Methodological Basis for Forming the Investment Attractiveness of a Resource-Deficient Region: Russian and International Aspects

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ABSTRACT
The article defines the following concepts: "resource-deficient", "resources", "resource-deficient region", "economic resources", "economic resources of a region", "deficit", "investment attractiveness of a region". The methodological basis for forming the investment attractiveness of a region in the form of a schematized logical approach is proposed. The components of the above methodological basis are proposed. Methodological approaches and foundations for assessing the investment attractiveness of economic systems are indicated. Particular applied methods for assessing the investment attractiveness of Russian and other countries’ regions are shown. Indicators are given that are used in research by rating agencies "RIA Ranking", "Expert RA" and the Agency for Strategic Initiatives in the analysis of socio-economic development of Russian regions. Based on the research, it has been concluded that the methodological basis of investment attractiveness of a region includes: assessment, formation, and development of investment attractiveness of a region.

Keywords: resource-deficient region, investment attractiveness, methodological basis, economic resources

1. INTRODUCTION
It should be noted that in the economic literature there is a certain interest in the management of resource-deficient regions' development. One can highlight the publications of O.N. Ananieva [1], O.T. Ergunova [2], A.V. Lebedeva [3], T. Lee, L. Ma [4], N.N. Petrova [5,6], S.E. Polyakov [7], A.Yu. Prokhorova and E.A. Sorokina [8], S.G. Pyankova and E.A. Sorokina [9], and others.
The concept of "resource-deficient" has not yet found general acceptance in the scientific literature, as evidenced by both the still insignificant scientific interest in it, and its absence in specialized economic dictionaries. It is derived from the terms "resources" and "deficit".
When defining the concept of "resource-deficient region", it is important to clarify the term "resources". In the modern economic dictionary, economic resources are defined as "sources, means of ensuring production" [10]. In this reference, resources are divided into: "natural (raw materials, geophysical), labor (human capital), capital (physical capital), circulating assets (materials), information resources, financial (monetary capital)" [10]. At the same time, the ambiguity of this definition is emphasized.
Scientists C. McConnell and S. Brue understand economic resources as all natural, human and human-made resources used for the production of goods and services. The authors divide resources into material (land, raw materials), capital and human resources (labor, entrepreneurial ability) [11]. Although this "three-link" understanding of economic resources is one of the well-established ones, the authors of the present study note that in the current conditions it cannot suit regional economic systems striving to ensure competitiveness. In particular, information resources are beginning to acquire key importance. In addition, natural resources, which play a key role for regional economic systems, are not allocated as an independent category.
In the work of the authors, where attention is paid to the economic resources of a region, the term under consideration is interpreted as "a set of material and non-material factors and means that ensure the functioning of social production, an uninterrupted process of social production" [12]. The researchers proposed an extended classification of a region's economic resources that includes the following groups: knowledge, labor resources, natural resources, capital, entrepreneurial resources.
Thus, by "economic resources of a region" the authors of the current study mean the totality of factors and means that ensure social production. Regional economic resources that have a decisive influence on a territory's competitiveness are as follows:
- financial resources;
- natural resources, including climatic;
- a territorial resource determined by the geographic location of a region;
- social resources, including the quantity and quality of labor in the region;
- material resources.
Another component of the concept under consideration is the term "deficit". For the purposes of this study, the authors accept the definition of this concept given in the Modern Economic Dictionary as "insufficient funds,
resources in comparison with the previously planned or necessary level" [10].

The concept of "resource-deficient region" in the economic literature has not been sufficiently studied. Here, firstly, the authors do not give a special definition of this term, and, secondly, they mainly use its narrow understanding.

E.A. Sorokin and A.Yu. Prokhorov, exploring the possibilities of increasing the competitiveness of the investment potential of a resource-deficient region, do not specify what content is put into the term "resource-deficient region". However, it follows from the work of the authors that the key criterion for a region's resource shortage is limited natural resources. At the same time, the study draws another conclusion, which in fact contradicts the above - the labor surplus of the studied region is noted, in other words, it is said about the redundancy of the region in labor resources. Thus, such an understanding of the essence of a resource-deficient region cannot be called complete.

