Shataeva O.V., Korshunova N.E., Melikhova Y.M. Effects of the pandemic on the natural rate of unemployment in Russia

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Abstract

The article examines unemployment and the impact on the unemployment rate of coronavirus and quarantine restrictions, as well as ways to maintain the unemployment rate no higher than "natural." As well as the peculiarities of employment and unemployment in Russia in 2020-2021. and the following measures to reduce it.

Keywords: unemployment, economic instability, supply and demand factors, forms of unemployment, unemployment rate, economically active population, economic instability.

Аннотация

В статье рассмотрена безработица и влияние на уровень безработицы коронавируса и карантинных ограничений, а также пути поддержания уровня безработицы не выше «естественного». А также особенности занятости и безработицы в РФ в 2020-2021гг. и принятие следующих мер по ее уменьшению.

Ключевые слова: безработица, экономическая нестабильность, факторы спроса и предложения, формы безработицы, уровень безработицы, экономически активное население, экономическая нестабильность.

In times of economic instability, employment and unemployment rate are a macroeconomic problem that has the most impact on the labor market and the standard of living. Unemployment is a crucial indicator of the socio-economic development of society. It is believed that the greater the unemployment rate, the more declining the social and economic situation of a state.

Given that unemployment is always present in any economy, a relatively "natural" rate of unemployment has been established. It is tied to full employment and it is taken into account in macroeconomic forecasts. Due to the fact that during pandemic unemployment in Russia exceeded the rates of recent years and broke through the accepted norms of natural rate of unemployment, this subject is getting more relevant. Unemployment is one of the permanent macroeconomic phenomena inherent in all types of socio-economic systems. According to S.P. Avramov, unemployment is a socio-economic phenomenon, the essence of which is that part of the labor force (economically active population) is not employed in the production of goods and services [2, p. 32].

M.O. Galagurya argues that unemployment is a condition during which the ablebodied population is looking for, but cannot, for one reason or another, find a job [4, p. 41].

Unemployment, according to the OECD, is persons above a specified age not being in paid employment or self-employment but currently available for work during the reference period.

According to the legislation of the Russian Federation, unemployed are able-bodied citizens who do not have earnings and work, are registered with employment services in order to find a suitable job, are looking for work and are ready to start working [1].

Factors that affect demand for labor at the meso and micro levels: salary; labor productivity; demand for goods that are produced as a result of this type of labor; age of the employee; replacement of labor by other factors of production; number of employers; expansion of production at some enterprises.

Factors that affect the supply of labor at the meso and micro levels: the number of highly skilled workers; working conditions (prestige, status, social security); salaries and working conditions in similar workplaces; employee's standard of living; changes in demography of the state; costs associated with changing jobs; activity of trade union organizations; state regulation of the labor market; time factor [3, p. 12].

In conditions when most of the factors negatively affect the demand for labor, unemployment arises. Main types of unemployment are shown in Figure 1.

Structural unemployment refers to a Cyclical unemployment is the mismatch between the jobs available component of overall unemployment and the skill levels of the that results directly from cycles of unemployed. It is caused by forces economic upturn and downturn. It other than the business cycle. 1 It typically rises during recessions and occurs when an underlying shift in declines during economic the economy makes it difficult for expansions. some people to find jobs. Types of unemployment Technological unemployment, caused by technological change. Frictional unemployment Technological change typically voluntary and a direct result of includes the introduction of labortemporary transitions in employment. saving "mechanical-muscle" machines It is the result of workers searching or more efficient "mechanical-mind" for new employment or transitioning processes (automation), and humans' from their old jobs to new ones. role in these processes are minimized.

Figure 1 – Unemployment types [4, p. 149]

Following causes of unemployment are distinguished (Figure 2)

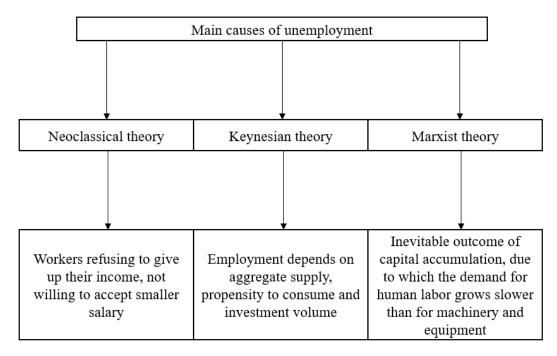


Figure 2 – Main causes of unemployment in macroeconomics [9, p. 11]

Quantitative analysis of unemployment is usually done using two complementary indicators. The first is the unemployment rate, which reflects the share of unemployed in the total working-age population:

Unemployment rate =
$$\frac{\text{Unemployed workers}}{\text{Total labor force}} \times 100$$
 (1)

To calculate the labor force indicator, the number of children and adolescents under 16 is subtracted from the total population of the state; full-time university students and students; retirees (for all retirement reasons); people who are in places of detention; individuals engaged in individual households; incapacitated citizens (mentally ill); military personnel.

The labor force indicator is made up of two important elements - unemployed and employed. Therefore, the unemployment rate is calculated using the formula:

Unemployment rate =
$$\frac{\text{Unemployed}}{\text{Unemployed} + \text{Employed}} \times 100$$
(2)

When calculating unemployment, there are many inaccuracies. Often times official estimates of unemployment rate lower the numbers, or exaggerate [8, p. 63].

