
SUMMARIES

AMOSHA OLEKSANDR, NIKIFOROVA VIRA “Development of smart steel industry: world experience and lessons for Ukraine” – The key directions of development of Ukraine’s steel industry on the smart basis are determined taking into account the world experience of steel smart production formation. The prerequisites and problems of the smart steel industry development in Ukraine are considered. It is determined that the process of working out and implementation of smart technologies in the industry is at the initial stage, despite its strategic nature for the national economy. The reasons are the general backlog of Ukraine and domestic steel industry in terms of innovation activity, significant volume of metal overproduction and critically low levels of domestic consumption of steel products, and the imperfection of regulatory framework of the industry activity.

The features and consequences of smart solutions and technologies implementation in the steel industry of foreign countries are generalized. The main directions of emerging technologies use in the production, organizational, economic and social areas of steel enterprises are researched. It is revealed that, in comparison with the world analogs, only a part of smart technologies widely known in leading metal-producing countries are used in Ukraine’s steel industry. However, the main trends of the industry’s smartization are mostly similar, and they are in the digitalization of products and services, strengthening of customer focus of the business model, optimization of equipment operation and improvement of conditions and safety of work in real time.

It is determined that the “bottleneck” of smart technologies implementation is the manufacturing sector due to the need for large investments to implement a fundamentally new innovative discoveries for improving the metallurgical process. The restraining factor is the social sphere because of the employees’ unwillingness to perceive a new digital culture and changes in the labor market.

VENGER VITALII, KHAUSTOV VOLODYMYR “Current state and development prospects of Ukraine’s metallurgical industry: guidelines of technological modernization” – Current trends in economic development indicate that the basis of the economy of many developed countries is the basic industries, including ferrous metallurgy, and its products continue to be the main construction material in the world.

The authors show that the domestic metallurgical industry contributes significantly to the gross national product and foreign trade. The main source of the functioning of domestic metallurgical enterprises is the raw material base sustained by significant reserves of iron ore, coal and scrap metal.

It is proved that the metallurgical industry’s priority orientation to external demand made it dependent on the conditions in the world metal products market, which today is characterized by fierce competition due to the constant growth of new production capacities.

It is revealed that the main prerequisite for increasing competition in the world metal market is currently the innovative restructuring of metallurgical enterprises based on the reduction of obsolete steel production facilities and the construction of new, more compact ones for the production of high value-added end products.

The authors show that, unlike developed and developing countries, Ukraine has not built any technologically new facilities (except for the Interpipe Steel plant) in the steel industry. As a result, the majority of domestic enterprises are experiencing a significant physical and moral equipment wear and tear. The use of outdated technologies

in the industry is causing enormous energy intensity of environmentally harmful production and leads to inefficient consumption of fuel and energy resources, and, as a consequence, to lower competitiveness of domestic metal products.

To develop domestic metallurgy in line with global trends, it is proposed to develop a list of measures for the phased modernization of production capacities, which include replacing obsolete open-hearth furnaces with new electro-metallurgical plants.

PUSTOVOIT OLEH “Intangible resources of economic growth” – In today’s economic science, more and more empirical evidence is accumulating that in some developed countries, intangible capital investments coincide or outperform investment in tangibles such as machinery, equipment and buildings. It enables such countries to maintain a high level of competitiveness on world markets and provide sustainable economic dynamics. After the restoration of economic growth in Ukraine in 2016, in front of domestic science arose an important task, namely, to identify what types of intangible capital Ukrainian enterprises are increasingly investing in to win a competitive struggle in the domestic and foreign markets. One of the backgrounds for its implementation is the search for answers to the following theoretical questions: what are the intangible resources, what types of intangible resources exist in the economy, how do they affect economic growth, and how to estimate their aggregate contribution?

