TECHNOLOGICAL DETERMINANTS OF THE INVESTMENT CLIMATE IN POLAND AND BELARUS

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Summary. The article provides a detailed analysis of the most significant technological factors that determine the investment climates of Belarus and Poland. According to the authors, the main technological determinants influencing investment decisions include: Global Innovation Rankings, R&D financing, level of introduction of advanced technology, digitalization of the economy, e-services and maturity of technology transfer mechanisms. The research shows, that among the factors of technological development there are both positively and negatively affecting the investment climate of the studied countries. The authors proved that despite the similar past and the commonality of a number of trends in the development of the technological environment of investment activity, Belarus fails to keep pace with Poland in the level of innovation development. This suggests that Polish investments are beneficial for Belarus not only from a financial, but also from a technological point of view.

Аннотация. В статье подробно анализируются наиболее значимые технологические факторы, определяющие инвестиционный климат Беларуси и Польши. По мнению авторов, к основным технологическим детерминантам, оказывающим влияние на инвестиционные решения, относятся: глобальные рейтинги инноваций, масштаб финансирование НИОКР, уровень внедрения передовых технологий, степень цифровизации экономики, развитие электронных услуг и зрелость механизмов передачи технологий. Исследование показывает, что среди факторов технологического развития есть как положительно, так и отрицательно влияющие на инвестиционный климат исследуемых стран. Авторами доказано, что, несмотря на схожее прошлое и общность ряда тенденций развития технологической среды инвестиционной деятельности, Беларусь отстает от Польши по уровню инновационного развития. Это говорит о том, что польские инвестиции выгодны для Беларуси не только с финансовой, но и с технологической точки зрения.

Keywords: technological factors, innovation, R&D, technology transfer, knowledge-intensive industries

1. Problem statement

In the Republic of Belarus as well as in the Republic of Poland, the technological and innovative development path is captured as a strategic benchmark in a number of regulatory documents. Public intervention is necessary not only for creating favorable framework conditions and stimulating innovative activities but also for encouraging cooperative actions by innovation stakeholders and putting in place institutions and policy mechanisms that address different market failures in the innovation process [7].

Due to the growing importance of technological factors in the economic development of Belarus and Poland, and due to the significant role of these factors in international economic exchange, the main task of the research is a detailed analysis of technological factors as important determinants of mutual economic cooperation between Belarus and Poland.

Analysis of recent research and publications

Analysis of the investment climate is an important phase in determining the prospects and possible areas of economic cooperation between countries. The works of many scientists and practitioners are devoted to the study of existing methods of assessing the investment climate.

Professor Ogorodnikov [13] carried out a comparative analysis of the methods used by Harvard Business School, Euromoney magazine, The Bank of Austria, Expert rating agency and others. Kosobutskaya [9], in addition to the above, studies the approaches of The Forbes magazine, A. T. Kearney Company, rating agencies Expert RA, Moody’s and S&P. Savelenko [13] proposed a classification of the most common methods in international practice in accordance with their content and the assessment methods. Silva-Leander [18] divides the approaches to assessing the investment climate according to the indices used into: aggregated indices, disaggregated indices, and other indices. Kuznetsova and Vakulich [10] in the analysis of investment climate rating evaluation headline three main tools of assessment: narrowed, factor and risk. Authors agree that the factor approach meets most of the methodological requirements.
Isolation of previously unresolved parts of a common problem

Most of the presented approaches are based on the identification and analysis of significant indicators of the development of countries and regions. The main attention is usually paid to the economic, legal, political and a number of other components. However, despite the increasing importance for investors, the level of technological development is often taken into account only indirectly.

The purpose of the article

The main goal of the research undertaken in this publication is a detailed analysis of technological factors as important determinants of investment climate and mutual economic cooperation between Belarus and Poland.

2. Presentation of the main material

3. The position of Belarus and Poland in the Global Innovation Ranking

The International Business School INSEAD, Cornell University and the World Intellectual Property Organization annually publish the analytical report The Global Innovation Index (GII), in which all countries of the world are assessed in terms of their development, innovation and technology.

