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Foreign Direct Investments in the Regions of Ukraine in the Conditions of Globalization

Abstract: The importance of foreign direct investment (FDI) for the economy of the host country is demonstrated, and the advantages and risks of attracting foreign capital for the economy of Ukraine are emphasized. An analysis of the dynamics of foreign direct investment in Ukraine is carried out, with a focus on sectoral and geographical structure. Differences between the productivity of enterprises with foreign investment and that of domestic enterprises are noted. The assessment of investment potential was carried out using a multifactor comparative analysis, and a calculation of investment attractiveness is made on the basis of the standardization of indicators for the regions of Ukraine. The correspondence between the investment potential and investment attractiveness of the regions is indicated, as well as the low level of investment attractiveness of certain regions in Ukraine. Priority measures for the intensification of foreign investment activity in Ukraine in the conditions of globalization are discussed.

Key words: foreign investments, host country, investment attractiveness, investment potential, investment risk

Introduction

Global economic changes and emerging geopolitical and trade risks affect foreign direct investment (FDI) processes. The volume of attracted foreign investment indicates the degree of a country's integration

into the world economy, the system of foreign economic relations formed, the openness of the economy and the level of investment attractiveness. Intensified globalization influences the dynamics of foreign investment and stimulates the development of new approaches to how to attract FDI and use it effectively. Stimulating foreign investment has been a priority of Ukraine's economic policy for many years, as evidenced by the adoption of a number of national legislative and program documents, but neither the volume nor socio-economic consequences of foreign investment show stable indicators, while powerful investors assess investment risk in Ukraine as quite high, which does not contribute to the use of available investment potential.

Various aspects related to the study of trends, types, priorities and consequences of FDI are research subjects addressed by many scientists, including Kolupaev, Lukyanenko, Melnyk, Mordan, Oleshko, Polishchuk, Rokocha, Filipenko, Shvets and others. The need to develop export activities and reduce the technological gap between Ukraine and other countries entails that the issues related to the processes of foreign investment in the domestic economy require urgent examination. Spatial disproportion and the irrational sectoral distribution of FDI justify the need to assess the regional characteristics of these processes in the context of globalization. The purpose of the article is to assess the investment potential and investment attractiveness of the regions of Ukraine in the global economy.

Discussion

FDI is associated with job creation, increasing exports and export diversification, attracting advanced technological solutions, developing the domestic commodity market, improving the skills of the workforce and introducing modern management, stabilizing the national currency, and strengthening the competitiveness of enterprises in general.

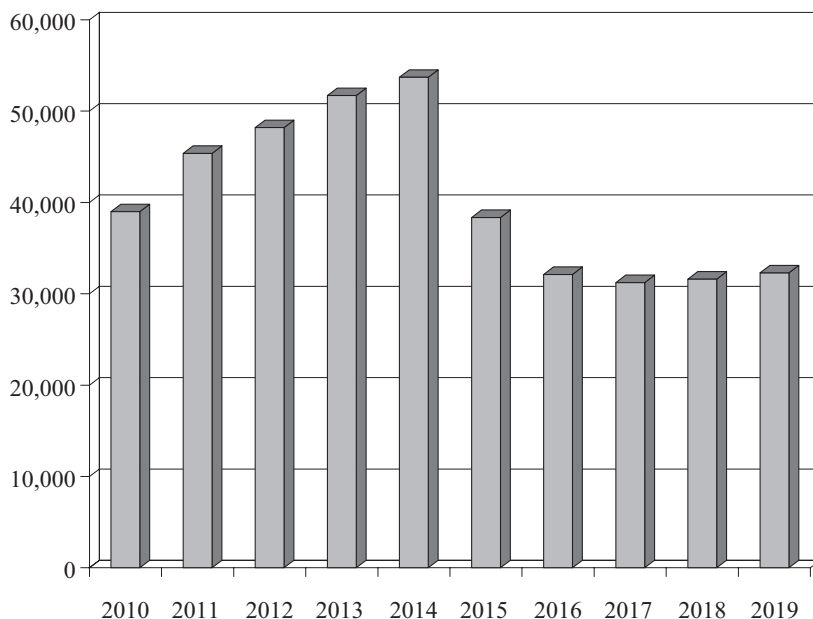
Global business takes into account the effort of entrepreneurs, politicians, financial institutions, educational centers and NGOs in creating a favorable ecosystem for doing business. The attitude of investors depends on strategic factors influencing business development, in particular the ability to attract qualified personnel and determine areas of staff development and education (*Pro shcho hovoriat investory*, 2019).

