

THE PROGRAMME OF REDUCTION AND PROFILLING OF LONG-TERM UNEMPLOYMENT IN AZERBAIJAN

Vilayat İsmayilov¹, Nahid Almasov², Sarraf Mirzayev³

¹Dr. of economic sciences, The Azerbaijan Academy of Labour and Social Relations, email: ismaylov1953@mail.ru

²PhD candidate, Azerbaijan State Academy of Oil and Industry, email: nahid.almasov@mail.ru

³Senior Lecturer, The Azerbaijan Academy of Labour and Social Relations

ABSTRACT

The purpose of this study was to identify the implementation of various forms of modular profiling programs in reducing long-term unemployment in Azerbaijan. It is noted that the priorities of long-term unemployment are typical for transition, developing and developed countries. The study revealed that the main part of active programs that affect the employment of the population in different countries of the world is aimed either to warn them about the consequences, or to combat long-term unemployment. To eliminate long-term unemployment in the EU member states is the principle of the approach that underpins the employment impact strategy in the labor market. According to formula (1), the long-term unemployment rate in Azerbaijan in 2005-2017 was determined in the range of 2.6-3.8%, the minimum long-term unemployment rate in Russia and the EU member states in 2016 was 1.3-9.5%. During the pandemic, the average annual unemployment rate in Azerbaijan in 2020 was 6.5%, in the United States-7.9%, in Russia-5.7%, and in China-5.8%. Taking into account the experience of working in the countries, in Azerbaijan, within this framework, the implementation of forms of primary and retraining of modular programs, the share of which is about 80.0% of the total training of the unemployed, is justified. The proposed method of profiling procedure determines the possibility of effective use of educational programs, allows you to dramatically reduce the level of unemployment risk and is achieved as a result of determining their characteristics.

Keywords: employment, long-term unemployment, profiling, labor market, effective programs

Jel classification: E24, C91, C92

INTRODUCTION

One of the priorities of the state in regulating of the labor market is the solution of the problem of long-term unemployment. This is a problem not only for countries in transition, but also for developing and developed countries. In order to reduce the existing tension in the country's labor market, it is advisable to use modern technologies that affect employment and are aimed at eliminating long-term unemployment in order to increase the effectiveness of measures implemented by the state.

Full-time employment is a source of unemployment, and voluntary unemployment can exist when vacancies occur, when the level of wages or the nature of the work does not provide the employee. In the case of forced unemployment, wages are interrelated with the establishment of wages above the point of market equilibrium, in which cases there is a difference between the demand for labor and the supply. Since there is a certain relationship between the price level and the unemployment rate, in these cases the concept of natural unemployment is a very important element in the analysis of economic growth and inflation. The government's attempt to reduce the natural rate of unemployment may lead to an acceleration of inflation. The key question here is what methods the state uses to reduce the level of natural unemployment.

Considering the problems of optimal tax development, it is explained that the key role of taxation related to the income of the super-rich population is different from the income of other social groups. Some of the super-rich may be "superstars" for whom small differences in talent increase to much larger differences in income, while others may work in winner-take-all markets, so that their efforts to climb the ladder successfully reduce returns for others [Rodrik D. (1998), and Shoer, F., Slemrod, F., (2020)]. The study, critically assessing the prevailing measures of global poverty, notes that modern absolute measures ignore important social consequences for well-being, while popular, strictly relative measures ignore the absolute standard of living of the population. [Martin, R., 2020]. Argues that a new hybrid measure is required, combining absolute and weakly relative measures that correspond to how national borders differ in different countries

Summarizing the data of various studies on unemployment, we come to the conclusion that the unemployment rate was the highest in all countries of the world during the pandemic, its results will have a negative impact on reducing unemployment for several years, and in this regard, the study of the problem is relevant in modern conditions. Unemployment is not only a decline in income, but also a gradual professional degradation, a violation of human dignity.

The unemployed person begins to feel useless. All this leads to social stratification of society and causes an increase in social tension [Galbraith J.K. 2012]. Therefore, only a socially oriented market economy, in which the state actively supports the development of competition, helps to reduce conflicts between employees and employers, implements extensive programs to support socially vulnerable segments of the population, and avoids socio-political cataclysms. The problems associated with the reduction of the unemployment rate and the increase in the employment of the population in our country remain an urgent task of state policy.

To achieve this goal, it is necessary to perform several tasks:

- Analysis of the main parts of active programs that affect the employment of the population in different countries of the world to combat long-term unemployment;
- Definition of the long-term unemployment rate in Azerbaijan, its minimum level in Russia and the EU member states;
- Justification of the implementation of forms of primary and retraining of modular programs for long-term unemployment;
- Identification of the possibility of effective use of educational programs that reduce the level of unemployment risk.

MATERIALS AND METHODS

Studying the income poverty indices [Deserf, B., 2021] in a framework that takes into account two poverty lines: one absolute line that reflects the cost of living, and one relative line that reflects social exclusion, notes that in this context, a set of basic axioms a la Foster and Sharrock characterizes a class of hierarchical indices. This is a class of additive indices, for which the contribution to the poverty of any person depends on both his income and the level of income in his society, and a key feature of hierarchical indices is to give some form of priority to absolutely poor people. These indices always take into account that an absolutely poor individual is poorer than an individual who is only relatively poor, regardless of the income level in their respective societies. Classical indices are not hierarchical, except in trivial cases, and as a result, they lead to a controversial comparison of the poverty of societies with different income standards. With the introduction and effective use of the new form of governance in the Somali economy, appropriate measures should be taken to increase economic growth through the human and natural resources provided by God, reduce poverty, and reduce its dependence on other economic indicators [Stockhammer E., Onaran O. 2004].

Studies on absolute poverty note that the World Bank estimates that absolute poverty in Asia and Africa in 1980 was 50-60% of the total population and was negligible in developed countries; also, it is doubtful whether Asia has always been so poor. The history of poverty in developed countries is compared. Looking at poverty measurement methodologies, it is argued that a needs-based approach is the best way to address the problem of measuring poverty in the past [Allen, R. S., 2020]. Researchers analyzed the increase in household indebtedness from the point of view of its causes and long-term macroeconomic consequences. The analysis focuses on the American case. In contrast to life-cycle interpretations of this phenomenon and interpretations in terms of unstable deviations of current income flows from their long-term trend, the growth of household debt is seen as the result of constant changes in income distribution and growing income inequality. Thanks to household debt, low wages seem to co-exist with relatively high aggregate demand, thus resolving the contradiction between the need for high and rising levels of consumption to increase the actual output of the system and the framework of antagonistic distribution conditions that keep the real incomes of the vast majority of society within limits [Barba A. and Pivetti M., 2009]. Variations in wages play a one-sided role in industrial capitalism. Higher wages mean higher production costs, but while they provide greater purchasing power for workers, they also stimulate demand, which plays a contradictory role as the main element of (variable) production costs and as the main source of demand. wage movements have a complex, even ambiguous, impact on employment and production. This explains the existence of controversial views on the relationship between wages and unemployment and, at the same time, provides an economic basis for supporting various political ideologies regarding the management of the capitalist economy. Based on the study, the authors tried to develop a macroeconomic model in which the question of the ratio of wages and unemployment can be analyzed in relation to these controversial political ideologies [Bhaduri A., Marglin S., 1990]. The theoretical consequences of another aspect of institutional mechanisms are the relations and destruction of the "Golden age"- the relationship between capital and labor, as well as the organization of the labor process, which was considered in the works of researchers. It combines a Marxist understanding of the importance of the labor process with modern macroeconomic analysis. He explains that the role of the "labor extraction function" is similar to the "investment function" in more traditional Keynesian analysis [Bowles S., Boyer R., 1995].

