

EVALUATING THE INVESTMENT ATTRACTIVENESS OF A REGION BASED ON THE BALANCED SCORECARD APPROACH

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Abstract

This article discusses how the investment attractiveness of a region's economic system (case study of Arkhangelsk Region) can be evaluated using the balanced scorecard developed and disclosed herein by the authors. It seeks to provide a rationale for the relevance and applicability of the balanced scorecard as a tool for identifying local investment-related challenges. The article further explains the importance of developing a sound mechanism for aligning the interests of the key stakeholders of investment process (private investors, local community, and public bodies). This mechanism should employ a balanced estimate of a region's investment attractiveness which, in its turn, should rely on the target user groups' informational needs. Having analyzed the basic methodologies being used by the investigators of the region's investment attractiveness, we became convinced that the issue needs a more balanced representation and have therefore developed the balanced scorecard, accompanied by the user guide which is intended for the governmental authorities in charge of the measures to enhance the investment attractiveness locally. The analysis of the balanced scorecard has shown that it proves a useful tool for evaluating a region's investment attractiveness and identifying its investment-related challenges and growth opportunities. In performing our study, we were governed by the current theories of institutional economics, region's economy, and the theory of investment, the latter viewing the investment attractiveness through the prism of investment efforts. The results and conclusions of this study may serve as the basis for elaborating the region-level investment promotion strategies.

Keywords: investment potential, investment risks, investment climate, investment policy, investment attractiveness, investment efforts, core drivers, region's economic system, balanced scorecard, balanced estimate

JEL classification: D92, L50, L52, L90

1. Introduction

A sound regional investment policy – the one which is able to ensure the sustainable investment climate in every Russian region as a prerequisite of growth – should be seen as a core element for a wholistic, statutory investment regulation framework. The relevance of such framework lies in the specific nature of Russia's federalism and historical background.

Our analysis of the efforts being channeled by Arkhangelsk Region (inclusive of Nenets Autonomous Area) towards investment promotion and facilitation, has revealed a discrepancy: on the one hand, the investment flows being received by the area's real economy are insufficient, its investment strategy is badly underperforming, and on the one hand, the area's investment potential is found to be high, its citizens' savings growing and underused, and the investment resources available to institutions and private donors. This finding has enabled a conclusion that the key stakeholders in the local investment processes seem to display little economic concern and that there is the need for greater interaction between the local government and the local business community.

Further, our analysis of the trends being experienced by Arkhangelsk's investment opportunities, that employed the aforementioned balanced scorecard, has enabled another conclusion – that the region-level investment framework for sustainable growth can only be

achieved in condition that the central government exercises more regulatory control, no matter how favorable the investment climate may be on a national scale. That said, the distribution in Arkhangelsk Region of the interindustry investment flows looks disproportionate, as was shown by our study into the structural composition and dynamics of the local investment processes. This is due to a series of chaotic changes that had disrupted the area's investment potential and can now lead to even greater disbalance in its economic growth.

Given the growing role of the private investing, the national regulatory policy for the investment activities in the Russian regions should be re-oriented from mere distribution of the government investments towards ways to enhance the regions' image in the eyes of private investors.

The challenges identified above need to be addressed from a new theoretical and methodological standpoint, especially when it comes to further studies into regions' investment attractiveness. The main advantage of the methods being used in the evaluation of local investment attractiveness is that they allow to build ample background knowledge necessary for ranking a given number of regions according to their investment attractiveness. However, while we recognize the benefits of the current methodologies, we have to admit that they are poor tools for exploring the investment attractiveness in one particular region after it has delivered its investment strategy. The overall investment performance, that the current methodologies offer a mechanism for measuring of, is defined not only by the specific factor levels as may be achieved by a given region, but also by the trends occurring nationwide: the dynamics of the investment attractiveness in any region should be analyzed in the context of the average investment performance in Russia. Measured by the current methodologies, a region's level of investment attractiveness appears contingent on the investment attractiveness available in the rest of the regions – a point that causes the current methodologies to produce judgements lacking objectivity. Moreover, the criteria for measuring a region's investment potential that many of the economic studies operate, fail to meet the criteria that are expected to be accounted for, by various user categories (i.e. stakeholders of the investment process).

