

Indicator Comprehensive Assessment of the Investment Climate in the FEFD Entities

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Abstract— The article details the methodological framework of comprehensive indicator assessment of an entity's investment climate. Two basic models of an investment climate are examined: objective and subjective ones. An investment climate factor assessment pattern is proposed, and factors are assessed. Indicators characterizing the investment climate in the Far Eastern Federal District during five years are calculated, conclusions are made concerning a territory's investment climate impact on the choice of its transport infrastructure development model and the development of the Priority Social and Economic Development Area.

Keywords— *investment climate, comprehensive investment climate assessment model, investment potential, investment risk.*

1. INTRODUCTION

The investment climate assessment of the country's entities is an essential factor of attracting and using capital as it gives a systemic picture of factors impacting investors, helps to better assess the environment in a country or in a region and understand the motives behind a partner's behaviour.

Investment climate of a territory is a set of characteristics and conditions that are formed in a territory under the influence of both objective and subjective factors that determine the effectiveness of an investment process in the region. That said, objective factors help to see common interests of investors while personal ones characterize their individual interests.

The investment beneficiary and the investor do not have the same goals. The first one seeks to address a number of socio-economic challenges raising as fewer funds as possible, and the second one wants to get the highest possible profit and secure a market niche in economic systems in the long term. Thus, the investment climate should correspond to the interest balance. All factors and conditions of an investment climate must be brought together in time and space. On the one hand, an investment climate must be stable in the long term; on the other hand, it should be flexible enough to adjust to changes in factors-resources of social reproduction and interests of investment process participants.

Comprehensive assessment of an investment climate must identify which region is preferable for a potential investment of capital.

The primary goal of using objective criteria in the research of an investment climate is to assess more accurately the favourableness of an investment climate based on formalized statistic data.

The investment climate territorial assessment, in this case, provides for a multidimensional analysis based on the identification of both the studied object's quantitative characteristics and substantiated opinions of CEOs and experts who are aware of the current situation and the prospects of its development [4].

Economic publications present various methods to assess the national economy's investment climate that varies depending on a research's goals, the number of criteria analysed and their quantitative characteristics [1].

Personal opinion (that of an investor, owner, CEO) is crucial in the process of setting goals for activity, a form of ownership, labour and production organization, methods of entering into a community and economic space of a territory. This is why, along with objective factors, there are also the subjective ones that are important in the decision-making process in management and investment. The assessment will not be complete, and the wrong path can be chosen if subjective factors are ignored when researching the investment climate of a territory.

An investor makes a decision concerning investing into a territory based on the interaction of objective and subjective factors.

When studying an investment climate, it is important to note the challenge of an investment climate in a region not corresponding to the investment activities there. In other words, an investment climate is not necessarily adjusted to the investment appeal of a region. Regions with favourable investment climate may not be attractive from the subjective point of view of a potential investor. If a region does not meet an investor's subjective requirements, he or she might underestimate the region's potential and overestimate the risks. This is why for a comprehensive analysis of investment processes the term "investment reliability" of a region must be coined that will include the complete overview of various aspects of an investment climate from investors' viewpoint based on their personal experience and the analysis of data from the region.

According to the Federal Bureau of Public Statistics, organizations operating in Russia assess the goals of investment into capital stock the following way.

Below you can see the research's results based on the data that was collected in opinion polls conducted in 46 companies in Russia that are foreign investors in the Russian market from

the Republic of Korea and were asked about their motives for entering the Russian market [3].

The results of the study will provide a basis for the conclusion that investors are least concerned about potential returns, technical equipment, and imperfect legislation. Most often, they are worried about the availability of resources necessary for their activities (especially the access to financial resources of a country) and unstable economic environment, in other words, about the investment climate conditions as a whole and investment policy in particular.

Major companies consider high prices and salaries, inadequate protection for foreign investors, poor industry infrastructure, complicated tax system, and high taxes to be their main challenges. Small and middle-sized businesses believe high taxes, prices and salaries, as well as undeveloped industry infrastructure to be their main problems, while self-employed individuals see them in administrative barriers, inadequate protection of foreign investors and corruption [1].

It is possible to say that, considering all the factors that hinder real investments, official statistics do not adequately show the actual preferences and goals of investors. Official statistics data and opinion polls conducted by the Korean Institute of International Economic Policy differ considerably in identifying the importance of various factors in the same areas. It can lead to a wrong assessment of an investment climate by the decision-making bodies in a territory and potential investors, and, given that investment process goals are different and not always parallel for every stakeholder, serious errors can be made while assessing the climate if subjective factors are ignored.