The European employment report is one of the main tools to support this macroeconomic indicator. The report says that the EU is experiencing strong employment growth and this indicator has increased in all EU member States, and overall employment growth has been the strongest since the launch of the Lisbon strategy in 2000. In addition, job creation appears to be continuing apace. This is very positive news, which shows that political efforts in the field of employment are beginning to bear fruit in many member States. At the same time, we must not forget that the ambitious Lisbon and Stockholm employment goals continue to pose a serious challenge and leave no room for complacency. As in previous years, this issue of employment in Europe addresses topics that are high on the agenda of the European Union's employment policy, complementing and expanding on the topics covered in previous reports. In particular, it aims to inform the broad political debate on flexible security, which resulted in a message from the Commission on flexible security earlier this year with the aim of reaching agreement on a set of common principles at the European level in the near future. It also addresses the issue of work-life balance and is complemented with a recent report from the youth Commission, which focuses on youth employment [European Commission, 2007].

By examining the relationship between capital account openness and labor share of national income [Jayadev A., 2007], the new financial openness index and the cross-country labor share panel available in the UN system of National Accounts have been modified to show a stable negative correlation between the degree of openness and labor share. Although this effect is absent for low-income countries, a direct negative relationship persists for all other subsamples and with different control mechanisms. A plausible explanation is that openness changes the terms of negotiations between labor and capital. By increasing the bargaining power of capital in relation to labor, increased capital mobility increases the rent accumulated in capital. Thus, the opening of the capital account can lead to a decrease in the share of labor in the firm's income and, consequently, at the General economic level, its share in national production.

After the appearance of Modigliani's famous article in 1944, which made one of the most decisive contributions to the `neoclassical synthesis "of Keynesian theory, the prevailing view among economists was that Keynesian unemployment could be explained as a result of the main discrepancy between the supply of money and the level of monetary wages. At first, following Modigliani's approach, a distinction was made between the `base case", where unemployment was assumed to arise from the aforementioned monetary disequilibrium, and the `special case", where employment was considered a determinable liquidity trap.

But after the introduction of the "real balance effect" into the model, this particular case was rejected, and therefore the prevailing conclusion was that "the critical assumption in Keynes' theory is that wages are steadily directed downward" [Malinvaud E.,1982]. Illustrative calculations show that, when critically evaluated, the predominant indicator of global poverty has been a reduction in global poverty over the past 30 years. This is mainly due to the lower level of absolute poverty in developing countries [Rajan R.,2010]. After examining macroeconomic indicators such as poverty, inequality, and economic growth, it should be noted that identify problems, study the facts, analyze what forces have influenced the results and what we should do in addressing policy issues that contribute to higher employment levels [Anthony, B. A. and Nicholas, S., 2017]. By examining income inequality using sample microdata from EU Statistics on income and living conditions, the researchers confirm that income inequality in Lithuania is high compared to the EU average. Their decompositions show that the number of working household members in Lithuanian households affects income inequality more than in the EU. This is due to the large labor income and income from self-employment, in particular, the contribution to inequality in Lithuania [Nerijus, C, and Andrius., 2020].

Poverty in conditions of transformation economy is an economic relationship between the individual and the state and the individual and the Corporation regarding the uneven distribution of social wealth of the country, which are characterized by the dominant, which is based on high inequality of income because of the redistribution of ownership, underdevelopment of the national labor market disparities at the phases of social reproduction, elimination or reduction of a number of grants and subsidies, inflationary redistribution of income, movement of labor from the public to the private sector, etc.

It should be noted that the main cause of poverty is the formation of a capitalist economy accompanied by the transformation of property and the management mechanism, for which poverty and unemployment are immanent features. The relationship between employment and poverty reduction is evident primarily in the production stage. If an individual is not involved in the production process for one reason or another, then he is excluded from the list of primary income recipients. It should be recognized that if a person's labor activity does not provide a minimum level of income at the expense of which he is able to sell his labor, then this form of labor cannot be recognized as economic. Therefore, those workers whose incomes are below the subsistence minimum cannot be recognized as productive workers.

Unemployment and poverty are closely linked. Economic growth does not always mean increased employment. Economic growth, employment and poverty reduction occur when effective employment is provided, which means: for the employee - a guarantee of an acceptable level of remuneration in the long term; for the employer - a growing dynamics of labor productivity and production efficiency. The high level of competition between employers pushes the latter to increase production efficiency, attract high-performance, and therefore more expensive labor. All this ensures a high quality of business activity.

Some researchers have used the Kaleckian Macro-models to empirically investigate the relationship between effective demand, income distribution, and unemployment, and have tested this relationship using a structural vector auto regression (VAR) model [Stockhammer E., Onaran O., 2004.]. The hypotheses studied focus on the definition of unemployment. The VAR model includes capital accumulation, capacity utilization, profit share, unemployment, and productivity growth and is calculated for the US, UK, and France. The study found that employment is determined by demand and that income distribution has little effect on either demand or employment. Technological progress affects income distribution, as well as employment.

Considering the issues related to the consequences for the labor market of the entire package of reforms carried out in Poland, it proves that this is due to the strong dynamics of domestic consumption as a result of an increase in the level of disposable income associated with higher employment, wages, as well as changes in the system of taxes and benefits. While wage dynamics slowed at the end of the period, wage growth continued in real terms. After 2008, the employment rate among people aged 25-34 declined, but among other groups it either remained stable or continued to grow. In particular, the employment rate of men and women aged 45-54 and 55-59 has increased since 2008 [Michal, M., Adrian, D., Leszek, M., Aneta, S., 2015]. The assessment of the impact of the increase in the minimum wage in Estonia in 2013-2016 on the probability of continuing employment of employees with different wage levels shows that employees will remain employed after the increase in the minimum wage in 2013-2016, with the probability that employees with comparable wages will remain employed in 2009-2011, when the minimum wage has not changed. And estimates from the Estonian Labour Force Survey show that the increase in the minimum wage in 2013-2016 did not have either a negligible or inaccurately estimated impact on job retention for directly affected workers and similarly for those affected indirectly. Since these results are resistant to the selection of control variables, to the refinement of the treatment group, and to changes in the time sample [Simone, F., Birgit, H., Karsten, S., 2018].