The limitations as given above have highlighted the need for an updated methodology – the one that would rely on a set of criteria totally different from that relevant of other regions and that would meet the informational needs of all of the stakeholders of the investment process. We deem that the investment potential evaluation methodology developed by us does meet this description as being able to produce an objective picture for a given region based on the balanced scorecard (BSC) approach. Our evaluation methodology is designed, among other things, to assist the regional decision-makers in shaping knowledge-based strategies for enhancing regional investment attractiveness.

2. Research methodology and methods

Our study into the investment potential of the regional economic sectors, a key issue crucial to the economic growth on a macroregional scale, employs a whole series of theories and practical research outcomes. In developing our tool for evaluating the region's investment attractiveness, we were governed by the conclusions made by Russian and the authors of international studies into ways to attract investments (from the international studies, we excerpted the practices that looked adjustable to the Russian economic situation).

Epistemologically, the problem of the regional investment potential originates from the economic theory. The studies into it have started rather recently. In the 1930s, B. Ohlin and E. Heckscher came up with the rationale for liberalization of the inter-regional transfer of capital, while in the 1940s Lössch defined the capital mobility as a prerequisite for long-term international trade involving. In the 1950s, Nobel Prize in Economic Sciences winner W. Leontief developed, as part of his research into the structural basis of the international trade, the input-output model used in the analysis of multi-regional and intranational relations. The issues of the regional investment potential were further explored by Ph. Kotler, B. Toyne, H. Henzler, P. Walters, and a number of other contributors to the economic theory, who operated in their research of the then investment processes in different parts of the world the concepts of investment attractiveness, investment climate, and investment risks. As to the Russian researchers of the investment processes occurring in the Russian regions, worthy of

mentioning are the works by the Soviet adherers to economic theory such as A. Aganbegyan, K. Valtukh, T. Khachaturov, A. Probst, R. Schnipper, among others, who were the first to substantiate why regional economies should be accounted for when analyzing the efficiency of capital investment.

Among the keynote domestic publications that have shed more light on regions' investment attractiveness are those by I. Grishina, G. Marchenko, I. Royzman, A. Folomiev, A. Shakhnazarov, among others, who were the first in Russia to address investment processes using the holistic approach.

Based on our analysis of the methods available for evaluating a region's investment potential/opportunities, we have outlined the four basic approaches. The first of them (the narrowest of the four) uses the data generated by the analysis of macroeconomic performance; investment markets; consumption-accumulation ratio; and investment legislation. It evaluates the investment potential using mainly the operating asset profitability index, which is a measure of the ratio between profit and total cost of operating assets. What sets this narrow approach at advantage is the relative simplicity of its calculation model, the versatility that makes it suitable for analyzing the economic systems of all levels investment-wise, and the fact that it meets investors' key goal of profit generation. At the same time, this approach is not without flaws as it fails to take account of the interrelation between the investment- and the resource-relating factors that are known to influence a region's economic growth. Nor does this approach consider the dependence of the investment potential on the focus the economy places on innovation. Neglected is also the balance of interests among stakeholders of the investment process.

The second approach, a factor-based one, looks at factors that determine the investment attractiveness in a given region. To estimate the overall investment performance, this approach uses a sum total of the weighted average estimates of all of the factors in question (the factors varying from study to study). Among the advantages of this approach is that in measuring the key performance factors it uses the official statistics, thereby arriving to more objective judgements; that it takes into account the possible interactions between the factors crucial to the overall level of the region's investment attractiveness; and that it allows for case-specific estimations.

The third approach allows benchmarking the region's investment potential against its target level and with respect to investment risks and investment legislation. Even though the measured ratings of the factors that are crucial to the investment potential do allow for clustering regions according to their level of investment potential and investment risks, which in itself is, undoubtedly, important, they are not indicative of the extent to which one region may differ from another investment-wise even within one cluster. Alongside with benchmarking (rating), the evaluation of the investment potential of one particular region should employ a more objective estimate.

The fourth approach distinguishes itself by the fact that it addresses the investment potential in a multi-pronged way, relying on the relation between the investment activities and the investment attractiveness of the entire economic system. The advantage of this approach consists in careful selection of the evaluation method and in addressing the investment potential as a derivative of investment activity portfolio and time lag.

