Assessment of the Nature of Reproduction Processes in Rural Municipalities (districts) of the Region of Buryatia

Ekaterina Tsyrenzhabovna Chimitdorgieva[1], Gennadiy Arkhipovich Aydaev[2], Dashi Dashanimaevich Tsyrenov[3]*, Aleksandr Matveevich Balkhanov[4], Evgeniy Anatolévich Malishev[5]

[1]East Siberia State University of Technology and Management, 40V, Klyuchevskaya ul., Ulan-Ude, 670013, Russia, [2]Baikal Institute of Nature Management, Ulan-Ude, 6 Sakhyanovoy ul., 670047, Russia, [3]Buryat State University, 24a Smolin ul., Ulan-Ude, 670000, Russia, [4]Buryat State University, 24a Smolin ul., Ulan-Ude, 670000, Russia, [5]Transbaikal State University, 30 Alexandro-Zavodskaya ul., Chita, 672039, Russia. *Email: dashi555@mail.ru

ABSTRACT

The article examines the nature of reproduction processes in rural municipalities (districts) in the region of Buryatia. It is supposed that the higher the level of socio-economic development of municipal districts, the higher the return from the resources used there. The study, based on the assessment of elasticity, has found that a high level of economic development of the municipality does not correlate with indicators of high return from the factors of production.

Key words: Fixed Capital, Investment, Employment, Economic Development, Municipalities of the Region, Elasticity
JEL Classifications: R00, R58, O47

1. INTRODUCTION

Economic growth at its core is an integral indicator used for a comparative analysis of the economic development of the objects of study (economies of different countries or separate territories and sectors within a single country). An objective assessment of the economic growth is necessary for elaboration of effective public policies. In the structure of the national economy, factors of economic growth have complicated internal relationships. In this regard, the fullest employment of the existing economic factors of production is the main task of the state policy which orients economic growth on taking into consideration the country's population needs and satisfaction of those needs (Lebedeva, 2013). In the contemporary conditions, the problem of spatial non-uniformity of the socio-economic development is quite urgent for Russia (Smoleev, 2013). It gives rise to a range of actual management tasks aimed at resolving the problem of unbalanced territorial development of Russia (Korytova, 2012). The efficiency of the economies of municipalities is the indicator of success of socio - economic transformation in a region. The level of development of municipalities in the Russian regions is determined by the influence of different factors: Demographic, geographic, and climatic (Suspitsyn, 2013). In regard with this, we thought it would be interesting to use simple functions to assess the sensitivity of indicators characterizing the economic development of the territories to the factors of reproduction.

2. METHODS

In this study, both quantitative and qualitative methods were used to analyze the nature of the reproduction processes in rural municipalities (districts) of the region. With regard to reproduction processes, three types of resources have been chosen: fixed capital, labor, investments in fixed capital (Granberg and Egorshin, 2004; Filobokova, 2011; Novikov, 2010). As indicators allowing to capture the results of the performance of rural municipalities, the following ones were used: Per capita retail sales; per capita agricultural output; per capita output of goods

and services produced by own capacities; per capita revenue of the municipal budget, necessarily reflected in the municipal statistics (Penyugalova, 2005). The aim of this study is to examine the relationship between economic development of the rural municipalities and their reactions to the reproduction resources.

2.1. Methods of Analysis

On the first stage, the results of cluster analysis of rural municipalities of the region on 7 indicators of economic development were used:

- Per capita indicator of investment in fixed capital, rubles
- Per capita indicator of retail trade turnover, rubles
- Per capita volume of agricultural products, rubles
- The average number of employed people in the economy, persons
- Per capita indicator of fixed capital, rubles
- Per capita revenue of municipal budgets, rubles
- Per capita volume of shipped goods and services of own production, rubles.

