital transformation has significantly reduced the costs of participating in international trade, facilitated the coordination of global value chains, and stimulated the cross-border diffusion of technologies and innovations, geopolitical pressures may significantly reduce the number of enterprises (both industrial and service) that participate in cross-border e-commerce. This will increase the differentiation between countries in the degree of their involvement in international digital trade and the digital international division of labor.

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