Opening remarks

Dear readers!

We are proud to bring to your attention a new issue of the Electronic Journal of the Faculty of Economics of Lomonosov Moscow State University.

This issue includes articles that consider a wide range of problems of theoretical and practical significance. In them, the authors rethink the current processes of our time that occur with a person and the world in the context of the urgent transformation of the world order under the influence of rapid development of scientific and technological progress; show the features of mathematical modeling of shock propagation in various industries and systematize the experience of constructing general equilibrium models in the context of optimal taxation and pension systems; identify trends in the formation of consumer behavior when interacting with artificial intelligence and, from the point of view of an interdisciplinary approach, comprehend creativity as a phenomenon of economic behavior; raise the issues of managing generative artificial intelligence and determine the specifics of functioning of cross-border business in the field of generative artificial intelligence; develop the theoretical foundations for regulating multilateral markets and determine the socio-cultural determinants of the information efficiency of the capital market; show the diversity of employment forms within the sharing economy; consider issues of long-term financing for investment development, including in R&D; identify the problems of import substitution in the field of information and communication technologies in the context of achieving technological sovereignty; give an ecological and economic assessment of the effects of using energy storage systems.

The article "Mathematical Modeling of Shock Propagation across Sectors of the Russian Economy" examines the impact of local shocks in individual sectors on macroeconomic indicators using modern inter-sector models and Russian statistical data. Based on the dynamic model of intersector links, key sectors of the Russian economy that are most significant in terms of transmitting long-term shocks are identified. These include raw materials and energy industries, wholesale and retail trade, and transport services. The importance of these industries is confirmed through the analysis of centrality in the network of production links. The results obtained are of practical importance for the development of anti-crisis policies aimed at increasing the sustainability of key industries, monitoring prices, and supporting sustainable supply chains.

The article "Optimal Taxation and Pension Systems in Overlapping Generations Models" is devoted to systematization of the experience of constructing general equilibrium models in the context of optimal taxation and pension systems. The relevance of the study is determined, on the one hand, by modern demographic trends and the reforms already underway in Russia, and on the other hand, by the insufficient development of these topics in the domestic literature. It is shown that the elasticity of labor supply can significantly affect not only the size of the optimal income tax, but also the type of tax scale itself. In the context of increasing elasticity of labor supply with age, taxing capital income instead of labor can lead to an increase in social welfare. If risk-averse individuals exist in conditions of uncertainty, the social security system can benefit individuals by partially replacing the missing insurance markets. In a situation where the economy is dynamically inefficient, the distributive pension system helps to cope with the problem of overaccumulation. The study proposes a number of specific factors that the general equilibrium model for Russia should take into account.

In the article "Consumer Behavior Formation Trends in Interaction with Artificial Intelligence" the authors consider the specifics of modern consumer behavior under the influence of artificial intelligence technologies and analyze the factors that shape consumer experience in the era of the digital economy. The opportunities and risks that artificial intelligence creates for making economic decisions are emphasized, taking into account limited rationality, behavioral mechanisms of individuals and the influence of the external environment. By applying the system method, the diversity of AI technologies and the features of their influence on the consumer are revealed. As an example, the phenomenon of virtual influencers is studied - digital characters created with the help of AI who actively interact with the audience through social media channels. In conclusion, it is noted that AI is not just a marketing tool for companies, but also an active participant in economic interaction, and its ambiguity requires appropriate institutional regulation.

The article "Creativity as a Phenomenon of Economic Behavior: An Interdisciplinary Approach" is devoted to the study of creativity as a complex interdisciplinary phenomenon. The authors raise important theoretical and methodological questions: what is creativity within the boundaries of the economy and what are its features? It is noted that creativity can be closely related to rational behavior in the decision-making process, but at the same time has an irrational aspect as its component. It is emphasized that at the stage of the digital economy, creativity acts as a human reaction to the uncertainty of the external environment, which is increasing under the influence of artificial intelligence technologies. In conclusion, the authors emphasize the relevance of creativity as a driver for the development of human capital and the formation of a model of a creative person.

The journal continues the practice of publishing translations of articles devoted to the most pressing issues. The article "Governance fix? Power and politics in controversies about governing generative AI" examines the first international governance and policy initiatives specifically devoted to generative AI: the G7 Hiroshima Process, the Organization for Economic Co-operation and Development reports, and the UK AI Safety Summit. The study draws on the literature on governance policymaking, in particular on technology governance and responsible innovation. The emerging governance of generative AI exhibits polycentric characteristics, with multiple and overlapping decision-making centers in collaborative relationships. However, it is dominated by a limited number of developed countries. The governance of generative AI is largely framed in terms of risk management, mostly ignoring questions of the purpose and direction of innovation and assigning rather limited roles to the public. The emergence of a "generative AI governance paradox" is noted, namely how despite the technology’s widespread public adoption, its governance is rather limited. This paper introduces the term "governance fix" to reflect the rather narrow and technocratic approach to the governance of generative AI. As an alternative, it proposes adopting policies of polycentric governance and responsible innovation that emphasize the democratic and participatory shaping of technologies for the public good. In the context of the highly uneven distribution of power in generative AI, characterized by a high concentration of power in the hands of a small number of large technology companies, government has a special role in addressing the power imbalance by ensuring broad public participation in the governance of generative AI.

The purpose of the article "Specifics of Cross-Border Business Functioning in the Field of Generative Artificial Intelligence" is to determine the prospects for the development of cross-border business in the field of generative artificial intelligence (gen-AI). The methods of conceptual analysis, foresight, strategic OTSW analysis are used. The authors examine the potential of gen-AI as a tool for business commercialization and a source of systematic income. The author's typology of gen-AI businesses is proposed. The problems and directions of development of cross-border gen-AI business

are identified, and the authors discuss the potential for niche development of Russian companies under sanctions. Conclusions are made that in the interests of developing cross-border gen-AI business, corporations should more actively invest in research and development and adapt to changes in the market environment. It is important for national governments to support innovative companies through the creation of a favorable and economically safe regulatory environment and the development of digital infrastructure.