The social and institutional determinants of a country's economic development are increasingly attracting the attention of development professionals. They try to determine the impact of social capital at the macro level and related social factors on economic development in developed countries. Social capital at the macro level includes various aspects of the quality of institutions and is closely related to the distribution of income, employment, and social cohesion. The relationship of the main components makes it possible to group the initially selected social determinants of economic development into three components (human and social capital, income equality and redistribution). Since these components have a positive impact on economic development, as measured by the human development index, and on increasing employment in the country.

The development models of any country are determined by many factors. These factors differ in developed and less developed countries. Developed countries tend to rely on human resources, while less developed countries build their well-being on available natural resources. In any case, the distribution of income depending on the level of employment in the society of any country is an important component of the competitive potential of entrepreneurship, which plays an important role in solving problems related to employment [Manuela, T., 2019]. Some researchers on the role of incentives in the provision of goods and services that have significant social returns that are not reflected in private income, and where results and effectiveness are difficult to measure, note how the presence of prosocial motivation among the agents involved in the provision of these goods and services changes the structure of incentives [Timothy, B. and Maitrish, R. Gh., 2020]. Summing up the results of various studies on unemployment, the author comes to the conclusion that the unemployment rate during the pandemic reached the maximum level in all countries of the world, the results of which will have a negative impact on the decline of this indicator for several years, and from this point of view, the study of the problem is relevant in modern conditions.

Using a new approach, this study examined the impact of modular training and retraining programs for the unemployed on reducing the unemployment rate in the country. Also, we studied the use of modular programs to predict the unemployment rate in the studied countries.

RESULTS

The most effective form of the reverse effect of long-term unemployment on the labor market is considered to be active programs that affect the employment of the population.

The main part of active programs that affect employment in various countries of the world is aimed at predicting changes in labor results, or at combating long-term unemployment . With long-term unemployment, there are different arguments for employment and its opposite.

The EU guidelines formulate the relevant principles in accordance with the labour market policies of the member states, so the impact on employment of young people who remain unemployed for 6 months, and even other people who remain unemployed for 12 months or more, is considered an important issue. This approach, on the one hand, accelerates the provision of assistance to the unemployed population in finding employment in a short time, and on the other hand, prevents them from losing their professional habits.

In this regard, appropriate approaches to overcoming long-term unemployment in the EU member States have been developed, and they are reflected in active programs that affect employment. One of these approaches is the principle of the approach to overcoming long-term unemployment, which reflects the basis of the strategy for influencing employment in the labor market. Thus, the opposite effect of long-term unemployment is the main demand directed against unemployment. Focused approaches to overcoming long-term unemployment require a short-term approach to solving the problem in order to ensure rapid and effective employment at the individual level [Proposal for Guidelines for Member States Employment Policies 2000,1999].

The level of employment and unemployment in the CIS countries in 2018-2019 compared to the previous year, in some countries there was a decline, and in others- an increase (Figure 1).

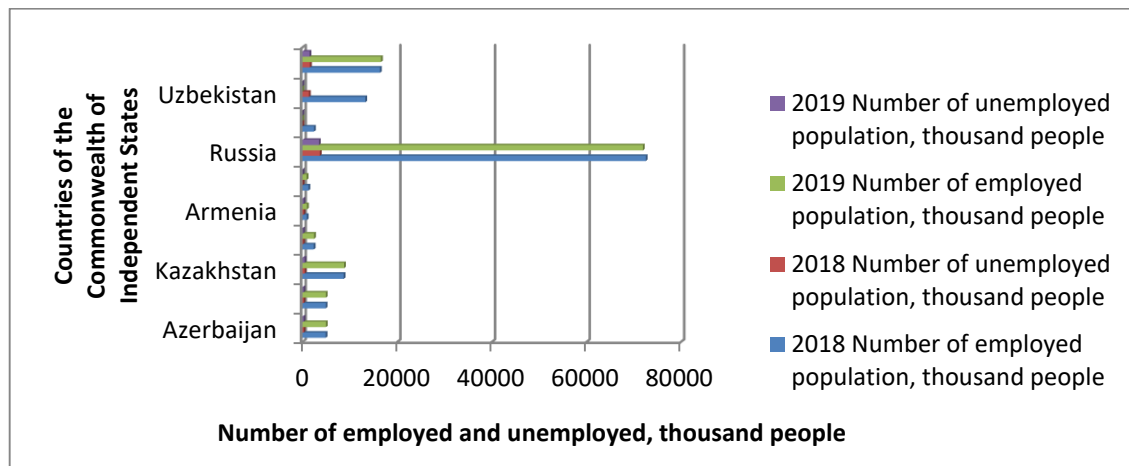


Figure 1. Indicators of employment and unemployment in the CIS countries.

Source: developed by the authors based on statistical data

[[https://www.google.com/seardi?q=Statistics+CIS+The level of+unemployment+in+countries+CIS](https://www.google.com/seardi?q=Statistics+CIS+The+level+of+unemployment+in+countries+CIS)].

Thus, in 2018, compared to 2017, Azerbaijan, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan and Ukraine saw an increase in the number of employed people. Compared to 2018, in 2019, only Moldova and Russia experienced a decline, while other countries experienced an increase. The number of unemployed people in the CIS countries in 2018 also decreased in Belarus, Kyrgyzstan, Moldova, Russia and Ukraine compared to 2017. In 2018, compared to 2019, there was a decrease in all other CIS countries except Moldova. The analysis shows that in these countries, the least decrease occurred in Azerbaijan and Kazakhstan (0.7%), the most-in Belarus (12.9%).

A study by the International Institute for the Study of Labor to assess the impact of the current global financial crisis on the level of long-term unemployment notes that if adequate measures are not taken, about 43 million people potentially unemployed and unemployed may leave the labor market, thereby accelerating the difficult social situation and reducing the potential for economic growth in the future [Palley T. I., 2012]. The experience of developing countries over the past years shows that a high level of informal unemployment has a sufficient tendency to increase it. And in developed countries, the long-term unemployment rate usually continues to rise, even if the unemployment rate tends to decline. The article says that if long-term unemployment increases during the financial crisis, as in the 1990 s, then in subsequent years it may increase, and thus about 43 million people may enter the number of unemployed for a long period of time [Word of Work Report, 2009].

Based on the statistics of the CIS countries, it can be noted that the unemployment rate in recent years for the respective countries is in the range of 1-18%. Thus, in 2016, the highest unemployment rate was in Armenia (18%), the average unemployment rate was in Kyrgyzstan (8%), Lithuania (8.5%), Latvia (9.9%), and the lowest unemployment rate was in Belarus (0.5%). This figure was 5.3% in Russia and 4.9% in Azerbaijan [Chang H-J., 2002; [https://www.google.com/seardi?q=Statistics+CIS+The level of+unemployment+in+ countries +CIS](https://www.google.com/seardi?q=Statistics+CIS+The+level+of+unemployment+in+countries+CIS)].

