

NATIONAL ECONOMY ATTRACTIVENESS FOR FOREIGN DIRECT INVESTMENT: EVIDENCE FROM BELARUS AND EUROPEAN REGION COUNTRIES

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Abstract

The article considers theoretical and methodological aspects of host country's attractiveness for foreign direct investment. The methodology of assessment country's attractiveness for foreign direct investment is developed. Using the methodology a comparative analysis of attractiveness of Belarus and other countries of the region for direct investors is carried out. Based on the results obtained during the assessment of attractiveness of Belarus for foreign direct investment, recommendations for improving conditions to attract foreign direct investment in domestic economy at the present stage are formulated.

Keywords: *foreign direct investment, investment attractiveness, investment climate, economic factor, institutional factor, corruption, bureaucracy, political stability*

1. INTRODUCTION

In the modern world economic system, foreign direct investment (FDI) is one of the main factors of sustainable economic development for most countries. In comparison with other forms of capital attraction, it is FDI that the host economies are most interested in, as it provides an additional source of investment in the production of goods and services, facilitates the transfer of new advanced technologies, know-how, modern management and marketing methods, enables structural changes in the economy, allows diversify foreign trade activities, etc.

The current stage of world economy development is characterized by high competition among countries for FDI, that is why local governments create a favorable investment climate and improve mechanisms for attracting direct investment. This is largely due to the fact that economic determinants such as large market size, cheap and highly skilled labor or developed infrastructure are currently insufficient to successfully compete for FDI with other countries. As noted in a number of articles devoted to the study of FDI determinants (e.g., Bissoon, 2011; Julio et al., 2013) in recent years, investment attractiveness of economy has been largely determined by institutional environment in the host country. A favorable institutional environment is a necessary condition for successfully attracting FDI, especially due to the fact that it may take many years before investments will pay for themselves. At the same time, a favorable institutional environment helps to reduce the additional (transaction) costs of the investor associated with doing business in the host country. These additional costs may arise due to the presence of bureaucratic and judicial barriers, the low level of protection of property rights, excessive regulation of business activity, low level of enforcement of contracts, political instability, etc.

The purpose of this article is to develop a methodology for assessing the attractiveness of the national economy for FDI, the use of which will reveal current position of Belarus on attractiveness for direct investors among the countries of European region and develop recommendations to improve investment climate of the Belarusian economy.

2. RELATED LITERATURE

The process of decision-making by foreign investors about investing in a particular country is quite complex, and therefore it is widely discussed in the modern literature. Currently, researchers have identified a large number of factors that determine the attractiveness of national economies for FDI.

The classification of factors proposed by the United Nations Conference on Trade and Development (UNCTAD) in the World investment report, which was published in 1998, is the most widely disseminated. In this report, UNCTAD experts identify three main groups of such factors:

1. General policy of the country in relation to FDI, including economic, political and social stability; rules governing access and operations of foreign companies; mode of operation of foreign affiliates; policies on the functioning and structure of markets (especially policy towards competition and regulation of mergers and acquisitions); international agreements that regulate FDI; privatization policy; trade policy (tariff and non-tariff barriers) and coherence of trade policy with the policy in relation to FDI; tax policy.
2. Measures to promote business, including actions to promote investment (activities to create country's image in the eyes of potential investors, support for foreign investors at all stages of the investment project, as well as services to facilitate business); benefits and other incentives for foreign investors, the elimination of "side" costs associated with corruption, inefficiency of administrative management, etc.; development of social sphere in order to adapt personnel attracted from abroad for implementation of the investment project; post-investment services.
3. Economic factors, including the structure and size of the market, as well as its growth rate; per capita income (reflecting purchasing power within the country); access to regional and world markets; consumer preferences specific to the country; availability of raw materials and resources; cost and skills of labor force; technological, innovative and other created assets (e.g. trademarks, brands); physical infrastructure (ports, roads, telecommunications, etc.); the value of available resources and assets, taking into account labor productivity; other production costs (e.g. transport and communication costs, intermediate material costs); participation in regional integration groupings contributing to the establishment of a regional corporate network.

In general, the first two groups of factors that influence a country's attractiveness for FDI can be conventionally identified as institutional factors. In the world literature, the division of determinants of a country's attractiveness for FDI into economic and institutional ones is widespread, due to their different nature. Economic factors reflect the state of the economy and the economic potential, while institutional ones characterize the processes associated with management, regulation of certain areas, areas, economic, social relations, political and legal environment.

One of the first to adhere to this approach is Dunning (1988), who, within the framework of his famous OLI concept, notes that investment decisions on investing in foreign countries are based on a number of economic factors (market size as an advantage of location, market growth, economic openness, inflation, etc.), as well as institutional factors (stability of political institutions, quality of public administration, etc.). For reference: OLI concept (ownership, location, internalization – property, location, internalization) is one of the basic theories explaining nature and causes of FDI. It includes three necessary prerequisites, on the basis of which a company makes a decision on the implementation of direct investments abroad.

A number of researchers, for example, Anghel (2005), Bénassy-Quéré et al. (2007) are also of the view that attracting FDI is influenced by two groups of factors: economic and institutional.

It should be noted that some Belarusian authors support this dispersion of factors. For example, Petrushkevich (2006), based on foreign and domestic experience, identifies among the factors of the investment climate a group of economic determinants (market size and growth rate, per capita income, access to regional and global markets, availability of raw materials, natural resources, cheap and skilled labor, etc.) and a group of institutional determinants (factors characterizing economic, political, social stability, the order of creation and functioning of companies, competition policy, tax and trade policy, privatization policy, etc.). Later Petrushkevich together with Shmarlovskaya (2012) developed a system of determinants of the investment climate, highlighting an additional group of factors based on FDI policy incentives, for example, a system of benefits for foreign investors. In our opinion, this group of factors can be combined together with a group of institutional determinants, as they have a similar nature.

Thus, the classification of factors of attractiveness for FDI, based on division of determinants into two groups (economic and institutional), allows to determine to what extent investment attractiveness of the country depends on the state of the economy and economic potential, and to what extent – on the state policy towards foreign investors and in general on development of domestic institutions.

Within the group of economic factors, we have identified two main subgroups – "Attractiveness of the economy" and "Infrastructure and workforce". Within the group of institutional factors, two subgroups are also identified – "Legal and political systems" and "Business environment".