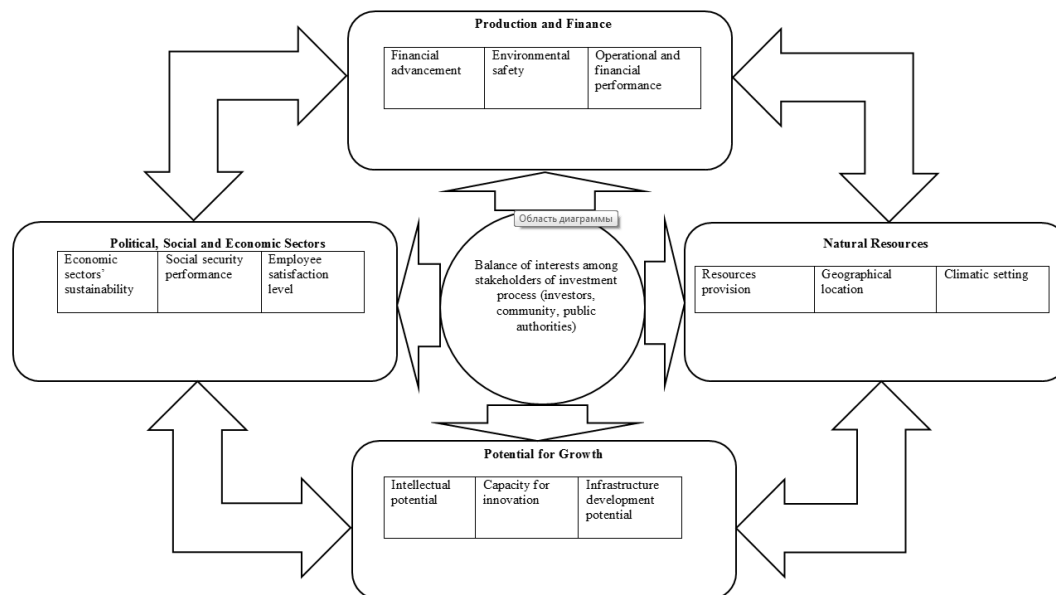
Our survey of the methodologies to explore the investment attractiveness of different regions' economic systems, has identified a series of methodological gaps. They explain the need in revising the ways of evaluating regional investment processes, as well as our own effort to develop the BSC-based model for evaluating regions' investment attractiveness.

In the 1990s, as an attempt to provide a model for measuring corporate performance, R. Kaplan and D. Norton developed the concept of the balanced scorecard (BSC), which is used by the present-day studies as a strategic management and appraisal framework, and an information communication tool. In our study, we turn to BSC as a tool to provide a balanced estimate of the investment attractiveness of a given region.

Despite the fact that BSC is widely used in corporate performance management, there are currently no practices of applying it to measuring the investment attractiveness. Also, the balanced scorecard model has so far never been used in any regional survey, for which reason of relevance are the studies seeking to design hands-on models for evaluating regions' investment attractiveness.

Our BSC-based concept statement is as follows: any evaluation finding should be to the satisfaction of all of the stakeholders of the investment process.

Figure 1. The balanced scorecard: a region's investment attractiveness components.



Central to our evaluation method is the balanced scorecard. There are four components we deem to be essential to the investment attractiveness of Arkhangelsk Region. They are Production and Finance, Development, Natural Resources, and Political and Economic Sectors.

The resultant BSC (please see Figure 1) revolves around a series of interdependent core and sector-specific factors, selected based on the criteria of "maximum representativity and importance for investment attractiveness", and quantifiability.

The evaluation of the investment attractiveness involves benchmarking the measured performance indicators against the target levels. For the purposes of this study, the target performance levels have been set based on the findings of our survey of the investment activities and opportunities in the regions comprising the North-West Federal District.

The final stage of the evaluation suggests determining the overall investment attractiveness coefficient. In order to consolidate the disaggregate factor values, we used the average formula with multiple criteria. But, unlike all other regional economic studies, in determining the value for each separate performance indicator, instead of the mean averages for Russia we made use of the specific performance indicators. By doing so, we tried to avoid the influence of the mean average factorial values calculated for Russia, on the region-level investment attractiveness figures. Otherwise, the region's investment attractiveness level becomes dependent on the investment intensity of the entire country, as well as on investment trends occurring in other regions.

As a result, we have achieved an overall score matrix enabling to provide an estimate of the region's investment attractiveness and identify investment challenges and growth opportunities.

