



Regionalization and Globalization

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**A STUDY OF BARRIER EFFECTS
OF THE BORDER REGION**

Abstract

The author outlines the theoretical aspects of the barrier effect of the border in the case of foreign investments in the border region. The article examines the nature of the barrier effect and singles out its basic components. It analyzes the possible ways of governmental influence upon certain components of the barrier effect in order to decrease it. As one of the most accessible and effective methods considered is the creation of special economic formations in separate regions of the state: free economic areas, territories of priority development, and regions of trans-border cooperation.

The article concludes that at the first stage of bringing foreign investment into the economy of Ukraine, it is necessary to implement many measures for trans-border cooperation development. Among the primary are the following: development of border infrastructure; assigning more authority to regional self-governments; reduction of minimal amount of investments that gives the right to privileges in free economic areas (FEA) and territories of priority development (TPD) in the border regions and euro-regions.

Key words:

Foreign investment, border, barrier effect, special economic formations, FEA, TPD, euro-region, trans-border cooperation, integration.

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The boundary regions have recently grown in importance to the integration processes. This is proved by the practice of creating euro-regions in Europe and various trans-border structures all over the world. The majority of the Ukrainian regions have the status of a border region due to their geographical position. At the same time, the value of foreign investments per capita in the border regions, especially at the western border, is lower than that in the metropolitan area and some other industrially advanced regions.

Under such conditions, special focus should be given to analyzing the nature of the obstacles in the way of integrating Ukraine's border regions into the international investment market in order to develop a comprehensible strategy of their removal.

Foreign direct investment is, in essence, one of the forms of spatial interaction. Therefore, the realization of foreign investment is inevitably connected with transition across the border of a country. In his monograph, R. Fedan defines the border as linear space between the neighbouring countries, which serves protective, economic, militarist, and social functions [5]. Without denying it, we must note, however, that such an interpretation emphasizes only one side of the border's nature. The other side is described in the works of N. Lutsishin [6] and some western experts [7, 8]. This side consists in the fact that the border can be considered as a marginal zone of certain region or country. In this case, the border is considered as «a transition area» between the region and the external environment. Here, to the foreground is brought the contacting function of the border (not delimiting function), which means that the border is the area where the contacts take place. In the light of integration processes in Europe, the border's contacting function broadens to the integrating function, that is, the function that ensures integration into the European economic space [9].

However, it is the author's opinion that in the modern conditions, reducing the notion of a border to both the demarcation and the contact area of two or more regions are somewhat simplified, which is unacceptable when applying this concept to explanations of investment processes dynamics. The border, having a double nature, should be considered, in our opinion, as a formation, which delimits the region (country) from the rest of the world, instead of perceiving it as a frontier line between the neighbouring regions or countries.

A complete research of barrier effects of the border is produced in [7–8], where they are grouped in seven categories: by sphere (economic, political, cultural, etc.); by origin (natural, developed); by position (external, internal); by organizational arrangement (for individual participants, for symmetric or asymmetric interrelations); by spatial scale (micro-, meso-, macro-level); by time (constant, temporary, periodic); by capacity (absolutely closed, filtering, etc.).

Some empirical research of the barriers faced by the investors from Western Europe on their way to the countries of the post-socialist camp is presented in [10]. However, unexplored remains the issue of searching for possible

channels of state influence upon the barrier effect of the border, in relation to external investment capital in the border regions that objectively are less economically developed compared to the central regions of the country.

The purpose of this work is to study the components of the barrier effect, which are assessed as the most important for a boundary region, and search for possible ways of decreasing it.

Main Results of the Study

Let us stop briefly on the nature of the barrier effect. Owing to human society regionalization – caused by existence of many ethnic groups of population (it is believed that on the Earth live 3-4 thousand nations); heterogeneity of natural and climatic conditions; differences in historical development patterns, – the society was divided into regions not only on the basis of geography and politics, but also on the basis of socio-cultural, economic and mental peculiarities. In this case, each region is characterized by a fixed set of parameters, which enable to distinguish it from the others. This individual set includes economic, political, mental, natural, climatic, cultural, and other groups of parameters. Thus, borders are the transition areas where a transition from the individual parameter values describing the region that receives an investment (recipient region) to the parameters of the region from which the investment outflows (donor region). It should be noted that it does not matter whether the regions verge geographically. The transition can occur abruptly (in this case, it is possible to speak about a gap in parameter values produced by the border [7]) or smoothly.