The unemployment rate in the world peaked in 2017, when the structure of the economically active population included 192.7 million unemployed people, which was 5.6%. Among the countries of the world, the highest unemployment rate was in Nauru (90.0%), Vanuatu (78.21%), Turkmenistan and Zimbabwe (70.0%), Mozambique (60.0%), and the lowest unemployment rate was in Monaco (0.0%), Belarus and Qatar (0.5%), Thailand (0.56%).

Compared to developed countries, Azerbaijan had an average unemployment rate, with an unemployment rate of 5.02% in 2017. Thus, the highest unemployment rate in the G 8 countries is in Italy -12.0%, in France -11.0%, and the lowest unemployment rate is in Russia. Britain -7.7%, the US -7.4%, Germany -5.3% and Japan-3.9%. In the study period, the analysis of materials shows that the unemployment rate, which is considered a global trend in employment, in the developed countries of the “eight” ranged from 3.9-12.0% [<https://www.anaga.ru/uroven-bezrabotisy.html>].

The number of unemployed people in Azerbaijan in 2005 was 317.8 thousand people, in 2015-243.7 thousand people, in 2016-252.8 thousand people, in 2017-253.2 thousand people. This indicator compared to 2005 decreased in 2015 by 23.3%, in 2016-by 20.5%, in 2017-by 20.3%. At the same time, compared to 2005, the number of employed people in the public sector in 2016 decreased by 4.7%, and in the private sector increased by 26.7%. In Azerbaijan, in 2010-2018, the number of unemployed decreased by 3.5 thousand people and amounted to 253.8 thousand people, or an increase of 7.0%. According to the ILO methodology, socio-economic situation, calculated by the State Statistics Committee of Azerbaijan, in 2018, 253.2 thousand people or 5.02% of the economically active population were classified as unemployed. It should be noted that the level of long-term unemployment in Azerbaijan is also quite high: in the total structure of the unemployed population for more than six months, the share of the unemployed population was 30.9% in 2005, 27.2% in 2014, 26.6% in 2015, 26.0% in 2016, and 25.5% in 2017. At the same time, the share of job seekers in the total number of unemployed for 12 months or more is also quite large. The share of job seekers in this group in 2005 was 70.6%, in 2016-68.2%, in 2017-68.4% [Azerbaijan Statistical Committee, 2019].

It should be noted that the number of employed people in the country in 2003 was 48.0% of the total population, and in 2020-49.7% (Table 1).

Table 1. Distribution of employed population on types of economic activity, thsd. Person

Years	Total	including					
		industry	agriculture, forestry and fishing	construction	transportation and storage	Information and communication	other sectors
2003	3 972,6	279,7	1546,1	202,8	170,8	30,3	1742,9
2013	4 521,2	324,4	1677,4	325,5	183,8	58,1	1952,0
2014	4 602,9	324,2	1691,7	334,1	185,1	59,2	2008,6
2015	4 671,6	321,4	1698,4	336,4	197,1	60,3	2058,0
2016	4 759,9	338,2	1729,6	343,8	198,4	61,2	2088,7
2017	4 822,1	345,3	1752,9	347,9	201,0	61,7	2113,3
2018	4 879,3	359,5	1770,8	354,5	203,2	62,8	2128,5
2019	4938,5	363,7	1777,7	366,2	205,8	63,2	2161,9
Average, thsd.person/ Share in total quantity,%	4646/100	332,05/7,1	1705,6/36,7	326,4/7,0	193,15/4,2	57,1/1,2	2031,8/43,8

Source: developed by the authors based on statistical data [Azerbaijan Statistical Committee, 2019].

As can be seen from the distribution of the employed population of Azerbaijan by type of economic activity, the share of those employed in agriculture, forestry, fishing and construction in the comparable period had many advantages over other industries. Thus, in 2003-2019, the average share of employees in these industries was 36.7% and 7.0%, respectively. The largest share in agriculture for the corresponding period was in 2003 (38.9%), and the smallest-in 2019 (36.0%). The largest share in construction-for 2019 (7.4%), and the smallest-for 2003 (5.1%). The 2.3% increase in the number of people employed in the construction sector in Azerbaijan over the period covered by the study indicates that the mechanism of activity of individual construction enterprises seriously affects the reduction of unemployment and employment growth in the country. It should be noted that the total number of employees in industry, transport and warehousing, information and communications in 2003 was 21.6%, and in 2019-15.7%. As a result of the analysis, we come to the conclusion that the number of people employed in the field of agriculture has a great advantage in the composition of the entire employed population. This means that the agricultural sector has the maximum impact on unemployment in the country. Also, during the corresponding period, the population living in rural areas, relative to the total population, tended to grow in the range of 46.8-48.8%. Thus, the population living in rural areas for the corresponding period amounted to 4.0316-4.7551 million people.

This means that the population employed in agriculture, forestry and fishing is 2.6-2.66 times less than the population living in rural areas. Also, despite the fact that during the corresponding period the share of the employed population in construction increased by 2.0%, there is a need for structural changes to increase the share of professional workers.

In general, the percentage composition of the number of unemployed by the time of employment is classified into the following groups, based on the statistics for 2017:

- Up to 1 month-0.4%;
- From 1 year to 3 months-1.6%;
- From 3 months to 6 months-4.1%;
- 6 months-up to 12 months - 25.5%;
- 12 months or more-68.4%.

The long-term unemployment rate is calculated using the formula (1) based on the ratio of the number of unemployed in the country for 12 months or more to the number of economically active population:

$$i_{l.t.u.r} = \frac{\sum_{i=12}^{>12} N_{i.n.o.u.}}{N_{n.e.a.p.}} \times 100\%, \quad (1)$$

here: $i_{l.t.u.r}$ - long-term unemployment rate,%;

$\sum_{i=12}^{>12} N_{i.n.o.u.}$ -number of unemployed in 12 months and over, thousand people;

$N_{n.e.a.p.}$ - the number of economically active population in the country is a thousand people.

The unemployment rate in Azerbaijan in 2016-2017 compared to 2015 increased by 0.1%, amounted to 5.04% and 5.02%, respectively, in 2019-4.8%, at the same time, the share of long-term unemployment increased. According to the October report of the IMF, the unemployment rate in 2020 was 6.5% [Azerbaijan Statistical Committee, 2019].

The long-term unemployment rate in Azerbaijan, calculated on the basis of official statistics of the Statistical Committee of Azerbaijan, is calculated according to the formula (1) defined as 3.8% in 2005 and 2.55-3.0% in 2010-2020, and the lowest level was in 2014 (2.55%) and the highest level due to the pandemic was in 2019-2.97% and in 2020 - 3.0% (Figure 2).