Partition of the municipalities was carried out separately according to the indicatots of economic development (Chepik, 2015). To ensure the principle of equivalence of influence of each factor on the resulting outcome of the partition, normalization of all indicators was performed with the use of the following formula:

$$Z_{Hopm}{}^{i} = \frac{z^{(i)} - z^{(i)}{}_{min}}{z^{(i)}{}_{max} - z^{(i)}{}_{min}}$$

(1)

The distribution of municipalities was carried out with the use of the following statistical instruments: The nearest-neighbor method, the method of remote neighbor, weighted centroid method, the weighted average pairwise method, Varda method, and k-means (Agapova and Suglobov, 2014). These methods, in fact, showed similar results of clustering relatively to the analyzed period (Mkhitaryan and Khokhlova, 2008; Dubrova, 2010). Thus, we can talk about the insignificant impact of the selected method of clustering on the partition of municipalities.

Two municipalities (Ulan-Ude and Severobaikalsk) were excluded from further analysis: They demonstrated significant excess for all indicators, their inclusion in the analysis would lead to the biased estimates of the region. Thus, the study investigated 21 municipalities (Mkhitaryan, 2009).

On the second stage, investigation of the character of reproduction processes in rural municipalities (districts) of the region was conducted with the use of elasticity coefficients, which, in our opinion, makes it possible to evaluate the nature of reproduction in the districts of the republic (Labsker, 2014).

Subsequent analysis is associated with the use of regression analysis of nine indicators of economic development of municipalities. The result of quantitative research is represented by 145 regression equations, which define the influence of various factors on the results of economic activity (Table 1) (Chimitdorzhiyeva and Chepik, 2014).

Constructed regression equations allow us to calculate the elasticity coefficients:

$$E_x(y) = \frac{x}{y} y',$$

(2)

where y =f (x) - endogenous indicator reflecting the performance of economic activity, x - an exogenous factor.

A nonlinear relationship is characteristic for 42 regression equations. For other dependencies, linear equations were built.

3. DESCRIPTION OF THE STUDY OBJECTS: THE RURAL MUNICIPALITIES OF THE REPUBLIC OF BURYATIA

Republic of Buryatia consists of 23 municipalities. The region is characterized by significant difference in the level of social and

Table 1: Indicators that determine the outcome of economic activity and the factors that influence them (Chimitdorzhiyeva and Chepik 2014)

Indicators determining the results of performance (the dependent variable)	Indicators reflecting the impact of factors on the results of performance (independent variable)
Per capita indicator of goods and services of own production, rubles	1. Per capita indicator of investment in fixed assets, thousand rubles
	2. The average number (annual) of employed people in the economy, persons
	3. Per capita indicator of fixed assets at the end of the year, rubles
Per capita agricultural output, rubles	1. Per capita indicator of investment in fixed capital, thousand rubles
	2. The annual average number of employed people in the economy, persons
	3. Per capita indicator of fixed assets at the end of the year, rubles
Per capita retail trade turnover, rubles	1. Per capita indicator of investment in fixed capital, thousand rubles
	2. The average number (annual) of employed in the economy, persons
	3. Per capita indicator of fixed assets at the end of the year, rubles
Per capita revenue of the municipal budget, rubles	1. Natural population increase per 1 thousand persons, persons
	2. Average monthly salary, rubles
	3. Per capita retail trade turnover, rubles
	4. Per capita agricultural output, rubles
	5. Per capita indicator of goods and services of own production, rub

economic development among municipalities (Tsyrenov, 2014). The share of municipalities in the main indicators, characterizing the state of the socio-economic situation in 2012, is presented in Table 2 (Chepik, 2014).

A large area of the republic belongs to the territories of the Far North - Severobaikalsk, Severobaikalsky, Okinsky, Muysky, Kurumkansky, Bauntovsky, Barguzinsky districts. Here, the main mineral deposits, forest and water reserves, a significant portion of recreational resources are concentrated.

In the sectoral structure of the economy of the central municipalities of the Republic of Buryatia, mining and manufacturing industries, agriculture and forestry stand out. Agricultural production is specialized in meat and dairy cattle breeding and cultivation of grain. Today, tourist and recreational complex is defined as the main growth point of municipalities in the central part of the republic (Chepik, 2014).

The southern districts of the Republic of Buryatia (Zakamensky, Dzhidinsky, Bichursky, Kyakhtinsky, Tunkinsky) specialize in meat and dairy cattle breeding, grain and forage crops, olericulture and potato. Forestry, woodworking and building materials industry occupy a significant place in the structure of the regional economy. It should be noted that the southern regions also have significant recreational resources for the further development of tourism (Chepik, 2014).