The magnitude of the barrier effect is determined as a difference between the values of the parameter sets of the two regions. In the same way the parameters are divided by areas of existence [7], it is possible to divide into similar components the magnitude of the barrier determined by the border.

Thus, the magnitude of the barrier can be presented as follows:

$$H = q_e H_e + q_k H_k + q_p H_p + q_g H_g, \quad (1)$$

where H = magnitude of the barrier created by the border;

N_e, H_k, H_p, H_g = economic, socio-cultural, political, and geographical components of barrier, accordingly;

q_e, q_k, q_p, q_g = significance of the parameter for specific investor.

It is possible to formalize each of the N_e, H_k, H_p, H_g , parameters by defining it as:

$$H_i = \frac{Hd_i - Hr_i}{Hr_i}, \quad (2)$$

where H_i = an integrated value of the barrier produced by the parameter group i ;

Hd_i, Hr_i = integrated value of the parameter group i for two regions – the donor and the recipient region, accordingly.

Thus, the political barrier consists in the degree of divergence between political systems, legislations, regulatory functions and mechanisms of state government, stability of political structures, etc. The magnitude of the socio-cultural barrier shows to which degree the traditions, social organization of societies, languages, etc., are different. The economic barrier indicates a relative difference in economic conditions between the regions and can be structured into several subgroups by market development, quantity demanded, competition, rate of return, etc.. Finally, the geographical barrier is related to the differences in natural and climatic conditions, such as the temperature mode, the time regime, and so forth.

It is necessary to note, that (1) is a rather aggregative grouping of parameters. Each of them can be divided into several components, depending on their significance in each specific case.

The significance of each parameter q is defined in each case separately. However, some idea about their value can be received from the results adduced by Steiner and Stum who analysed the barriers faced by the Austrian companies when investing into the eastern Europe (see Table 1).

Table 1.

**Significance of Different Barrier Components
at Investing in Eastern Europe***

Component of Aggregate Barrier	Weight
Political instability (including instability of legislation)	0.4
Probability of contract default through the fault of local partners	0.29
Insufficient information about potential partners	0.11
Poor quality of local production	0.11
Language barrier	0.01
Need for many arrangements with administrative and supervising authorities	0.03

* Adapted from: M. Steiner and D. Stum, «From Coexistence to Cooperation: Changing Character Austria's Southeastern Border», in: R. Ratti and S. Reichman (Eds) *Theory and Practice of Transborder Cooperation*, Basel/Frankfurt an Main: Helbing and Lichtenhahn, 1993. – P. 347–376.

The essence of the barrier effect consists in the fact that capital, when crossing the border (in other words, when transiting from region 1 to region 2), appears in new conditions, and this entails additional benefits or losses (risk of loss). In this case, the border is not a direct cause of the barrier effect. However, it is exactly due to the borders existence that the specified differences in regional parameters are formed.

The costs of overcoming the barrier should be understood as the investor's need in receiving additional return (gain) to compensate for the customs duties and the risk premium for conducting business in unusual conditions.

Linguistic and most of the socio-cultural barriers attract attention as well. All of them depend on the geographical distance between the donor region and the recipient region, and thus, are the lowest in case of directly bordering regions. This situation is realized in the case of trans-border cooperation.

Border regions, by virtue of geographical proximity, have minimal climatic, geographical, as well as language and socio-cultural differences. Nevertheless, they as a rule are characterized by low level of economic development [6], and consequently, the overall barrier effect in the border territories turns out higher than in the centres of industrial development. Let us illustrate the above-mentioned by comparing the variable parts of economic and socio-cultural barriers for Chernivtsi region and the metropolitan area (Kyyiv and Kyyiv region) in the context of attracting capital from Romania.