It can be deduced from the above said that a new comprehensive method of territorial investment climate assessment must be developed that would take into account all factors and conditions of regional development and be based on the existing methods. This said, it is crucial to define a territorial investment climate as a system that is integral from the point of view of every individual entity of the investment process. As different investors have different goals and use various paths to achieve their primary objectives, that of getting the closing gain from their investments, they will evaluate the investment reliability of a region accordingly, that is to say from their point of view.

The amount and growth rate of direct investments indicates the investment reliability of a region. The increase in the investment reliability leads to additional capital inflow and economic growth. An investor choosing a region for his or her funds has in mind specific characteristics, investment potential and investment risk levels, the relation between these factors determining the investment reliability of a region.

An investment reliability assessment of a region should identify the economic development level of a territory, determine the impact of the region's investment reliability on investment inflow, and develop measures aimed at managing the investment reliability of a territory.

If we are to examine the technical part of the work on assessment and analysis of a territorial investment climate, we can identify three major steps in the procedure. The first one

considers the selection of criteria of an object's investment climate; the second one is the investment reliability assessment of an object, and the third being the investment reliability analysis of an investment process's object or a territory.

The set of criteria includes 20 indicators of the key spheres influencing the formation of an investment climate. This set needs to be systematized, summarized and divided into bigger groups and an abridged set of criteria should be developed that would include a number of comprehensive standards that take into consideration essential economic characteristics [4].

As a whole, assessment criteria for an investment climate can be general and specific. The general criteria are represented by characteristics of a territory's economy and economic and investment policy directions of an investment process's subjects.

In order to calculate measurable indicators of an investment climate, computational and statistical methods were used. Poll and expert methods were used to qualitatively describe unmeasurable indicators.

Objective assessment is based on the statistical method of calculating investment climate indicators. This said, the basic indicators of a territory's investment reliability are calculated using the comprehensive (summarized) method.

The comprehensive summarized method relies on getting an average-weighted score of the summarized indicator of an investment climate by consistent assessment of individual indicators comprising it and evaluating their importance (their weight) in its structure.

With that in mind, the summarized indicator of an investment climate is calculated as per the formula below:

$$C_{sum} = \sum_{i=1}^n a_i C_i \quad (1)$$

whence: C_{sum} is the summarized indicator of an investment climate;

a_i is the value of the weight multiplier of an individual i th indicator;

C_i is the assessment of an individual i th indicator;

n is the number of individual indicators.

Between 2010 and 2014, the system of indicators and the assessment method of the investment climate was tested in the entities of the FEFD. A brief description of the method's test results in Khabarovsk Krai is cited here as an example. The results of the calculation of specific, summarizing and integral indicators that characterize the state and dynamics of Khabarovsk Krai's socio-economic potential, including in groups, namely the natural and geographical group (C1), the economic group (C2), the innovation group (C3) and social one (C4) characterizing the region's potential and with a detailed description of their specific indicators are presented in Tabl.1.

Tabl.1 shows the fluctuation of socioeconomic development's integral indicator in Khabarovsk Krai and the amount of investments into the capital stock of the region in 2010-2014 (5 years).

According to the chart, there is a strong correlation between the amount of investments in the capital stock of the region and the integral indicator that characterize the socio-economic potential of the entity.

The decrease of the integral indicator (C_i) in 2014 by 2% in comparison with 2010 leads to a fall in the amount of investments in the capital stock of the region by 25% and foreign investments by 41%.

The fluctuation analysis of the summarized indicators of natural and geographical potential (C₁), economic potential (C₂), innovative potential (C₃) and social one (C₄) in 5 years in Khabarovsk Krai revealed that their growth rate was negligible, as is shown below: +7%, -17%, +14%, и -4% (Tabl.1, entry 10).

Tabl. 1. The fluctuation of Khabarovsk Krai's socio-economic development indicators