In the article, the concept of “intangible resources” is proposed to generalize assets that do not have physical or financial embodiment and are used to eliminate natural, technical and social restraints and constraints of the mobility of factors of production in the process of creating their new combinations in order to release new types of products. This scientific approach makes it possible to systematize all the diversity of intangible resources within six species groups that form the main types of intangible capital in the economy: human, institutional, social, informational and legal, organizational cultural and organizational capital. It is determined that institutional capital has the ability to create conditions for multiplying stocks of all other types of intangible capital. The author substantiates the methodology for assessing the main types of intangible capital for the economic growth of developing countries. Using this methodology the dynamics of GDP as a function of material (labor, land, capital) and intangible resources is studied.

ILINA MARIA, SHPYLIOVA YULIA “Social-ecological imperatives of rural areas’ economic development” – Low standards of people’s living and economic depression in rural areas in Ukraine make it difficult to achieve the systemic integrity of economic, social and environmental components of the sustainable development. The imbalance between these components causes worsening of the environmental harms and deteriorates conditions for the human capital’s reproduction. The purpose of the article is to substantiate with theoretical and practical means the content and structure of social and ecological imperatives, which are represented as norms and standards relating to economic activities aiming to improve the policy of natural resources use and protect the ecosystem’s integrity of the territories.

Economic imperatives reflect a set of rules applied to all economic entities operating within the current regulatory framework. It takes into account various factors and immanent actions. Key challenges, which are most urgent for a society at a certain time and form guidelines for solving problems of social relations and interactions, determine structure and content of social imperatives. Ecological imperatives regulate anthropogenic activity formally and informally and cause changes in the natural environment. They are dynamic and can vary depending on the level of the

development of a society, its technologies, welfare, and institutional framework. Laws and principles of the development, summarized in the form of the imperatives, outline the target benchmarks and national priorities on modernization of the economy and improvement of living standards.

Spatial differentiation of the territories takes into account their proximity to urban centers, the degree of economic capacity, the availability of social infrastructure of the proper quality, and meeting environmental standards. One more significant parameter is the availability of assets, which are defined as a set of resources of a territory, the potential and opportunities for their use. The achievement of the national priorities in Ukraine currently is complicated with inefficient use of territorial assets. Social and ecological imperatives are the solid value and normative ground for the development of local policy. One of its obvious steps is the mutually linked differentiation of the priorities, types of the territories and available assets of them.

RYNDZAK OLHA “Inhibition of migration losses of the human potential of Ukraine” – Intensification of migration processes poses new challenges and tasks to the migration policy of Ukraine. One of the most acute problems at present is the mass emigration of the able-bodied population, especially highly educated youth, outside the country. The author’s concept of inhibition (slowing down) of human potential losses is proposed. It involves active migration policy measures in such directions: reduction of the emigration flows, stimulation of the external return migration and strengthening the internal migration of the population. At the same time, the ways of implementing each of these blocks are highlighted. Thus, it is possible to reduce the rate of emigration by regulating its factors. Two of these factors are analyzed: wages and unemployment. The author concludes it is necessary to gradually increase the level of wages, however, not mechanically but accompanied by a set of reforms. Regarding the problems of unemployment, a model of the mechanism for employment stimulation, involving a set of policy measures aimed at all subjects of the labor market, is developed. The stimulation of the external return migration, circular migration, re-immigration and repatriation involves: programs for encouraging and facilitating return and integration; financial, economic and organizational mechanisms for reciprocity provision; assistance in the employment of re-immigrants; pension settlement for circular migrants etc. To intensify internal migration (as a powerful alternative to external), it is necessary: to reduce administrative obstacles on the way of internal movements of the population; to create favorable conditions for realization the right to freedom of movement; to intensify interregional human exchange and cooperation; to develop measures for internal migration stimulation; to improve transport networks. Along with the socio-economic inhibitors, it is also necessary to apply mental factors, which can affect the migration behavior of the population. The author’s proposals, covered in the article, can become the basis for solving the problem of migration losses of human potential and for increasing the efficiency of the migration policy of Ukraine.
