



International Conference on Applied Economics, ICOAE 2015, 2-4 July 2015, Kazan, Russia

Return On Investments In The Formation Of Fixed Capital Assets In Agriculture Of The Republic Of Tatarstan

L.G. Nabieva^a, L.M. Davletshina^b

a Kazan Federal University, Institute of Management, Economics and Finance, 18 Kremlyovskaya St, Kazan, 420008, Russia¹

b Kazan Federal University, Institute of Management, Economics and Finance, 18 Kremlyovskaya St, Kazan, 420008, Russia²

Abstract

In the article there is considered a problem of return on investment for fixed capital assets in agriculture on the example of the Republic of Tatarstan. It is relevant today not only because of the decline in agricultural production, but also because of the urgent need to solve the food problem as the most important component of Russia's economic security.

© 2015 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Selection and/or peer-review under responsibility of the Organizing Committee of ICOAE 2015.

Keywords: efficiency of investments, capital assets, agriculture, attractiveness of region, coefficient of updating

1. Introduction

One of the main problems in the modern Russian economic development there is economic growth in agricultural production, in which the investment processes play an important role. Their activation is a real prerequisite for intensification, the growth of labor productivity, the quality of living for the population. At the present stage of development in agriculture, investments present the central problem of reconstruction and development in fixed capital assets because for the current state of the main production facilities there are characterized by high depreciation, disposals and an extremely low coefficient for update.

2. Materials and Methods

The main methods of the research for the return on investments of fixed capital assets in agriculture were the methods of analysis for absolute and relative values of statistical indicators, the method of finding the average

¹ Corresponding author. Tel.: +7-843-236-52-28

E-mail address: Larisa-nabieva@yandex.ru

² Tel.: +7-843-236-52-28, E-mail address: 663499@mail.ru

values of statistical indicators. There were analyzed statistical yearbooks for 8 years in the Republic of Tatarstan.

The aim of the study was to investigate the return on investment of fixed capital assets in the agricultural sector by comparative analysis for results of statistical data on investments in these areas.

3. Results and Discussion

The basis of the economy in the Republic of Tatarstan consists of industry and agriculture.

The provision of agriculture with basic means of production and their effective use are the main factors increasing the volume of production for major agricultural products and increase profitability of agricultural enterprises.

The central problem of reconstruction and development of basic production assets are investments. The high level of investments contributes to the growth of fixed capital assets. Unfortunately, in the recent years investments in fixed capital assets for agriculture still remain insufficient, although there is an annual increase in fixed capital assets of the agricultural organizations in the Republic of Tatarstan.

Considering the problem of attracting investments in fixed capital assets that are aimed at the development in agriculture, it is necessary to take into account the degree of investment attractiveness in the Republic of Tatarstan.

Investment potential - quantitative characteristic inclusive the saturation of the territory with the factors of production (infrastructure, natural resources, fixed capital assets, human resources, etc.), consumer demand of the population and other factors that affect the potential volume of investment.

To compare the characteristics of the investment potential, let us consider the Volga Federal District (VFD) including the Republic of Tatarstan, Table 1.

Table 1. Indicators of the investment potential in the regions (VFD) for 2013

Indicators	Republic of Tatarstan	Nizhny Novgorod region	Republic of Chuvashia	Kirov region	Republic of Mariy El
Rank of the investment potential	6	8	55	58	73
Share in total Russian potential,% 2,517		1,972	0.642	0.586	0.378
Indicators that build up the rating of the investment potential:					
Production rank	6	12	50	47	66
Labor rank	5	11	35	48	65
Institutional rank	5	9	49	38	67
Innovative rank	5	4	41	52	64
Infrastructure rank	20	32	22	60	59
Financial rank	6	11	52	48	71
Rank for natural resources	40	56	78	52	43
Consumer rank	6	10	53	41	71
Tourist rank	6	11	45	41	71

Table 2 shows the rating of investment attractiveness in the regions of the Volga Federal District.