| Indicators | Nomenclature | Weight multiplier | Years | | | | | Growth rate, % | |
|------------------------------------------------------|------------------------|----------------------|--------|--------|--------|--------|--------|----------------|---------|
| | | | 2010 | 2011 | 2012 | 2013 | 2014 | gr. 8/gr.7 | 5 years |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Industrial resources | <i>C_{1,1}</i> | 0.284 | 0.1988 | 0.1816 | 0.2006 | 0.1998 | 0.2133 | +5 | |
| Agricultural resources | <i>C_{1,2}</i> | 0.156* | 0.1081 | 0.0878 | 0.0892 | 0.0827 | 0.0818 | 0 | |
| Regional infrastructure | <i>C_{1,3}</i> | 0.199 | 0.2994 | 0.2870 | 0.3115 | 0.3469 | 0.3815 | +8 | |
| Logistics factor | <i>C_{1,4}</i> | 0.267 | 0.2504 | 0.2493 | 0.2481 | 0.2516 | 0.2528 | 0 | |
| Ecological factor | <i>C_{1,5}</i> | 0.094 | 0.0880 | 0.0922 | 0.0928 | 0.0771 | 0.0828 | +3 | |
| <i>Natural and geographical summarized indicator</i> | <i>C₁</i> | 0.219** | 0.2069 | 0.1966 | 0.2063 | 0.2098 | 0.2217 | +5 | +7 |
| Financial resources | <i>C_{2,1}</i> | 0.200 | 0.1687 | 0.1675 | 0.1617 | 0.1336 | 0.1749 | +30 | |
| Institutional structure | <i>C_{2,2}</i> | 0.170 | 0.2034 | 0.1813 | 0.1884 | 0.1729 | 0.1546 | -12 | |
| Changes in the environment | <i>C_{2,3}</i> | 0.145 | 0.1445 | 0.1420 | 0.1036 | 0.1361 | 0.1479 | +7 | |
| Labour resources | <i>C_{2,4}</i> | 0.266 | 0.2904 | 0.2935 | 0.2801 | 0.2815 | 0.2866 | 0 | |
| Production capacity | <i>C_{2,5}</i> | 0.219 | 0.0368 | 0.0257 | 0.0311 | 0.0273 | 0.0283 | 0 | |
| <i>Economic summarized indicator</i> | <i>C₂</i> | 0.375 | 0.3164 | 0.3037 | 0.3093 | 0.2818 | 0.2628 | -7 | -17 |
| Innovative activities | <i>C_{3,1}</i> | 0.140 | 0.0288 | 0.0272 | 0.0397 | 0.0301 | 0.0247 | -17 | |
| Technological resources | <i>C_{3,2}</i> | 0.231 | 0.1711 | 0.1883 | 0.4349 | 0.3413 | 0.2669 | -20 | |
| Scientific and technological resources | <i>C_{3,3}</i> | 0.201 | 0.1127 | 0.1145 | 0.1676 | 0.1646 | 0.1349 | -12 | |
| Information resources | <i>C_{3,4}</i> | 0.157 | 0.1697 | 0.1620 | 0.1603 | 0.1567 | 0.1680 | +6 | |
| Human resources | <i>C_{3,5}</i> | 0.271 | 0.2759 | 0.2792 | 0.2700 | 0.2683 | 0.2761 | +4 | |
| <i>Innovation summarized indicator</i> | <i>C₃</i> | 0.256 | 0.1941 | 0.1974 | 0.2745 | 0.2460 | 0.2229 | -10 | +14 |
| Intellectual development | <i>C_{4,1}</i> | 0.147 | 0.2042 | 0.2041 | 0.1713 | 0.1614 | 0.1618 | 0 | |
| Social security | <i>C_{4,2}</i> | 0.211 | 0.2098 | 0.2102 | 0.2102 | 0.2097 | 0.2095 | 0 | |
| Legal protection | <i>C_{4,3}</i> | 0.253 | 0.2466 | 0.2484 | 0.2344 | 0.2352 | 0.2474 | +4 | |
| Consumer opportunities | <i>C_{4,4}</i> | 0.276 | 0.2653 | 0.2662 | 0.2649 | 0.2707 | 0.2698 | 0 | |
| Population health | <i>C_{4,5}</i> | 0.113 | 0.1067 | 0.1038 | 0.1039 | 0.1019 | 0.0987 | 0 | |
| Social summarized indicator | <i>C₄</i> | 0.15 | 0.1549 | 0.1549 | 0.1477 | 0.1469 | 0.1481 | 0 | -4 |
| INTEGRAL | <i>I_c</i> | <i>I_c</i> | 0.8723 | 0.8527 | 0.9379 | 0.8845 | 0.8554 | -3 | -2 |
| Investments into stock capital (mln rubles) | | <i>Q</i> | 156439 | 180508 | 179907 | 150078 | 117887 | | -25 |
| Foreign investments (mln dollars) | | | 419 | 118 | 171 | 276 | 248 | | -41 |

*- weight multiplier of a specific indicator in the calculation of the summarizing one by areas.