1. Economic factors.

1.1. The attractiveness of the economy. The state of the host economy has a significant impact on attracting FDI. As noted by Schatz and Venables (2000), the size of the market is one of the most important economic factors for foreign investors focused on search for new markets. World practice shows that direct investment is mainly spontaneous, i.e. implementation of most projects with FDI is aimed at activities in the domestic market of the host country, rather than in foreign markets. A large number of empirical studies, such as Fang et al. (2002) showed that the size of the market as measured by nominal GDP had a strong impact on FDI inflows.

In addition, Billington (1999) emphasizes that not only large size of the market, but also its rapid growth rate has a positive impact on direct investment inflow.

In terms of attracting FDI successfully, existence of a large domestic market and its rapid growth is particularly important for developing countries and countries with economies in transition (Wheeler and Mody, 1992). In particular, Torrisi et al. (2008) found that market size was a decisive factor in attracting FDI in countries with transition economies in Central Europe, such as Czech Republic, Hungary, Poland and Slovakia.

However, economy of the host country is characterized not only by the size of the market and its growth rate. Addison and Heshmati (2003) detected that opening a country to foreign trade can have a significant impact on FDI inflows, emphasizing that the higher country's foreign trade volume to GDP, a country can expect to attract more foreign direct investment. Asiedu (2002), analysing the determinants of FDI inflows to developing countries, found that the impact of trade openness on FDI depends on the type of investment. The author came to the conclusion that the closest relationship between trade openness and FDI is observed in the case of vertical (export-oriented) investments. Janicki and Wunnava (2004) emphasize that trade and investments complement each other. Bevan and Estrin (2004), exploring determinants of FDI from Western countries to Central and Eastern Europe also demonstrated the complementarity of trade and investment, noting that countries that had a higher share in trade with the countries of the West, received significantly more FDI.

The presence of a stable macroeconomic environment in the recipient country plays an important role for foreign investors, so that the instability in the economy reduces attractiveness for investment. Banyak et al. (2005) showed that macroeconomic instability, in particular high inflation, had a negative impact on FDI inflows among transition economies. Al Nasser (2007), examining developing countries in Latin America and Asia, found that, despite the presence of a large domestic market and its high growth rate, macroeconomic instability in these countries has led to a decline in FDI attraction.

1.2. Infrastructure and workforce. As world practice shows infrastructure in the host country is no less important for foreign investors. As noted by Loree and Guisinger (1995), availability of well-developed telecommunications and transport infrastructure has a positive impact on FDI inflows. Wheeler and Mody (1992) believe that, especially for developing countries, the state of infrastructure is one of the most important factors in attracting FDI, noting that government programmes to develop domestic infrastructure are of particular importance. Addison and Heshmati (2003) emphasize that a well-developed information and communication technology infrastructure has a strong positive impact on FDI inflows.

For foreign investors an important factor is the availability of qualified labor resources in the host country, which have experience in modern enterprises. However, the cost of labor is also a significant

factor determining investment attractiveness of a country, i.e. the lower level of labor costs, the more attractive it is for investment. At the same time, according to experts of the World Economic Forum (WEF), for investors focused on improving the efficiency of their activities, it is important to have the level of remuneration of adequate productivity of workers, and not just the low cost of local labor as such. This thesis is confirmed by a number of empirical studies. So, for example, as noted by Rodriguez and Pallas (2008), some developing countries in Latin America and Africa, with cheap labor, often failed to attract FDI, export-oriented, largely because of the extremely low labor productivity in these countries.

2. Institutional factors.

2.1. Legal and political system. The state of legal system, first of all degree of protection of property rights and transparency of the national judicial system, can play a key role in attracting FDI and enhancing economic development of the host country (Hewko, 2002).

The most important factor in making investment decisions is the existence of a legal environment that effectively protects investors (LaPorta et al., 1999). Degree of investor protection against the probability of loss of investment (risks of nationalization and expropriation of property) is one of the determining factors of investment in a particular country. The effectiveness of the investor protection system is largely determined by its transparency and independence. This is confirmed by a number of empirical studies. Ramcharan (2000) found that opacity of legislative system had a strong negative impact on attracting FDI to Central and Eastern Europe. Banyak et al. (2005) consider that the quality of legal system, as determined by sustainability of national economic and investment legislation, high level of contract performance, is crucial to stimulate FDI inflows, and increased transparency and independence of country's judicial system has a positive impact on investment decision-making. Finally, UNCTAD (2008) confirms that establishment of a participatory, transparent and accountable legislative system, as well as the promotion and rule of law, are critical in attracting FDI.

Naudé and Krugell (2007) argue that, along with the quality of the country's legal system, the state of the political system also plays a significant role in attracting FDI.

International practice shows that political instability, which is one of the indicators of the state of political system, as a rule, has a negative impact on the dynamics of FDI and, as a result, leads to a slowdown in economic growth. It should be noted that there are two main risks associated with political instability in the recipient country faced by a foreign investor. The first is that domestic instability or civil unrest reduce the profitability of doing business, as frustrated domestic sales and exports and also disrupted the continuity of production. Another consequence of political instability, as noted by Brada et al. (2004), is a high probability of depreciation of the national currency in the host country, reducing value of assets, and therefore future income of foreign investors.

Political system is largely characterized by the quality of regulation, first of all, of economic processes. As noted Naudé and Krugell (2007), more rigid regulation of economic activity and absence of effective economic incentives for development of entrepreneurship is one of the main factors for low investment attractiveness of host countries. Angel (2005) also indicates that the higher level of freedom of doing business in the recipient country, as reflected in low participation of the state in business regulation (for example, in price control), as well as availability of public policy instruments to promote foreign trade and business development, have a positive impact on FDI inflows.

A number of researchers note that development of democratic institutions in the host country can have a significant impact on FDI inflows. For example, Pierpont (2007) found a positive relationship between democracy and FDI inflows. This is because democracy ("power of people") contributes to a stable political environment in the host country, which in turn is particularly important for transnational corporations (TNCs). A more stable political environment ensures that the host government will not be able to fundamentally change the country's economic policy without taking into account views of electorate, which creates confidence among foreign investors in maintaining a stable business environment in the long term.

2.2. Business environment. The state of the business environment in the host country is another key driver for FDI.

The state of the business environment is primarily associated with the ease for a foreign investor to establish an enterprise in the host country. The establishment of an enterprise, as a rule, is accompanied by the passage of all necessary procedures by investor. These procedures include obtaining necessary licenses and permits, issuing required notifications, certificates and registrations with relevant authorities in respect of the enterprise and its employees. Accordingly, the less the investor spends time and money to create an enterprise, a country will be more attractive for investment.