The authors of the study reckon that the success of the economy is associated with both the availability of innovative potential and the conditions for its implementation. Therefore, the Index is calculated as a weighted sum of assessments of two groups of indicators: available resources and conditions for innovation (Innovation Input); achieved practical results of innovation implementation (Innovation Output) [1, 14].

Thus, the final Index represents the ratio of costs and benefits, which makes it possible to objectively assess the effectiveness of efforts to develop innovation in a particular country. According to the results of 2020 the Republic of Belarus is located on the 64th line of The Global Innovation Index rating losing to all five neighboring countries (Fig. 1).

Poland significantly surpasses Belarus in this indicator. This suggests that the arrival of Polish investors in the Belarusian market is beneficial not only from a financial, but also from a technological point of view.

The GII relies on two sub-indices – the Innovation Input Sub-Index and the Innovation Output Sub-Index. If we look at the situation in terms of input – output, we will notice a gap between these two Sub-Indexes in both countries (Fig. 2 and 3).
This imbalance, to varying degree, is typical for all countries without exception. In this regard, based on data on individual components of the Global Innovation Index, specifically the Innovation Input and Output Sub-Indexes, we propose to calculate the coefficient of efficiency of the innovation infrastructure (CEII) for each economy.

This coefficient is calculated by a simple ratio of the Innovation Output Sub-Index to the Innovation Input Sub-Index:

$$CEII = \text{Output Sub-Index} / \text{Innovation Input Sub-Index}$$

In fact, this indicator shows how effective the main elements of the national economy are, which enable innovation in the country. It also characterizes the effectiveness of the existing technology transfer mechanism. The closer the coefficient is to 1, the more efficiently the innovation infrastructure works.

Calculations carried out in accordance with the rules of statistical analysis allowed us to group all countries into five categories depending on the value of CEII (Table 1).
Grouping of countries in the world depending on the value of CEII

<table>
<thead>
<tr>
<th>Group No</th>
<th>CEII Diapason</th>
<th>CEII Group average</th>
<th>Number of observations in a group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>low efficiency (CEII up to 0.3577)</td>
<td>0.3015</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>below average efficiency (CEII from 0.3578 to 0.4981)</td>
<td>0.4340</td>
<td>39</td>
</tr>
<tr>
<td>3</td>
<td>average efficiency (CEII from 0.4982 to 0.6386)</td>
<td>0.5714</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>above average efficiency (CEII from 0.6387 to 0.7790)</td>
<td>0.7140</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>high efficiency (CEII above 0.7791)</td>
<td>0.8448</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0.5303</td>
<td>131</td>
</tr>
</tbody>
</table>

Source: Calculated by the authors on the basis of [4]

Based on the results obtained, we can conclude that in 71 countries out of 131 represented, the CEII indicator is below the world average. The most numerous is the second group with a range from 0.3578 to 0.4981 and an average value of 0.4340. Only six countries are in the group with high efficiency of innovation infrastructure (above 0.7791): Germany, Sweden, United Kingdom, the Netherlands, Switzerland and China. The leading position is occupied by China with the CEII of 0.9195.

Belarus and Poland are in the third group. However, it is difficult to talk about equality of the positions. Thus, Belarus is not far from the lower border with a CEII of 0.5138, while Poland closes the group with CEII of 0.6276.

In countries with the best indicators of the Global Innovation Index, such as Switzerland, the Netherlands, Sweden, Great Britain, Singapore, etc., there is stability in the dynamics of the indicator. In our opinion, one of the main reasons for this situation is that successful innovative activity leads to a kind of endless circle: when a certain critical level is reached, investment attracts investment, talents attract talents, and innovation generates innovation. In Belarus, as well as in Poland this level has not yet been reached, which leads to a certain imbalance.

4. Research and development financing

As long as innovation has existed, a central challenge facing innovators worldwide is the mobilization of stable and accessible financing mechanisms. Financing affects all stages of an innovation cycle, from ideation to commercialization, expansion, and, eventually, long-term business sustainability.

In international practice, research and development (R&D) is considered as a source of innovation and the foundation for the innovative development of the economic system. For this reason, the financing of R&D is defined as one of the most important indicators of successful socio-economic development of the country.