Attracting foreign investment is related to the benefits and risks that exist in the host country. Today, the global economy reveals the essence

of investment policy as a revival of cooperation with foreign investors, the regulation of economic, political and social activities, and control over the market (Mordan, Hushcha, 2017, p. 37). In Ukraine, there are a number of positive aspects, such as the liberalization of currency legislation, the stability of the national currency, reducing inflation, and continuing dialogue with the IMF, but there are old problems, such as an unreliable judiciary and political and economic turbulence (*Investytsiyni klimat v Ukraini pohirshyvsia*, 2019). At the same time, the shadow economy, a lack of incentives, the lack of operational market information, and the low level of cooperation with investors, constrain the attraction of foreign investments (Melnyk, Melnyk, Malysh, 2019, p. 34).

In the general trend of FDI in Ukraine, there has been a noticeable decline in its volume since 2015, which is explained by the political and economic situation in the country becoming more complex and problematic. The volume of FDI in Ukraine is presented in Fig. 1.

Fig. 1. FDI volumes in the economy of Ukraine, 2010–2019 at the beginning of each year, \$ million US dollars



Source: *Ofitsiyni sait Derzhavnoi sluzhby statystyky Ukrainy.*

Much of the investment comes from the Netherlands (\$ 7060.9 million), Cyprus (\$ 8879.5 million), the United Kingdom (\$ 1955.9 million), and Germany (\$ 1668 million). Experts explain that a certain share of FDI may actually be “circular,” which means that the resources originally belonged to domestic entities, and then returned to Ukraine through financial centers. It is important for Ukraine to attract investment from EU member states, as the Association Agreement between Ukraine and the EU provides for close cooperation and adoption of European standards. Today the involvement of EU countries in Ukraine’s economy amounts to \$ 24,742.7 million (76.6 percent of the total). However, the main problem with attracting European investment is strong competition from Poland, Hungary, the Czech Republic and the Baltic states. All these countries are located within the territorial boundaries of the EU and exhibit “cultural kinship” (Shvets, Burdylo, 2017, p. 167). Ukrainian scholars note that attracting investment would solve the issue of structural reform of the economy, increasing the competitiveness of products and enterprises, and the transition to an innovative model of development; in other words, those issues that have already been resolved in Poland by attracting foreign capital (Kolupaiev, Zaliubovska, Melnychuk, 2018, p. 28).

In terms of industry, the largest volumes of FDI were attracted to the processing industry of Ukraine – \$ 8199.7 million, trade – \$ 5383.0 million, and real estate – \$ 4009.6 million.

Observing the geographical and sectoral structure of FDI in Ukraine’s economy, we can agree that FDI displaces the investment of developed countries from the domestic economy and provides mostly quantitative indicators of growth of FDI, rather than qualitative processes. Most investors are willing to invest in manufacturing and trade, where investment pays off quickly and there are low commercial risks. Among the popular industries that do not require long-term investment and development of new technologies are the financial sector and the real estate sector. FDI thus structured does not allow Ukraine’s economy to fully integrate into global value chains and does not strengthen the country’s competitive position in world markets (Markevych, 2019).

The efficiency of investment depends on the resulting qualitative changes in economic relations and economic development (Polishchuk, 2016, p. 26). The research by a German advisory group shows that companies with foreign investment are more efficient than purely domestic ones. In view of this, it is reasonable to attract foreign investment to overcome the technological gap and intensify innovation. According

to surveys, an average Ukrainian company with foreign investment produces 11 times more products than an average domestic one. Also, in the non-financial sector there are only 4.6 percent of enterprises with foreign investment which employ 20.4 percent of all employees in the sector, producing 34.9 percent of total gross value added. Labor productivity is higher in enterprises with FDI, which also contributes to higher wages in enterprises, which offer 57 percent higher wages per employee (Zakha, 2018).

In summary, we can conclude that, firstly, the largest foreign investors are from a small number of countries; secondly, the foreign investment group is clearly visible in foreign capital; thirdly, the sectoral structure of investment is dominated by areas focused on quick return and low manufacturability; fourthly, the volume of accumulated investment resources has declined significantly in recent years, which shows the caution of investors and the willingness to leave the market quickly under any adverse conditions; and fifthly, technology-leading countries mostly bypass domestic investment.

Let us turn to statistics showing the regional features of foreign investment. Today, investment flows serve the economically developed regions of Ukraine. FDI distribution is uneven, which weakens the economic ties between regions and does not contribute to balanced socio-economic development, and the return on investment is low (Pavlov, Koretskyi, 2004).

The data in Table 1 shows the dominance of FDI in a few regions, which include Dnipropetrovsk, Donetsk, Kyiv, Odesa, Poltava, Lviv, the Zaporizhzhia region, and the city of Kyiv.

