

FINANCE, BANKING AND INSURANCE

Yevheniya Andrushchak, Ph.D., Associate Professor

*Ivan Franko National University of Lviv
Lviv, Ukraine*

Alina Herasymenko, Ph.D. Student

*Ivan Franko National University of Lviv
Lviv, Ukraine*

DOI: <https://doi.org/10.30525/978-9934-26-398-9-31>

INDUSTRIAL KNOWLEDGE BANK AS AN ELEMENT OF IMPROVING THE INDUSTRIAL LANDSCAPE OF UKRAINE

The necessity of post-war reconstruction of Ukraine's economy, especially the industrial sector, which has been the target of numerous military attacks since 24.02.2022, on the one hand, and the need to take into account global economic development trends (in particular, the principles of sustainable development) in this process, on the other hand, make it urgent to find effective mechanisms for improving the country's industrial landscape. The information component is a core element in any process of development and improvement. In this context, the study and adaptation of the best international experience, including the prospects for the introduction of the Industrial Knowledge Bank in Ukraine, plays an exceptional role.

First of all, it should be noted that the analysis of the ratio of tangible and intangible production in the structure of gross value added of Ukraine over the past 12 years (Fig. 1) shows that there have been no significant changes in the country's transition from an agrarian to an industrial vector of development. In addition, the share of tangible production in gross value added decreased by 8.45 percentage points in the first year of the war [1].

The quality component of tangible production, the backbone of which is industrial production, should also be taken into account. Before the full-scale invasion of the aggressor country, the following were among the most constraining factors for the development of industrial enterprises:

– high level of depreciation of property, plant and equipment (in particular, according to the latest available data (2021): 68.03% in electricity, gas, steam, air conditioning; 60.23% in the manufacturing; 60.18% in water supply, sewerage, waste management; 45.53% in construction; 38.63% in mining and quarrying) [1];

- high energy consumption of industrial production (industrial enterprises consume about 32% of the country's energy) [1];
- low percentage of innovation-active industrial enterprises (over the period 2000–2020, the share of innovation-active industrial enterprises decreased by 6.67% and amounted to 16.80% in 2020) [1];
- low investment and credit attractiveness of industrial enterprises.

The main sources of financing industrial capital investments are the own funds of industrial enterprises. According to the latest available data (2021), the share of own funds in the total structure of sources of capital investment had an absolute advantage at enterprises of the mining and quarrying (99.51%), manufacturing (97%), and supply of electricity, gas, steam and air conditioning (79.16%) [1].

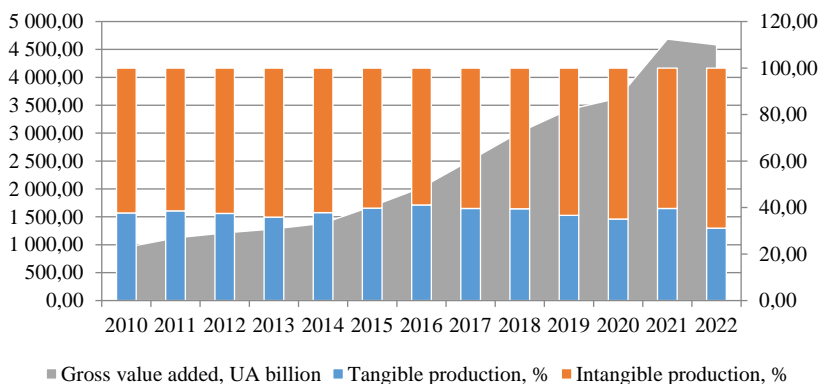


Figure 1. Ratio of tangible and intangible production in the structure of gross value added in Ukraine, 2010–2022

Source: calculated on the basis of [1]

With the outbreak of a full-scale war, the situation with industrial development in Ukraine has deteriorated critically, and the country's industrial landscape has undergone significant changes. In addition to the long-standing problems, the economic consequences of the war and the numerous losses from the military aggression of the neighboring country have been added. In particular, the losses in industry and trade are estimated by the World Bank at 10.9 USD billion, and the recovery needs for these sectors for the period up to 2033 amount to 23.2 USD billion [2].

