



Investment Attractiveness of the Territory

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ABSTRACT

Results of the investment appeal analysis of the Kazan city from 2003 for 2013 are presented in article. Within this research authors leaned both on quantitative indices of investment appeal, and on qualitative characteristics.

For the investment appeal analysis of the Kazan city the technique of the factorial analysis and ranging was chosen. In addition, the method of mathematical correlation was applied to detecting dependence between indicators. As initial information for carrying out the investment appeal analysis indicators of development of the Kazan city from 2003 to 2013 published in statistical collections were used. The investment appeal analysis included assessment of 9 factors, and investment risks paid off on the basis of 12 factors.

By results of the conducted research it is possible to draw a conclusion that the largest investment potential was revealed in 2013 and the smallest in 2003 while the greatest investment risk was revealed in 2009, and the smallest in 2013. Following the results of calculations the maximum integrated indicator was received in 2013 - 94,34888, minimum in 2003 - 34,58387

High level of a consumer price index, low level of the average salary, the low level of the population occupied in small and medium business remain problem areas in Kazan, but It should be noted that work in this direction is conducted also rather active.

Keywords: investments, investment potential, investment risks, Russia, appeal of the territory.



1. INTRODUCTION

Today among economists there is no consensus and approach to determination of category "investment appeal" that causes some difficulties when carrying out researches in this area. In the Russian literature investment appeal in definition varies from its identification with investment climate (Kurenkova,2011) to such characteristic as "solvent demand of the territory for investments" (Syomina,2010).

The greatest number of researches in Russia is devoted to investment potential assessment of regions (Glebova,2016; Golaydo,2017; Loseva,2014; Anikina,2016) today. The Republic of Tatarstan as one of the leading regions of the Russian Federation, also many times was exposed to the analysis from the point of view of investment appeal (Shaykheeva,2016; Shabanova,2014).

The purpose of our research is assessment of dynamics of investment appeal of the Kazan city from 2003 to 2013 and identification of problems of development of the territory.

As the main components of investment appeal it is accepted to allocate "investment potential", - the quantitative characteristic of investment appeal, and "investment risk" - its qualitative characteristic.

2. METHODS

Today there are a large number of methods of assessment of investment appeal (Pakhalov,2014; Blum,2013). For the investment appeal analysis of the Kazan city the technique of the factorial analysis, ranging was chosen:

1. For the analysis the ranging method, drawing up rating of change of appeal of the Kazan city during the period from 2003 to 2013 was chosen. In addition, the method of mathematical correlation was applied to detecting dependence between indicators. As initial information for carrying out the investment appeal analysis indicators of development of the Kazan city from 2003 to 2013 published in statistical collections were used.



2. The first stage was devoted to the choice, the argument and the analysis of factors of investment risks and factors of investment potential. As a result 12 factors reflecting investment risks and 9 factors reflecting investment potential were allocated

Table 1. Factors of assessment of investment appeal

The factors reflecting investment risks	Factors, showing investment potential
1) profitability of investments of the city (billion rubles)	1) volume of retail commodity turnover (rub);
2) surplus/budget deficit (million rubles);	2) total amount of industrial production (rub);
3) natural gain / decline in population (people);	3) an index of industrial production (the processing branch) (%);
4) number of jobless (people);	4) a consumer price index (% to previous year);
5) number injured on production (people);	5) the number of the subjects of small and medium business which are carrying out activity (unit);
6) excess of the monetary income of the population over expenses (million rubles);	6) volume of investment into fixed capital (rub);
7) arrears of the organizations for the salary (thousand rubles);	7) volume of economically active population (one thousand people);
8) overdue accounts payable of the organizations for types of economic activity (million rubles);	8) average monthly salary (rub);
9) share of the unprofitable organizations for types of economic activity (%);	9) quantity of the higher educational institutions (HEI) (unit);
10) specific weight of total area of shabby	



houses (in % of the general housing stock);	
11) number of the registered crimes (people)	
12) it is released into the atmosphere of pollutants (one thousand tons per year.)	

3. At the second stage, according to the obtained statistical data, intermediate scores on each of indicators are assigned. Assessment 13 - is maximum, 1 - minimum.

4. On the third weight coefficients are appropriated to each indicator. Weight coefficients were calculated by a correlation method. (Profitability of investments of the city for investment risks and the volume of investment into fixed capital for investment potential was chosen as the main indicator).

