SUMMARIES

E. M. Ilyin, N. G. Kosolapenko, M. A. Pakhnin

A Model of External Regulation of Self-organizing Two-class Social Systems

This paper studies a model of a two-class social system, in which transitions between classes are possible under both self-organization and external regulation. The dynamics of the process driven by self-organization and external regulation is represented by a two-dimensional system of ordinary differential equations. This paper derives conditions for the existence of a turnpike and studies methods which use the turnpike to construct the optimal external regulation of the class population. This model can be used to control the spread of the epidemic taking into account the virulence of the pathogen, or to regulate internal migration in order to reach a target level of employment.

Keywords: epidemic models; labor market formation; control processes; optimal control theory; self-organization processes; social networks.

A. Yamaguchi

Challenges in Achieving SDGs in Japan from the Point of View of the System of Statistical Indicators

The aim of this paper is to introduce the main obstacles in implementation of SDGs in Japan from the viewpoint of the system of statistical indicators. The paper is based on the presentation named "Obstacles in Achievement of SDGs in Japan" at the International Scientific and Practical Conference "Statistical Estimates of Sustainable Development" held on-line on 27–28 January 2022 (Saint-Petersburg).

Keywords: SDGs; system of statistical indicators; poverty level.

N. A. Flud, P. M. Dashkevich

Integrated Assessments of Sustainable Development of the Arctic Zone of the Russian Federation: Pros and Cons

The current stage of development of the Arctic zone of the Russian Federation is characterized by high economic and social instability, as well as by significant environmental degradation of the territories. The availability of an objective statistical assessing tool is an important condition for the sustainable development of the Arctic regions. This article provides a comparative analysis of various integral indicators of the sustainable development of the Arctic regions, calculated by the authors and other researchers. There are presented the results of measuring the sustainable development of regions based on the adjusted net savings index and the index, based on national indicators of achieving curtain sustainable development goals. A significant differentiation of the regions of the Arctic in terms of the level of sustainable development, the presence of both general and specific problems in each of the regions are shown. Special attention was paid to the issues of inconsistency of various integral assessments and the need for their further methodological development and improvement of information support.

Keywords: Arctic zone of the Russian Federation; index of sustainable development; integrated assessments of sustainable development; sustainable regional development; SDG index; adjusted net savings index.

G. I. Penikas

How Does the Level of Climate Risks Compare with the Level of Credit?

Commercial banks and governments in selected countries actively promote "green" projects financing. Such projects aim at decreasing the negative impact on the climate change. Same time banks have to keep in mind proper credit risk assessment. When a bank grants a pack of loans at a rate that does not capture the default rate corresponding to such a segment, it is highly likely to bear losses. As a result, it may not further have an opportunity to fund "green" projects. At worst, it will have to cease its operations. Therefore, the commercial banks, their regulators and governments are interested in knowing the degree of association between the climate and credit risks. More precisely, when the "green" loan should have an interest rate discount and when it should be assigned with an add-on. We employ the unique dataset on ESG — and specifically, environmental (E) — risk scores. The data is representative (relates to the world largest enterprises) and is publicly available (anyone may rerun and cross-check our findings). One of the core findings is that it holds true for Japan that the lower climate risks correspond to the lower credit ones. However, as for Russia the relationship has the opposite sign.

Keywords: ESG; rating; credit; Russia; Japan; "green" finance.

A. A. Imankulov, L. Y. Gorokhovatsky

Application of Distributed Registry Technology in the Field of p2p-Lending

The paper considers the application of blockchain technology for a p2p-lending process as a mechanism for transactions and interaction between the client and the server. The structure of the p2p lending process, which elements are implemented using distributed registry technology has been developed and described.

Keywords: blockchain; p2p-lending; financial cyber technologies; smart-contract.

A. M. Emelyanov, A. A. Oshchepkova

Factors Influencing the Level of Investment in Social Projects of Russian Public Joint-stock Companies

Conducting a socially responsible business has a positive impact on the environment and the internal environment of the company, strengthening positions in global markets, acquiring competitive advantages, and also plays a role in increasing brand and company loyalty on the part of consumers, suppliers and employees. There are a number of questions related to the volume of investment in social projects. The article focuses on the factors that cause controversy: the gender composition of the board of directors, financial leverage, the age of the company and EBITDA. The paper analyzes data on 71 Russian companies engaged in industry, 10 in finance, 22 in retail and telecommunications for the period from 2014 to 2018. All the considered companies operate on the territory of the Russian Federation. The volume of investments in social projects was chosen as a dependent variable.

Keywords: investments; social projects; social responsibility of entrepreneurs; investment climate.

N. S. Shchelkov, M. V. Rukinov

Digital Platforms in the Freight Rail Transport in Russia

The research is an introductory part of a strategic analysis of an investment project to develop and implement a digital platform for the freight rail cars receiving and tracking. The authors investigate the key properties of digital platforms and their applicability

in railway logistics. An industry analysis was carried out to determine the potential for the implementation of digital innovation projects. Based on the benchmarking of competitors, a functional is formulated that constitutes a value proposition for potential users of the digital platform. The blockchain ecosystem is considered as one of the possible technological foundations of an innovative project, the applicability of this technology is reasoned in the context of industry needs. Conclusions and recommendations for the further commercialization of the digital platform are formulated.

Keywords: strategy; digital platform; digital transformation; Russian Railways; freight transportation; railroad transportation; blockchain; distributed ledger technology.

A. N. Oleinik

Russian Economic Discourse from 1989 to 2020 Analyzed Through the Prism of Big Data

Key topics in scholarly publications of Russian economists during three periods, radical economic reforms of the 1990s, the economic growth of the 2000s and the stagnation of the 2010s are identified and compared by content analyzing metadata of texts indexed in eLibrary and full texts of books indexed in Google Books. The Russian economic discourse is also compared with the economic discourse in English language. This comparison indicates that the Russian economic discourse may have a less systematic character than the English-language economic discourse.

Keywords: economic discourse; big data.