In the Republic of Belarus, the main budgetary sources of funding for scientific, technical and innovative activities are funds from the republican budget and innovation funds. In addition, financing is carried out at the expense of organizations' own funds, foreign investors and non-budgetary foundations. In 2019, R&D expenditures in the Republic of Belarus amounted to more than 777 million rubles or 332 million euros in equivalent (Tab. 2).

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Years</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2019/2015 [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing of internal R &amp; D expenditures, thou BYN</td>
<td></td>
<td>449543</td>
<td>475344</td>
<td>617684</td>
<td>739340</td>
<td>777843</td>
<td>173,03</td>
</tr>
<tr>
<td>Financing of internal R &amp; D expenditures, thou EUR</td>
<td></td>
<td>255422</td>
<td>216065</td>
<td>283341</td>
<td>306780</td>
<td>332412</td>
<td>130,14</td>
</tr>
<tr>
<td>Share of R &amp; D expenditures in GDP, %</td>
<td></td>
<td>0,50</td>
<td>0,50</td>
<td>0,58</td>
<td>0,60</td>
<td>0,59</td>
<td>0,09</td>
</tr>
</tbody>
</table>

Source: Developed by the authors on the basis of [17]

The data in Table 2 indicate a trend towards an increase in expenditures on research and development, both in absolute terms and as a share of the country's GDP.

The main source of funding of internal R & D in Belarus is the state budget, which accounted for about 44% of all expenditures in 2019. The second largest source is the company's own funds. The share of foreign capital, including foreign loans and borrowings, accounted for about 10% of all funds spent on R & D in 2019 [17].

In Poland, the main sources of financing for scientific, technical and innovative activities are, as in the case of Belarus and in most of Central and Eastern Europe countries, funds from the state budget and own funds of enterprises. Moreover, financing is made at the expense of foreign investors and non-budgetary foundations. In 2019, R&D expenditure in Poland
amounted to approximately PLN 30,285 million (EUR 7,043 million), while in 2015, 40% less funds were allocated to this purpose than in 2019 (Table 3).

### Dynamics of financing of internal R & D expenditures in Poland

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Years</th>
<th>2019/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing of internal R &amp; D expenditures, mln PLN</td>
<td>2019</td>
<td>18061</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>25648</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>20578</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>17943</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>18061</td>
</tr>
<tr>
<td>Financing of internal R &amp; D expenditures, mln EUR</td>
<td>2019</td>
<td>167,68</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>7043</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>6107</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>5019</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>4486</td>
</tr>
<tr>
<td>Share of R &amp; D expenditures in GDP, %</td>
<td>2019</td>
<td>1.32</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>1.12</td>
</tr>
<tr>
<td></td>
<td>2017</td>
<td>1.03</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>0.96</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Source: Developed by the authors on the basis of [2]

In 2019, the main sources of financing for these outlays were the own resources of enterprises (approx. 50%) and state budget expenditure (approx. 42%). The next largest source of financing of research and development expenditures were foreign funds, including foreign credits and loans, constituting about 7% of all funds spent on R&D in 2019 [2].

If we make an international comparison of the relative value of research and development costs with neighboring countries, we will see that the Republic of Belarus is ahead only of Ukraine, behind the other four neighbors (Fig. 4). The leader in terms of the share of R&D expenditures in GDP among countries with a common border with Belarus is the Republic of Poland, where this indicator was 1.21%.

According to the Research and Development Expenditure 2019 study conducted by the UNESCO Institute for Statistics, R&D expenditures in Belarus in 2018 amounted to 0.61% of the GDP value. As we can see, there is a slight discrepancy with the information published by the National Statistical Committee. The reason for this discrepancy most likely lies in the difference in approaches to measurement.

We can conclude that despite the positive dynamics of R&D expenditures, the Republic of Belarus lags behind Poland and the neighboring countries in this indicator. This situation creates prerequisites for the technological gap in Belarus in relation to its main trading partners, including in particular Poland.

5. Level of introduction of advanced technology

Belarus and Poland do not have a sufficient resource base. For this reason, technological development should be a priority in these countries for both the public and private sectors. The economies of the countries that relied on innovation have made a significant step forward in their development and show consistently high growth rates (Japan, Korea, Germany, Israel, etc.). In these countries, we observe a situation in which innovation entails new innovations, becoming the main engine of economic growth.

