

Vafa Rashid DUNYAMALIYEVA
Azerbaijan State University of Economics
Vafa_Dunyamaliyeva@unec.edu.az
ORCID: 0000-0001-8852-1473

THE IMPACT OF EMPLOYMENT IN THE FIELD OF AGRICULTURE ON ECONOMIC GROWTH IN THE REPUBLIC OF AZERBAIJAN

Summary

After transitioning to a free market economy, especially in the increase of oil revenues in the budget, he started state-based economic reforms, which set in motion many areas that are important for development. These areas included tourism, agriculture, construction, light, etc. industries. Agriculture is one of the areas that must be developed in order to achieve sustainable and sustainable development of our country. Thus, the development of this field seems more realistic to ensure food security, increase employment, transition from import to export-oriented economy, prevent urbanization, and increase the socio-economic development of regions at the expense of this field. the export potential was analyzed based on more realistic indicators, and the relationship between employment and economic growth was determined. Apart from that, the directions of solving other problems in the agrarian sector have also been reflected in the research work. The main purpose of the article is to increase the level of employment and employment in the agricultural sector, to study its economic consequences, and at the same time to research ways to ensure the development of all structures of the agricultural sector. In addition, it is also included in the list of goals to find out what experience and knowledge this development will be based on.

Keywords: state, economy, agricultural employment level

JEL: H 00

UOT: 334

DOI: <https://doi.org/10/54414/XILP1227>

Intradaction

The value of the total agricultural output in January-March 2024 at actual prices was 1,444.6 million manats, of which 1,368.5 million manats fell to animal husbandry and 76.1 million manats to crop production.

According to the report referring to the State Statistics Committee, compared to the corresponding period of the previous year, the total agricultural output increased by 1.1 percent, including the production of livestock products by 1.0 percent, and the production of plant products by 2.9 percent.

Spring crops were sown on 121.5 thousand hectares during the quarter, or 8.6 percent more than in the same period of 2023. During this period, 20,700 hectares of cereal and leguminous crops (3,000 hectares of which are corn for grain), 27,100 hectares of potatoes, 27,300 hectares of vegetables, 3,500 hectares of

melons, Sunflower for grain on 1.6 thousand hectares, sugar beet on 1.3 thousand hectares, perennial grasses on 36.5 thousand hectares and 3.5 thousand hectares annual herbs are planted in the field.

In the mentioned period, 96.6 thousand tons of vegetable products were produced in January-March, or 2.7 percent more than the corresponding period of last year.

Econometric model and data

In this study, the general characteristics of employment and existing problems in the non-oil sector were investigated. In this chapter, the relationship between employment and the non-oil sector is evaluated with an econometric model. An econometric model was built using annual statistical data between 2013 and 2023 as a basis for evaluation and the results were analyzed.(5)

One of the important conditions when evaluating with the application of econometric models is the reliability of the obtained results. In order to achieve this, various methodologies have been applied to date, and different approaches have been put forward in order to check the reliability of the results. All evaluations in the article were performed using Eview 8 software.

Statistical data were taken from the Statistical Database of the State Statistical Committee of the Republic of Azerbaijan and the World Bank. In this study, the least squares (LS) method was used to check the reliability of the results, or in other words, to evaluate the dependencies that are the object of the study.

In many methods, it is desirable for the variables to be I (1) in order for the cointegration relationship or the long-run relationship of the variables to be present in the estimations. I (0) and I (1) mean whether the variables are stationary or non-stationary in level or 1st difference. If the variable is stationary in level, it is considered I (0). Otherwise, differences from degree 1 are calculated and stationarity checked. In this case, variables that are stationary are considered I (1).

A time-based variable is said to be stationary if its probability distribution is the same for each time interval. To test the stationarity of variables Augmented Dickey Fuller (ADF), Phillips-Perron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) Unit root tests can be applied. In ADF and PP tests, the H0 hypothesis is "the variable is non-stationary" or "there is a

unit root problem". In the KPSS test, the H0 hypothesis is accepted as "the variable is stationary".