In many ways, the level of bureaucracy affects the activities of a foreign investor in the host country. Banyak et al. (2005) found that delays in obtaining the necessary permits for investors (e.g. for construction, work related to land or real estate lease, etc.) and licenses in view of high administrative costs, as well as the complexity of bureaucratic procedures, had a negative impact on expected returns, thus affecting investment decisions. Empirical research of Bénassy-Quéré et al. (2007) also shows that high bureaucracy can be a determining factor for low FDI inflows.

Access to credit is also an important indicator of business environment in the recipient country. As noted by Angel (2005), limited access of foreign companies to local credit resources due to underdeveloped internal network of credit and financial institutions and high interest rates may have a negative impact on FDI inflows.

Special attention of foreign investors is paid to the tax policy in the host country. As noted by Cassou (1997), not only the high level of taxation but also the complex and intricate tax system of the recipient country is not conducive to FDI inflows, so simplicity, stability and predictability of the tax system is an important aspect in investment decisions. With regard to the granting of tax incentives by the host country to foreign investors, world practice shows that this fact is not decisive in selection of investment objects, as it will not be able to withstand, for example, an unstable political situation or serious problems related to protection of property rights. However, tax incentives can play an important role in attracting FDI to the extractive industries, which have significant fixed costs and relatively high initial investment requirements.

Finally, an important characteristic of business environment is the level of corruption in the country. As a rule, it is stated that corruption has a negative impact on direct investment inflow, as it leads to an increase in cost of doing business in the host country. Due to the fact that foreign investors have to pay additional costs in the form of bribes to obtain licenses or permits from public authorities to implement investment projects, corruption increases the cost of investment (Bissoon, 2011).

3. METHODOLOGY

For the purpose of generalized evaluation of attractiveness of countries for FDI, the author has developed a technique in which it is expected to calculate the integral index of attractiveness of the national economy for FDI on the basis of indicators characterizing economic and institutional conditions in the recipient state. The system of indicators characterizing economic conditions contains two blocks of indicators, first of which includes indicators of the attractiveness of the economy (market size and its growth rate; purchasing power of the population; level of trade openness; economic stability), and second block – indicators of internal infrastructure development and workforces (quality of transport, telecommunications infrastructure and power supply system; quality of education system; labor cost). The system of indicators characterizing institutional conditions also contains two sets of indicators, first of which contains indicators reflecting the state of legal and political systems (rule of law; regulatory quality; enforcing contracts; political stability and absence of violence; voice and accountability), and second block – indicators of the state and regulation of business environment (starting a business; getting credit; paying taxes; government effectiveness; control of corruption). Thus, four sets of indicators ("Attractiveness of the economy", "Infrastructure

and workforces", "Legal and political systems", "Business environment"), which can be considered as the key determinants of country's attractiveness for FDI (table. 1).

The latest available annual data (2017) from leading international organizations, such as IMF, World Bank (WB) and WEF, in the context of selected 48 countries in the region, provide an information base for calculating the integrated index of attractiveness of recipient country for FDI. The sample of countries was determined, first of all, by the geographical proximity with Belarus, as well as by availability of full available data for the study. The sample did not include small countries (San Marino, Vatican, etc.), as well as dependent territories, unrecognized and partially recognized states (Gibraltar, Kosovo, etc.).

Factors	Unit measurements	Data source
1. ECONOMIC		
<i>1.1. Attractiveness of the economy</i>		
1.1.1. Market size (GDP)	USD million	IMF (World Economic Outlook Database)
1.1.2. Market growth rate (real GDP growth rate)	% of the previous year	IMF (World Economic Outlook Database)
1.1.3. Purchasing power (GDP per capita)	USD thousand	IMF (World Economic Outlook Database)
1.1.4. Trade openness (foreign trade turnover to GDP)	%	WB (World Bank Open Data: Indicators)
1.1.5. Economic stability (consumer price index)	% of the previous year	IMF (World Economic Outlook Database)
<i>1.2. Infrastructure and workforce</i>		
1.2.1. Quality of infrastructure (transport, tele-communication, power supply)	index, points	WEF (The Global Competitiveness Report)
1.2.2. Quality of education system (skills)	index, points	WEF (The Global Competitiveness Report)
1.2.3. Labor cost (pay and productivity)	index, points	WEF (The Global Competitiveness Report)
2. INSTITUTIONAL		
<i>2.1. Legal and political systems</i>		
2.1.1. Rule of law	index, points	WB (Worldwide Governance Indicators)
2.1.2. Regulatory quality	index, points	WB (Worldwide Governance Indicators)
2.1.3. Enforcing contracts	index, points	WB (Doing Business Report)
2.1.4. Political stability and absence of violence	index, points	WB (Worldwide Governance Indicators)
2.1.5. Voice and accountability	index, points	WB (Worldwide Governance Indicators)
<i>2.2. Business environment</i>		
2.2.1. Starting a business	index, points	WB (Doing Business Report)
2.2.2. Getting credit	index, points	WB (Doing Business Report)
2.2.3. Paying taxes	index, points	WB (Doing Business Report)
2.2.4. Government effectiveness	index, points	WB (Worldwide Governance Indicators)
2.2.5. Control of corruption	index, points	WB (Worldwide Governance Indicators)

Table 1. Components for calculation of the integrated host country attractiveness index for FDI

Source: author's development

Calculation of the integrated index of country attractiveness for FDI is based on the methodological approaches proposed by Groh and Wich (2009). In particular, methodology for calculating the integral index includes three stages (Fig. 1): 1) normalization and standardization; 2) determination of the specific weights of private indicators (weighting); 3) aggregation of private indicators for calculation of the integrated index.