Although the work of O.N. Ananyeva does not give a definition of the term "resource-deficient region," from the provisions of the study of the said author, it can be concluded that such a region is characterized by limited investment and other economic resources [1]. It also follows from the text of this author's work that the basis for classifying regions as resource-deficient is the criterion of limited raw material resources. Namely, the work says that: "The consequences of economic instability in the national economy are especially acute in resource-deficient regions that do not have a sufficient raw material base for development in conditions of economic crises" [1]. Thus, the author also uses a narrow understanding of the term "resource-deficient region", excluding from its content financial, labor, material, informational and other resources that have a significant impact on regional development.

A similar, narrow understanding of the term "resource-deficient region" is observed in the publication of N.N. Petrova [5]. The author also believes that the main criterion of resource scarcity is the limited raw material resources of a region.

A narrow understanding of the term "resource-deficient region" often leads researchers to conceptual contradictions. For example, O.T. Ergunov and S.E. Polyakov, also accept that the main condition for classifying a region as a resource-deficient one is the lack of a raw material base. At the same time, they note that: "in this regard, it is necessary to consolidate the efforts and resources at the disposal of the Chuvash Republic to solve the strategic task - its sustainable economic growth and increased competitiveness" [7]. Thus, the authors, in fact, admit that regional development is determined not only by the availability of raw materials, but also by other resources that are in the system of regional management.

It can be assumed that the narrow understanding of the term "resource-deficient region" is a consequence of the use of criteria for classifying countries as resource-deficient instead of using similar criteria for a region [13]. Meanwhile, for the purpose of increasing the level of socio-economic development, improving the characteristics of the competitiveness of regions, their investment attractiveness, the authors believe that a narrow approach to understanding the term "resource-deficient region" is not entirely applicable.

In the economic literature, when using the concept of "resource-deficient" in relation to the territories outlined by the borders of states, one usually means the limited natural resources of such states [13].

In sources [14, 15, 16], the concept of "resource deficit", used in relation to territories (countries, regions), is considered mainly in the context of a lack of natural resources. With regard to territories, resource-deficient countries are usually pointed out: Japan, the Netherlands, etc.

The concept of "investment attractiveness of a region" in relation to resource-deficient regional economic systems is "refracted" under the influence of the essence of such regions. In particular, the authors also propose to understand the investment attractiveness of resource-deficient regions as a subjective-objective category, expressing the desire of investors to invest assets in the regional economy, taking into account its real situation, the degree of limitedness in natural, territorial, financial, social and information resources.

It is also required to clarify the concept of "development of investment attractiveness of a resource-deficient region", by which the authors mean the totality of actions of regional development management entities aimed at improving region's investment climate, realizing investment potential and increasing the level of investment development.

2. MATERIALS AND METHODS

From the previously adopted definition of the investment attractiveness of a region, it is possible to formulate the first statements concerning the methodological basis of the investment attractiveness of a region.

First, the methodological basis of the investment attractiveness of a region includes the organization of management of the investment attractiveness of a region, including the assessment of investment attractiveness and its formation.

Second, as follows from the first conclusion, the object of the methodological basis of investment attractiveness management includes assessing investment attractiveness and managing it.

Thirdly, the subjects of the organization of management of a region's investment attractiveness might be:

- when considering an organization as a feature of investment attractiveness management - subjects of regional management (regional administration, authorized departments) responsible for achieving the formation of investment attractiveness of a region;

- when considering an organization as a process, the composition of the subjects of investment attractiveness management expands, not only the regional administration and authorized departments participate in the management
process, but also persons or groups competent in assessing the investment attractiveness;
- when understanding the organization in the context of the functioning of organizational systems, the management of investment attractiveness is considered as an interconnected activity of the subjects of regional government and other persons, aimed at increasing a region's investment attractiveness.