The normal distribution of residuals, which is one of the other basic conditions of econometric analysis, is checked using the Jarque-Bera Histogram Normality Test. In the Jarque-Bera normality test, the hypothesis H0 is accepted as "the white noise error has a normal distribution". If the probability indicator is greater than 5%, this indicates that the H0 hypothesis is accepted and that the residuals have a normal distribution.

Results of the econometric model

In this research section, the relationship between employment and the non-oil sector in Azerbaijan was assessed and analyzed using the above-mentioned econometric methodology. In other words, the impact of the development of the non-oil sector on employment was assessed.

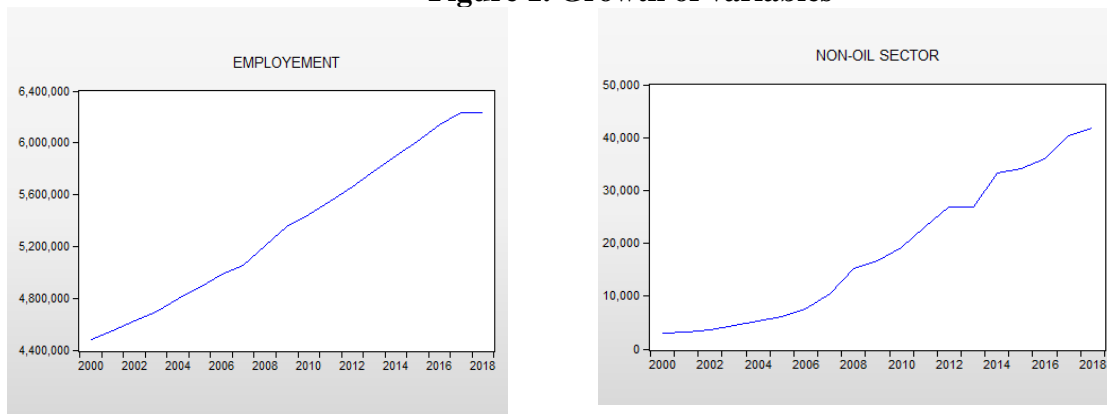
The initial static expression of the evaluated econometric model is as follows:

$$\log (employment) = \beta_0 + \beta_1 * \log (Non\ oil\ sector)_t + u_t$$

Here β_0 and β_1 coefficients are regression coefficients, t represents the time factor, u_t and is the white noise error of the model. The main variable here is the Non-oil sector variable, which represents the non-oil sector. Employment is the dependent variable. A coefficient of special importance in evaluation β_1 is a coefficient.

Figure 3.1 presents the individual logarithmic profiles of the variables used in the econometric evaluation models of dependencies.