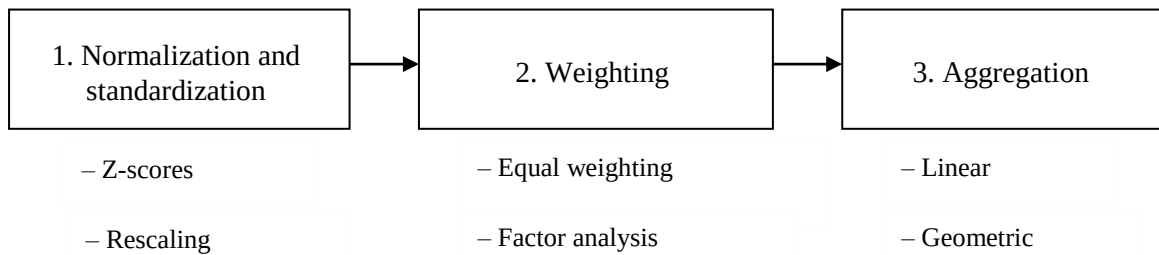


Fig. 1. Methodology for calculating the integrated index of attractiveness for FDI

Source: Groh and Wich, 2009

It should be clarified that final results are sensitive to the techniques used, so it is necessary to use different combinations of proposed methods. In this case, four different combinations of methods will be used to calculate four versions of the integral index (table. 2). Based on the results obtained, explanatory power of different versions of the index will be compared to determine which combination produces the best result, and therefore is most appropriate to determine the host country's attractiveness for FDI.

Method	Normalization and standardization	Weighting	Aggregation
1	Z-scores	Equal weighting	Linear
2	Rescaling	Equal weighting	Linear
3	Rescaling	Equal weighting	Geometric
4	Rescaling	Factor analysis	Geometric

Table 2. Combinations of different methods for calculating the integrated index of attractiveness for FDI

Source: author's development

3.1. Normalization and standardization.

In order to implement aggregation, all data must be pre-normalized and standardized. For data normalization and standardization most commonly used method of Z-scores (normalization method) and the method of rescaling.

Using Z-score method, the original data is converted to a standard scale with a normal distribution, a zero mean value and a standard deviation of one. Normalized values using Z-score method are calculated using the following formula:

$$Z_i = \frac{x_i - \bar{x}}{\sigma_x}, \quad (1)$$

where x_i – initial value of the i -th indicator; $\bar{x}$ – average value of the indicator; σ_x – standard deviation.

Rescaling method allows to normalize the initial parameters and bring them into the same range by linear transformation. As a result all variables are converted on a scale from 0 to 100 points, where 100 is the best result and 0 is the worst result. Conversion of data in a comparable form is carried out according to the following formula:

$$Y_i = \frac{x_i - x_{\min}}{x_{\max} - x_{\min}} \quad (2)$$

where x_i , $x_{\min}$, $x_{\max}$ – the initial, minimum and maximum values of the indicator, respectively.

Rescaling method is sensitive to presence of extreme values or abnormal outliers that can distort the results of data conversion. However, unlike Z-scores method, the use of scaling method makes it possible to expand the range of indicators whose values lie in small intervals.

3.2. Weighting.

The next step after normalization and standardization of the source data is to determine the specific weights of particular indicators. In this case, it seems appropriate to use two methods. The first method assigns equal weights to all inputs according to the structure shown in table 1. As noted by Nardo et al. (2005a), most composite (integral) indices are calculated using equal weights of the original variables. The second method involves the calculation of four subindexes "Attractiveness of the economy", "Infrastructure and workforces", "Legal and political systems", "Business environment" on the basis of primary factor characteristics using equal weights, after which the specific weights of the subindexes are determined using the methods of factor analysis. In particular, in the framework of factor analysis, each subindex is assigned a specific weight depending on its contribution to the overall data variance, which allows, *ceteris paribus*, to improve quality and explanatory ability of the integrated index.

The main idea of factor analysis is to compress the data set as much as possible and at the same time keep it informative. In other words, in the course of factor analysis it becomes possible to describe a set of initial variables with fewer selected factors. In general, the model of factor analysis looks as follows:

$$\begin{aligned} x_1 &= \alpha_{11}F_1 + \alpha_{12}F_2 + \dots + \alpha_{1m}F_m + e_1 \\ x_2 &= \alpha_{21}F_1 + \alpha_{22}F_2 + \dots + \alpha_{2m}F_m + e_2 \\ &\dots \\ x_Q &= \alpha_{Q1}F_1 + \alpha_{Q2}F_2 + \dots + \alpha_{Qm}F_m + e_Q \end{aligned} \quad (3)$$

where x_i – variable with zero mean and variance equal to one; α_{i1} , α_{i2} , ..., α_{im} – factor loadings of the original parameters (in our case, four sub-indices); F_1 , F_2 , ..., F_m – selected main factors with zero mean and variance equal to one; e_i – a latent specific variable that generalizes an undisclosed (residual) variation of a primary factor trait (in our case a single sub-index) and has a normal distribution with a zero mean.

As stressed by Nardo et al. (2005b), for the solution of this model is the most commonly used principal component analysis. With the help of this method, several main factors (components) unrelated to each other are extracted from the initial set of primary factor features. In other words, the main components identified are statistically independent of each other.

Table 3 presents the results of using principal components method based on a set of four subindexes "Attractiveness of the economy", "Infrastructure and workforces", "Legal and political systems", "Business environment". The previously listed subindexes were calculated on the basis of the corresponding primary factor features using equal weights.

Main component	Eigenvalue	Share of total variance, %	Cumulative eigenvalue	Cumulative proportion of total variance, %
1	2,8	73,3	2,8	73,3
2	0,5	12,8	3,3	86,1

Table 3. Results of factor analysis

Source: author's development

According to the Kaiser criterion, only first main component is significant, since its eigenvalue exceeds 1 and is 2.8. All other factors (including second main component) with eigenvalue less than 1 are considered insignificant and undesirable due to their low level of information. Given that the first main component explains 73.3% of the variation of the original subindexes (table. 3) based on the criterion of percentage of variation criterion it is logical to assume that the allocated number of latent features (one) is satisfactory. Thus, first main component adequately describes the initial set of four subindexes.

Table 4 presents the matrix of factor loads of the four subindexes in first major component, as well as squares of factor loads and the specific weights of the subindexes in explained variance. It is necessary to clarify that squares of factor loads are part of variance of the main component, explained by a separate subindex. As a result, specific weights of the subindexes are calculated as the ratio of squares of factor loads to the total explained variance.

Subindex	Factor loads	Squares of factor loads	Relative weight of subindexes
1) «Attractiveness of the economy»	-0,824	0,679	0,236
2) «Infrastructure and workforce»	-0,851	0,724	0,251
3) «Legal and political systems»	-0,907	0,823	0,286
4) «Business environment»	-0,808	0,653	0,227
Variance explained	2,878	2,878	1,000

Table 4. Matrix of factor loads in first main component and specific weights of subindex

Source: author's development.