The political components of the barriers are identical, as well as the constant components of the economic element of the barrier: customs regime, border crossing charges, taxation, etc.

The difference in the magnitudes of the socio-cultural barrier can be compared based on the parameter of the share of the Romanian population in total population of the region. Assume that this parameter equals 12.5% for Chernivtsi region [13] and less than 0.1% for Kyyiv region. The difference between the barriers will reach 41.67 times (the parameter for Chernivtsi are being the unity the unit of measurement). Taking into account that the weight multiplier of the given barrier component is equal to 0.01 (see Table 1), the relative magnitude of the socio-cultural barrier for the metropolitan area will make 0.42, while for Chernivtsi region is will equal 0.01.

Let us consider the economic component of the barrier. For comparison of the variable component of the economic barrier, several parameters were chosen (Table 2).

Retail turnover determines the capacity of the regional market per one inhabitant; foreign investments and the number of small enterprises per 10 000 inhabitants are indicators of development of business environment in the region. Gross value added and credits per one inhabitant specify regional development of industrial and financial sectors.

Table 2.

Absolute and Relative Parameters of the Variable Part of Economic Barrier Component as of 01.01.2003*

Parameter	Absolute parameter		Relative parameter	
	Kyyiviv and region	Chernivtsi region	Kyyiviv and region	Chernivtsi region
Retail trade turnover, mln. UAH	2250	733	0.33	1.00
Gross value added per capita, UAH	418	24		
Number of small enterprises per 10 000 of population	3506	2015	0.57	1.00
Commercial banks' loans to economic entities, mln. UAH.	43	40	0.93	1.00
Population, thousands	6151	21		1.00
Commercial banks' loans to economic entities per capita, thousands UAH	4421.7	618.5		

*Sources of data for absolute parameters: Статистичний щорічник України за 2002 рік / Ред. Осауленко О. Г. – К.: Консультант, 2003. – С. 50, С. 80, С. 294, С. 303, С. 339.

The relative parameter for the Chernivtsi region was valued as 1, while the value of the relative parameter for the metropolitan region was defined as:

$$Y_K = \frac{X_{Ch}}{X_K}, \quad (3)$$

where Y_K = relative parameter for metropolitan region;

X_{Ch} = value of parameter for Chernivtsi region;

X_K = value of corresponding parameter for metropolitan region.

The final value of the economic component of the barrier is defined as geometrical mean for all relative parameters:

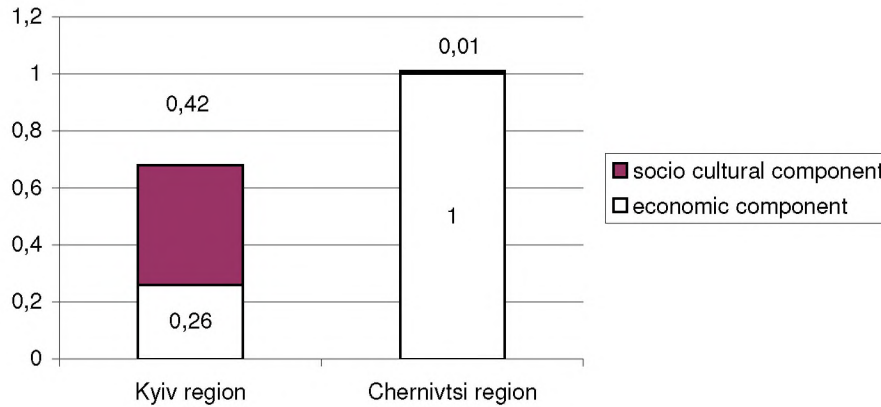
$$H_T = \sqrt[n]{\prod_{i=1}^n Y_i}, \quad (4)$$

where n – number of parameters included in calculation.

According to (4), the economic component for the Chernivtsi region makes 1, whereas for metropolitan region – 0.26. Both barrier components are represented on the diagram (Figure 1).

Figure 1.