Figure 1. Growth of variables

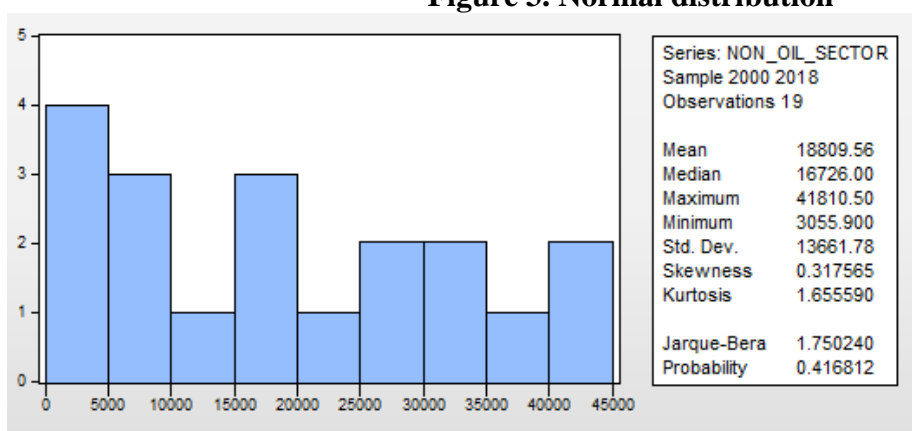


As can be seen from Figure 3.1, the share of the non-oil sector was small in the early 2000s. Growth is observed in the non-oil sector by year. In 2015, a break in continuous growth is observed. The economic processes taking place in the country and devaluation, which is the main component of this process, did not bypass the non-oil sector either. The number of employed people increased until 2008 and decreased in 2009. In the following years, eruptions are also observed.

Figure 2 shows the stationarity analysis of the variables.

Here, the H0 hypothesis states that employment, which is the dependent variable, has a single root. As the p value of the III difference is less than 5% ($p=0.04 < 0.005$), the variable does not have a single root, that is, it is stationary. The p value of the unit root test of the non-oil sector variable is less than 5% ($p=0.03 < 5\%$), which means we reject H0. The variable does not have a unit root.

Figure 3. Normal distribution

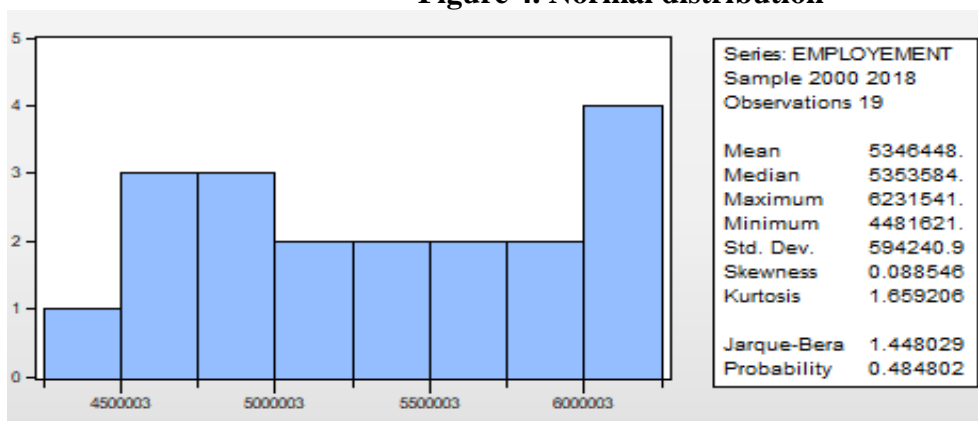


In the model, the Jarque-Bera normality test is performed to check the normal distribution of the white noise error from the Gauss-Markov conditions. The test results are listed in table 3.3. Based on the fact that the p value indicator given in the table is above 5% we can say that the residuals are normally distributed by accepting

the H0 hypothesis, which states that the white noise error has a normal distribution.

As can be seen from Figure 3.4, the regimes of the non-oil sector are normally distributed. Since the P value is greater than 5%, we accept H0, that is, the variable is normally distributed.

Figure 4. Normal distribution



The Jarque-Bera test was performed to check the normal distribution of the residuals

of the equation. The fact that the P-value is greater than 5% allows the acceptance of the

H0 hypothesis, which expresses the normal distribution of the residuals. More precisely, according to the test results, the residuals have a normal distribution

The positive results of the residual tests mean that the results of the model can be

interpreted. The relationship between the variables and the estimation coefficients are given in figure 6. The variables in the model are evaluated in natural logarithmic form. In other words, elastic connection was used in the model.