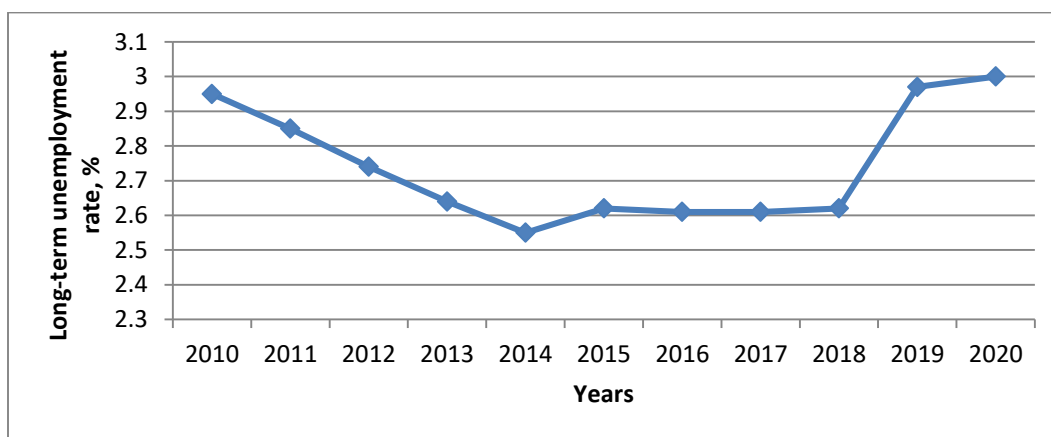


Figure 2. Dynamics of long-term unemployment rate change in Azerbaijan in 2010-2020.

Source: developed by the authors based on statistical data [<https://www.Stat.gov.az/meme/13/>].

According to the ILO-a forecast, the number of unemployed people in the world, which amounted to 188 million in 2019, will grow by another 2, 5 million this year. The ILO emphasizes that global unemployment has remained generally stable over the past 9 years, but slowing economic growth means that while the global labor force continues to grow, not enough new jobs are being created to take in all those entering the labor market for the first time. At the same time, the unemployment rate in the next two years in the world is expected to be approximately the same as in 2019-5,4%. In Azerbaijan, this figure for the corresponding period in 2020 will be 6,5%, and in the United States-7, 9%. According to forecasts of the Ministry of economic development of Russia, the average annual unemployment rate will reach 5,7% in 2020, 4,9% in 2022, and 4,7% in 2023. According to independent economists in China and Hong Kong, about 80 million people lost their jobs during the most severe restrictive measures related to the coronavirus outbreak, and in 2020 the unemployment rate will be approximately 5,8% (Figure 3) [<https://take-profit.org/statistics/unemployment-rate/united-states/>].

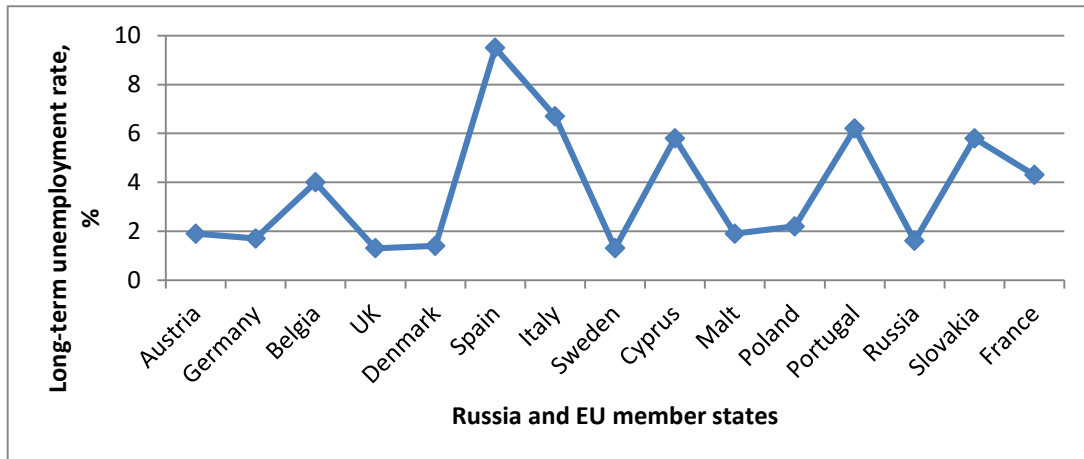


Figure 3. Long-term unemployment rate in Russia and EU member states. Source: developed by the authors based on statistical data [Russia and the European Union. 2017].

Many long-term programs in the labor market tend to apply to those individuals who are unemployed for a certain minimum period of time. This restriction is due to the savings of public funds. These programs may include job creation and employment subsidies, but as usual, these subsidies are not provided to the long-term unemployed. However, some exceptions are also allowed here: an amendment for work with disabilities, youth programs in Belgium and France, etc. Retraining programs are usually provided to the unemployed, regardless of the duration of unemployment.

In the active programs implemented in the 1990s, the impact of employment on the technologies of profiling the unemployed was widely discussed. These programs were designed to influence the employment of the short-term unemployed so that they would have a high risk of long-term unemployment [Proposal for Guidelines for Member States Employment Policies 2000. 1999]. At the same time, countries began to use methods such as building individual impact plans for the unemployed, which in itself created the conditions for combining individual obligations and problems. Unemployed profiling is a procedure performed by the employment service based on the estimated number of long-term unemployed. For this purpose, such methods are used as drawing up the development of individual impact plans for the unemployed, which allows them to combine individual investment obligations and the problem in solving the tasks assigned to the unemployed, i.e. to solve such tasks as: developing and implementing an unemployment plan. The existing profiling methods, based on a quantified number of unemployed, are evaluated by the probability of the transition of unemployed persons who are newly registered with the employment service to the ranks of the long-term unemployed.

Profiling involves providing the unemployed with intensive programs that affect employment at the stage of new unemployment, rather than after the onset of long-term unemployment.

This methodology is relatively widespread in the United States, Australia, and the Netherlands. The quantitative assessment of the profiling of the unemployed is based on the use of statistical methods.

