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РЕСПУБЛИКИ КАЗАХСТАН
Казакский национальный
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G. M. Rakhimzhanova

Kazakh national agrarian university, Almaty, Kazakhstan.

E-mail: gaukhar-muratkyzy@mail.ru**THE ROLE OF INVESTMENTS IN THE CURRENT STATE
OF THE FOOD MARKET IN THE REPUBLIC OF KAZAKHSTAN**

Abstract. The article researches how well investments are providing the food security in different provinces of Kazakhstan. Moreover, the position of personal and corporate sources of investments for food production, and for agriculture, forestry and fisheries are defined in this research. The research purpose is to define theoretical bases that may be applied for improving the internal stability of the food security in Kazakhstan. The research methodology is based on graphical, analytic and econometric methods. The research practical significance is to define the current state of investments in the food market of Kazakhstan. The research results show that Almaty and North Kazakhstan provinces get the highest volume of investments into providing the food security among other provinces. North Kazakhstan province received 72 183 224 thousand tenge as investments into the agriculture, forestry and fisheries in 2017.

Keywords: investments, agriculture, forestry and fisheries, machines, equipment, corporate investments, personal investments, investing into herds, food production, Kazakhstan.

Investing money may be interpreted as using the financial resources and funds in order to achieve higher income or increase in value [1]. The adequate investment policies worldwide are linked with the economic growth and improvement in the standards of life for the local population [2]. The state of the food market often may be used to analyse the economic disparity in the society [3]. The economic disparity often negatively impacts the food safety for the poorest strata of the society [4]. On the other hand, the economic development may decrease the threat of hunger in the society [5]. Applying financial instruments in the form of investments often is beneficial for the general economic growth [6]. Therefore, the appropriate policy towards investing into the certain sectors of economy as agriculture may help to strengthen the food market [7]. The global food production in 2050 is expected to grow by 60% [8]. Therefore, investments are needed in order to provide internal stability of the food market while staying competitive in the global food market [9, 10]. The possibility of continuously using investments for the economic growth is shown by the figure below.

Figure 1 – The continuous cycle of investments supporting the economy [4, 6, 9]

Investments into machinery and equipment are proven to be beneficial for improving the situation in the food market [11]. The figure below illustrates how much was invested into machines, equipment, vehicles in different provinces of Kazakhstan in 2017.

Figure 2 – The volume of investments into machines, equipment, vehicles in different regions of Kazakhstan in 2017, thousand tenge [12]

The figure above shows that the highest volume invested into machines, equipment and vehicles in 2017 was in Atrai province – 843 808 793 thousand tenge or nearly 32.634% from the total Republican volume [12]. However, Almaty and North Kazakhstan provinces still have significant positions. The figure below illustrates the summary report for the figure above but without considering the cities of Astana and Almaty.

Figure 3 – The summary report for the investments into machines, equipment, vehicles in different provinces of the Republic of Kazakhstan in 2017 without taking into account the cities of Almaty and Astana.
Note: calculated by the author.

The figure above shows that the kurtosis value for the investments into machines, equipment, vehicles equals to 12.7043.

The figure below illustrates the total volume of investments in the agriculture, forestry and fisheries in 2017.

Figure 4 – The total volume of investments into the fixed assets in agriculture, forestry and fisheries in 2017 in the Republic of Kazakhstan, thousand tenge [12]

The figure above illustrates that the highest level of the total investments belongs to North Kazakhstan province – 72183224 thousand tenge.

The figure below illustrates the summary report without taking the city of Almaty into account.

Figure 5 – The summary report for the total volume of investments into the fixed assets in agriculture, forestry and fisheries in 2017 for the Republic of Kazakhstan without taking the city of Almaty into the account.

Note: calculated by the author.

The figure above illustrates that the value of the skewness equals to 0.753865.

The figure below illustrates how much own funds the local population and organisations invested into the fixed assets in agriculture, forestry and fisheries in 2017.