Innovations in the modern economy are influenced by decisions of many stakeholders and depends on many factors. Public policy has a significant impact on innovation performance. In the Republic of Belarus and Poland, work is intentionally underway to develop the production, technological, scientific, technical and innovative potential of the economy. The priorities of innovative development are enshrined in various regulatory documents.

The positive effect of such deliberate action is the increase in the share of high-tech and knowledge economy sectors in GDP from 2017. This situation applies to both Belarus and Poland, although on a significantly different scale (Fig. 5).
It should also be noted that there is a growing number of innovative, active industrial organizations that have spent on technological innovation. Their share in the total number amounted to 24.5% in 2019, i.e. by 4.9 percentage points higher than in 2015 [17]. In Poland, there is also a systematic increase in the number of enterprises from the ICT sector, with the average growth rate of the number of these organizations over a period of 5 years being over 10%.

Despite the existence of a number of positive trends in the analyzed economies, it should be noted that the general level of GDP research intensity was not high and did not exceed 0.6% in Belarus, and 1.32% in Poland during the entire research period, and the share of innovative products also decreased in the total volume of exported products in 2019.

6. **Digitalization of the economy**

Digitalization is manifested everywhere in the transition from the raw materials and industrial economy to a new form based on the achievements of scientific and technological progress and information and communication technologies. Intellectual work and informational goods and services are becoming the main drivers of economic development. The benefits of the digital economy became most evident during the COVID-19 pandemic, making it possible to switch to remote work, distance learning, and remote provision of many types of services. It also served as the foundation for the large-scale development of e-commerce and delivery of goods.

The Republic of Belarus held a course for building a digital economy. In 2018, the country approved the Strategy “Science and Technology: 2018 – 2040”, within the framework of which the priorities and sectoral directions of scientific and technological development of Belarus were determined, as well as the digital contour of the intellectual economy was outlined [22].

Digitalization is also an integral part of the innovative development of the Republic of Belarus, the priorities of which are defined in the State Program “Digital Development of Belarus” for 2021–2025. This document refers to the implementation of measures for the creation and development of modern information and communication infrastructure, the introduction of innovative solutions in the sectors of the economy and technologies of smart cities, as well as ensuring the information security of such solutions [19]. The key to the successful operation of all implemented technical solutions is a reliable information and communication infrastructure. As part of the work on its improvement in Belarus in 2016-2020, more than 33 thousand kilometers of fiber-optic communication lines were carried out to connect individuals and legal entities.

The cellular mobile telecommunications network of the LTE (4G) standard and services based on it were actively developed. Currently, the coverage of the territory of the Republic of Belarus with cellular telecommunications services is 98.7%, while the coverage of the population is 99.9% [21].

Thanks to the expanding opportunities for accessing the internet via mobile devices, we note a significant increase in the number of people using this type of services. Simultaneously, Belarus is characterized by a less significant gap in this indicator between the urban and rural population than the average in the world (86.9 to 71.3, respectively).

Similar development trends as in Belarus in the use of new information technologies by households also occur in Poland. It manifests itself, inter alia, in the growing share of households in the use of the Internet in Poland and in the growing degree of Internet use in households' contacts with public authorities (Fig. 6).
Also competitiveness of Polish industries is to a large extent based on availability and quality of ICT sector solutions. The significance of the ICT sector in global and Polish economies continues to dynamically rise. Key trends in the ICT sector shall include cloud technologies, Big Data, the Internet of Things and cybersecurity. Poland faces the challenge of replacing present growth drivers, such as low cost of labor, EU subsidies and increase rate of productivity, and of balancing future disadvantageous regulations and socio-economic factors. Government investments and creation of innovation friendly environment shall be an important driver for stimulating growth of the ICT sector. The increased effectiveness of key sectors through implementation of IT solutions may become a driving force of overall economic growth.