5. At the fourth stage, taking into account weight coefficients integrated assessment for every year was calculated. $And = R * r$ (4)

where And - integrated assessment;

R - the place of the city in rating;

r - correlation coefficient

6. At the fifth stage the received sizes were ranged with assignment of the corresponding number (rank).

7. At the sixth stage of the sum of integrated estimates of investment risks and investment potential were summarized for definition of investment appeal in general on two factors. Then, the received sizes were ranged with assignment of the corresponding number (rank).

3. RESULTS AND DISCUSSION

Let's analyze the investment potential of the Kazan city for 2003 - 2013.

Table 2. Data on indicators of investment potential

Year	Factors of investment potential assessment								
	1	2	3	4	5	6	7	8	9
2003	47881,1	5148,2	86,2	112,4	29471	35650,0	582,2	4886	22



2004	63521,5	59641,3	90,3	112,7	33790	50797,9	583,8	5772	23
2005	93161,2	67590,1	99,6	108,8	35480	86914,0	583,7	7672	23
2006	121769,2	82566,6	105,1	107,4	38520	78410,5	581,0	9780	22
2007	157088,5	104913,0	116,9	111,6	44275	96112,0	572,1	12880	21
2008	210954,1	123569,3	108,2	111,8	54159	102066,8	595,4	17265	21
2009	224801,5	139573,8	101,0	107,5	50350	97435,4	622,3	17446	21
2010	259004,2	168918,1	106,4	108,2	55240	125403,0	615,6	19947	20
2011	306717,4	203500,7	104,7	105,9	61472	159050,0	609,4	22799	21
2012	373415,4	236492,6	113,5	106,4	63682	186257,0	606,9	26292	19
2013	409550,7	268316,1	106,3	106,3	56196	184646,3	608,3	29487	25

From table 2 it is visible that the volume of retail trade tends to increase, in 11 years this indicator grew almost by 10 times, from 47881,1 million rubles to 409550,7 million rubles.

Index of industrial production – is the aggregated production index on kinds of activity "mining", "the processing productions", "production and distribution of the electric power, gas and water". Growth of industrial production means strengthening of economy in general, strengthening competitiveness of goods in the market, expansion of the markets, increase in producers and production capabilities.

Apparently from the table, the total amount of the shipped goods of own production, the performed works and services with own forces on types of economic activity has a steady tendency to increase.

From table 2 it is visible that the index of industrial production of the processing branch wavy changes throughout all studied period that is this indicator is unstable. Nevertheless, comparing initial 2003 with total 2013, it is possible to observe increase in an indicator from 86,2% in 2003 to 106,3% in 2013.

The following considered factor characterizing investment potential is a consumer price index. From the table it is visible that the consumer price index also wavy changes both in big, and in the smaller party. Perhaps, it is connected with the fact that IPTs measures rates of inflation of the prices which face on own experience and which is felt by all



households acting as consumers, and the prices change very often in this connection, and there is such instability of this indicator.

The fifth indicator chosen for investment potential assessment is the number of subjects of small and medium business which tends to increase, which is not surprising, in Kazan in recent years the set of various programs for support, financing of small and medium business, individual entrepreneurs was developed and implemented. These programs yield the results, from 29471 units of the registered subjects of small and medium business in 2003 their number increased to 56196 units by 2013.

The sixth and most important indicator considered in this work is investments into fixed capital. Instability of this indicator is quite explainable since it is influenced by a large number of factors. For example, the economic policy pursued in the country, indicators of perfection of tax system, a social situation in the concrete territory; investment risks, conditions created for attraction of the capitals because of borders of the country and many other factors.

The seventh indicator influencing investment potential is a volume of economically active population. Growth rate on this indicator in 11 years made only 4%.

The following not less important factor of investment potential is the average monthly salary. The average monthly salary of workers in 11 years increased from 4886 rub in 2003 to 29487 rub by 2013. Despite increase in the salary for the studied period, on this indicator Kazan considerably lags behind other large cities in which average salary passed a threshold of 30 thousand rubles long ago.

The last considered indicator of investment potential is the quantity of higher educational institutions. Higher educational institutions provide the territory with qualified specialists. Due to the increase in a share of the knowledge-intensive production value of human potential increases in the total amount of goods and services. These factors allow investors to gain income on the capital invested without the additional expenses connected with training of personnel, adaptation of workers of all levels to modern conditions of business.