Table 1

**FDI (share capital) in the economy of Ukraine by regions (2010–2018),
\$ million on December 31, during different years**

Year Region	2014	2015	2016	2017	2018
1	2	3	4	5	6
Total	38,356.8	32,122.5	31,230.3	31,606.4	32,291.9
Vinnysia	223.0	187.8	180.0	198.9	223.3
Volyn	271.2	247.1	246.1	251.3	259.6
Dnipropetrovsk	5,784.9	4,030.6	3,491.1	3,688.2	3,577.8
Donetsk	2,322.0	1,748.0	1,249.6	1,116.4	1,205.9
Zhytomyr	259.8	222.7	216.3	226.8	237.4
Zakarpattia	334.2	311.8	317.0	325.1	340.0
Zaporizhzhia	843.4	682.7	863.4	910.5	902.0

1	2	3	4	5	6
Ivano-Frankivsk	925.9	836.6	826.6	904.7	894.5
Kyiv	1,750.3	1,593.4	1,516.8	1,588.7	1,591.6
Kirovohrad	70.6	52.5	58.9	70.1	74.5
Luhansk	578.2	443.9	436.4	438.0	436.9
Lviv	1,097.6	1,032.9	833.5	930.0	922.2
Mykolayiv	228.9	212.8	213.5	206.1	227.4
Odessa	1,423.3	1,320.3	1,228.8	1,202.6	1,207.1
Poltava	1,039.4	1,000.1	1,003.0	1,008.8	1,027.0
Rivne	242.5	199.6	159.5	134.2	133.5
Sumy	263.3	199.1	190.0	181.5	182.9
Ternopil	55.8	49.2	48.2	45.0	55.8
Kharkiv	1,674.3	1,519.6	642.5	638.3	666.4
Kherson	208.2	211.0	201.3	218.5	204.2
Khmelnysk	189.1	165.5	158.2	170.8	199.5
Cherkasy	512.9	348.0	334.4	335.7	334.3
Chernivtsi	68.6	59.1	57.1	42.6	44.0
Chernihiv	99.8	92.1	241.3	429.6	433.7
Kyiv city	17,889.6	15,356.3	16,516.8	16,343.9	16,910.2

Source: The authors' elaboration based on *Ofitsiyniy sait Derzhavnoi sluzhby statystyky Ukrainy*.

For a detailed analysis of the regional features of foreign investment, we will assess the investment potential and investment attractiveness of the regions. By investment potential, we understand the maximum opportunity to attract foreign investment resources. The dynamics of investment potential is a quantitative measurement of the resources used in economic activities, indicating the ability of the region for further social and economic development. The following statistical indicators were selected as input parameters for the regions: population in thousands; the number of the employed in thousands; retail turnover in UAH million; the volume of sold industrial products in UAH million; capital investments in UAH million; the export of goods in \$ million; the export of services in \$ million; agricultural products in UAH million; the total amount of innovation costs in thousand UAH; and the disposable income of the population in UAH million.

The assessment of the investment potential of the regions of Ukraine was carried out by means of a multifactor comparative analysis, the practical application of which consists of the following stages (Pavlov, Koretskyi, 2004):

- substantiation of the system of indicators by which the results will be evaluated, the formation of the matrix of input data;

- normalization of the matrix of standardized coefficients a_{ij} by dividing all values by the maximum in each column:

$$a_{ij} = \frac{x_j}{\max x_i}, \tag{1}$$

- determination of ratings using the formula:

$$R_j = \sqrt{\sum_{i=1}^n a_{ij}^2}, \tag{2}$$

- placement of the received rating assessments (R_j) according to the rank and determination of the place of each region in the rating.

To determine the level of investment attractiveness of the region (thus potential investment efficiency) a comparative analysis of the key performance indicators in the regions and the regional averages through standardization of indicators is used. The method involves the calculation of conditional (standardized) indicators that replace intensive indicators, when the comparison of the latter is complicated by the incompatibility of the groups being compared (Pavlov, Koretskyi, 2004).

The initial stage reduces the values of all the parameters of the investment potential of the region to dimensionless standardized values:

$$z'_{ij} = \frac{x_j}{x_{i,mean}}, \tag{3}$$

$$z'_{ij} = (x_j - x_{i\min} | x_{i\max} - x_{i\min}) \tag{4}$$

where x_{ij} – is the initial (observational) value of the i -th indicator in the j -th region;

z'_{ij}, z''_{ij} – standardized value of the i -th indicator for the j -th region;

$x_{i\min}, x_{i\max}$ – respectively, the smallest and largest value of the i -th indicator in the regions;

$x_{i,mean}$ – the arithmetic mean value of the i -th indicator in the regions.