There are initial, basic provisions that are used in the process of managing the investment attractiveness of a region. Based on the foregoing, as well as the above definitions of the concept of "methodology", the authors proposed the constituents of the methodological basis of investment attractiveness of a region (IAR) in the most general approximation (with division into blocks: the characteristic of the IAR management, the logical structure of the IAR and the temporary structure of the IAR, Figure 1).

Figure 1 Components of the methodological basis of the investment attractiveness of a resource-deficient region

With regard to the formation of the methodology of investment attractiveness, the most widespread research methods are devoted to the issues of investment attractiveness assessment. Although the methodology of the investment attractiveness of a region is a set of principles, approaches, methods of managing investment attractiveness, as well as the assessment, formation and development of investment attractiveness, there are still more studies devoted to its assessment. Thus, methodological approaches and basis for assessing the investment attractiveness of economic systems may include the following elements:
- features of the structure of economic systems, for the purposes of which methodological foundations, approaches, methods, principles, factors for assessing investment attractiveness are being developed [17];
- methods, tools, sets of indicators, factors, assessment procedure [18];
- concepts, system of indicators, an algorithm for assessing investment attractiveness [19];
- a system of indicators, methods, techniques, principles for assessing investment attractiveness [20];
- methods, techniques, algorithms, indicators, principles [21];
- groups of factors, indicators, methods for assessing the integral indicator of investment attractiveness [22];
- blocks of indicators, partial indicators, integral indicators, methods for assessing indicators [23].

With regard to assessing the investment attractiveness of regions, the following methodological approaches are distinguished [24]:
- narrowed - the assessment is carried out mainly based on macroeconomic factors [25];
- extended, within the framework of which many factors-resources and factors-conditions influencing the investment attractiveness of a region are assessed [26];
- risky, where the assessment of potential is considered in two variations: assessment of investment potential and risks, assessment of investment potential and socio-economic potential [27].

In the authors' opinion, the selection of such approaches is rather arbitrary, since it is difficult to distinguish clear boundaries between them. The selected approaches have many common features, in connection with which they largely overlap, the indicators included in their composition can find each other in all three approaches. The specific methods of constructing a methodological basis expressed in the approaches of individual researchers and organizations are of scientific interest. The methodological foundations for assessing the investment attractiveness of regions are often reduced only to the methods and constituent factors for assessing the investment attractiveness. For example, in the work of V.N. Myakshin, the following is offered:
- a methodology for assessing the investment attractiveness of a region, including an algorithmized sequence of actions:
  - formation of a statistical base for assessment;
  - determination of key factors of investment attractiveness;
  - determination of the content of the system of assessed indicators;
  - determination of target values of indicators of investment attractiveness;
- selection of key indicators based on an assessment of their relationship with key factors of investment attractiveness;
- calculating integral indicators of investment attractiveness;
- assessing the level of investment attractiveness;
- assessing the potential of investment attractiveness;
- the procedure for calculating the integral values of investment attractiveness;
- the procedure for selecting indicators for individual factors of investment attractiveness of a region [28].

In the authors’ opinion, the application of the balanced scorecard methodology for assessing the investment attractiveness of regions is not entirely correct. Assessment of the investment attractiveness of a region requires adaptation to the specifics of a certain economic system. With any set of groups of indicators, it will be very difficult to talk about the “balance” of such a complex. If at the level of enterprises as objects of assessment and management, the application of a balanced system is still possible, then it is difficult to apply such a methodological approach to regional systems as complex, unique socio-economic systems. This can be traced in the attempt of the above author to highlight the components of a balanced system of indicators of a region’s investment attractiveness: production and financial components, development components, natural resource components, political, economic and social components [28]. The authors believe that such a system can be expanded by other groups of indicators without prejudice to the quality of the methodology, which calls into question the balance of the proposed complex declared by the author of the methodology.