The analysis of table 4 shows that contribution of institutional factors to the explained variance of the main component is 51.3%, in particular, the share of sub-index "Legal and political system" is 28.6%, sub-index "Business environment" is 22.7%. In turn, the contribution of economic factors is 48.7%: sub-index "Infrastructure and workforce" – 25.1% and sub-index "Attractiveness of the economy" – 23.6%. Thus, specific weights of sub-indices calculated in the course of factor analysis differ slightly from the method of equal specific weights, when each of four sub-indices is assigned a specific weight of 25.0%.

3.3. Aggregation.

Linear and geometric methods are traditionally used to aggregate variables into an integral index.

Linear aggregation can be represented as follows:

$$\bar{x} = \sum_i w_i x_i, \quad (4)$$

where $\bar{x}$ – integral index; x_i – private indicators; w_i – specific weights of private indicators, $0 \leq w_i \leq 1, \sum_i w_i = 1$.

Geometric aggregation can be represented as follows:

$$\bar{x} = \prod_i x_i^{w_i}, \quad (5)$$

where $\bar{x}$ – integral index; x_i – private indicators; w_i – specific weights of private indicators, $0 \leq w_i \leq 1, \sum_i w_i = 1$.

4. RESULTS

After standardization and normalization of the initial data, calculation of specific weights of private indicators and their aggregation, four versions of the integrated index of attractiveness of countries for FDI were obtained (table. 5). To choose the best version of the integral index, we calculated Pearson correlation coefficient between FDI stock per capita and the index values. The analysis shows that second version of the integrated index is the most adequate generalized assessment of attractiveness for FDI (Pearson correlation coefficient is 0.966).

Method of calculation of integrated index	Pearson correlation coefficient with FDI stock per capita
Method 1: Z-scores, equal weighting, linear aggregation	0,947
Method 2: Rescaling, equal weighting, linear aggregation	0,966
Method 3: Rescaling, equal weighting, geometric aggregation	0,951
Method 4: Rescaling, factor analysis, linear aggregation	0,950

Table 5. Comparison of the explanatory power of four versions of the integrated index calculation

Source: author's development.

On the basis of second version of the integrated index, a rating of the region's countries in terms of attractiveness for FDI was compiled (Fig. 2). In particular, in order to simplify the comparative country analysis, the average value of the integrated index for the total of 48 countries was calculated, after which the values of the integrated index for each country were recalculated as a percentage of the average value.

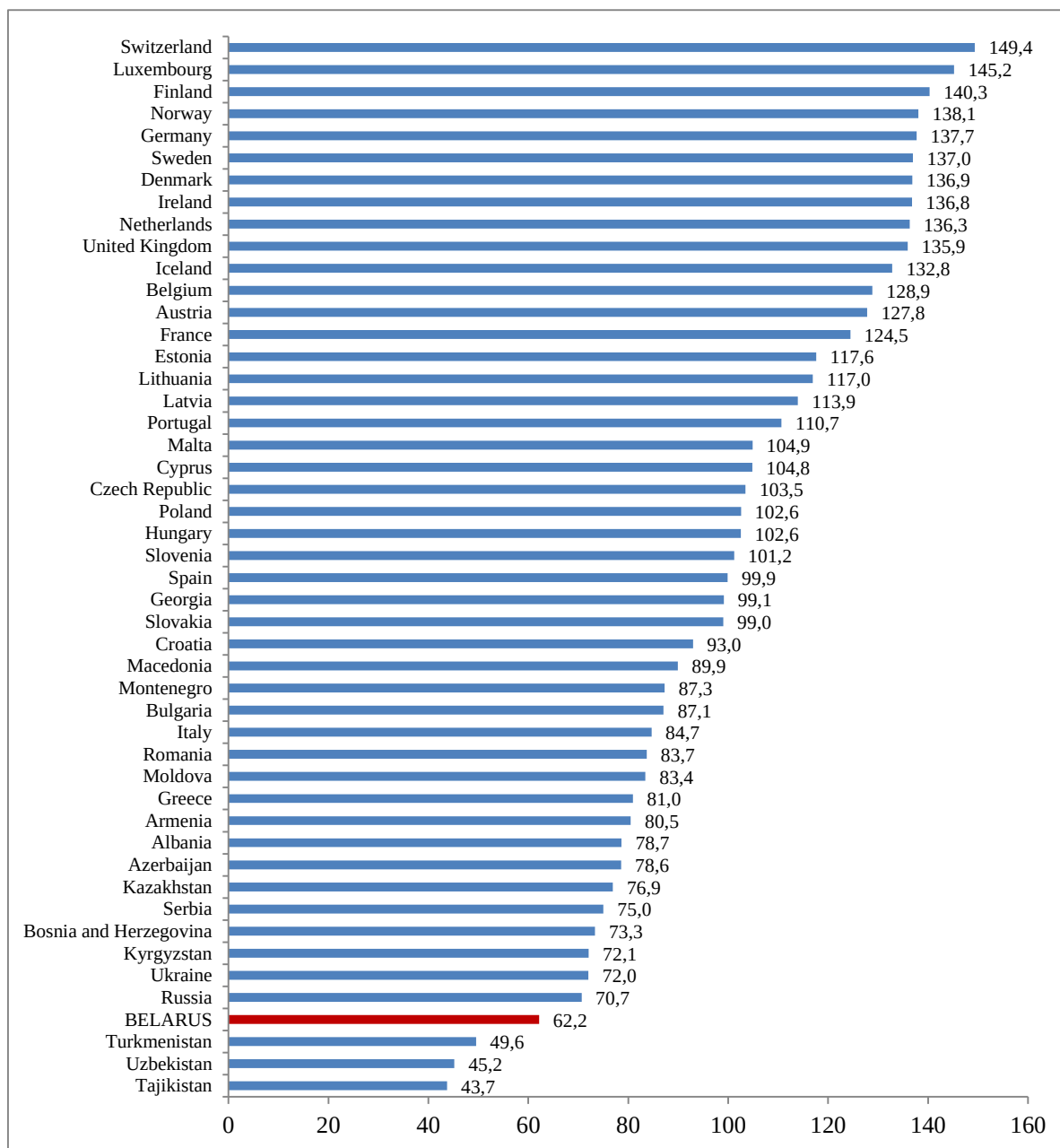


Fig. 2. Ranking of countries in the region by level of attractiveness for FDI (2017), points

Source: author's development of the results of calculation of the integrated index.