Figure 5. Normal distribution of residuals

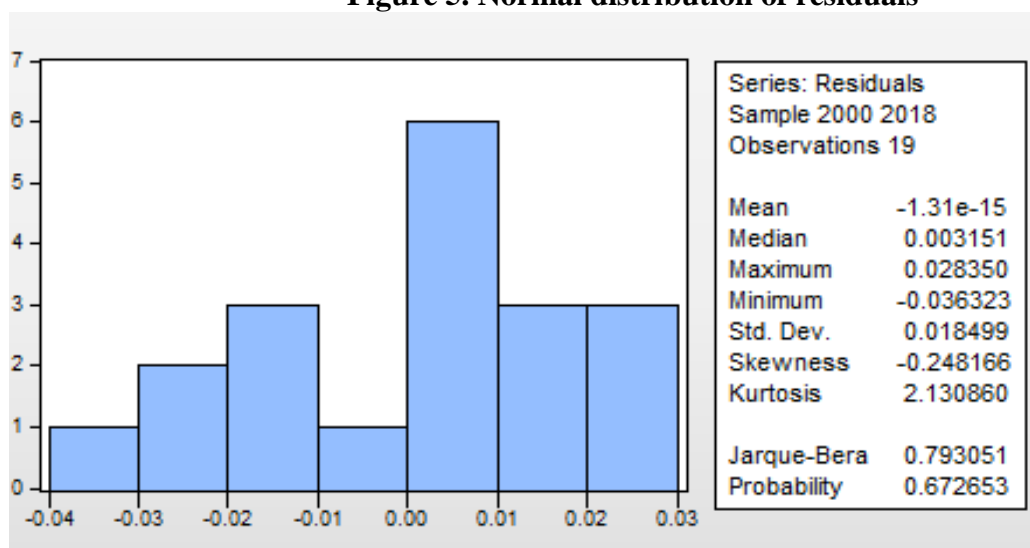


Figure 6. Equation of the model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(NON_OIL_SECTOR)	0.117992	0.004817	24.49378	0.0000
C	14.36548	0.045958	312.5787	0.0000
R-squared	0.972445	Mean dependent var	15.48607	
Adjusted R-squared	0.970824	S.D. dependent var	0.111439	
S.E. of regression	0.019035	Akaike info criterion	-4.985795	
Sum squared resid	0.006160	Schwarz criterion	-4.886380	
Log likelihood	49.36505	Hannan-Quinn criter.	-4.968970	
F-statistic	599.9454	Durbin-Watson stat	0.350710	
Prob(F-statistic)	0.000000			

$$\text{Log}(\text{employment}) = 14.37 + 0.118 * \text{log}(\text{non-oil sector})$$

Based on the result obtained from the equation, it can be said that the observed 1% growth of the non-oil sector, the number of employed population increases by 0.12%. The R squared value shows how much of the original variable is explained by the independent variable. In the model, 97% of the main variable employment is explained by the main variable non-oil sector.

The results of the evaluation give us important information about the impact of the

non-oil sector on the increase of the employed population in Azerbaijan. Thus, the results show that the impact of the non-oil sector on employment is positive and significant.

The result

Reforms and measures in the agricultural sector are being continued in Azerbaijan, and a number of issues have already been resolved, but there are a number of shortcomings that reduce productivity, which must be resolved:

- Lack of irrigation systems in a number of regions, especially in the Aran economic geographical region

- Most of the cultivated areas are unusable or the soil fertility level is low
- A change in climate and rainfall on the eve of harvesting cotton or other crops
- Get involved in stacking Most of the techniques lead to more losses in stacking
- Weakness of crop specialization according to regions and soil characteristics
- Transition of low prices of strategically important crops to planting of alternative crops
- Cases where the state does not act as a buyer for a number of products and the goods remain in the hands of the entrepreneur
- Insufficient knowledge of individual and farm owners on crop cultivation
- Abandonment of usable land
- The occurrence of weight loss as a result of the low number of machines provided during harvest in a number of regions
- Wide spread of influenza and other diseases in the field of livestock and poultry, etc.