**- weight multiplier of a summarizing indicator in the calculation of the integral one.

The analysis of the fluctuation of Khabarovsk Krai's socio-economic potential specific indicators in 2014 in comparison with 2013 (Chart 1, entry 9) showed that there was a significant decrease by -12% in the "institutional structure" ($C_{2,2}$); by -17% in innovative activities ($C_{3,1}$); by -20% in technological resources ($C_{3,2}$); by -12% in scientific and technological resources ($C_{3,3}$).

The analysis revealed that 11 specific indicators of industrial resources ($C_{1,1}$); regional infrastructure ($C_{1,3}$); logistics ($C_{1,4}$); changes in the environment ($C_{2,3}$); labour resources ($C_{2,4}$); production capacity ($C_{2,5}$); human resources ($C_{3,5}$); intellectual development ($C_{4,1}$); social security ($C_{4,2}$); consumer opportunities ($C_{4,4}$); legal protection ($C_{4,3}$) showed no positive trend.

The acquired data helps to analyse the fluctuation of all specific indicators in 5 years thus enabling experts to set strategic priorities to foster the social and economic potential of the region in the long term.

The authors' indicator system and the method of assessment of the region's socio-economic potential make it possible to significantly improve operative and strategic management of investment processes and forecast their fluctuations in the long term on the basis of a selected socio-economic development model while taking practical steps and implementing relevant follow-up measures.

The fluctuation of indicators of other FEFD entities' socio-economic potential in 2010-2014 is shown in Tabl. 2.

Tabl. 2. Increase (+) and decrease (-) of the integral indicator and indicators of socio-economic development of the FEFD entities by groups in 2010-2014 (5 years), %

| No. | The RF entities | Socio-economic development areas | | | | Integrated Index I_c |
|-----|------------------|----------------------------------|----------------|------------------|--------------|------------------------|
| | | Natural and geographic C_1 | Economic C_2 | Innovative C_3 | Social C_4 | |
| 1 | Khabarovsk krai | +7 | -17 | +14 | -4 | -2 |
| 2 | Primorsky krai | -3 | -10 | 0 | -4 | -5 |
| 3 | Amurskaya oblast | +2 | -14 | +20 | 0 | 2 |
| 4 | Kamchatsky krai | -6 | -15 | +15 | 0 | -5 |
| 5 | R. of Yakutia | +18 | -14 | -5 | 0 | 0 |
| | On average | +4 | -13 | +9 | -2 | -2 |

The analysis of integral indicators of socio-economic potential in the FEFD entities showed that in 5 years it decreased by 2%. It is in major part due to lowering indicators that characterize "economic potential" (C_2) and "social potential" (C_4) the region as a whole, by -13% and -2% accordingly, including: in Khabarovsk Krai by -17% and -4%; in Primorsky Krai by -10% and -4%; in Amur Oblast by -14%

and 0%; in Kamchatka Krai by -15% and 0%; in the Republic of Yakutia by -14% and 0%.

One of the most effective budget expenses were government investments into the Far East transport infrastructure [2]. The rise in public and private investments into the Far East transport infrastructure development is crucial and is one of the factors of fostering the region's socio-economic potential, attracting investors to other substantial and non-substantial industries there. The 2014 rating shows that, according to the "territory and transport infrastructure development" indicator [5], entities of the Far East Federal district rate from the 66th to the 80th among all the Russian entities.

The results of comprehensive indicator assessment of the socio-economic potential of a region are one of the factors that determine the choice of a development mechanism for transport infrastructure and the Transport System of Electronic Payments (TSEP). It is very tough to select an effective model for their development with minimum risks if a regional entity is subsidized and its socio-economic potential is not well developed. In case the socio-economic potential of a region is huge, there is a real possibility of considerably increasing the effectiveness of their activities, which in its turn will provide tangible opportunities to accelerate the socio-economic development of this entity's potential [6-8].

The results of the conducted analysis lead us to believe that the development of a mechanism aimed at the creation and development of transport infrastructure and the TSEP in the FEFD entities that have low socio-economic potential is tied to considerable risks and can lead to their activity's inefficiency.

The investment climate assessment method is an instrument of regional economic policy that helps to analyse the current investment climate in a territory, set regional investment policy priorities for the long term, compare and contrast investment climate in different territories and at different times.

CONCLUSION

It is crucial to remember when addressing the challenge of creating a favorable investment climate that economic globalization, while increasing the access to global investment resources, inevitably intensifies competitiveness. So, in order to increase the volume of outside investments, it is necessary to have a better environment than your competitors. That being said, it applies not only to foreign investment resources, but also to national ones, and their "drain" means only that investment climate in their own country is less favourable to them than abroad.

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