The huge growth potential of the ICT sector is also confirmed by a large number of newly created start-ups. More than 50% of start-ups are established in the ICT sector. Polish ICT sector is in good condition, recording the average annual increase of turnover amounting to over 8.6%. This is the highest growth in Europe. However, relatively lower productivity of Polish ICT sector is manifested through the size of turnover per employee. This situation points to the need of further stimulation of the sector, as well as investment, both in infrastructure and education. Investments from the government and enterprises in innovation should be the drivers of further increase of productivity. One of the conditions to stimulate investment activity of Polish enterprises is development of a transparent and stable legal system regulating activities in individual areas of the ICT sector and ensuring better safety of investment. Polish ICT sector is characterized by significantly higher innovativeness than other sectors of Polish economy [6].

The Global Connectivity Index (GCI) was created to analyze a broad spectrum of ICT infrastructure and digital transformation indicators to provide a comprehensive map of the global digital economy. GCI is a unique quantitative assessment that comprehensively and objectively assesses connectivity from both a national and industrial perspective. The research framework includes a combination of advanced and foundational technologies, allowing the analysis of how yesterday, today and tomorrow intersect to help map the global digital economy [3]. In 2020, in the ranking of countries according to GCI, the Republic of Belarus took 47th place with an index of 46, ahead of Ukraine, but behind other neighboring countries, including Poland (Fig. 7).
According to ICT investment, ICT maturity, and digital economic performance, the S-curve groups nations into three clusters: Starters, Adopters, and Frontrunners. The Republic of Belarus, like all neighboring countries, belongs to the second group.

7. Development of e-services

The results of the work on creating the necessary information and communication infrastructure make it possible to develop modern technologies and services and, on their basis, carry out the digital transformation of processes taking place in various sectors of the economy. The created telecommunications infrastructure opens the way for providing high-tech services. Information technologies are being actively implemented in education, healthcare, licensing of economic activities, banking services and other spheres of life of society and business.

The unified portal of e-services has been created and is functioning in the country. This is a useful platform for providing citizens and businesses with electronic services, a single point of access to various electronic services, as well as the source of information on administrative procedures performed by one or another Belarusian department [23]. As an example of the development of the e-services sector, the unified register of licenses elaborated and put into operation can be cited. From July 1, 2020, information from it is provided on the unified portal of electronic services. A number of specialized automated information systems (AIS) have been implemented: AIS “Tax Calculation”, AIS “Personalized Accounting”, AIS “Control Activity”, etc.

The purpose of such systems is the digital transformation of management processes. For instance, thanks to the introduction of the unified automated information system of customs authorities, the share of customs declarations filed in electronic form has reached 99.99 % [19].

The processes accompanying the life of citizens were also transferred to a digital format. The service is actively used for submitting applications in electronic form to solve utility problems. The system “Calculation of housing and communal services” was introduced, which made it possible to automate the business processes of manufacturers and suppliers of utilities and other services for accounting for the volume of services rendered. This significantly simplified and accelerated the payments between consumers and suppliers. Based on the analysis, we can talk about the existence of a systematic approach to the development of the base for the provision of electronic services in the Republic of Belarus. The achieved results demonstrate its effectiveness.

Also in Poland, the share of e-economy in GDP is systematically growing. Currently, this ratio is around 9.5% of GDP. Thanks to increasing digitalization, the cost of running business will be decreasing over the next few years. Also, exchange of information within companies will improve and customer service will become easier. The financial sector is the most digitalized in Poland. Despite significant changes in recent years, the remaining sectors still lag behind the European Union average. At the same time it should be noted that Poland is relatively poorly developed in terms of digitalization in comparison to the most developed economies in Europe. The use of ICT technologies in the public sector continues to call for improvements. The Ministry of Economic Development has made it its objective for 50% of the society to handle 80% of official matters electronically within 2-3 years. Furthermore, one of the priorities is to increase non-cash turnover.

“Polityka Insight” center issued a number of recommendations, which are to accelerate the digitalization process in Poland: to guarantee shaping of digital competences at each stage of education, to encourage public institutions to make data and services available online, to create a single government service to handle official matters, to support and develop educational programs on personal data, to regulate access to personal data taking into account all groups, to invest public funds only in selected, prospective
sectors, to design a system of tax allowances for purchases of innovative technological solutions, to support investment in broadband infrastructure to ensure universal, high-quality access to the internet, to facilitate business activities and to coordinate the process of execution of IT procurement by administration.