Thus, analyzing the above stated, we can conclude that the Republic of Tatarstan has the best investment potential among the regions of the Volga Federal District. Therefore, one of the most important tasks for the investment policy should be to improve the increase and development of the investment potential in the Republic of Tatarstan.

Agriculture of the Republic of Tatarstan takes one of the leading positions among the subjects of the Russian Federation, included in the Volga Federal District, and the Russian Federation as a whole. The republic is surely among the top five agricultural regions of Russia.

Agriculture occupies an important place in the economy of the Republic of Tatarstan. The share of agriculture in gross regional product reaches 8%. The share of agricultural land in the Republic of Tatarstan is 2.34% of agricultural land in the whole country.

On January 1, 2015 in the agriculture of the Republic of Tatarstan there were operating 2,704 agricultural enterprises of different organizational-legal forms, representing 2.2% of the total number of business entities in the Republic of Tatarstan; the number of peasant (farm) on January 1, 2015 is 2,597 units and takes 96% of all agricultural enterprises in the Republic of Tatarstan, which occupy 266.2 thousand hectares of the lands, and the average size of land is 103 hectares.

Table 2. Rating of the investment attractiveness for the regions of VFD

Indicators	Republic of Tatarstan	Nizhny Novgorod region	Republic of Chuvashia	Kirov region	Republic of Mariy El
Investment rating	1A	2B	3B1	3B1	3B2
The place of the region:					
- on investment risk rate;	7	35	49	64	61
- on investment potential	6	8	55	58	73
The greatest investment risk	Economic	Ecological	Ecological	Criminal	Criminal
The smallest investment risk	Ecological	Criminal	Social	Economic	Social
The greatest investment potential	Labor, institutional, innovative	Innovative	Infrastructural	Institutional	Natural Resources

Today especially problematic is the dynamics of indicators characterizing the material and technical base of agriculture in the Republic of Tatarstan. There is reduced the fleet of almost all types of machinery in agricultural organizations. The supportability of the agricultural organizations with tractors fell from 9.0 to 6.0 tractors per 1,000 hectares of arable land. For 2001-2005 years, the energy capacity decreased from 54.5 to 44.6 horsepower per a mid-year worker and from 327 to 229 horsepower per 100 hectares of cultivated area.

Cash fleet of machines and tractors does not meet the needs of the industry both in quantity and structure, as well as the technical level of machines. Until 1992, the republic annually received up to 4 -4.5 thousand tractors, to 1.5 thousand combines, up to 2 thousand cars, 500 units of forage machines, 2-2.5 thousand plows, seeders, cultivators, harvesters. For the period 1995-2006 in the Republic of Tatarstan there were delivered only 6,673 tractors and 2,483 combine harvesters, which is slightly more than arrivals of the agricultural machinery only for one year in 1990. In addition, existing machines and tractors are strongly exhausted, the load on it largely increased. For the acquisition of basic agricultural machines it is necessary to sell 10 times more wheat, 20-25 times more meat and milk, compared with 1991 year. About 70% of the fleet for tractors and combine harvesters, 80% trucks, tillage and seeding machines have served 10-15 years or more. In this regard, many manufacturing operations are carried out in crop production under the simplified schemes with violations of farming and timing of agricultural operations, the high costs on manual labor and heavy losses of production.

The appeared situation has led to a sharp decline in the technical capacity of the republic, which by 2006 reached 51% of the supply with agricultural machinery. To maintain the machine and tractor fleet in working condition there is required an annual update of its worth about 10 billion rubles, that is about 2,500 tractors, 600-700 combine harvesters and 250-300 forage harvesters, 300 trucks, 1,000 sowings and tillers.

For 2008-2013, the fleet of tractors in the republic has decreased by more than 9 thousand units (42.8%), grain and forage harvesters - at 2,338 and 739 units (44.1% and 45%), respectively, and the number of plows, cultivators and planters has fallen by more than in twice. Thus, the annual outflow of tractors was in average 5.3%, combine harvesters - 5.5%, and forage harvesters - 5.6%. The indicators of the supply for agricultural producers with modern

types of agricultural machinery and material resources are presented in Figure 1.