In the study by T.A. Burtseva, the following is included in the methodological basis of investment attractiveness:

- the structure of the investment attractiveness of a region as an object of study includes the following potentials: property, natural-geographical, financial, human, innovative, as well as the performance of public authorities and the private business sector in a region;
- the use of methods for assessing investment attractiveness based on the construction of integral indicators: classification methods (cluster analysis, multidimensional groupings, discriminant analysis, typology and systematization) and methods of factor analysis (expert assessments, factor analysis, correlation and regression analysis, structural analysis, dynamic standard method);
- algorithm for the formation of integral indicators for assessing the investment attractiveness of a region;
- system of statistical indicators of the investment attractiveness of a region;
- scheme of multilevel analysis of the investment attractiveness of a region [29].

Analyzing the methodological basis of the investment attractiveness of regions, one cannot but touch upon individual applied methods for assessing investment attractiveness. A significant contribution to the formation of the applied methodological basis of investment attractiveness was made by the methods of international organizations:

- ratings of international agencies: Moody’s, Standard & Poor’s, etc.;
- ratings of international business publications: Euromoney, Fortune, Economist, etc.;
- research of large consulting companies: Ernst & Young, PWC, etc.;
- methods of educational institutions Harvard Business School, Institute for Advanced Studies, etc.

In addition, Russian researchers continue to contribute to the solution of the designated range of issues, some of whose works have been analyzed above. Let us consider the content of some applied methods for assessing the investment attractiveness of regions.

3. RESULTS AND DISCUSSION

One of the largest (in terms of coverage and frequency) national studies, which includes its own methodology for assessing factors and their impact on socio-economic development, is the research of the rating agency "RIA Rating" - "Rating of the socio-economic situation of the constituent entities (regions) of the Russian Federation."

The research has been conducted since 2011, which allows one to speak about a sufficient empirical base and methodological support “honed” by time, on which the rating is based. Table 1 shows the indicators characterizing the factors of socio-economic development of Russian regions used in this rating.
Table 1 Content of the assessed factors and indicators of the study "Rating of the socio-economic situation of the constituent entities of the Russian Federation", affecting the socio-economic development of the regions according to the methodology "RIA Ranking", 2011-2017 [30]

<table>
<thead>
<tr>
<th>Factor</th>
<th>Indicator</th>
<th>2011</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>The scale of the economy</td>
<td>Volume of production of goods and services</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Consolidated budget revenue</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Employed in the economy</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Economy efficiency</td>
<td>Production of goods and services per capita</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Fixed capital investment per capita</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Foreign investment per capita</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Share of profitable businesses</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Tax collection rate</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>The ratio of tax arrears to the volume of taxes and fees received in the budgetary system of the Russian Federation</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>The state of the budgetary sphere</td>
<td>Consolidated budget revenues per capita</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Share of region's revenues in the total volume of consolidated budget revenues</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>The ratio of public debt to region's revenues of the consolidated budget</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Deficit to region's revenues of the consolidated budget</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Share of tax and non-tax revenues in the total volume of consolidated budget revenues</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>The ratio of public debt to tax and non-tax revenues of the consolidated budget</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>The state of the social sphere</td>
<td>The ratio of the population's monetary income to the cost of a fixed set of consumer goods and services</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Unemployment rate</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Life expectancy at birth</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Infant mortality rate</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>


In this study, the investment factor of regional development is represented directly by two indicators: investment in fixed assets per capita and foreign investment per capita. By 2017 the indicator "foreign investment per capita" was excluded from the study, although its role in the first studies of the state of economic development of regions was justified by the fact that "the volume of foreign investment characterizes the level of investment attractiveness of a constituent entity of the Russian Federation" [31]. By 2017, the study used only one indicator directly related to the number of investment factors - "investment in fixed assets per capita", the importance of which in the socio-economic development of a region is justified by the fact that investments in fixed assets determine the level of investment activity in a Russian Federation's region and determine the prerequisites for economic development [32]. Evaluating the above study (not in terms of its results, but in terms of the methodology), the authors note that neither the indicator of foreign investment per capita, nor investment in fixed assets per capita, on their own, independently disclose the investment attractiveness of a region and investment activity in it. Such indicators can only supplement a comprehensive assessment of the socio-economic situation of a region, which is observed in this study. Nevertheless, the authors believe that this study uses a somewhat limited understanding of the factors that determine the level of socio-economic development of regions.