3. Balanced scorecard-based analysis of Arkhangelsk Region's potential to enhance its investment attractiveness

This study has been intended by its author to be an empirical research into the economic sectors of Arkhangelsk Region. Its empirical and informational background encompasses the statutory and regulatory enactments pertaining to investment activities; the official data of the Russian Federation's Service for National Statistics; the research outcomes published in printed periodicals, monographies, and their on-line versions; and the topic-specific studies into the economic sectors of Arkhangelsk Region.

This study involved the development of the balanced scorecard for Arkhangelsk Region that was used as a tool to evaluate Arkhangelsk Region's investment attractiveness over the period from 2007 to 2014 (Table 1).

Set out below are the findings of our analysis of Arkhangelsk Region's potential to enhance its investment attractiveness.

The analysis has shown that Arkhangelsk Region's investment attractiveness has increased in 2014 by 3.4% as compared to 2007.

Among the factors found to have negatively affected Arkhangelsk Region's investment attractiveness is financial performance: the number of the profit-making companies has decreased in 2014 by 5% as compared to 2007.

Table 1. Arkhangelsk Region's investment attractiveness: overall score (2007 to 2014)

BSC component	Overall score							
	2007	2008	2009	2010	2011	2012	2013	2014
Production and Finance								
1. Financial advancement	0.73	0.59	0.59	0.62	0.59	0.63	0.61	0.60
2. Environmental safety	0.68	0.74	0.66	0.61	0.69	0.69	0.69	0.71
3. Operational and financial performance	0.26	0.05	0.79	0.64	0.27	-0.02	0.16	0.32
Component score	0.53	0.42	0.69	0.62	0.49	0.39	0.45	0.52
Potential for Growth								
1. Intellectual potential	0.60	0.65	0.65	0.63	0.63	0.75	0.75	0.75
2. Capacity for innovation	0.63	0.74	0.41	0.48	0.52	0.51	0.41	0.34
3. Infrastructure development potential	0.52	0.52	0.53	0.53	0.53	0.73	0.75	0.76
Component score	0.61	0.69	0.46	0.51	0.54	0.58	0.51	0.46
Natural Resources								
1. Resources provision	0.75	0.77	0.82	0.92	0.87	0.81	0.81	0.85
2. Geographical location	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
3. Climatic setting	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Component score	0.64	0.65	0.69	0.76	0.78	0.74	0.74	0.77
Political, Social and Economic Sectors								
1. Economic sectors' sustainability	0.43	0.41	0.46	0.48	0.50	0.45	0.50	0.49
2. Social security	0.45	0.46	0.47	0.48	0.47	0.48	0.49	0.50
3. Employee satisfaction level	0.98	0.92	0.87	0.99	1.05	1.02	0.97	0.99
Component score	0.59	0.57	0.58	0.63	0.65	0.62	0.63	0.63
Score total	0.58	0.56	0.60	0.62	0.60	0.57	0.58	0.60

Source: author's research..

In total accounts payable, the share of the outstanding accounts has increased 1.7 times, whereas Arkhangelsk Region's budget expenditure-profit ratio has reduced by 16%, almost equaling the target value (0.91), which is certainly a positive aspect. At the same time, a 1.2-fold decrease in the overall financial performance and its fluctuations over the period under analysis, are indicative of Arkhangelsk Region's unstable financial standing and seen as the biggest obstacle inhibiting its investment attractiveness. Since 2010, there has been a steady decrease in the operating and financial performance, with a 5-fold reduction in the ROI of employees and almost a 3-fold reduction in the return on assets and products/services, the wear of fixed assets still being high (44%). Within the 'Production and Finance' component, the operating and financial performance has the lowest score (0.32). Notably, the environmental safety is on the increase, which is due to the increased afforestation measures and relatively stable allocations to environmental protection.

As can be seen from the chart representing the key performance indicators for “operational and financial performance” of Arkhangelsk Region (Appendix 1), there are major deviations from the target levels in return on assets and employees; wear of fixed assets; overdue accounts payable; allocations to environmental protection in the total fixed investment, which explains why the “operational and financial performance” scores so (0,52) low. Closest to the standard level are the budget profit-expenditure ratio (0.91) and the afforestation value (0.98).