If we look at the analysis and evaluation of the production and export potentials of the role of the agricultural sector in the economy, we can see that there are serious gaps and shortcomings. There is a need for serious structural changes in the production process in the agricultural field, as the absence of more productive seed types or the level of soil fertility does not allow it, the measures to improve the irrigation system in all regions are delayed and left out of the focus, etc. problems are waiting to be solved. It is very important to adopt various regulatory and legal acts in order to facilitate the access of entrepreneurs to the production, tax and customs regulations, which are the basic processes for increasing the export potential. Recently, manufacturers have been facing legal hurdles when exporting their products to neighboring markets, either due to non-compliance or lack of improvement in legislation. For this purpose, it seems more effective to conduct trainings to educate the groups of farmers and workers working in the agrarian field in our regions.

There are some factors that hinder high accountability in the agricultural sector that depend on the human factor and must be addressed. When planting crops, we should pay more attention to the factor of increasing the

productivity, in addition to the abundance of the cultivated area. For this purpose, it is necessary to plow the cultivated fields several times, clean the soil from harmful insects at the stage before planting, timely watering, frequent disinfection of the fields with medicinal preparations, airing of the roots of plants, providing organic matter, as well as under-plow and above-plow fertilizers. The directions for turning the agricultural sector into one of the driving areas in economic development are also different, and at the same time, financial and other factors are creating obstacles in these directions. Increasing the supporting factors for the development of agriculture plays the role of stimulating measures for the further expansion of this field.(3)

As it is known from the name of the research work, the main direction of the research is on how there is a relationship between the level of employment in agriculture and economic growth. Based on the research results, we can say that the relationship between the level of employment in this field and economic growth in our country is weak, because despite the large number of people working here, the contribution to economic growth and development is quite weak for the current period, and this is confirmed in statistical data. The reasons for this are given in more detail above. In order to strengthen this relationship and create a serious turnaround in this area, it is possible to evaluate the following proposals:

- the main goal in this area should not be employment, but increasing its level
- the state should apply its support in the production of cotton and other types of crops and the policy of acting as a buyer on others
- the legislation should be improved to provide more support to entrepreneurs by setting norms
- private business entities should be supported in areas where agricultural development is weakest
- providing assistance or direct assistance in the export of agricultural products produced in the country in excess of demand
- export duties on agricultural products should be reduced

-in order not to delay the harvest of grain and cotton, which are of strategic importance in the regions, the number of involved techniques should be increased and losses should be prevented

- when adjusting the prices of agricultural products, the financial situation of the population should be taken into account

- in order to reduce imports, some agricultural products and at least some of them should be guaranteed to 100%.

REFERENCE

1. Aliyev I.H. "Improving the development of the agrarian sector and qualitatively effective implementation of reforms in the regions", Baku - 2004, p. 110.

2. Elshan Bagyrzadeh. "Mechanisms of implementation of agrarian policy under market

economy conditions and the current situation in Azerbaijan", Master's thesis, Baku 2005.

3. Guliyev E., "Agrarian Economy". Textbook for high school students, Baku 2015, Kooperasiya" publishing house, page -319.

4. Ibrahimov I.H. "Agrarian Economy" (Monograph), Baku 2016, page-655

5. Niftullayev V. "Economics of agriculture", Baku: Elm, 2006, p. 360.

6. Salahov S. "Preliminary results and perspectives of agrarian reforms" (materials of the scientific-practical conference of the Republic), Baku, 2003.

7. State Program for the development of agricultural cooperation in the Republic of Azerbaijan for 2017-2022

8. Verdiyev A. Ch., Ibrahimov I.H. Market economy and price, Baku: Azerbaijan State Publishing Polygraph Union, 2012, p. 186.