Figure 6 – The volume of personal and corporate investments in the agriculture, forestry and fisheries for Kazakhstan in 2017 [12]

The figure above shows that the highest level of personal and corporate investments in 2017 was in North Kazakhstan province – nearly 19.73% from the total Republican volume.

The figure below illustrates the summary report for the figure above.

Figure 7 – The summary report for personal and corporate investments in 2017 into the agriculture, forestry and fisheries in Kazakhstan.

Note: calculated by the author.

The figure above illustrates that the standard deviation is 18 965 788.87.

The figure below illustrates the box plot for the data given in the figure above.

Figure 8 – The box plot of investments by the local population and organisations in 2017 into the agriculture, forestry and fisheries of Kazakhstan

Note: calculated by the author.

The figure above states that the mean value equals to 19 535 433.93 thousand tenge.

The figure below illustrates the interval plot for the figure above.

Figure 9 – The interval plot for personal and corporate investments in 2017 into the agriculture, forestry and fisheries in Kazakhstan.

Note: calculated by the author.

The figure above illustrates that the first quartile for the personal and corporate investments equals to 3 467 892 thousand tenge, and the third quartile – 35 431 213 thousand tenge. It is not uncommon in Kazakhstan that investments are used to buy more cattle [13, 14]. The figure below illustrates how much was invested into forming of working, productive and breeding herds.

Figure 10 – The volume of investments into forming of working, productive and breeding herds in Kazakhstan in 2017, thousand tenge [12]

The figure below states that the biggest volume of investments was made in Almaty province – 2 320 847. The figure below illustrates the summary report for the figure above.

Figure 11 – The summary report for 2017 on how much in Kazakhstan was invested while trying to form working, productive and breeding herds

Note: calculated by the author.

The figure above defines that the standard deviation equals to 1 093 926.76.

The state of the cattle breeding is often interlinked with the food production [15, 16]. herefore, the figure below illustrates how much was invested into food production in 2017.

Figure 12 – The volume of investments into the food production in Kazakhstan in 2017, thousand tenge [12]

The figure above illustrates that Almaty province had the highest level of investments into the food production in 2017 – 24 288 234 thousand tenge. The figure below illustrates the summary report for the figure above.

Figure 13 – The summary report on how much was invested in different provinces of Kazakhstan in 2017 into the food production.

Note: calculated by the author.

The figure above shows that the standard deviation equals to 6 588 889.36. The box plot for the data in the above figure is shown by the figure below.

Figure 14 – The box plot for the volume of investments into the food production in Kazakhstan in 2017.
Note: calculated by the author.

The figure above illustrates that the median value on the investments into the food production among different provinces of Kazakhstan equals to 2 979 449.5 thousand tenge.

The interval plot for the figure above is given by the figure below.

Figure 15 – The interval plot on how much was invested in different provinces of Kazakhstan in 2017 into the food production.
Note: calculated by the author.

The figure above explains that the first quartile equals to 147 322 thousand tenge.

The local population and agricultural organisations often tend to invest the significant amount of money into the food production [17, 18]. Therefore, the figure below shows how much the mentioned group has invested into the food production in 2017.

Figure 16 – The volume of personal and corporate investments into the food production for Kazakhstan in 2017 [12]

The figure above illustrates that the highest volume of the personal and corporate investments in 2017 were in Almaty province – 16 687 114 thousand tenge. The second place belongs to North Kazakhstan province – 11 511 028 thousand tenge.

The figure below illustrates the summary report for the data in the figure above.

Figure 17 – The summary report on how much was invested from the personal and corporate sources in different provinces of Kazakhstan in 2017 into the food production.

Note: calculated by the author.

The figure above illustrates that the mean value for investments from personal and corporate funds equals to 4 345 201.75 thousand tenge.

The figure below illustrates the box plot for the data defined by the figure above.

Figure 18 – The box plot for the volume of personal and corporate investments into the food production for Kazakhstan in 2017.

Note: calculated by the author.