The calculation of the standard deviation of standardized indicators is carried out using:

- 1) the definition in each column of a matrix of initial data of average value ($x_{i,mean}$);

- 2) the formation of a matrix of normalized indicators of deviations from the mean value, subsequent elevation to the square ($x_{ij} - x_{i.mean}$);
- 3) a determination of the standard deviation of normalized indicators:

$$\partial_i = \sqrt{\frac{1}{m} \sum_{j=1}^m (x_j - x_{i.mean})^2}, \quad (5)$$

- 4) a calculation of the standardized value of the integrated assessment based on the matrix of normalized indicators:

$$z_j = \frac{(x_j - x_{i.mean})}{\partial_i}, \quad (6)$$

- 5) a summation of the received standardized values of z_{ij} on the regions, with the definition of the place of each region.

Table 2

Indicators of investment potential and investment attractiveness of the regions of Ukraine, 2018

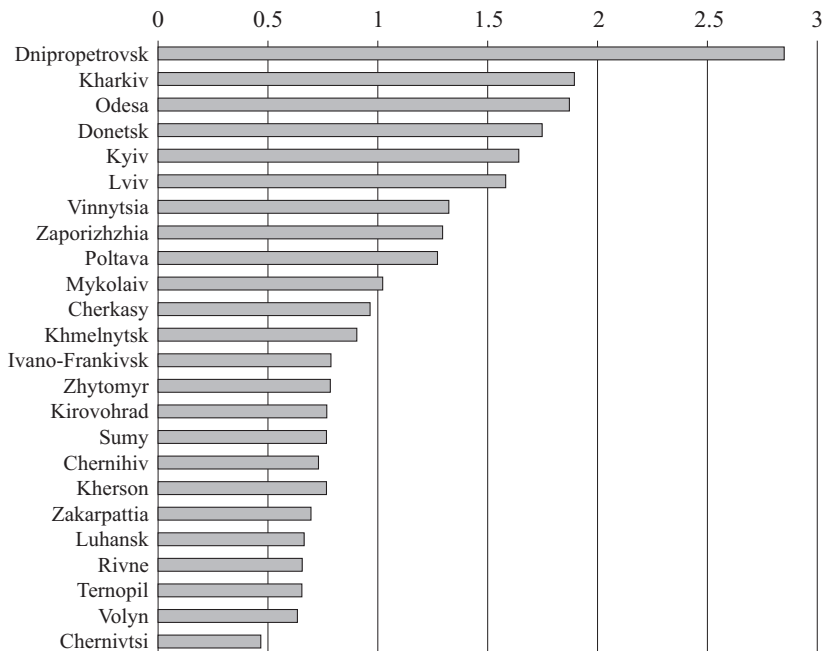
Regions	Indicator of investment potential	Indicator of investment attractiveness
1	2	3
Vinnitsia	1.324	1.47
Volyn	0.633	-6.70
Dnipropetrovsk	2.850	28.80
Donetsk	1.750	9.95
Zhytomyr	0.786	-4.91
Zakarpatia	0.696	-5.62
Zaporizhzhia	1.297	3.88
Ivano-Frankivsk	0.788	-4.62
Kyiv	1.664	7.38
Kirovohrad	0.770	-5.79
Luhansk	0.666	-7.37
Lviv	1.584	7.28
Mykolaiv	1.023	-0.84
Odesa	1.874	10.42
Poltava	1.273	1.87
Rivne	0.657	-6.70
Sumy	0.769	-5.19
Ternopil	0.653	-6.83
Kharkiv	1.899	11.83
Kherson	0.770	-5.82

1	2	3
Khmelnysk	0.905	-3.86
Cherkasy	0.971	-3.23
Chernivtsi	0.475	-9.45
Chernihiv	0.733	-5.94

Source: The authors' elaboration.