The Republic of Buryatia is a region with a polarized developmen. The city of Ulan-Ude, a regional capital, is the center of economic development. Clusters form the spatial distribution of the rural municipalities (Chepik, 2015):
Cluster 1 - Kabansky, Selenginsky districts;

Cluster 2 - Severobaikalsky, Okinsky, Muysky, Bauntovsky districts;
Cluster 3 - Ivolginsky, Tunkinsky, Khorinsky, Zakamensky, Yeravninsky, Barguzinsky, Kizhinginsky, Kurumkansky, Tarbagataisky districts;
Cluster 4 - Kyakhtinsky, Pribaikalskiy, Mukhorshibirsky, Bichursky, Dzhidinsky, Zaigraevsky districts.

The first cluster includes industry-oriented municipalities. Each municipality in this cluster has at least one industrial enterprise: Selenginsky district - Gusinoozerskaya Power Plant, one of the largest hydroelectric power stations in Siberia, Kabansky - large pulp and paper mill, the small enterprises of construction industry - cement plant, asbestos cement products, concrete plant. The second cluster integrates the northern municipalities (except Okinsky district). This group is characterized by lower level of socio-economic development with respect to the first cluster. The basis of the economy of these municipalities is the mineral resource complex, and specialization - industrial production. High turnover of retail trade is an important feature of the economy of these municipalities. The third cluster consists of the municipalities having an average level of socio-economic development. The basis of the economy of these municipalities is the livestock and crop production. However, significant restrictions related to the climatic features of the territory impose significant barriers for the sustainability of agricultural production.

The fourth cluster consists of the municipalities with predominantly meat and milk production and crop production. These areas supply the republic population with meat and dairy products. The territory of the municipalities have sufficient production and resource potential. High level of recreational potential is a distinctive feature of the fourth cluster (Chepik, 2015).

Table 2: Specific weights of municipalities of the Republic of Buryatia in 2013, (%)

Municipality	Area	Population	Retail	Goods of own production	Employed in the economy	Agricultural goods	Investments in fixed capital
Ulan-Ude	0.1	42.37	72.36	75.01	53.51	3.70	49.75
Severobaikalsk	0.0	2.53	3.91	0.73	2.67	0.27	0.13
Barguzinsky	5.3	2.39	0.60	0.05	1.54	3.13	0.18
Bauntovsky	19	0.97	1.01	1.18	0.98	0.63	10.76
Bichursky	1.8	2.54	1.07	0.17	1.31	8.47	1.21
Dzhidinsky	2.4	2.82	0.87	0.12	1.64	11.06	0.17
Yeravninsky	7.3	1.89	0.77	0.40	1.26	0.43	0.44
Zaigraevsky	1.9	5.10	1.65	0.59	3.65	5.62	4.21
Zakamensky	4.3	2.88	0.65	0.96	2.06	5.81	0.24
Ivolginsky	0.8	4.03	0.77	0.07	1.22	4.63	0.11
Kabansky	3.8	6.10	4.07	4.35	5.95	7.46	7.18
Kizhinginsky	2.2	1.67	0.63	0.07	4.21	3.17	0.04
Kurumkansky	3.6	1.51	0.49	0.02	0.89	3.30	0.23
Kyakhtinsky	1.3	4.05	1.88	1.26	2.81	6.54	2.08
Muysky	7.2	1.33	1.18	4.47	2.25	0.22	1.64
Mukhorshibirsky	1.3	2.53	1.06	1.27	2.72	8.09	5.91
Okinsky	7.4	0.56	0.12	3.04	1.64	1.53	0.98
Pribaikalsky	4.4	2.77	1.76	1.11	2.29	4.09	2.84
Severobaikalsky	15.4	1.41	0.65	0.36	1.73	0.67	1.30
Selenginsky	2.4	4.67	2.06	4.50	3.42	5.03	7.64
Tarbagataisky	0.9	1.71	0.63	0.04	0.94	5.91	0.21
Tunkinsky	3.4	2.30	1.17	0.22	1.69	6.20	2.40
Khorinsky	3.8	1.87	0.66	0.03	1.26	4.02	0.36
Total	100	100	100	100	100	100	100