The process of updating technical fleet is accompanied by a decrease of the total energy capacity from 6,594.0 thousand hp. to 4296.0 or to 35%, and in average per a mid-year worker from 50 to 47 hp and based on 100 hectares of sown areas from 228 to 158 hp. There are no fund for renewal of agricultural machinery in the majority of agricultural units and borrowed funds are expensive.

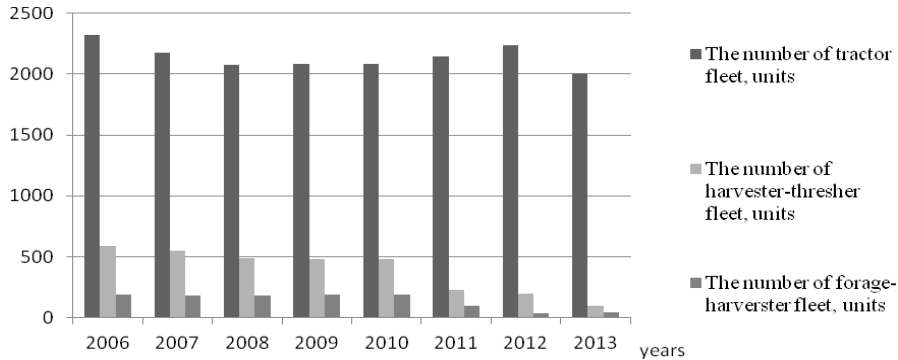


Fig. 1. The supply for agricultural producers with modern types of agricultural machinery and material resources

In a production environment on the effectiveness from the use of the fixed capital assets in agriculture affect a variety of factors, including the rate of renewal, Figure 2.

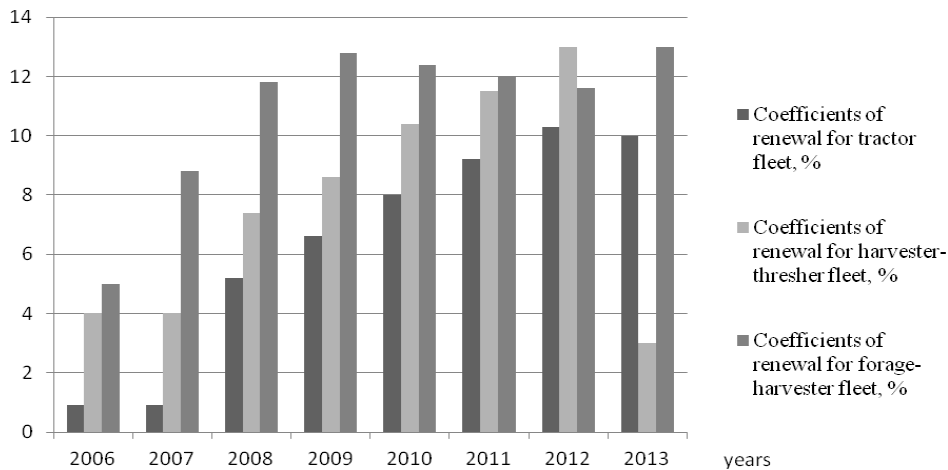


Fig. 2. Coefficients of renewal for agricultural machinery

A characteristic feature of the national agriculture is the participation of well-known companies - investors in the agribusiness on the principles of public-private partnership. Currently, large agricultural firms conduct agricultural activities on more than 2033 thousand hectares of agricultural land and have already invested in it more than 39 billion rubles.

The list of priority directions for investment activity includes funding cost on improvement of soil fertility,

support of tribal and seed farms, the implementation of energy-saving and resource-saving technologies, technical re-equipment and upgrading of agricultural organizations, the development of scientific agro-research and implementation of their results in agricultural production.

The expected rate for the total volume of the attracted investments is estimated at 111.6 billion rubles, including 89.5 billion rubles (80% of the total volume) from 17 of the largest strategic investors. The calculation was made on the basis of forecasts and offers from the largest investors.

In 2011 the Republic of Tatarstan in terms of gross agricultural output reached the leading position in Russia. The growth rate of gross agricultural output is higher than the average one in Russia (4.8% vs. 2.2%), Figure 3.