It will be observed that the performance in “Political, Social and Economic Sectors” has increased 1.1 times (as compared to 2007). This is primarily due to the (9%) growth in economic sector’s sustainability: the GRP per capita has increased 1.4 times. The transparency of the economy index has increased 1.1 times in relation to the aspect of ownership, and 1.2 times in relation to the rather low but stable entrepreneurial development (0.11), which evidences the need in measures to speed up the formation of the institutions of the market economy. The “social security” performance has been found to have a negative effect on the investment attractiveness due to the following statistics: the overall disease incidence in Arkhangelsk Region exceeds its target level by 10 times, while crime rate per 1,000 residents – by 2.4 times. That the increased employee satisfaction level is attained is mainly due to the increased funding allocations to the social sector (a 31% increase); a 6% increase in the number of residents living above the minimum subsistence level; near-the-target-level unemployment rate and production growth rate; and the relatively high rate at which the average pay was rising.

Our analysis of the “Political, Social and Economic Sector” key performance indicators (Appendix 3) enables a conclusion that the GRP; the balance between production growth rate, average pay rise, and occupational safety; and the population living above minimum wage almost achieve their target levels. At the same time, a slight deviation from the target levels is shown by inflation, entrepreneurial development, and the transparency of the economy.

On the balanced scorecard for Arkhangelsk Region’s investment attractiveness, the highest score was attained by “Natural Resources” (0.72), regardless of a rather low “climatic setting” score (0.43). What causes the positive effect on Arkhangelsk Region’s investment attractiveness is, in the first place, the availability of raw materials, with hydrocarbons, mineral resources, and forest stock near their target levels (0.92-0.98). A 13% increase in “resources provision” has been caused by a 2-fold increase in the availability to Arkhangelsk Region of own funds, as well as a relatively large size of gainfully employed population.

Our analysis of the “Natural Resources” key performance indicators (Appendix 2) has identified major deviations from the target levels in the availability to local businesses of own funds (0.68); population’s economic activity rate (0.69); and climate favorableness (0.43). Near the target level is the extent of mineral resource provision.

“Growth” presents an alarming concern. Its performance has reduced by 21% since 2007 in response to a 34% reduction in the “capacity for innovation”, even though the “intellectual potential” and “infrastructure development” have been showing a slight increase. Major deviation from the target level is being shown by R&D and know-how expenditure.

For quite many years, high on Arkhangelsk Region’s agenda is the issue of fixed assets renewal. The coefficient of fixed assets renewal is found to have decreased 2.5 times, the equipment being 44% worn out. With the equipment as worn out as this, Arkhangelsk Region will not be able to produce any competitive products for the global market. Know-how development has been showing a slight increase but generally remains at a low level, being inhibited by factors such as high cost of new technologies; excessive economic risks; lack of governmental funding support; lack of qualified personnel; uncertainly about whether intellectual property will generate any income. It will also be observed that marketed commodities investment capacity has decreased 3.3 times, which is indicative of weaker investment attractiveness.

Our analysis of the “Growth” key performance indicators (Appendix 4) has found that major deviations from the target levels are shown by R&D expenditure; expenditure on know-how; coefficient of fixed assets renewal; infrastructure development; and IT utilization coefficient.

Generally, the analysis has shown that the components of Arkhangelsk Region’s investment attractiveness that deviate from their target (criteria-based) levels most, are two – “Production and Finance” and “Growth” (twice lower than their target levels) (Appendix 5).

The disturbing tendencies, as can be judged by some of the components' scores, do inhibit Arkhangelsk Region's investment attractiveness, especially within "Production and Finance" and "Growth" – the two components crucial to the economic growth.

Designed as an attempt to test the applicability of the Balanced Scorecard to measuring a region's investment attractiveness, this evaluation has produced the data that is expedient to use when developing the strategies for enhancing regions' investment attractiveness.

4. Final remarks

In the study of the economic relations that emerge between regional authorities and businesses as a result of the investment activities, the approach suggested herein by the author constitutes the first step.

The evaluation of a region's investment attractiveness is a prerequisite for shaping the investment market and the emergence of the opportunities investors may choose to seize.

By evaluating a region's investment attractiveness using a more nuanced approach, it is possible to identify investment bottlenecks and the priorities for regional investment policy with regard to enhancing the region's investment attractiveness and achieving a more balanced economic growth, which in its turn would make government regulation of investment affairs more knowledge-based at the macro-level (where regions are benchmarked and investment regulation is delivered) and the meso-level (where the regional decision-making on how to achieve a balanced economic system takes place).