4. RESULTS

4.1. Result 1

For the indicator "per capita indicator of shipped goods and services of own production," equations with nonlinear dependence were calculated with the use of the data set for 2 municipalities (Barguzinsky and Zaigraevsky districts). An impact of the number of employed people in the economy of Barguzinsky district on the volume of shipped goods is described by the following equation:

$$y = 67,77x^2 - 573,92x + 1212,72$$
$$(4,04) \quad (-3,98) \quad (4,07)$$
(2)

where y - per capita indicator of shipped goods and services of own production for Barguzinsky district, rubles, x - the average number of employed people in the economy of Barguzinsky district, ths. persons. The coefficient of determination is 0.85, which confirms the high quality of the constructed model.

On the criterion of "the volume of shipped goods of own production" in Barguzinsky district, a nonlinear dependence of the degree 3 is obtained. It is also observed in the case of the variable "Per capita indicator of fixed assets at the end of the year":

$$y = -0,2x^3 + 0,01x^2 - 1,19x + 54.98$$
$$(-2,75) \quad (2,68) \quad (-2,28) \quad (2,71)$$
(4)

where y - per capita volume of shipped goods and services of own production for Barguzinsky district, rubles, x - per capita volume of fixed assets at the end of the year for Barguzinsky district, rubles. The coefficient of determination is 0.73, which confirms the high quality of the constructed model.

In our opinion, the recieved dependence of the nonlinear form is due to the instability of economic processes. So, for Barguzinsky district during the period from 2002 to 2012 the growth rate in terms of "shipped goods of own production" changed from 10.53% to 1179.31%.

According to the data of Zaigraevsky district, quadratic dependence is characteristic for the volume of shipped goods of own production and the availability of fixed assets:

$$y = -0,4x^2 + 2,27x + 238,77$$
$$(-3,58) \quad (3,63) \quad (3,95)$$
(5)

where y - per capita volume of shipped goods and services of own production for Zaigraevsky district, rubles, x - per capita volume of fixed assets at the end of the year for Zaigraevsky district, rubles. The coefficient of determination is 0.68. For the district of the study, changes in growth rate in terms of the volume of goods of own production range from 68.32% to 207.21%.

Constructed equations meet the necessary quality criteria for these models. The unstable character of the occurring reproduction processes explains non-linearity of the constructed functions.

4.2. Result 2

In the result of the analysis of agricultural production, 10 non-linear equations, reflecting the relationship between the variables, were received. Four models include indicators of fixed assets. Polynomial functions, a power function with a rational exponent are forms of the constructed models. Nonlinear relations in the study of mechanisms of agricultural production are typical for the municipalities of agricultural cluster (Dzhidinsky, Yeravninsky, Zakamensky, Ivolginsky, Kizhinginsky, Kyakhtinsky) and Bauntovsky district. The variability of reproduction processes explaines it and socio-economic and climatic factors condition it. To illustrate the non-linear relationship between per capita agricultural output and per capita fixed assets indicator, we consider the following model:

$$y = -1672,79 + 7628,24x^{0,31}$$
$$(-4,01) \quad (4,09) \quad (4,26)$$
(6)

Where y - per capita agricultural output for Bauntovsky district, rubles, x - per capita fixed assets indicator for Bauntovsky district rubles. The coefficient of determination is equal to 0.6. Parameters of the model constructed satisfy the Student's t-test.

4.3. Result 3

Linear models that characterize the reproduction process are used for all municipalities with exception of the three cases of non-linearity (two of them are related to fixed assets, and the third case is related to per capita investment in fixed capital). The municipalities, which are characterized by the situation described, constitute the fourth cluster. The study of Dzhidinsky district is of particular interest. To study this case, the next complex function was built:

$$y = 15,31 + e^{0,3x}$$
$$(3,63) \quad (9,71)$$
(7)

where y - per capita retail turnover for Dzhidinsky district, rubles, x - per capita volume of fixed assets for Dzhidinsky district, rubles. The coefficient of determination is 0.61. Parameters of the model constructed satisfy the Student's t-test.