According to the Organization for Economic Cooperation and Development (OECD), unemployment profiling based on direct statistical models is carried out only in the United States. On the basis of this method, the probability of joining the newly registered unemployed in the Employment Service bodies to the long-term unemployed is estimated. In the terminology of the Employment Service in the United States, the long-term unemployed include those persons for whom the deadline for receiving state assistance without unemployment insurance has expired [Zhu, A. and Kotz, D. 2011]. The maximum period for receiving this assistance is 6 months. Statistical profiling models use a limited number of variables that are characterized by education, work experience, the fact of changing professions, the level of unemployment in the local labor market, etc. Common statistical models make extensive use of other variables, including age, ethnicity, gender, and so on. In Australia, the long-term unemployed are given the opportunity to participate in intensive employment-related programs through the jobless profiling procedure. The amount spent on such programs is approximately half of the amount spent by the State on employment impact services. The criterion for the participation of the unemployed in these programs is the number (number of points) calculated on the basis of the variables of the profiling programs, and the number of points is estimated using practical ways by the employees of the Employment Service. As a result of the joint procedure of the program for profiling the unemployed, it can be noted that this issue is acutely different in the states of the country. About 33% of the country's Employment Service states have approved the minimum number of joint programs that affect the employment of unemployed people selected as a result of the profiling procedure, but in 45% of the country's states, more than half of the unemployed who have passed the profiling procedure are registered to participate in additional programs [OECD Employment Outlook, 2012; <https://take-profit.org/statistics/unemployment-rate/united-states/>].

Based on the classification data, unemployed people with the status of unemployed are sent to participate in intensive programs that affect employment. Here, the classifier is based on a statistical analysis of data that reflects the identification of factors that increase the likelihood that unemployment will last more than 1 year.

It uses the results of the survey unemployment data of the respective years and the last year, and very rarely allowed to correct the results of the classifier unemployed psychologist worker Employment Service. Here, the classifier determines the number of points based on 18 factors, which include the age, gender, marital status of the unemployed, the possibility of individualization, lack of housing, the number of criminal records, limited literacy, and other factors. Each of these factors is estimated at 5-8 points based on the classifier of the unemployed. The unemployment of citizens for 1 year is estimated at 10 points and the unemployment for 10 years - at 25 points. In accordance with these criteria, many long-term employees are sent to participate in these programs. As a result of profiling, many organizational problems can arise, which can also include the presence of untimely detection of factors that characterize the shortcomings of the unemployed in terms of employment when registering (individualism, literacy problems, etc.). It should be noted that the above factors are identified by direct contact of the unemployed with employees of the Employment Service.

In the Netherlands, analog services have been provided since 2002, and these services are called disintegration services. The coefficients used in this case are based on a statistical estimate. In the Netherlands, as in Australia, as a result of profiling, Employment Services usually conduct an individual assessment of the unemployed [Wander S., Messenger J., 1999]. To do this, it is considered appropriate to use a number of factors to improve the expected accuracy of profiling models, including employee communication skills, transport accessibility to the home where they live, travel time from home to work, etc. In a number of countries, certain elements of the unemployment profiling procedure are used on the basis of an analogous conceptual approach. In New Zealand and South Korea, a scoring system is used, and this system is based on statistical models. For example, in New Zealand, the resulting values (the number of points) are used to classify the unemployed. Additional assistance, such as wage subsidies, may be provided to the employed that are classified as unemployed. The calculation of the number of points in this case helps to structure the traditional activity of the employment service to collect data on the unemployed [OECD Employment Outlook, 2012].

Based on the survey of the unemployed, employees of the employment service enter the collected data into the computer program "Solo", which forms a rating of the unemployed, consisting of four groups. The factors used in the computer program "Solo" were selected on the basis of consultation and regression analysis, which warns against the possibility of long-term unemployment.

The main difference between the unemployed of the first group ("relatively easily employed unemployed") and the unemployed of the second group ("easily employed unemployed"), determined on the basis of this formative principle, is the level of motivation in work. The main difference between the third group of unemployed ("unemployed who work") and the fourth group of unemployed ("unemployed who work in case of exposure") is the possibility of employment. At the same time, the risk of long-term unemployment of the unemployed in the fourth group is high compared to the unemployed in other groups. Therefore, employees of the Employment Service conduct an additional assessment of persons belonging to the fourth group, and at the same time it is considered appropriate to apply more appropriate programs. Employees of the Employment Service can make changes to the results of the rating, if there is convincing evidence that reflects the unemployed in the specified group. In many countries, employees of the Employment Service classify the unemployed according to their ability to use computer programs. The procedure for profiling the unemployed in Russia requires the use of a combined approach to this issue [Wander S., Messenger J., 1999]. At the first stage of the combined approach, when assessing the risk of long-term unemployment, it is proposed to use an adjusted statistical model taking into account the opinion of experts. At the second stage, active programs are selected by the employees of the Employment Service. Based on this profiling procedure, the unemployed are grouped according to the risk of long-term unemployment. The level of long-term unemployment is estimated using the individual characteristics of the unemployed [Word of Work Report 2009; OECD Employment Outlook, 2012].

The assessment of the risk level of long-term unemployment is based on the assessment of the employment potential and the motivation for employment. The assessment of the employment potential of the unemployed is made on the basis of a statistical model based on the data of the register of the unemployed. The data obtained from the statistical model is calculated based on the corresponding score. The assessment of the level of labor motivation of the unemployed is made by means of a questionnaire. The first questionnaire is filled in by the unemployed person, the second by profiling specialists based on the data on the employee's job search within 10 days from the date of the unemployed person's registration with the Employment Service. Based on the survey data, the final assessment is determined using the employment motivation assessment. In this method, the profiling of the unemployed is determined based on their professional requirements in the labor market. The assessment of the individual characteristics of the unemployed is made on the basis of the survey data, which reflects the education, profession, qualification, and change in the type of activity, the duration of the duration of unemployment, etc.

The assessment of the level of motivation for work is based on the method of independent characteristics [CEFIR. 2012; Russia and the European Union. 2017].

Thus, as a result of the profiling procedure, the unemployed can be divided into three groups:

1. High employment potential, that is, those who are ready to start working in a relatively short time.
2. Those with medium-sized entrepreneurial potential, that is, those who are able to start working in general, but have difficulties in finding a job.
3. All other employees, i.e. those with low employment potential, were not ready to start.

The first group of unemployed is offered important comprehensive services to provide the necessary assistance in finding a job, which include services related to qualifications, training in the specialty, etc. The second group of unemployed people, with psychological support, is sent to profiling programs in their specialty, to social work, etc.

In Azerbaijan, this procedure is considered one of the most important active employment measures, the organization of vocational training and additional education courses carried out by the State Employment Service bodies. Vocational training courses are organized taking into account the real needs of the labor market and employers in order to expand the employment opportunities of citizens, develop self-employment, increase the competitiveness in the labor market of those registered as unemployed and job seekers in the local bodies of the State Employment Service under the Ministry of Labor and Social Protection of the Population. Vocational training and additional education courses are conducted, as a rule, on the basis of curricula agreed with the Ministry of Labor and Social Protection of the Population of the Republic of Azerbaijan, developed and approved by the Ministry of Education of the Republic of Azerbaijan. Vocational training courses are conducted on the basis of 86 traditional, 58 modular training programs in educational institutions with an appropriate base in accordance with contracts with Employment Centers. 15 modular programmes were developed within the framework of the United Nations Development Programme, and 43-within the framework of the project "Development of social protection" implemented by the World Bank. The "Action Plan for the implementation of the Employment Strategy for 2020-2025", approved by the Decree of the President of the Republic of Azerbaijan dated February 13, 2020, provides for the preparation and updating of competence-based modular training programs for vocational training in 2020-2025.