The figure above illustrates that the median value equals to 2 443 039 thousand tenge.

In conclusion, Almaty and North Kazakhstan province are one of the leading provinces of Kazakhstan for investments into the food security.

Г. М. Рахимжанова

Қазақ Ұлттық Аграрлық Университеті, Алматы, Қазақстан

ҚАЗАҚСТАН РЕСПУБЛИКАСЫНДАҒЫ АЗЫҚ-ТҮЛІК НАРЫҒЫНЫҢ ҚАЗІРГІ ЖАҒДАЙЫНДАҒЫ ИНВЕСТИЦИЯЛАРДЫҢ РӨЛІ

Аннотация. Мақалада Қазақстанның әртүрлі облыстарында инвестициялар қаншалықты жақсы азық-түлік қауіпсіздігін қамтамасыз ететіні қарастырылған. Бұған қоса, осы зерттеуде азық-түлік өндірісі, және ауыл шаруашылығы, орман және балық шаруашылығы үшін жеке және корпоративтік инвестициялар көздерінің орналасқан жері анықталды. Зерттеудің мақсаты – Қазақстанда азық-түлік қауіпсіздігінің ішкі тұрақтылығын арттыру үшін қолданылуы мүмкін теориялық негіздерді анықтау. Зерттеу әдістемесі графикалық, аналитикалық және эконометриялық әдістерге негізделген. Зерттеудің практикалық маңыздылығы Қазақстанның азық-түлік нарығына инвестициялардың қазіргі жай-күйін анықтау болып табылады. Зерттеу нәтижелері Алматы және Солтүстік Қазақстан облыстары басқа облыстар арасында азық-түлік қауіпсіздігін қамтамасыз ету үшін ең көп инвестиция тартқанын көрсетеді. 2017 жылы Солтүстік Қазақстан облысына ауыл шаруашылығына, орман және балық шаруашылығына 72 183 224 мың теңге инвестиция бөлінді.

Түйін сөздер: инвестициялар, ауыл шаруашылығы, орман және балық аулау, машиналар, жабдықтар, корпоративтік инвестициялар, жеке инвестициялар, табынға инвестиция, тамақ өнімдерінің өндірісі, Қазақстан.

Г. М. Рахимжанова

Казахский национальный аграрный университет, Алматы, Казахстан

РОЛЬ ИНВЕСТИЦИЙ В ТЕКУЩЕМ СОСТОЯНИИ ПРОДОВОЛЬСТВЕННОГО РЫНКА В РЕСПУБЛИКЕ КАЗАХСТАН

Аннотация. В статье исследуется насколько хорошо инвестиции обеспечивают продовольственную безопасность в разных областях Казахстана. Кроме того, в этом исследовании описано положение личных и корпоративных источников инвестиций для производства продуктов питания, и для сельского хозяйства, лесного хозяйства и рыболовства. Целью исследования является определение теоретических основ, которые могут быть применены для улучшения внутренней стабильности продовольственной безопасности в Казахстане. Методология исследования основана на графических, аналитических и эконометрических методах. Практическая значимость исследования – это определение текущего состояния инвестиций на продовольственном рынке Казахстана. Результаты исследований показывают, что Алматинская и Северо-Казахстанская области получают самые высокие инвестиции в обеспечении продовольственной безопасности среди остальных областей. Северо-Казахстанская область получила 72 183 224 тыс. тенге в качестве инвестиций в сельское хозяйство, лесное хозяйство и рыболовство в 2017 году.

Ключевые слова: инвестиции, сельское хозяйство, лесное хозяйство и рыболовство, машины, оборудование, корпоративные инвестиции, личные инвестиции, инвестирование в стада, производство продуктов питания, Казахстан.

Information about author:

Rakhimzhanova Gaukhar Muratovna, Kazakh National Agrarian University, Almaty, Kazakhstan; gaukhar-muratkyzy@mail.ru; <https://orcid.org/0000-0002-1608-1306>

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