The resulting non-linear model is explained by the peculiarities of the socio-economic development of Dzhidinsky district. It should be noted that the definition of objectives in the medium time horizon for the consumer market is related to full satisfaction of the needs of the municipality population in goods and services of good quality in sufficient amount. What is important in this case is a scheme of spatial distribution of retail space on a territory that corresponds with the norms of security of the population.

Regression models, obtained for the per capita income of municipalities, are characterized by a linear relationship, except Bauntovsky, Bichursky and Dzhidinsky districts.

Nonlinear model for Bauntovsky district data is connected with the following factors: natural growth of population, per capita volume of goods, services and works of own production, per capita retail

trade turnover. For the first factor, convex function of the second order was derived, for the remaining factors - concave function was derived.

The Bichursky district data show a quadratic relationship between the following factors: income of municipalities and the volume of agricultural production. At the same time, agriculture occupies a predominant share in the structure of the productive capacity of the municipality.

4.4. Result 4
Investigation of models describing the state of the economy of municipalities reveal presence of time lags in the development of production. A variable reflecting investment in fixed capital is included in 15 cases of observation of the effects of time delay (Table 3).

Constructed models satisfy the criterion of significance, which allows to use them in the subsequent analysis.

Table 3 demonstrates the effect of time delay for all types of economic activities on the data of Barguzinsky and Dzhidinsky districts. For these municipalities, 4 years time lag leads to the fact that investments in fixed capital generate economic benefits only after 4 years.

Thus, the study, based on the regression analysis, revealed several features that characterize the municipalities in the Republic of Buryatia. The subsequent analysis involves estimation of elasticity coefficients that were calculated on the basis of regression models.

4.5. Result 511
The study of the municipalities of the Republic of Buryatia has revealed high volatility of the elasticity coefficients; most significantly it was highlighted for the labor and capital assets. Figure 1 shows a graph of elasticity coefficients calculated on the volume of goods for each municipality.

The variation of the maximum and minimum values of the elasticity coefficients on the volume of goods shipped relative to changes in investment in fixed assets is as follows: the highest value is observed in Kyakhtinsky district (1.67%), minimum - in Tarbagataysky district (−0.03%). The greatest sensitivity to variations in fixed assets is 3.82%, which is observed in Kabansky district, the minimum - in Kyakhtinsky district (−2.16%). It should be noted that for the districts of the Republic of Buryatia, a reduction of the number of employed people in the economy with simultaneous increase in the volume of shipped goods of own production, performed works and services by own forces on the net forms of economic activity is characteristic.

For these reasons, the coefficient of elasticity is negative for most districts. A similar situation is observed with a coefficient of elasticity calculated on fixed assets. Sensitivity of shipped goods of own production to changes in investments in fixed assets is about the same across the districts.

As in the previous case, sensitivity analysis of the volume of agricultural production to changes in the factors of production,

Table 3: Regression equations with lagged variable of investment in fixed assets

Municipality	Regression equation	The resulting sign
Barguzinsky	$y = 0,1x_{t-4} + 1,07$ $(5,71)(3,13)$	y - the volume of shipped goods of own production
	$y = 0,25x_{t-4} + 10812,83$ $(5,09)\ (5,47)$	y - retail trade turnover
	$y = 2,8x_{t-4} + 2868,66$ $(3,11)\ (8,01)$	y - the amount of agricultural production
Bauntovsky	$y = 0,03x_{t-4} + 488,49$ $(24,53)(24,86)$	y - the volume of shipped goods of own production
Bichursky	$y = 6,7x_{t-2} + 742,9$ $(2,82)(8,39)$	y - the amount of agricultural production
	$y = 0,41x_{t-4} + 206,9$ $(3,51)\ (4,68)$	y - retail trade turnover
Dzhidinsky	$y = 0,06x_{t-4} + 24,96$ $(3,03)\ (3,09)$	y - the volume of shipped goods of own production
	$y = x_{t-4}^{1,05} + 1106,9$ $(12,50)(28,10)$	y - the amount of agricultural production
	$y = 0,09x_{t-4} + 17283,09$ $(4,69)\ (8,29)$	y - retail trade turnover
Zakamensky	$y = -1510,44x_{t-4} + Lgx_{t-2}$ $(15,24)$	y - the amount of agricultural production
	$y = 0,04x_{t-4} + 13057,9$ $(3,34)\ (7,36)$	y - retail trade turnover
Muysky	$y = 0,8x_{t-4} + 1277,66$ $(5,39)\ (2,75)$	y - the volume of shipped goods of own production
	$y = 0,02x_{t-4} + 18845,35$ $(3,11)\ (9,49)$	y - the amount of agricultural production
Pribaikalsky	$y = 0,09x_{t-3} + 351,28$ $(2,59)\ (2,75)$	y - the volume of goods, works and services of own production
Selenginsky	$y = 0,6x_{t-4} + 4471,9$ $(3,47)\ (8,32)$	y - the amount of agricultural goods