The article "Theoretical Framework for Regulation of Multisided Markets Subject to Network Effects" examines theoretical provisions for analyzing the state of competition in a multi-sided market that changes under the influence of negative and cross network effects. The author proposes a method to explain the stability of the process of slowing down the influence of network effects on consumer utility by the prevalence of the saturation effect over the utility effect. The most effective measures to maintain competition include regulation of the process of establishing standards, providing access to key capacities, such as software or hardware, and the use of patent law and licensing to protect the rights of a product developer in relation to the owner of the system. Limiting the negative impact of external effects on the consumer side becomes a key task for the regulator. The issue of the need to distinguish between cross and indirect network effects remains open for further research.

The objective of the paper "Sociocultural Determinants of Capital Market Informational Efficiency: Empirical Analysis" is to identify the relationship between cultural dimensions (power distance and individualism according to Hofstede) and the information efficiency of capital markets. The methodology includes logit and probit regressions, models with nonlinear effects and slope dummy variables, Firth regression for rare events, bootstrap analysis (10,000 iterations) and a model with instrumental variables for 50 countries using a binary indicator of efficiency and control variables: GDP per capita, governance efficiency index and level of financial development. The results demonstrate: 1) a stable positive relationship between the level of individualism and market efficiency; 2) a paradoxical positive relationship between power distance and efficiency, probably associated with the Asian context; 3) the significance of one control variable - the level of financial development; 4) dependence on the classification of the country as developed or developing: thus, in developed countries, the significant factor of efficiency was the level of financial development, and in developing countries – the distance of power and individualism. Scientific novelty of this article lies in the demonstration of the multidimensional interaction of cultural, institutional and economic factors, expanding the framework of traditional models.

The article "Labor in Sharing and Labor Sharing as Trends in the Development of the Gig-Economy" examines the diversity of employment forms within the sharing economy and determines the place of these socio-economic and socio-labor relations in the sphere of non-standard employment forms. It has been established that sharing labor is a segment at the junction of platform employment and the gig economy. A definition of sharing digital platforms is formulated, which are one of the key features of classifying new labor models as the sharing segment. A content analysis of domestic and foreign scientific papers on labor sharing is conducted and it is determined that this term is used to describe temporary models of labor attraction and methods of dividing labor or work within one workplace or position. The research methodology is based on a content analysis of the best practices of using labor sharing by business, inductive analysis to systematize views on sharing labor and identify its features.

The objective of the article "Financial Constraints and Investment Activity: An Assessment Using the Kaplan-Zingales Index" is to assess the dynamics of financial constraints of Russian public companies in the context of their ability to finance long-term investments. The Kaplan-Zingales Index

(KZ-index) is widely used to assess corporate financial constraints, especially with respect to long-term projects (including R&D investments), but its dynamics in the Russian economy remains insufficiently studied. Financial statement data and public market indicators for 2009-2024 were used as an empirical base. A long-term decline in the median KZ-index for public non-financial companies indicates a significant easing of financial barriers for large businesses during 2009-2022. In 2022-2024, stagnation of financial conditions is observed, especially for companies in the oil and gas sector, which has the greatest weight in the Russian stock market. Additionally, differences in the dynamics of financial constraints among the largest non-financial industries were identified: specific trends that require further analysis can be observed in the oil, gas and metallurgical sectors.

The article "Import Substitution in the ICT Sector in the Context of Ensuring Technological Sovereignty of Russia" is devoted to identifying the problems of import substitution in the ICT sector of Russia in the context of achieving technological sovereignty. The article demonstrates that the main problems on the path to import substitution are high import dependence and the lack of full-fledged analogues of foreign products and services, a lack of personnel and financial resources for the transition to domestic products, and low innovative activity of enterprises.

The relevance of the article "Ecological and Economic Effects of Energy Storage Systems for Remote Areas of Russia" is dictated by the presence of a significant share of the territory of Russia without connection to the unified energy system and, as a consequence, the existence of high tariffs for the generation and purchase of electricity. Electricity generation in such areas, carried out at autonomous combined heat and power plants (CHP), is characterized by the high cost of raw materials, environmental pollution, and the inability to store excess generated electricity. The purpose of this article is to assess the environmental and economic effects of using energy storage systems (ESS) at autonomous CHPs to solve these problems. The first part of the article reveals the basics of the tariff policy for the generation and consumption of electricity in areas not connected to the unified energy system, as well as the prospects for using ESS. The second part of the article assesses the effects of using ESS at autonomous CHPs in a typical village in the Sakhalin Region.

It has become a good tradition of the Journal to publish reviews of scientific conferences. This issue presents a review of the speeches at the plenary session of the International Scientific Conference "The World at a Turning Point: Geopolitics, Economics, Technogenesis", held at the Faculty of Economics of Moscow State University on December 4-6, 2024, organized by the Research Laboratory of Philosophy of Economy together with the Scientific Council of the Center for Social Sciences of Moscow State University. At the session, prominent experts from various humanitarian fields spoke and presented different points of view on the current processes of our time, occurring with the man and the world in the context of the urgent transformation of the world order under the influence of the rapid development of scientific and technological progress.

We are looking forward to your feedback on the articles published in this issue and welcome possible future cooperation and contributions.

Editor-in-Chief,
Head of the Department of
Philosophy and Methodology of Economics of the
Faculty of Economics of
Lomonosov Moscow State University
Professor Leonid A. Tutov