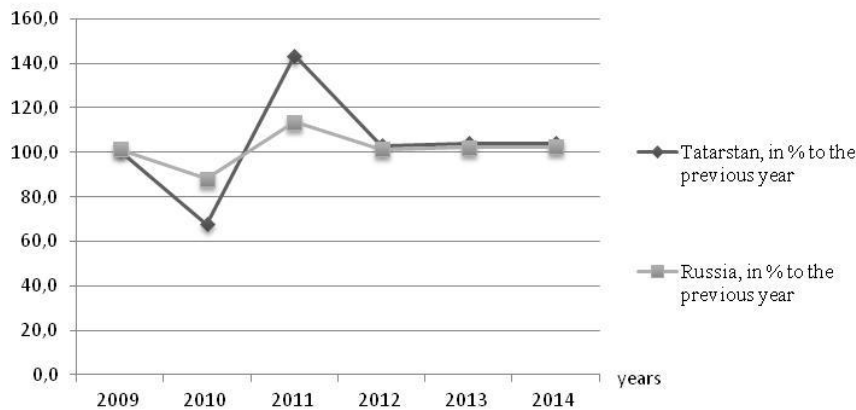


Fig. 3. The growth rate of gross agricultural output.

The Republic of Tatarstan takes a leading position in production of the main types of crop production (first place in the gross harvest of potatoes, the first place in gross harvest of spring rape, the fourth highest gross harvest of sugar beet) and animal production (the second largest in the number of cattle, the second largest producer milk, the third largest producer of livestock and poultry).

According to the data from the territorial authority of the Federal State Statistics Service in the Republic of Tatarstan, the amount of the constant rural population was 954.3 thousand people, or 25.4% of the total population in the Republic of Tatarstan, Figure 4.

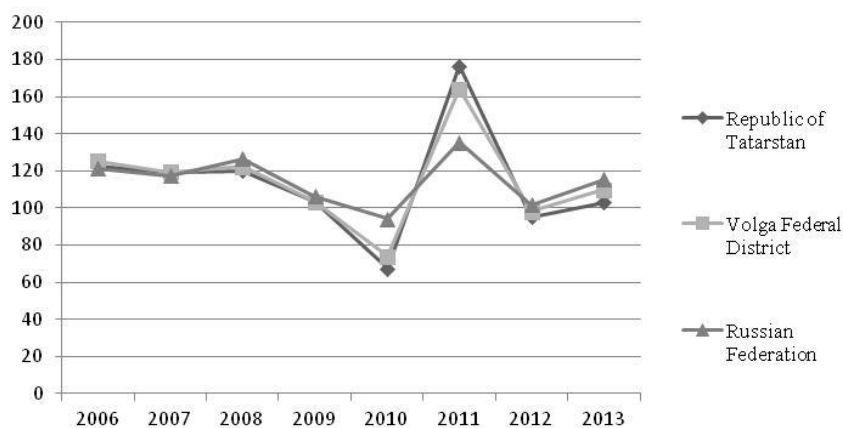


Fig. 4. The ratio of the change rate in agriculture production and change rates in the number of people employed in agriculture and in the agricultural organizations, in %.

During the years 2006-2013 there were markedly improved the key performance indicators of agricultural producers, in particular, the gross income per an employee increased by 2 times, the earnings per an employee - by 2.5 times, earnings per 1 hectare of agricultural land - 1.9 times, earnings per 1 hectare of arable land - 1.7 times the average monthly wage per an employee - 4 times, the positive dynamics also have indicators of productivity in livestock.

Nowadays republic agriculture provides residents in the Republic of Tatarstan with the main types of agricultural products. The levels of actual production per a resident are among the highest in the country and make potato 243% of normal RAMN, sugar - 136%, milk - 110%.

The key indicators of agriculture development in the Republic of Tatarstan are shown in Figure 5, where the growth rate of gross agricultural production exceeds the rate of investment growth.