Taking into account the retrospective of the development of industrial enterprises in Ukraine, starting from the declaration of independence and until the outbreak of a full-scale war, we believe it is necessary to include an

information component in the mechanism of post-war reconstruction of the industrial sector of Ukraine along with the financial component as an element of improving the industrial landscape and, accordingly, increasing the country's investment attractiveness.

The experience of Latin American and Caribbean countries (LAC) in improving the level of industrial knowledge is an effective way to ensure the information component of industrial sector development. Thus, in order to accelerate the pace of industrialization on the basis of sustainable development, the Industrial Knowledge Bank (IKB) was introduced in these countries. The IKB is a 2008 project of the United Nations Industrial Development Organization (UNIDO) for Latin America and the Caribbean aimed at ensuring knowledge sharing in the field of industrial development and fulfilling the targets of Sustainable Development Goal 9: "Industry, Innovation and Infrastructure" [3]. It is an instrument that acts as an intermediary between organizations that request knowledge (recipients) and organizations that provide knowledge (donors). When an organization from any of the LAC countries identifies that there is a need of expertise in one of their projects or activities, it approaches the IKB to ask for assistance finding a stakeholder that has the expertise needed. Since the IKB has a large database of stakeholders (institutions) and information regarding their expertise, it can help the requesting organization find a donor stakeholder that has the expertise it seeks. The analogy to a bank given to the project is the fact that knowledge (e.g. technical expertise) is seen as a currency that is exchanged among actors (donors and recipients). Therefore, the IKB acts as a platform that improves the match of demand for knowledge and supply of it [3]. In total, in 2009-2017, the Bank of Industrial Knowledge successfully implemented 58 projects.

In the realities of Ukraine, such a format of cooperation would contribute to:

- expanding the network of business relations of industrial enterprises, intensifying inter-sectoral and inter-regional cooperation, joining efforts to implement new large-scale projects, etc;
- intensification of industrial development in less developed regions of the country by gaining access to third-party expert assistance, new technical knowledge, modern vision, etc;
- improving the quality and competence of investment projects of industrial enterprises;
- revitalizing the interest of investors, creditors and banks by publicizing information on the results of cooperation between donors, recipients, and regional coordinators by the IKB;
- developing the consulting and outsourcing services market (in particular, improving their quality), as the results of productive cooperation between donors and recipients are made public and disseminated;

– establishing cooperation between regional/regional bank departments and regional/regional coordinators in order to find attractive recipient projects for lending;

– increasing the gross value added of the region's industry in the long run, improving the financial results of industrial enterprises and, accordingly, increasing tax payments to local budgets.

In conclusion, we believe that the adaptation of foreign experience in terms of implementing the IKB in Ukraine will, on the one hand, contribute to the recovery of the industrial sector and improvement of the industrial landscape, and, on the other hand, to the implementation of the Sustainable Development Goals. Prospects for further research include the development of an organizational and economic mechanism for the implementation of the Industrial Knowledge Bank in Ukraine.

References:

1. State Statistics Service of Ukraine. Available at: <http://www.ukrstat.gov.ua>
2. Bohdan, T. (2023). Finansovo-ekonomichni naslidky viiny [Financial and economic consequences of the war]. *LB.ua*. Available at: https://lb.ua/blog/tetiana_bohdan/550614_finansovoekonomichni_naslidki.html [in Ukrainian]
3. Knowledge exchange in the field of industrial development: The case of the Industrial Knowledge Bank. Chalmers Reproservice, Göteborg, Sweden 2018. Available at: <https://odr.chalmers.se/server/api/core/bitstreams/94dc2e08-2f3d-48dc-9b51-7435b4288ef8/content>