As a result, at the end of 2017, five most attractive countries for FDI were as follows: Switzerland – value of the integrated index of attractiveness for FDI amounted to 149.4 points, Luxembourg – 145.2 points, Finland – 140.3 points, Norway – 138.1 points, Germany – 137.7 points.

In the presented rating Belarus ranks 45th place (62.2 points) among 48 countries, yielding to neighboring countries and partners in the Eurasian economic union (EAEU), which necessitates the improvement of economic and institutional conditions in the country in order to increase FDI inflows into the national economy. In particular, Lithuania in the ranking of attractiveness for FDI is in 16th place (117.0 points), Latvia – 17th a place (113.9 points), Poland – 22nd place (102.6 points), Kazakhstan – 39th place (76.9 points), Ukraine – 43th place (72.0 points) and Russia – 44th place (70.7 points).

Figure 3 presents a comparative assessment of attractiveness of Belarus and other countries in the region for FDI by individual factors. Countries are divided into groups: 1) developed; 2) developing and transition economies.

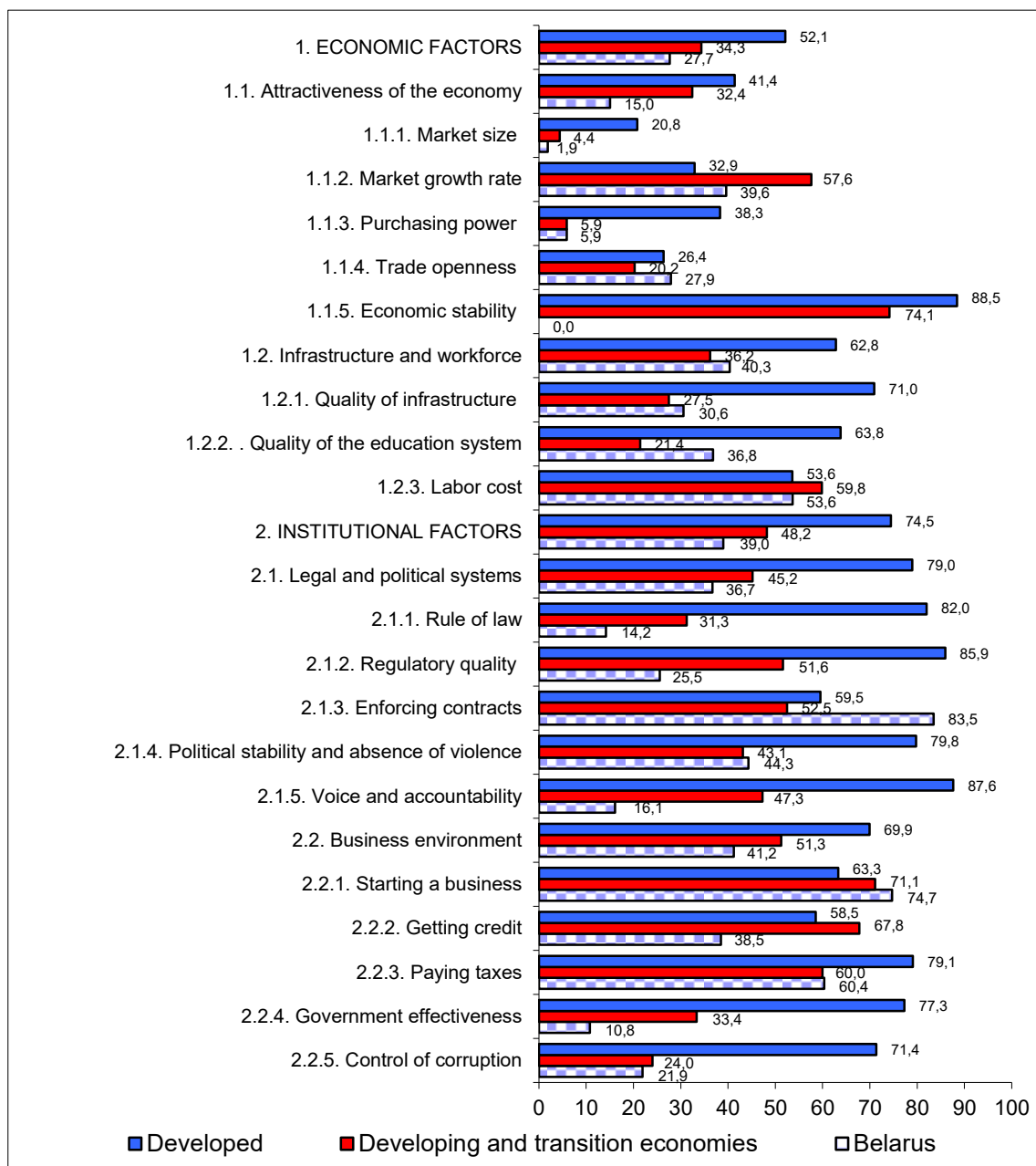


Fig. 3. Comparative characteristics of the countries of the region by individual components of attractiveness for FDI (2017), points

Source: author's development

Analyzing presented data, we can conclude that Belarus is slightly inferior to other developing countries and countries with economies in transition in the region in terms of economic factors – the gap is 6.6 points, while the difference is more significant – 24.4 points compared to the developed countries of the region.

In many ways, the lag of Belarus in economic factors is caused by the relatively low attractiveness of the economy. According to this criterion, the difference with developing countries and countries with economies in transition in the region is 2.2 times, and with developed countries – 2.8 times. The greatest impact on the low attractiveness of the economy of Belarus had economic instability.

Belarus is 2.3 times smaller than developing countries and countries with economies in transition in terms of market size, while the gap with developed countries is 10.9 times larger. In terms of market growth, Belarus is generally ahead of developed countries of the region, behind developing and transition economies, and in terms of trade openness is ahead of both developed countries and developing and transition economies.

Considering infrastructure and workforces, Belarus is generally 4.1 points ahead of other developing countries and countries with economies in transition in the region, while being 1.5 times behind developed countries. The quality of transport, telecommunications infrastructure and energy supply in Belarus is estimated to be higher than in the rest of developing countries and countries with economies in transition in the region, but lower than in developed countries. The relatively high quality of education system in the Republic of Belarus is 1.7 times higher than in developing countries and countries with economies in transition, but 1.7 times lower than in developed countries of the region. In terms of the link between pay and productivity, Belarus is generally inferior to both developed countries and developing and transition economies. This indicates that, despite the fact that Belarus has a relatively low level of wages, it does not correspond to the real productivity of workers, i.e. it is overstated.