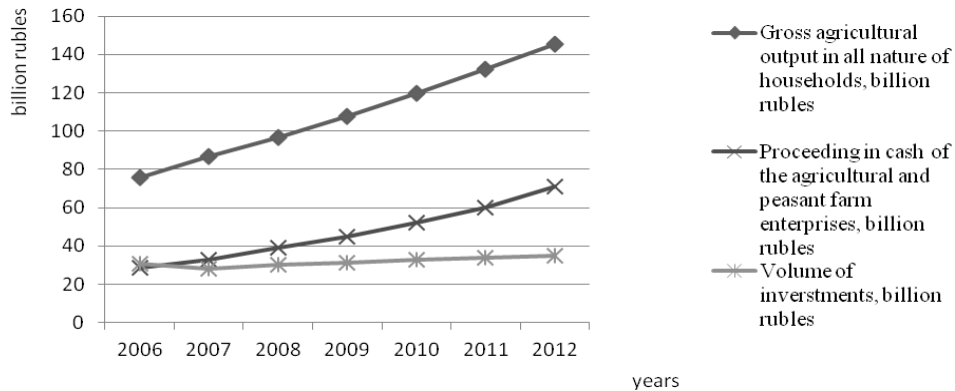


Fig. 5. The key indicators of agriculture development in the Republic of Tatarstan

Summarizing, in general, for the period of 2006-2012 years the volume index of investments in fixed capital in agriculture was performed on 82.5%, which had a negative impact on the technical and technological modernization, however the dynamic development of the republic agriculture in the recent years makes it possible to export certain types of agricultural production in other regions of the Russian Federation.

4. Conclusion

The crisis affecting the entire economy, including agro-industrial complex in the Republic of Tatarstan, is manifested in the reduction of the volume for savings, its share in gross domestic product, the volume of capital investments for the renewal of the fixed capital assets.

Thus, agriculture needs constant support from the government. At the present moment, the government pays attention to this sector by establishing various development programs, which is beneficial to agriculture. The sector will then be attractive to investors when it is be profitable.

The main areas of investment policy in the agriculture of the Republic of Tatarstan must be:

- strengthening of economic activity in order to create and maintain a favorable investment climate;
- support of the investment activities through the participation in governmental investment programs for fixed assets of the farms;
- the development of human capital;
- tax incentives;
- ensuring conditions for economic and investment security.

Taking these measures there will increase the return on investment of the fixed capital assets into the agriculture.

References

- Bagautdinova, N., Gafurov, I., Kalenskaya, N., Novenkova, A. The regional development strategy based on territorial marketing (The Case of Russia) // *World Applied Sciences Journal*, 18(Issue SPL.ISSUE. 18), 2012, 179-184.
- Glebova, I., Khabibrakhmanova, R., Yasnitskaya, Y. The analysis of the impact of the investment attractiveness factors of the region on the fixed capital investments in the economy of the Republic of Tatarstan // *Middle East Journal of Scientific Research* 17 (10), pp. 1498-1502,-2014.
- Republic of Tatarstan, Statistical Yearbook, 2005 year. Publ: Tatarstanstat, Kazan, 2006.
- Republic of Tatarstan, Statistical Yearbook, 2006 year. Publ: Tatarstanstat, Kazan, 2007.
- Republic of Tatarstan, Statistical Yearbook, 2007 year. Publ: Tatarstanstat, Kazan, 2008.
- Republic of Tatarstan, Statistical Yearbook, 2008 year. Publ: Tatarstanstat, Kazan, 2009.
- Republic of Tatarstan, Statistical Yearbook, 2009 year. Publ: Tatarstanstat, Kazan, 2010.
- Republic of Tatarstan, Statistical Yearbook, 2010 year. Publ: Tatarstanstat, Kazan, 2011.
- Republic of Tatarstan, Statistical Yearbook, 2011 year. Publ: Tatarstanstat, Kazan, 2012.
- Republic of Tatarstan, Statistical Yearbook, 2012 year. Publ: Tatarstanstat, Kazan, 2013.
- Republic of Tatarstan, Statistical Yearbook, 2013 year. Publ: Tatarstanstat, Kazan, 2014.