showed the greatest volatility on the number of employed people in the economy. The standard deviation in this case is 1.40%, for investments in fixed capital and fixed assets, respectively, 0.39% and 1.05% (Figure 2).

The greatest sensitivity to changes in the number of employed people in the economy is observed in Severobaikalsky district, it is 1.67%, and the minimum - in Pribaikalsky district (−5.49%). The maximum value of the coefficient of elasticity calculated for the volume of agricultural production, depending on changes in investment in fixed assets, is observed in Ivolginsky district, it is equal to 1.85%. The minimum value is −0.11%, it is observed

Figure 1: The sensitivity of the volume of shipped goods of own production to changes in the factors of production in the Republic of Buryatia
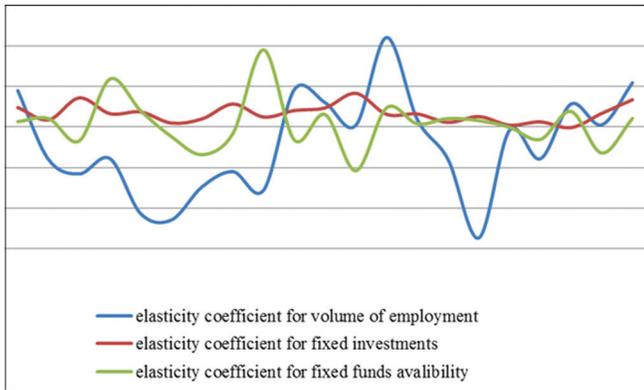

Figure 3: The susceptibility of the indicator of total retail turnover to variation of production factors
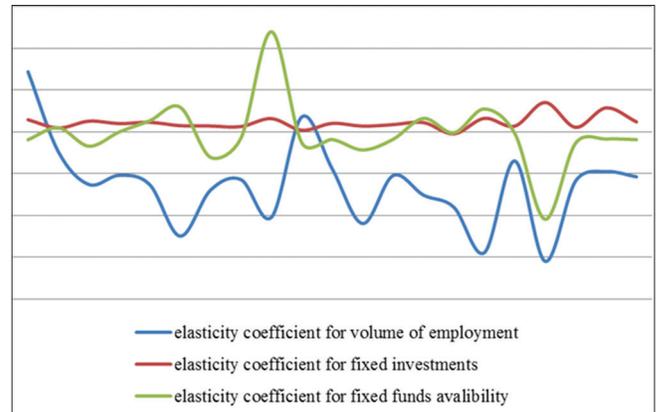