In turn, Belarus lags behind other countries of the region in terms of institutional factors to a greater extent than in terms of economic factors: the difference with developing countries and countries with economies in transition is 23.6%, and with developed countries 1.9 times. The attractiveness of legal and political systems in Belarus is estimated to be lower than in developing countries and countries with economies in transition (by 23.2%) and in developed countries (2.2 times). First of all, it is caused by the low degree of rule of law 14.2 points out of a possible 100 (with of 31.3 points in the whole developing countries and countries with economies in transition and 82.0 points in the whole developed countries). Belarus also has a low level of development of democratic institutions – 16.1 points out of 100 possible. In terms of quality of regulation, Belarus is 2.0 times inferior to developing countries and countries with economies in transition and 3.4 times inferior to developed countries. Belarus has higher levels of political stability (2.8%) than developing countries and countries with economies in transition in the region, but below the level of developed countries (1.8 times). At the same time, in terms of "Enforcing contracts", Belarus is generally ahead of both developed countries and developing and transition economies.

The attractiveness of business environment in Belarus is also at a lower level than in other countries of the region: the difference with developing countries and countries with economies in transition as a whole is 24.5%, with developed countries – 1.7 times.

The lowest indicators of Belarus in terms of bureaucracy and corruption in the country – respectively 10.8 points and 21.9 points out of 100 possible, which indicates the presence in the country of a number of obstacles for investors from the public administration, as well as significant abuse of official position in the implementation of investment projects.

An important problem in Belarus in comparison with other countries of the region is access to credit resources. According to this criterion, Belarus as a whole is 1.8 times behind developing countries and transition economies and 1.5 times behind developed countries. In terms of ease of taxation, Belarus is slightly ahead of developing countries and countries with economies in transition – by only 0.4%, but is inferior to developed countries – by 31.0%.

Under the terms of starting business, the Republic of Belarus as a whole is ahead of both developed countries of the region and developing and transition economies. According to this criterion, Belarus received 74.7 points out of 100 possible, while developed countries – 63.3 points, and developing and transition economies – 71.1 points.

5. RECOMMENDATIONS

The study allows to formulate separate directions related to the increasing attractiveness of the Belarusian economy for FDI. It should be noted that due to the fact that economic conditions in general are quite permanent and difficult to change them significantly in a short period of time (for example, to increase the size of the market), the main emphasis should be on improving the internal institutional conditions in Belarus.

5.1. *Improvement of economic conditions.*

5.1.1. Development of domestic market. With regard to the expansion of the domestic market of Belarus, as noted above, opportunities are limited for objective reasons. In this case, in order to attract foreign investors, the republic needs to make maximum use of potential of the formed single market within the framework of regional integration in the conditions of EAEU, as international practice shows that, economic integration traditionally leads to an increase in FDI flows, both between the member countries of integration associations and from third countries. Further deepening of economic integration of Belarus with Russia, Kazakhstan, Armenia and Kyrgyzstan within the framework of EAEU will contribute to the increase of FDI inflows to the integrating countries. This is because with the deepening of integration is the elimination of barriers to economic interaction among countries, and reduction of economic risks through the implementation of coordinated macroeconomic, fiscal, monetary policy.

5.1.2. Strengthening economic stability. This direction is becoming particularly relevant in Belarus at the present time. The accumulation of serious imbalances in the domestic economy led to a large-scale devaluation of the national currency in 2011, as a result of which inflation increased significantly, the purchasing power of the population decreased, etc. Consequences of the devaluation had a negative impact on foreign-owned companies, as a result of which there was a depreciation of their assets, and the profitability of investments decreased. In this regard, one of the priorities for Belarus is to prevent the growth of both internal and external imbalances in the economy (between production and consumption, in foreign trade, etc.). Ensuring a balanced development, which provides for the priority of achieving qualitative indicators over quantitative ones, will help to establish a stable situation in the domestic currency market and maintain the exchange rate of the national currency.

5.1.3. Ensuring the ratio of wage growth adequate to the growth of productivity of workers. As noted above, pat level in Belarus is overstated in comparison with the productivity of workers, which is largely due to the state's policy to stimulate the growth of wages in the country. The growth of wages of workers should be allowed only under the condition of a corresponding increase in the productivity of labor. At the same time, revenue from sales of products, goods, works and services per average employee can be used as an indicator in determining labor productivity.

5.2. *Improving the institutional environment.*

5.2.1. Strengthening rule of law in terms of protecting rights of investors and ensuring transparency and independence of the judiciary. First, in order to successfully attract FDI in Belarus, it is necessary to minimize the risks associated with the protection of investors' property rights. The improvement of Belarus' position on the level of property rights protection can be achieved by harmonizing the national system of protection of foreign investors in accordance with international best practices. Potential foreign investors should be confident in the stability and transparency of the legal norms that guarantee protection of their investments. In this context, a concrete measure is the introduction of a stabilization ("grandfather") clause in Belarusian legislation to protect investors from the adoption of future legislation that worsens their situation. In the current legislation, in particular, the law of the Republic of Belarus "On investments", which entered from the beginning of 2014, does not contain such a clause. In addition to the need to introduce a stabilization clause in the national investment legislation, it is advisable to extend it for the entire duration of the investment project (not for a limited period of time), since each project has its own payback period.

In order to strengthen the protection of investors, it is advisable to improve the legislation of Belarus on business companies in terms of detailing the responsibility of members of the management bodies of a business company for the validity of their decisions.

The problem of increasing transparency and independence of the national judicial system is also important. It is obvious that in any country investors are interested in an independent judicial system capable of fairly solving investment disputes. On the one hand, there should be no cases when investors' rights are violated. On the other hand, there must be precedents that prove that the court is indeed independent and investor can defend his rights.

5.2.2. Improving quality of economic processes regulation, which involves simplifying business environment and implementation of international trade.

As part of simplification of business activities, it is necessary to reduce participation of the state in control of prices, activities of financial and credit organizations, as well as creation of more favorable conditions for development of private initiative in the country. The development of private initiative implies a significant reduction in the share of public sector and a more active privatization of public property, which can serve as an effective way to attract foreign investors. In this case, one important aspect of privatization is the reduction of the list of various additional conditions, which often needs to fulfill the potential buyers of state property (preservation of a profile of work of the enterprise, working places, contents of social infrastructure, maintaining existing production volumes, capital investment, etc.). These conditions discourage investors, as they limit the freedom of development of the company's assets by new owner. To increase the efficiency of privatization processes, it is necessary to develop a list of specific foreign companies that may be interested not only in the privatization of domestic enterprises, but in further development of business in Belarus. This requires regular activities to target strategic investors for privatized enterprises, including more active involvement of international consultants.