According to the Action Plan, 10 modular training programs have been prepared and updated to [https://azertag.az/xeber/modular_wired_programs_will_be_prepared_for_professional_training-1416151].

Job seekers and unemployed citizens are involved in vocational training in the following cases:

- if it is impossible to choose a suitable job for them due to the lack of an appropriate profession or specialty;
- when he needs to change his profession (specialty), since there is no work that corresponds to his professional habits;
- if you lose the ability to work in your previous profession.

For the purpose of vocational training, Vocational Training Centers (VTC) were established under the Employment Service in Baku in 2007, in Goychay district in 2008, and in Nakhchivan in 2009. In 2016, the Baku Regional Vocational Training Centre (RVTC) were training 1478 people in Goychay RVTC-507 people, and in Nakhchivan RVTC-413. In general, in 2017, 3,561 people took a professional training course in the RVTC of the country [www.ses.gov.az/].

Annual labor fairs are of great importance in the field of providing decent work for job seekers and unemployed citizens (especially young people), held in the regions of the country. The main purpose of the fair, the interaction of employers with the unemployed and seeking work citizens, enable employers to quickly select qualified, talented human resources, meet modern requirements. At the same time, providing unemployed and job-seeking citizens with information about available vacant jobs and helping them to secure decent work is also one of the main issues carried out in this area.

Large-scale organizational work carried out during the preparation for the fairs, specially created relations of mutual cooperation with employers ensure the active participation of employers, job seekers and unemployed citizens in this important employment event. To this end, since 2007, Azerbaijan has been holding events under the slogan "First step in a career" for the integration of graduates and students of universities operating in the cities of Baku, Ganja and Mingachevir into jobs in the labor market in their specialties. The purpose of these events is to inform students about the demand in the labor market for the received specialties, to assist businessmen (entrepreneurs) in the selection of future personnel, as well as to attract graduates and students to vacant jobs in the specialty.

On 10 May 1999, in the city of Baku was first created by the "Labour Exchange" with the aim of increasing employment, providing temporary employment of particularly vulnerable groups of the population, they receive additional earnings in their spare time, assist in providing them with a one-time, short-term, seasonal work of a temporary nature. Currently, the cities of Sumgait (20.02.2001), Nakhchivan (06.01.2002), Ganja (27.12.2004), Mingachevir (22.12.2004) have also established "Labour Exchange", which are planned to be established in various regions of the republic, which have an extensive database of people of various professions, highly qualified workers.

Based on the above, we can conclude that the level of employment directly affects the economic growth of the country. The higher the level of employment in the sectors of the Azerbaijani economy, the more stable the labor market will be and the lower the level of short-term and long-term unemployment. Therefore, future research may focus on the study of increasing the possibility of increasing the employment of the population, which can directly affect the unemployment rate.

DISCUSSION

Accepting orders to the exchange, registering citizens looking for work, and sending them to temporary work are carried out using special software. It should be noted that the acceptance of orders is carried out by phone or by direct reference to the exchange. Receiving orders, sending for temporary work, registration and information and consulting services are free of charge [https://azertag.az/xeber/modular_wired_programs_will_be_prepared_for_professional_training-1416151].

Despite the fact that the study concluded that the share of the population employed in agriculture and construction is increasing, there is a need for structural change at the expense of professional workers in order to increase the level of employment [CEFIR. 2012; Word of Work Report 2009]. The 2.3% increase in the number of people employed in the construction sector in Azerbaijan over the period covered by the study indicates that the mechanism of activity of individual construction enterprises seriously affects the reduction of unemployment and employment growth in the country.

Citizens with special needs for social protection (disabled people, single mothers raising poor children, young people, internally displaced persons and refugees, etc.) are given an advantage on the "Labor Exchanges". The "Labor Exchange" registers them by informing temporary job seekers about the state of the labor market, ensures the referral of applicants for temporary work in accordance with their profession and qualifications, as well as mediation between employers and temporary job seekers by directly collecting information from employers about vacant temporary jobs [<https://www.anaga.ru/uroven-bezrabotisy.html>; <http://abc.az/ru/news/58060>].

Vocational training and retraining courses for the unemployed in various professions in Azerbaijan are conducted on the basis of modular training programs in educational institutions with an appropriate base in accordance with contracts with Employment Centers [www.ses.gov.az/; <https://take-profit.org/statistics/unemployment-rate/united-states/>].

The creation of exchanges is aimed, on the one hand, at providing employment for persons seeking temporary work and additional income, and, on the other, hand at assisting in meeting the current needs for professional services of individuals and legal entities.

Future research may identify strategies to develop employment levels in order to reduce the level of short-term and long-term unemployment. In addition, the results obtained can be expanded by using various modular programs for the robot matrix in order to reduce its risk. The conducted research can be useful for developers and managers of employment services, who should respond as quickly as possible to changing labor market conditions.

CONCLUSIONS

Large-scale organizational work carried out as a result of increased employment of the population, the creation of "labor exchanges" with an extensive database of highly qualified employees in order to provide temporary employment for groups of the population in particular need of social protection, including obtaining additional income in their spare time, the relations of mutual cooperation created with employers form favorable conditions for reducing the unemployment rate in Azerbaijan.

The study revealed that the number of people employed in the field of agriculture has a great advantage in the composition of the entire employed population, which means that this area has the maximum impact on the unemployment rate in the country.

It should be noted that one of the forms of effective impact on the employment of the population is the retraining programs implemented by the Employment Service bodies, which are implemented in the forms of primary training and retraining. This type of educational program accounts for about 80.0% of the total prepared share of the unemployed. In some countries of the world, in the United States, in Australia, in the Netherlands, etc., long-term unemployed people are given the opportunity to participate in intensive employment-related programs through the unemployed profiling procedure. The criterion for the participation of the unemployed in these programs is the number of points calculated on the basis of the variables of the profile programs, the points of which are evaluated in practical ways by the employees of the Employment Service.

The introduction of modern technologies contributes to improving the efficiency and achieving high results of activities carried out in the labor market.

At the same time, the use of the profiling procedure based on the calculation of the number of points is quite limited. Thus, the achievement of the expected efficiencies of accuracy in this method, according to some experts, is achieved not by identifying weaknesses of the unemployed, and the result of the determination of their characteristics, resulting in the identification ability of the unemployed, with the effective use of educational programs in which they participate.