Figure 2: The sensitivity of the volume of agricultural production to changes in the factors of production in the Republic of Buryatia
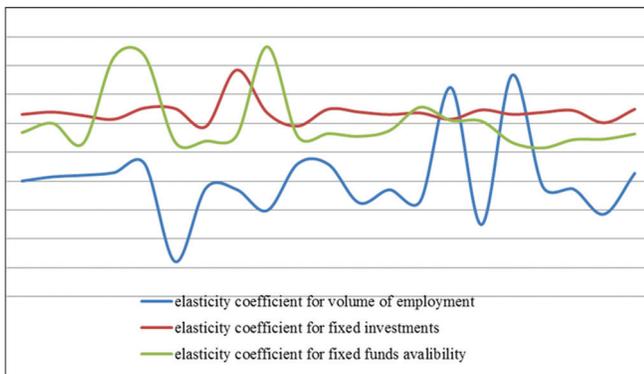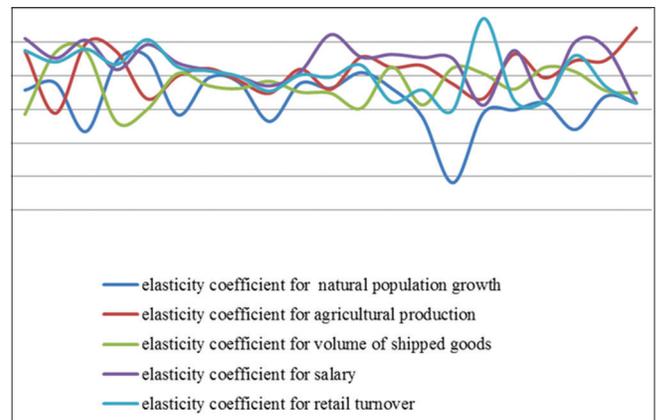

Figure 4: Susceptibility of own revenues of municipalities to the variation of factors of production

in Zakamensky district. With respect to fixed capital, maximum value is 2.65% (Kabansky district), the minimum value is –0.85% (Selenginsky district).

Visual analysis of the graph indicates the existence of high variability of the elasticity coefficient on the number of employed people in the economy. The maximum value of this indicator is observed in Muysky district, it is 4.44%, i.e. an increase of the number of employed people in the district of 1% will increase the volume of goods shipped in the district by 4.44%. The minimum value of this indicator is observed in Pribaikalsky district, its value is equal to –5 48%.

The standard deviation of the coefficient of elasticity, defined for the number of employed people in the economy, is equal to 3.83% (for comparison, the standard deviation of investments in fixed capital is equal to 0.45%). As in the previous case, the elasticity coefficients on the number of employed people in the economy and the availability of fixed assets have a negative value. Estimation of elasticities with respect to the value of wholesale and retail trade in the region shows a strong sensitivity of the production process to the number of employed people in the economy (Figure 3).

For the contemporary Republic of Buryatia, a reduction in the number of employed people in the economy, accompanied by an increase of total retail turnover, is characteristic. Extreme values

(maximum and minimum) of the elasticity coefficients on the retail trade in the context of the municipalities of the republic are presented below:

• Barguzinsky district is characterized by the maximum susceptibility to variations in the number of employed people in the economy of the municipality - 2.89%, while Selenginsky district is charachterized by the minimum value of this indicator (–6.20%);

• The elasticity of investment in fixed capital takes the maximum value in Selenginsky district (1.41%), and the minimum - in Okinsky district (–0.09%);

• The greatest deviation with respect to the variation of fixed assets is observed in Kabansky district (4.80%), minimum - in Selenginsky district (–4.19%).

The value of own revenues of municipalities is one of the indicators of socio-economic development. A graph depicting elasticity coefficients of own revenues of municipalities is presented on Figure 4. They are calculated for a plurality of factors and are in the range from –1 to +1, which indicates a low susceptibility to changes. For this indicator, volatility is slightly less than it was in the previous cases.

It should be noted that the calculation of the standard deviation of the elastcity with respect to population growth gives a value of 0.41%, for agricultural production - 0.31%, for total volume of

produced goods and services - 0.29%, for nominal wages - 0.32%, and for wholesale and retail trade - 0.35%.

5. CONCLUSION

The reproduction process in the rural municipalities is characterized by the following trends:

- Downward vector of the aggregate indicator of the number of employed people in the regional economy and of the value of fixed assets under constant growth of the production of goods and services in all sectors of the economy;
- Decrease of fixed assets, despite the continuing upward trend in investment in fixed assets in all municipalities, which leads to actualization of the issue of effectiveness of funds invested in the municipalities of the republic (Akhmadov, 2014);
- High sensitivity of the coefficients of elasticity of exogenous indicators to changes in the factors of production that encourages the optimal management for accelerating socio-economic development of the region;
- High uneven distribution of the response of the resulting signs to the variation of factors of production in the rural municipalities of the republic (Molchan and Trinka, 2011);

This study, which is based on the assessment of elasticity, has found that a high level of economic development of a municipality (Kabansky, Selenginsky) does not correlate with indicators of high efficiency of the factors of production. Sensitivity of indicators of economic development to changes in investments in fixed assets in the municipalities is about the same, which indicates insufficient investment.