The practical relevance of the findings of this study is demonstrated by their use in the evaluation of Arkhangelsk Region's investment attractiveness. The fact that this study made use of the national statistics adds to its findings' expediency to be used by the authorities of the regions other than Arkhangelsk.

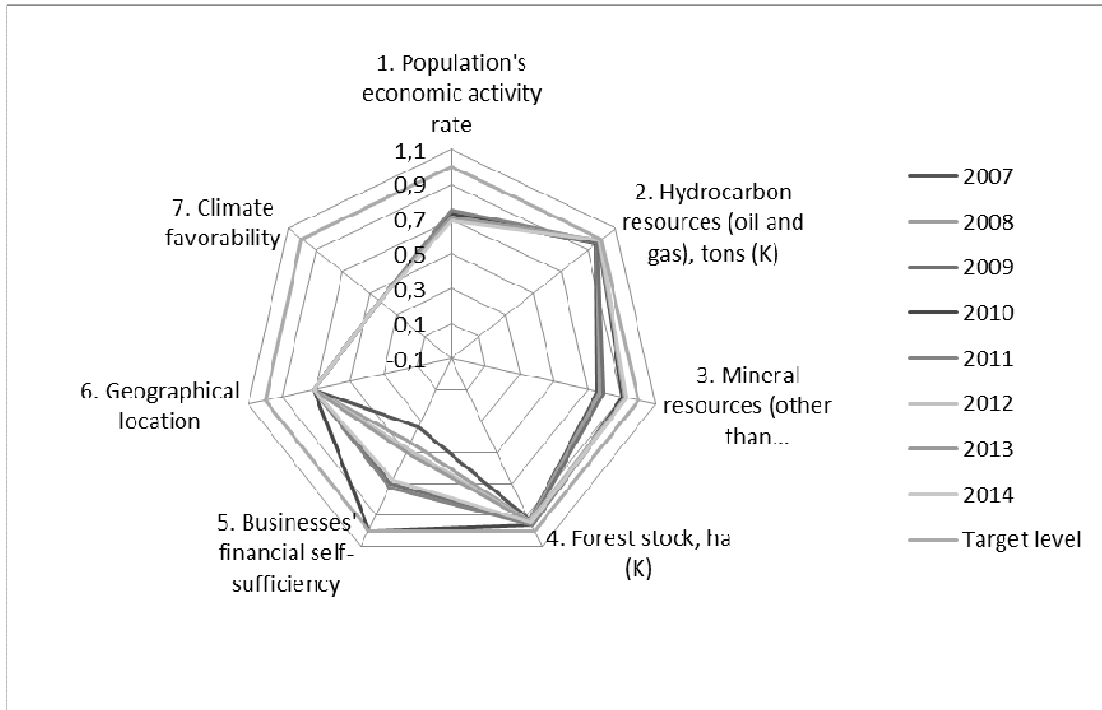
Viewed as a tool for implementing an investment policy, the attained BSC for evaluating a region's investment attractiveness may serve the basis for the decision-making on measures to regulate investment processes in the regions.

The testing of the BSC model has enabled a conclusion that it represents a hands-on tool for identifying the investment bottlenecks and arriving at a knowledge-based investment policy.