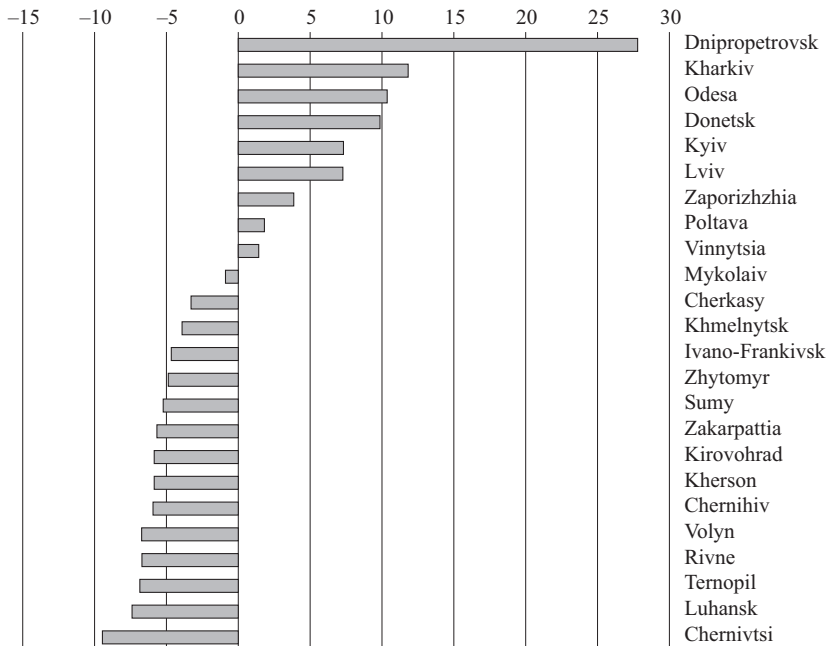
The indicators of investment potential of the regions of Ukraine obtained in the process of calculations are presented in Fig. 2, which shows that the Dnipropetrovsk region has the highest level of investment potential, followed by Kharkiv, Odesa, Donetsk, Kyiv, and Lviv; the bottom positions are occupied by the Volyn and Chernivtsi regions.

Fig. 2. Ranking of investment potential of the regions of Ukraine, 2018



Source: The authors' elaboration.

The analysis of investment attractiveness indicators is presented in Fig. 3. The Dnipropetrovsk region is in the first place again, while Luhansk and Chernivtsi regions are at the bottom of the rating.

Fig. 3. Ranking of investment attractiveness of the regions of Ukraine

Source: The authors' elaboration.

The study shows a certain correspondence between the investment potential and investment attractiveness of the regions, as well as the low level of investment attractiveness of certain regions of Ukraine. This situation requires the development of a set of measures at the regional level to optimize the processes of foreign investment, increase the level of investment attractiveness and the effective use of investment potential.

Among the priority measures which could intensify investment activities in the context of globalization, the following should be mentioned: the creation of favorable conditions for attracting foreign investment, primarily from EU member states; improving the business environment in compliance with European standards and ensuring its stability; stimulating the increase of investment attractiveness of the regions of Ukraine and the effective use of their investment potential; providing foreign investors with reliable information resources; and the introduction of consulting support for priority investment projects at the regional level, which will help reduce the risks associated with foreign investment and ensure not

only the quantitative parameters of investment, but also its qualitative characteristics.

Conclusions

The dynamics and structure of foreign investment in various regions of Ukraine are influenced by both global and domestic characteristics. In general, foreign capital in Ukraine is represented by only a few dominant flows that focus on rapid payback and are characterized by a low level of technology. The study has shown that there are significant regional differences in the investment potential and investment attractiveness of various regions of Ukraine, which leads to the weakening of ties between the regions and has a negative impact on their socio-economic development. The means for increasing investment attractiveness and the use of investment potential include measures aimed at increasing the level of cooperation with investors.

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Bezpośrednie inwestycje zagraniczne w regionach Ukrainy w warunkach globalizacji

Streszczenie

W artykule ukazano znaczenie bezpośrednich inwestycji zagranicznych dla gospodarki kraju przyjmującego oraz podkreślono korzyści i zagrożenia dla gospodarki Ukrainy, powstające w związku z przyciąganiem kapitału zagranicznego. Przeprowadzono analizę dynamiki bezpośrednich inwestycji zagranicznych na Ukrainie, ze szczególnym uwzględnieniem struktury branżowej i geograficznej. Wskazano na różnice między produktywnością przedsiębiorstw z inwestycjami zagranicznymi a przedsiębiorstwami krajowymi. Ocenę potencjału inwestycyjnego przeprowadzono za pomocą wieloczynnikowej analizy porównawczej i dokonano obliczenia atrakcyjności inwestycyjnej na podstawie standaryzacji wskaźników dla regionów Ukrainy. Wskazano na związek potencjału inwestycyjnego z atrakcyjnością inwestycyjną regionów oraz niski poziom atrakcyjności inwestycyjnej niektórych regionów Ukrainy. Omówiono priorytetowe działania dotyczące intensyfikacji inwestycji zagranicznych na Ukrainie w warunkach globalizacji.

Słowa kluczowe: inwestycje zagraniczne, kraj przyjmujący, atrakcyjność inwestycyjna, potencjał inwestycyjny, ryzyko inwestycyjne