6. ACKNOWLEDGMENTS

REFERENCES

Agapova, T.N., Suglobov, A.E. (2014), Technique for analyzing the structure of the socio-economic indicators. Regional Economy Issues, 20(3), 3-9.

Akhmadov, M.E.I. (2014), Study of the reproductive development factors of the regions and their economic systems. Don Engineering Bulletin, 4. Available from: http://www.ivdon.ru/magazine/archive/n4y2011/609. [Last accessed on 2015 Jun 15].

Chepik, A.E. (2014), Study of intra-regional unevenness in development based on cluster analysis. Bulletin of Trans-Baikal State University, 8(111), 122-132.

Chepik, A.E. (2015), Statistical Study of Unevenness in Socio-Economic Development of the Municipal Entities of the Region. Ph.D. Thesis, Moscow, Moscow State University of Economics, Statistics and Informatics (MESI).

Chimitdorzhiyeva, T.E., Chepik, A.E. (2014), Economic and statistical analysis of indicators characterizing the unevenness of social development of municipalities. Proceedings of Saint-Petersburg State University of Economics, 5, 26-34.

Dubrova, T.A. (2010), Forecasting of Socio-Economic Processes. Statistical Methods and Models. Moscow: Market DS. p192.

Filobokova, L.Y. (2011), Methodical approaches to the assessment and identification of economic reproduction potential of the region formed by endogenous factors of growth. Economic Analysis Theory and Practice, 26, 2-6.

Granberg, A.G., Egorshin, A.P. (2004), Strategic Management: Region, City, Enterprise. Moscow: Economics. p605.

Korytova, E.V., Vanchikova, E.N. (2012), Monitoring of Socio-Economic Development Processes of the Region. Ulan-Ude: East-Siberian State University of Technology and Management. p214.

Labsker, L.G. (2014), Optimality Test Theory and Economic Decisions. 2nd ed. Moscow: KNORUS. p742.

Lebedeva, V.D. (2013), The Influence of the Factors on State Economic Growth and Development. Proceedings of the 2nd International Conference on Problems and Prospects of Economy and Management, Saint Petersburg.

Mkhitaryan, V.S. (2009), Econometrics. Moscow: Prospect. p780.

Mkhitaryan, V.S., Khokhlova, O.A. (2008), Statistical study of the economy development of the region. Statistical Issues, 8, 53-59.

Molchan, A.S., Trinka, L.I. (2011), Capitalization of reproductive capacity as a factor contributing to industrial development of the region. E-Journal of the Kuban State Agrarian University, 66, 1-7.

Novikov, V.G. (2010), On the labor potential of rural territories of Russia and the transformational factors of its reproduction. Bulletin of the Russian State Agrarian Extramural University, 9, 220-225.

Penyugalova, A.V. (2005), Russian experience of municipal statistics: The analysis of the infobase content of the ways of its improvement. Statistical Issues, 6, 17-21.

Smoleev, S.V. (2013), Balanced and integrated development of regions. Socio-Economic Phenomena and Processes, 8(54), 92-96.

Socio-Economic Monitoring of the Regions of the Buryat Republic in 2013 (2014), Statistical Compendium. Ulan-Ude: U.S. Department of the Interior, Bureau of Mines.

Suspitsyn, S.A. (2013), The Methodology for Measuring Sustainable Transformations in Socio-Economic Space. In: Kotlyarov, V.M., editor. Fundamental Problems of Spatial Development of the Russian Federation: Interdisciplinary Synthesis. Moscow: Media-Press. p203-210.

Tsyrenov, D.D. (2014), Statistical evaluation of the municipality location in the economic space of the Buryat republic. Bulletin of the Buryat State University, 2, 34-37.