Author Contributions: Conceptualization, V.I., N.A. and S.M.; methodology, V.I. and N.A.; software, N.A. and S.M.; validation, V.I.; formal analysis, N.A. and S.M.; investigation, V.I. and N.A.; resources, V.I. and N.A.; data curation, N.A.; writing—original draft preparation, V.I., N.A. and S.M.; writing—review and editing, V.I., N.A. and S.M.; visualization, V.I. and N.A.; supervision, N.A. and S.M.; project administration, V.I. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

REFERENCES

Azerbaijan Statistical Committee, 2019, 806 p.

Allen, R. S. Poverty and the difficulty of the market: today and yesterday. *Annual Review of Economics*. 2020, vol.12, pp.107-134

- Anthony, B. A. and Nicholas, S. Tony Atkinson on poverty, inequality and public policy. *Annual Review of Economics*. 2017, vol.9, pp.1-20
- Barba A. and Pivetti M. 2009. Rising household debt: its causes and macroeconomic implications—a long-period analysis. *Cambridge Journal of Economics*, vol. 33, pp.113–137
- Bhaduri A., Marglin S. 1990. Unemployment and the real wage: the economic basis for contesting political ideologies. *Cambridge Journal of Economics*, vol. 14, no. 4, pp.375–393
- Borio C. 2012. ‘The Financial Cycle and Macroeconomics: What Have We Learnt?’, BIS Working, Paper 395
- Bowles S., Boyer R. 1995. A Wage-led Employment Regime: Income Distribution, Labour Discipline, and Aggregate Demand in Welfare Capitalism, in Marglin, S. and Schor, J.(eds.), *The Golden Age of Capitalism. Reinterpreting the Postwar Experience*. Oxford, Clarendon.
- Chang H-J. 2002. *Kicking Away the Ladder Development Strategy in Historical Perspective*, London, Anthem Press
- Committee for statistics in the CIS countries, 2019.
- Deserf, B. Combining absolute and relative poverty: measuring poverty by income with two poverty lines. *Journal Social Choice and Welfare*. February 2021, vol.56, issue 2, pp.325-362
- Development of unemployed profiling procedures as the implementation of active programs of assistance of employment of the population. M.:CEFIR. 2012
- European Commission. 2007. The labour income share in the European Union, Brussels, European Commission, pp. 237–272 in *Employment in Europe*
- Galbraith J.K. 2012. *Inequality and Instability: A Study of the World Economy Just Before the Great Crisis*. New York, *Oxford University Press*
- Hashim A-A. Towards a realistic medium term macroeconomic and fiscal framework and outlook for the somali national economy. *The journal of economic sciences: theory and practice*, vol.74, no. 2, 2017, pp. 4-31
- Helje, K., Ewe P. Social and institutional factors of economic development: the experience of Europe. *Balti Economic Journal*, 2008, vol.8, pp. 29-51

- Jayadev A. 2007. Capital account openness and the labour share of income. *Cambridge Journal of Economics*, vol. 31, pp.423–443
- Kumhof M. and Ranciere, R. 2010. ‘Inequality, Leverage and Crises’, IMF Working Papers 268
- Malinvaud E. 1982. Wages and unemployment. *Economic Journal*, vol. 92, no. 1, March
- Nishi H. 2012. Household debt, dynamic stability, and change in demand creation patterns, *Review of Political Economy*, vol. 24, issue. 4, pp.607–622
- Manuela, T. Features of income distribution in individual European Countries with different levels of development compared to Qatar. *The journal of economic sciences: theory and practice*, 2019. vol.12, no.3, pp.64-73
- Martin, R. On measuring global poverty. *Annual Reviews of Economics*, 2020, vol.12, pp.167-188
- Michal, M., Adrian, D., Leszek, M., Aneta, S..Financial incentives for work in the context of a comprehensive package of reforms and wage growth. *Balti Economic Journal*, 2015, vol.15, pp. 99-121
- Nerijus, C, and Andrius, Ch. Measuring and decomposing income inequality in Lithuania. *Balti Economic Journal*, 2020, 20, pp. 139-169
- Proposal for Guidelines for Member States Employment Policies 2000. 1999, pp. 10-15
- Palley T. I. 2012. From Financial Crisis to Stagnation: The Destruction of Shared Prosperity and the Role of Economics, Cambridge, *Cambridge University Press*, 2012
- Rajan R. 2010. Fault Lines: How Hidden Fractures Still Threaten the World Economy, Princeton, NJ, *Princeton University Press*, 2010
- Ravalon M. On the change in global poverty. *Annual Reviews of Economics*, 2020, vol.12, pp.167-188
- Recent Trends in Household Wealth in the United States: Rising Debt and the Middle-class Squeeze-an Update to 2007’, *Levy Economics Institute Working*, P. 589, Zhu, A. and Kotz, D. 2011
- Rodrik D. 1998. Capital mobility and labor, manuscript, <http://ksghome.harvard.edu/~drodrik/capitalm.pdf>
- Russia and the European Union. 2017. Statistical collection/Rosstat. M., 2017, p. 264

- Shoer, F., Slemrod, F. Taxation and the super-rich. *Annual Review of Economics*, 2020, vol.12, pp.189-211
- Stockhammer E., Onaran O. 2004. Accumulation, Distribution and Employment: A Structural VAR Approach to a Kaleckian Macro-model. *Structural Change and Economic Dynamics*, vol. 15, no.4, pp.421–447
- Simone, F., Birgit, H., Karsten, S. Minimum wage and retention of employment: a micro-econometric study for Estonia. *Baltic Economic Journal*, 2018, vol.18, pp. 51-67
- Timothy, B. and Maitrish, R. Gh. Prosocial motivation and incentives. *Annual Review of Economic*, 2020, vol.12, pp.167-188
- The dependence of China's economic growth on exports and investment. *Review of Radical Political Economics*, vol. 43, no. 1, pp.9–32
- The ins and outs of long-term unemployment / OECD Employment Outlook 2012- Surveying the jobs horizon. Oecd. 2012.
- Word of Work Report 2009: The Global Jobs and Beyond . *International Institute for Labour Studies*. Geneva:ILO, 2009, p.117
- Worker profiling and Reemployment Services Policy Work group: Final Report and Recommendations / Wander S., Messenger J. *US Department of Labor Employment and Training Administration*. 1999.
- Wisman J. and Baker B. 2010. Rising inequality and the financial crises of 1929 and 2008, manuscript, <http://www.american.edu/cas/economics/pdf/upload/2010-10.pdf> (accessed 11 April 2013) Wolff, E. 2010.
URL: <https://www.Stat.gov.az/meme/13/>
- URL: <https://www.anaga.ru/uroven-bezrabotisy.html>
- URL: <https://www.google.com/search?q=Statistics+CIS+The+level+of+unemployment+in+countries+CIS>
- URL: www.ses.gov.az/
- URL: <http://abc.az/ru/news/58060>
- URL: https://azertag.az/xeber/modular_wired_programs_will_be_prepared_for_professional_training-1416151
- URL: <https://take-profit.org/statistics/unemployment-rate/united-states/>