8. Maturity of technology transfer mechanisms

One of the most important links in the chain of elements that form the foundation for the transition to a high-tech digital economy is an effective technology transfer mechanism. Innovation activity in the country is usually regulated at the state level. The country's image in the global space, as well as the level and quality of attracted investments, largely depends on the effectiveness of the approaches applied in this area.

Technology transfer centers are fixed in the legislation of the Republic of Belarus as the main link in the management of innovation processes. The main focus of their activities is the implementation of technology transfer. In order to promote the cooperation between developers and users of high technologies and potential investors in 2003 in Belarus under the auspices of the State Committee for Science and Technologies of the Republic of Belarus, the National Academy of Sciences of Belarus, the United Nations Development Programme (UNDP) and the United Nations Industrial Development Organization (UNIDO) was founded the Republican center for technology transfer (RCTT) [15].

Currently, technology transfer centers operate at more than 10 universities. There are also 18 science and technology parks operating in the country. The main objectives of such parks are to promote the development of entrepreneurship in the scientific, technical, and innovative spheres and to create conditions for the implementation of innovative activities by legal entities and individual entrepreneurs [8, 11].

We can see that innovation activity in the country is supported at the state level. However, one should pay attention to the fact that in recent years, with an increase in the number of organizations engaged in R&D and their commercialization, there has been a significant decrease in the number of applications filed for patenting inventions [17].

In Poland innovative activity in 2017-2019 was declared by 21.7% of industrial enterprises and 13.7% of service enterprises, compared to 26.1% and 21.0%, respectively, in 2016-2018. In the period 2017-2019, innovations (new or improved products or business processes) were introduced by 18.9% of industrial enterprises and 11.9% of service enterprises, i.e. less than in 2018, when they were introduced by 24.0% and 19.6% of the surveyed enterprises [5].

Both product innovations and business process innovations were more often introduced by industrial enterprises than by service enterprises (13.6% and 15.3%, respectively, compared to 6.3% and 10.3%). 12.5% of industrial enterprises and 3.1% of service enterprises introduced improved products, while new or improved services were introduced by 3.9% of industrial enterprises and 4.7% of service enterprises. Business process innovations were implemented by 15.3% of industrial enterprises and 10.3% of service enterprises. Industrial companies most often introduced new or improved methods of manufacturing products (9.9%), and service entities – new or improved methods of division of tasks, decision-making powers or human resources management (5.7%).

In industrial enterprises, investment outlays for fixed assets and intangible assets dominated, which accounted for 47.3% of all expenditure on innovation. Service enterprises spent the most funds on research and development (62.7%), as well as on investments in fixed assets and intangible and legal assets (23.0%).

9. Conclusions

The analysis of The Global Innovation Index in terms of the main components (Innovation Input and Innovation Output Sub-Indexes) and in dynamics allows us to conclude that Poland surpasses Belarus in terms of innovative development.

The grouping of the countries according to the calculated coefficient of efficiency of the innovation infrastructure (CEII) indicates that both states are in the same group, characterized by the average efficiency of innovation infrastructure. However, it is needless to say about equality of the positions. Thus, Belarus is not far from the lower border with a CEII of 0.5138, while Poland closes the group with CEII of 0.6276. This means that Polish investments are beneficial to Belarus not only from a financial, but also from a technological point of view.

Despite the difference in the level of technological development, the economies of Belarus and Poland share some common features. The analysis revealed that among the factors of technological development there are both positively and negatively affecting the investment climate of the studied countries. According to the data the positive dynamics of GII, the increased R & D funding, the growing innovative activity of enterprises, the development of e-services, the growth of the level of digitalization of the economies are positively perceived by potential investors. At the same time the misbalance between Innovation Input/Output Sub-Indexes, the low share of R&D expenditures in GDP and the suboptimal technology transfer mechanisms affect adversely the investment attractiveness of the countries.

We can also conclude that there is a certain imbalance between the links of the technological chain on the way from R&D to their patenting and implementation in the production process. It is obvious that in the current conditions, the entities of the innovation infrastructure of the Republic of Belarus and Poland should focus on quality input of R&D and improving the efficiency of the mechanism of their commercialization.

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