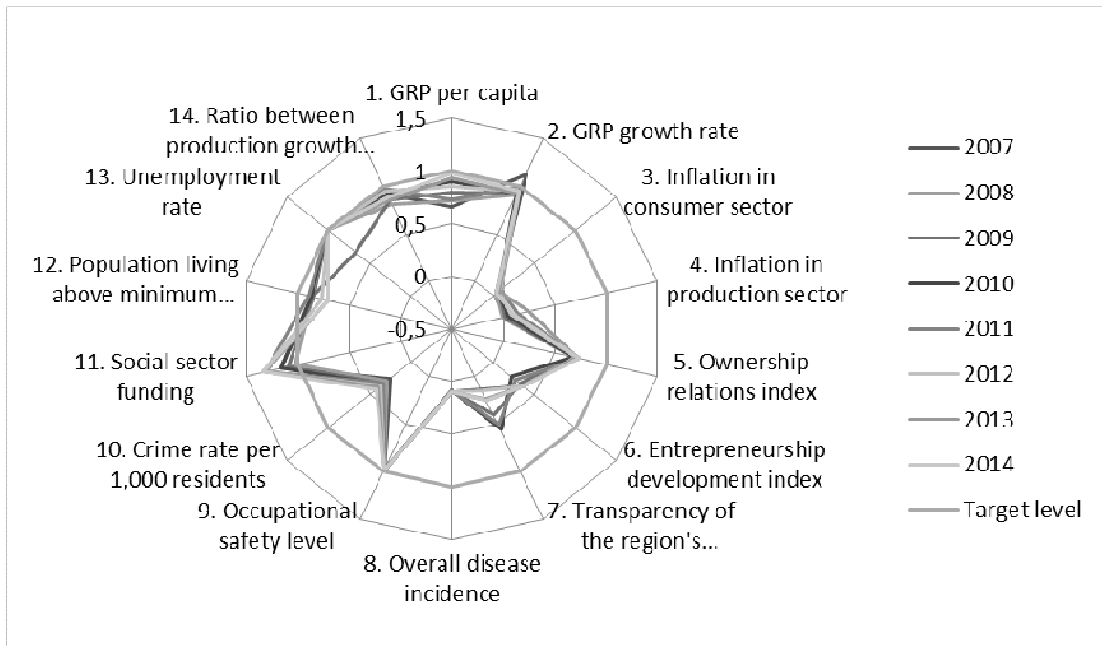
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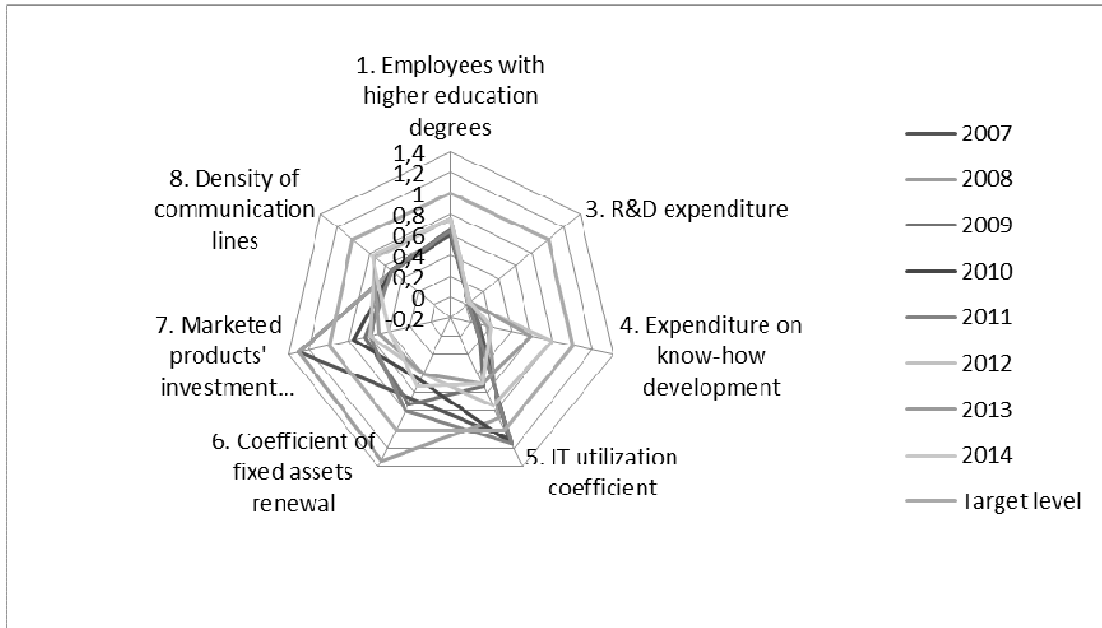
Appendix 2. Balanced Scorecard for Arkhangelsk Region's investment potential: Key performance indicators for Natural Resources.



Appendix 3. Balanced Scorecard for Arkhangelsk Region's investment potential: Key performance indicators for Political, Social and Economic Sectors.



Appendix 4. Balanced Scorecard for Arkhangelsk Region’s investment potential: Key performance indicators for Growth.



Appendix 5. Arkhangelsk Region’s investment attractiveness over the period from 2007 to 2014: An overall profile.