Relative Sizes of Variable Components of the Barrier to Capital Investment for Kyiv Region and Chernivtsi Region



As Figure 1 shows, the low value of the socio-cultural barrier for Chernivtsi region cannot compensate for significantly high value of the economic barrier. This is the reason why the declarations about trans-border cooperation, which are limited to measures taken mainly in the socio-cultural sphere, do not result in the accumulation of foreign investments in the border region. In fact, even if the value of this component is reduced to zero, it will not be able to compensate for the economic component difference. Therefore, foreign capital will continue to concentrate in the regions with significant economic potential (in this case – the capital), «bypassing» the border regions.

To reduce the barrier effect, three strategies of influence can be used:

- to modify economic or political parameters on the entire territory of the country (for example, full elimination of import duties imposed on any goods, tax rate changes, etc.); this reduces the barriers in all of the regions with respect to any foreign capital;
- to change certain parameters on certain territory of the country;
- combination of the two.

In the second and the third case, the matter in question is special economic formations (FEA, TPD, euro-regions) created on a certain territory of the country in order to lower the barrier effect and facilitate foreign capital inflow primarily to these regions.

The world practice shows that the second and the third options are the most popular measures because changing political and economic parameters significantly on the entire territory of the country is quite difficult, and frequently is simply impossible because it threatens the very existence of the state in or means that its directions of strategic development changed.

Nevertheless, the decrease in a limited number of barriers in a separate region usually does not produce the expected results because the overall barrier effect remains significant. This may result from the fact that the FEAs contribute to decrease only in insignificant components of the general barrier effect, which, in our opinion, is observed in the euroregion called «Verhniy Prut», a part of which is situated in the Chernivtsi region.

At the same time, the figure shows that in case the economic component of the barrier effect decreases (let alone the political one), the boundary region becomes favourable for «near-foreign» capital due to lower value of socio-cultural component of the barrier effect, in comparison with the industrial centres that are situated far from the border. Over time, foreign capital in the region will accumulate and contribute to reduction of the cost of barrier withdrawal, which means that the region will become more accessible to «far-away» capital as well. Thus, the strategy of economic barrier reduction in the border regions seems to be most effective at the initial stages of foreign investment attraction.

Conclusions and Further Research Opportunities

The overall magnitude of the barrier to foreign investment capital is much higher in the border regions than in the capital city by virtue of significance of its economic component. Formally, all western border regions are engaged in trans-border cooperation. Along the western borders, four euro-regions are situated within which the Ukrainian regions cooperate with western neighbours. However, the trans-border cooperation at this stage occurs mainly in the political and cultural spheres, and practically does not include economic aspects. At the same time, as shows the research, the basic efforts should be directed at decreasing the value of economic component. In order to reduce it, in our opinion, it is necessary to expand legislative powers of local administration, which would provide an opportunity to adjust legislation to regional cooperation; to reduce the minimum amount of investments giving the right to preferential treatment in the border FEAs and TPDs in the western regions; to accelerate border infrastructure development; to implement reduced tariff rates for raw materials and equipment that cross the border and are intended for enterprises of the border region, where foreign capital is invested within the framework of trans-border cooperation.

This will result in the reduced value of the economic component of the barrier effect for the «near» capital. Over time, this will contribute to decrease in the barrier effect for the «far-away» capital, which will signify the acceleration of investment processes in the border regions. The accumulation of foreign capital in the border areas, in turn, will contribute to reduction of the barrier effect for the entire country in several ways:

1) successful functioning of foreign capital in border regions will promote the positive image of the Ukraine and the information about it;

2) when small- and medium-sized capital functions in the external environment, it will cooperate with local authorities and local capital in order to create favourable macro-environment; thus, every subsequent investor will face a smaller barrier effect;

3) when functioning in the border regions, foreign capital will receive and process information about potential partners and business climate in the internal regions, which will contribute to reduction of barrier effects in these regions and stimulate capital migration;

4) when functioning in local environment, foreign capital will promote changes in human mentality, especially in terms of increasing labour productivity and labour discipline, as well as changing the attitude to private property.

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