Among the main tasks to increase attractiveness of Belarus in attracting FDI is to improve the mechanism of foreign trade operations. Despite the fact that the average level of customs tariff in Belarus is at a low level, quotas and licensing requirements, as well as non-transparent regulation of trade increases the cost of trade operations. Therefore, the improvement of conditions of realization of international trade requires, above all, simplification of procedural requirements for export and import in the form of reducing the number of documents for clearance, reducing time and costs of passing official procedures for export and import. In order to increase the interest of foreign investors in the implementation of export activities in Belarus, it is also necessary to improve the system of support and promotion of exports in the form of export credits, insurance of export risks. Increase investment in-percent will contribute to the acceleration of the negotiation process on Belarus' accession to the World Trade Organization given the fact that partners in EAEU are already members of this organization.

5.2.3. Simplifying access to credit. As for access to debt financial resources, the main directions in Belarus are the reduction of interest rates on loans in the domestic financial market for enterprises, the expansion of the range of credit products through the use of more flexible financial instruments in lending practice, development of special programs for lending to small businesses.

A topical issue is the establishment of private credit information bureaus in Belarus, as currently there is only one state credit bureau established under the National Bank. The creation of private credit information bureaus in Belarus will allow to accumulate much more information about credit histories, which in turn will help to minimize risks of losses on banking operations, reduce share of bad debts to banks and cost of banking services.

Of course, implementation of most of these areas to simplify access to credit is impossible without a significant stabilization in the economy, in particular the slowdown in inflation.

5.2.4. Simplification of tax system. Currently, a serious barrier for foreign investors is not only the high level of tax burden in the country (according to World Bank, Belarus is one of the leaders in the region in terms of the total tax and contribution rate – 53.3% of total income, while in the countries of Europe

and Central Asia this figure is 37.0%), but also a complex and complicated tax system. According to the latest World Bank report "Doing business 2019" on ease of tax system Belarus ranks only 98 place in the world among 189 countries, while Russia – 53 place and Kazakhstan – 56 place.

Despite the fact that in recent years Belarus has managed to significantly reduce the number of tax payments, the country is still significantly inferior to developed countries, as well as to its EAEU partners in terms of the time required to prepare and submit tax returns. In Belarus, it takes more time than in Kazakhstan or Russia (184, 182 and 168 hours per year, respectively). In this regard, it is necessary to take measures to further disseminate the electronic declaration system and expand its scope of application.

5.2.5. Reduction of bureaucratic barriers to the entry and operation of foreign investors, involving a significant reduction in the state's participation in regulation and administrative regulation of economic entities. In particular, it is necessary to radically de-bureaucratize the process of attracting FDI to the regions of the Republic. Often, foreign investors face a number of obstacles from local regional authorities, including significant delays in obtaining work permits, hiring staff, renting land or real estate. A separate issue is the development of consultations of government and other government bodies with foreign business before the adoption of regulatory measures, as often new regulatory measures are taken without the necessary prior consultations with business representatives, without taking into account the opinion of investors, which makes investment policy less predictable, and investment climate less attractive.

In order to ensure transparency and clarity for foreign investors, coordination and management of the process of attracting FDI, including privatization processes in the country, should be carried out by a single state body (for example, the National agency for investment and privatization or State property fund). At present, the National agency for investment and privatization and State property fund have a very limited level of competence, in particular, there is no authority to make final decisions even in small transactions. The Presidential administration of Belarus, relevant ministries, regional and local authorities have real powers. At the same time according to world practice about 60-70% of foreign investments in any country are attracted through specialized structures, the so-called agencies to promote foreign investment, as well as through investment companies or consulting organizations.

5.2.6. Reducing level of corruption. In this case it is necessary to increase the responsibility of officials for corruption crimes committed against investors. In particular, one of the directions may be the introduction into the draft of the new law of the Republic of Belarus "On combating corruption" of provisions on the possibility of full confiscation of the property of an official who committed a corrupt act in relation to a foreign investor, with a ban on his holding positions in public administration for a period of not less than 10 years. It is also necessary to make additions to the Law of the Republic of Belarus "On public service" regarding the introduction of a ban on the employment of positions in state organizations, including in economic societies that have shares owned by the state, persons convicted of corruption crimes.

5.2.7. Strengthening of democratic institutions in Belarus is an urgent task. At present not only the World Bank, but also other international organizations assess the level of development of democratic institutions in Belarus extremely low, as, for example, according to the latest report of Freedom House, in which the Republic still belongs to the "non-core" countries. The main directions of development of democratic institutions in Belarus should be the strengthening of the degree of political rights protection and civil liberties, development of political and social integration, as well as increasing the independence of media.

6. CONCLUSIONS

Thus, the analysis shows the low attractiveness of Belarus for FDI in comparison with other countries of the region. The low comparative attractiveness of Belarus for direct investment is mainly due to less favorable internal institutional conditions, in particular low levels of protection of property rights, low development of democratic institutions, low quality of regulation, high levels of bureaucracy and

corruption on the part of state bodies, limited access to credit and a complex system of taxation. In terms of economic conditions, Belarus also generally loses significantly to the countries of the region in the struggle for direct investment, primarily due to the manifestations of economic instability, lower capacity of the domestic market and the purchasing power of the population, the existence of imbalances in the level of pay and productivity of workers.

A number of factors, which make Belarus significantly inferior to other countries in the region in terms of attractiveness for FDI, were noted by the majority of foreign-owned organizations as the most significant in terms of attracting FDI. Among the main factors are access to financial resources, level of purchasing power of the population, level of bureaucracy, degree of regulation of entrepreneurial activity, a complex tax system, etc. This means that if the main emphasis is placed on improving the conditions in these areas, it is possible to significantly increase the attractiveness of Belarus for FDI.

Improvement of economic and institutional environment in Belarus is not limited to above mentioned recommendations arising from the evaluation of attractiveness of FDI according to the proposed methodology. However, implementation of a set of measures to improve the institutional environment, together with the creation of a more favorable economic environment, will enable Belarus to compete successfully with the countries of the region, and in particular with EAEU partners, for external investment and thus realize the country's potential in FDI attracting.

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