At the following investigation phase intermediate scores were assigned (from 13 to 1). Further weight coefficients were appropriated to each of the estimated factors, the



correlations calculated by method. The main indicator for investment potential - the volume of investment into fixed capital. After that ranging of results with assignment of the corresponding number (rank) was carried out. At this stage integrated estimates on all factors of investment potential for every year were summarized. The sum of the received estimates was estimated by numbers from 1 to 13 where 1 - year - the leader in the maximum investment potential; 13 - the city - the outsider on investment potential. Let's consider rating results on factors of investment potential.

Table 3. Rating results on factors of investment potential in the Kazan city for 2003-2013.

Rank	Integrated assessment	Year
1	59,039	2013
2	58,725	2012
3	54,728	2011
4	47,898	2010
5	40,928	2009
6	39,112	2008
7	31,43	2007
8	24,806	2006
9	22,455	2005
10	15,491	2004
11	9,3974	2003

Thus, it is possible to draw a conclusion that since 2003 the constant growth of investment potential is observed.

By a similar technique the analysis of factors of investment risks of the Kazan city for 2003 - 2013 is carried out.

The first and major factor influencing investment risk is profitability of investments. Also this indicator was the basic for calculation of correlation dependence of factors of investment risks.



This indicator is defined by the relation of the gross territorial product (GTP) to the volume of investment, and is a profitability indicator at assessment of investment risk of the city.

Further the standard deviation and coefficient of a variation is defined. Results of calculations are presented in table 4.

Table 4. Totals of profitability of investments, standard deviation and coefficient of a variation on the Kazan city for 2003-2013.

2003-2013.	Profitability of investments of the city, average value (r), billion rubles.	Standard deviation, billion rubles.	Coefficient of a variation, %
	1,865	0,789	42,339

Table 5. Data on indicators of investment

Year	Factors of investment risk assessment										
	2	3	4	5	6	7	8	9	10	11	12
2003	-2191,2	-5235	5468	271	11489,4	36100	7856,2	33,1	3,0	18288	103,9
2004	-3366,0	-5414	5599	286	12597,0	15700	7015,8	32,8	1,7	19807	100,4
2005	-396,9	-5442	5469	279	11448,0	30318	4329,9	30,2	1,4	33075	102,6
2006	-305,6	-4527	5419	247	20759,8	7354	5061,3	29,2	1,4	45224	109,7
2007	-305,7	-3257	5623	211	3733,6	652	4135,9	22,6	0,7	36539	120,9
2008	-1284,3	-1683	5857	505	-11334,4	2417	5348,9	23,1	1,4	35637	131,1
2009	-4932,7	-637	13293	470	-20769,6	33009	5881,2	24,8	0,7	29520	135,0
2010	-8857,1	-37	9858	414	-25720,4	7923	4051,5	20,5	1,4	23230	93,7



2011	-9166,7	2720	7729	404	-51284,2	15323	3575,1	20,5	1,5	22452	99,9
2012	680,4	4579	5329	360	-63879,3	17444	7533,9	17,8	1,5	21035	102,8
2013	-1707,2	4819	3557	304	-80201,8	9022	7382,6	18,0	1,4	18712	106,8

The second factor of investment risks considered surplus / budget deficit. From table 5 it is visible that in 10 of 11 studied years in Kazan budget deficit was observed, only in 2012 surplus of the budget made 680,4 million rubles. Such result can be explained with active financial injections in city budget of Kazan in connection with the upcoming sporting events: XXVII world summer Universiade and to the water sports World Cup.

The following indicator is the natural increase / decline in population. The natural increase of the population in 11 years was replaced from negative values (decline in population) on positive (increase in population) that is not only a good indicator for investment appeal, but also the good demographic indicator testifying about favorable socially - economic conditions in this territory.

The fourth indicator is the number of the unemployed. This indicator can strongly change from year to year as it directly depends on an economic condition of the territory. Such sharp jump can be observed since 2008 for 2009 when the indicator of number of the unemployed increased almost by 2,5 times. It is connected with a difficult economic situation of the city and country in general during this period in connection with financial crisis, financial hardship of many enterprises and organizations, and as a result mass reduction of workers.

The fifth indicator – is the number of victims on production. The sixth indicator is excess of the monetary income of the population over expenses. In Kazan rapid increase in the cash expenditures of the population exceeding the income is observed. Such tendency is characteristic not only of Kazan, but also of all country in general that is explained by high inflationary expectations of the population which preferred to spend money, being afraid of their depreciation.

The following two indicators characterizing investment risks are arrears of the organizations for the salary and overdue accounts payable of the organizations for types



of economic activity. On presented to data it is possible to see that these indicators are unstable.