The understanding by the expert community of the importance of investment attractiveness in regional socio-economic development predetermined the emergence of other methods and research that are significant for economic entities, in particular, the research of the RA Expert rating agency - "Rating of investment attractiveness of Russian regions". Here the investment attractiveness of regions is considered in the unity of two components:

1. Investment potential - as a quantitative characteristic, taking into account the saturation of a region's territory with production factors (natural, labor, material resources), consumer demand of the population and other indicators that affect the volume of investment in a region. This characteristic of investment attractiveness, according to the methodology of the RA Expert agency [33], includes the following individual potentials:
   1.1. Natural resource potential: commercial reserves of resources (oil and gas, coal, precious stones, ores of non-ferrous and ferrous metals, non-metallic minerals); agricultural land; stock of wood, etc.
   1.2. Labor potential, including the size of the labor market and the level of education: the share of the population of working age; the proportion of those employed with higher and secondary specialized education.
   1.3. Production potential as the final result of economic activity in the region: production volumes in industry;
agricultural production volumes; construction volumes; trade turnover; services turnover.

1.4. Consumer potential, which characterizes the purchasing power of a region's population and is assessed through its income and purchasing activity.

1.5. Infrastructure potential or transport and geographical position of a constituent entity of the Russian Federation (the state of the transport network and communications).

1.6. Innovation potential, assessed on the basis of data on the number of R&D employees, R&D costs, innovation activity, the number of patent applications and the amount of advanced technologies developed.

1.7. Institutional capacity, which includes an assessment of the development of financial and insurance institutions; the number of companies, the volume of services they provide, representation of small and medium-sized businesses in a region.

1.8. Financial potential, characterizing the conditional volume of money supply in a region, which is in the accounts of business (as a balanced financial result), government (as budget revenues) and the population.

1.9. Tourism potential, which determines the presence of places of attraction in a region, its special cultural and natural heritage and is expressed through the state of indicators of tourist infrastructure and tourist flow.

2. Investment risk (determined on the basis of expert assessments) is a qualitative and quantitative characteristic that reveals non-commercial risks of the environment for entrepreneurs and the general state of business in a region. This component of the investment attractiveness of a region is also referred to by the compilers of the methodology to complex qualitative and quantitative characteristics, including the following particular manifestations of investment risk:

2.1. Economic risk reflecting business development trends in a region, manifested in the dynamic indicators of the development of industry, agriculture, trade, the state of fixed assets, the share of unprofitable enterprises.

2.2. Social risk characterizing the level of social tension in a region and assessed on the basis of unemployment rates, the share of the population with incomes below the subsistence level, ethnocultural characteristics of a region.

2.3. Financial risk - shows the level of financial reliability of potential counterparties in a region and is assessed through the level of debt burden, the ability to cover expenses from a region's income and parameters of a region's creditworthiness.

2.4. Management risk - characterizes the level of management in the region and is assessed on the basis of the following criteria:

- the ability of regional authorities to attract a volume of investments sufficient for the further development of regional economy (the ratio of direct investments and gross regional product);

- quality of regional budget management, including: quality of budget planning, quality of budget execution, financial relations with municipalities, quality of state property management, transparency of the budget process;

- the ability of regional authorities to provide the population with a minimum volume of social services.

1.5. Environmental risk, characterizing the level of environmental pollution (it is determined through indicators of emissions into the atmosphere from various sources).

1.6. Criminal risk, reflecting the crime rate in a region.

4. CONCLUSION

Thus, based on the research, it follows that the methodological basis of the investment attractiveness of a region includes:

1. Assessment of the investment attractiveness of a region.

2. Formation and development of investment attractiveness of a region.

The authors' research on this issue will be continued.

REFERENCES