Vafa Rashid DUNYAMALIYEVA
Azerbaijan State University of Economics
Vafa_Dunyamaliyeva@unec.edu.az

AZƏRBAYCAN RESPUBLİKASINDA KƏND TƏSƏRRÜFATI SAHƏSİNDƏ MƏŞĞULLUĞUN İQTİSADİ ARTIMA TƏSİRİ

Xülasə

Azad bazar iqtisadiyyatına keçdikdən, xüsusilə neft gəlirlərinin büdcəyə daxilolmalarının artmasında sonra dövlət əsaslı iqtisadi islahatlara başladı və bu bir çox inkişaf etdirilməsi vacib olan sahələri hərəkətə gətirdi. Bu sahələrə turizm, kənd təsərrüfatı, tikinti, yüngül və.s sənaye sahələrini əhatə etdi. Ölkəmizin davamlı və dayanıqlı inkişafa nail olma yolunda inkişaf etdirilməsi zəruri olan sahələrdən biri də kənd təsərrüfatıdır. Belə ki, bu sahənin inkişaf etdirilməsi ərzaq təhlükəsizliyinin təmin edilməsi, məşğulluğun artırılması, idxaldan ixrac yönümlü iqtisadiyyata keçid, urbanizasiyanın qarşısının alınması, regionların sosial-iqtisadi inkişafının bu sahənin hesabına artırılmasının daha real görünür. Məqalədə aqrar sektorun ölkənin inkişafındakı rolu əhatəli şəkildə araşdırılmış, idxal-ixrac potensialı daha real göstəricilər əsasında təhlil edilmiş, məşğulluq və iqtisadi artım arasında necə bir əlaqənin olduğu müəyyənləşdirilmişdir. Bundan başqa bilinənlərlə yanaşı aqrar sektorda olan digər problemlərin həlli istiqamətləri də tədqiqat işində öz əksini tapmışdır. Məqalənin əsas məqsədi aqrar sektorda məşğulluq və məşğulluq səviyyəsinin artırılması, onun iqtisadi nəticələrinin öyrənilməsi və eyni zamanda aqrar sahənin bütün strukturlarının inkişafının təmin olunması yollarının tədqiqidir. Bundan başqa bu inkişafın hansı təcrübə və biliklər əsasında formalaşacağını öyrənmək də məqsədlər sırasına daxildir.

Açar sözlər: dövlət, iqtisadiyyat, kənd təsərrüfatı məşğulluq səviyyəsi

Вафа Рашид ДУНЬЯМАЛИЕВА
Азербайджанский Государственный Экономический Университет
Vafa_Dunyamaliyeva@unec.edu.az
0000-0001-8852-1473

ВЛИЯНИЕ ЗАНЯТОСТИ В СФЕРЕ СЕЛЬСКОГО ХОЗЯЙСТВА НА ЭКОНОМИЧЕСКИЙ РОСТ В АЗЕРБАЙДЖАНСКОЙ РЕСПУБЛИКЕ

Резюме

После перехода к свободной рыночной экономике, особенно в части увеличения нефтяных доходов в бюджет, он начал государственные экономические реформы, которые привели в движение многие области, важные для развития. К этим сферам относились туризм, сельское хозяйство, строительство, легкая и др. промышленность. Сельское хозяйство является одной из сфер, которую необходимо развивать для достижения устойчивого и устойчивого развития нашей страны. Таким образом, развитие этой сферы представляется более реальным, обеспечивая продовольственную безопасность, повышая занятость, переход от импортной к экспортно-ориентированной экономике, предотвращая урбанизацию и повышая социально-экономическое развитие регионов за счет этой сферы. В статье всесторонне исследована роль аграрного сектора в развитии страны, проанализирован импортно-экспортный потенциал на основе более реалистичных показателей, оценена связь между занятостью и экономическим ростом. Кроме того, в исследовательской работе нашли отражение и направления решения других проблем аграрного сектора. Основная цель статьи - повышение уровня занятости и занятости в аграрном секторе, изучение его экономических последствий и одновременно исследование путей обеспечения развития всех структур аграрного сектора. Кроме того, в список целей также включено выяснить, на каком опыте и знаниях будет основываться данная разработка.

Ключевые слова: государство, экономика, уровень занятости в сельском хозяйстве