The tenth considered indicator is the specific weight of total area of shabby houses of % of the general housing stock. The smallest percent of shabby housing fell on 2009. It is connected with the fact that in 2008 in Kazan it was developed, and since 2009 the municipal target program "Resettlement of Citizens from the Housing Stock Recognized Unsuitable for Accommodation" is realized.

The eleventh factor for assessment of investment risks is the number of the registered crimes. Since 2006 the steady tendency to decrease in number of the registered crimes is observed that speaks about the carried-out work in this sphere and increase in the standard of living and safety of citizens.

The last considered indicator is the amount of the pollutants released into the atmosphere.

Let's consider rating results on factors of investment potential.

Table 6. Rating results on factors of investment risks in the Kazan city for 2003-2013

Rank	Integrated assessment	Year
1	35,82428	2013
2	35,27918	2012
3	32,945	2006
4	32,8794	2007
5	25,43622	2010
6	25,1865	2003
7	24,95866	2011
8	24,55285	2005
9	24,48092	2008
10	23,74185	2004
11	22,45295	2009



In the figure 1 changes of indicators of investment appeal (total integrated score of investment risks and investment potential) are graphically presented.

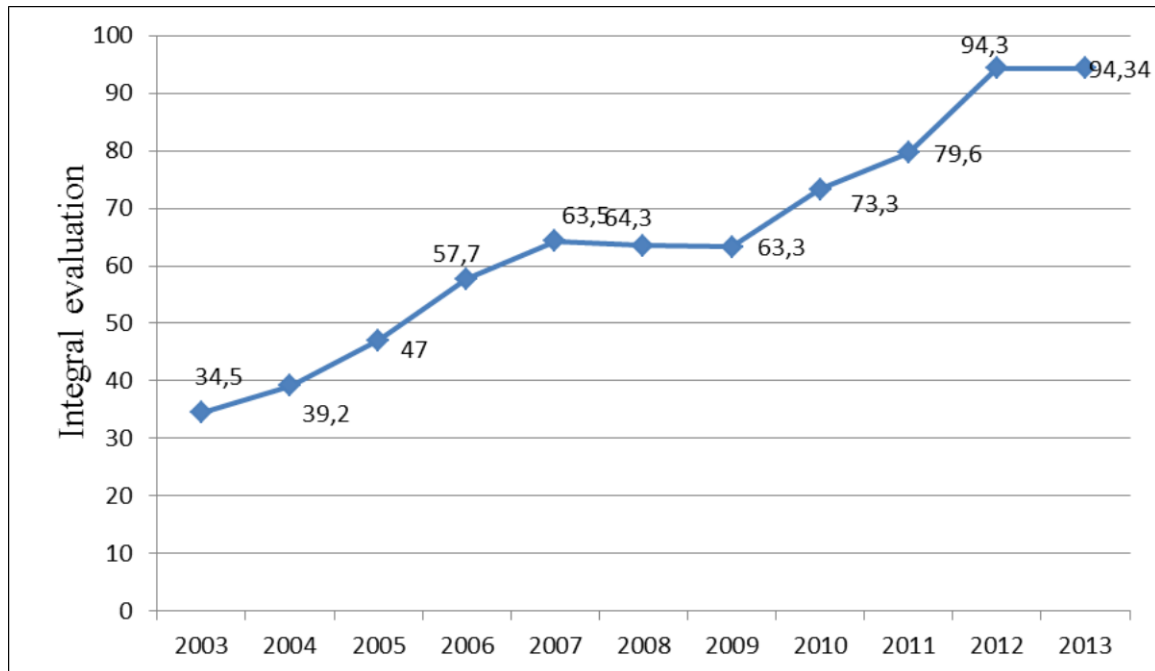


Fig. 1. Changes of indicators of investment appeal the Kazan city for 2003-2013.

4. SUMMARY

Results of the comparative investment appeal analysis of the Kazan city during the period from 2003 to 2013 are presented in article. High level of a consumer price index, low level of the average salary, the low level of the population occupied in small and medium business remain problem areas in Kazan, but It should be noted that work in this direction is conducted also rather active.

Thus, it is possible to draw a conclusion that, for 11 years the Kazan city went to a rank of one of most investment - the attractive cities of Russia and made every effort for this purpose. From year to year the majority of indicators of investment appeal improve that demonstrates active work of public authorities on improvement economic, social, infrastructure, the investment cities of Kazan of characteristics.



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