Second indicator is the average duration of unemployment - time during which a person was unemployed.

Duration of unemployment is the time between the day a citizen is registered as "unemployed" and the day he is removed from the register at the employment center at his place of residence. "Duration of unemployment" is divided into periods: up to 1 month, from 1 to 4 months, from 4 to 8 months, from 8 months to 1 year, over 1 year [2, p. 44].

Average duration of unemployment is determined by calculating the average in the interval series. The interval series is presented in the form of periods of duration of unemployment. The calculation is made by multiplying the middle of the interval series of periods of unemployment duration by the number of unemployed in these intervals. The resulting works are summed up and divided by the total number of unemployed. There is an indicator "duration of completed unemployment", which represents the distribution of the unemployed by duration, where the duration is defined as the time between the day a citizen is registered as "unemployed" and the day he is removed from the register due to employment [8, p. 64].

So, unemployment and the level of employment are important indicators by which one can draw a conclusion about the economic development of the country, and without regulating this problem it is impossible to achieve necessary performance in the activity of the economy.

Unemployment rate is one of the most important factors that outline economy of a region or a country. It is believed that with an increase in unemployment, the economic situation is worse and the quality and standard of living of residents is lower. But since unemployment is a phenomenon inherent in any economy and any country, then the concept of "natural" unemployment rate is distinguished. Immediately, we note that such a name is conditional. Moreover, each country has its own "natural" level.

By definition, the natural rate of unemployment is a rate at which full employment of work force is provided, meaning anyone seeking for a job will find it. As such it's called full-employment rate of unemployment, and the output respective to natural rate of unemployment is called natural output. [5, p. 8].

Since full employment of the labor force means that there is only frictional and structural unemployment in the economy, the natural unemployment rate can be calculated as the sum of levels of frictional and structural unemployment:

$$u^* = (u_{frictional} + u_{structural} = (U_{frictional} + U_{structurak})/L) * 100\%$$
(3)

Currently, employment is considered full if the unemployment rate is no more than 4-5% [10]. All countries have unique potentials. Even under equal conditions of management and development, value of natural indicators of unemployment is different for each state.

The optimal level of unemployment, according to Rosstat and most experts and politicians, in Russia is 5–7%, the ideal case is 5%. It allows the average income of the population to grow and maintain a good social and economic situation. In countries with stable economies, this figure is even higher: in the USA - 5.5%, in Germany - 6.4% [10].

The fight against unemployment has to be carefully planned, taking into account all potential consequences. Since regulatory measures can lead to acceleration of inflation against the backdrop of rising wages. The state will have to respond to negative trends. This will lead to a tightening of financial policy, a budget deficit, and a reduction in government spending.

The presence of frictional, structural, seasonal unemployment is a sign of effective market relations. But regulation of processes is a necessity. In countries with a high level of GDP, governments are developing measures to restrain the growth of the indicator above the permissible norm [3, p. 13]. Next, let's take a look at the correspondence of the unemployment rate in Russia to the "natural" one. Official data was derived from the analysis of Rosstat data

In general, the economically active population is people who work or are actively looking for work. The economically active population in Russia is shown in Figure 3.

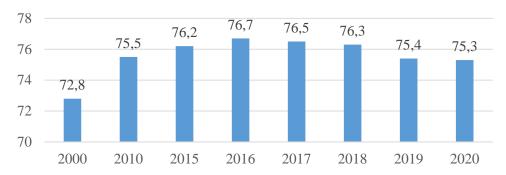


Figure 3 - Dynamics of the economically active population in 2000-2020, mln. people (at the end of the period)

Source: [12]

Based on the diagram, an increase in the number of active population by the end of 2020 can be noted compared to 2000 by 2.5 million people, while compared to 2016 (peak of activity) the decrease was 1.4 million people.

The dynamics of employment of the population is shown in Figure 4. The dynamics shows the growth of employment by the end of 2020 compared to 2000 by 5.6 million people, but in comparison with 2018 (peak of employment) - decrease by 1.9 million people. This indicates difficulties in raising the standard of living of population, issues with employment policy and regulations of the labor market.

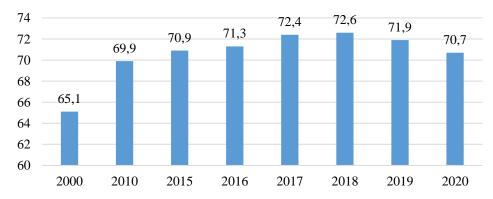


Figure 4 - Dynamics of employment of the population of Russia in 2000-2020, mln. people (at the end of the period) Source: [12]

Figure 5 shows the dynamics of the unemployment rate in Russia in the study period.



Figure 5 - The unemployment rate in the Russian Federation in 2000-2020, at the end of the period, per cent Source: [12]

Due to Coronavirus and lockdown restrictions unemployment rate increased by 1.5 p.p. compared to 2019 and became the highest in the last 5 years. In addition, there is hidden unemployment, since not all unemployed are registered with the employment service, as well as underemployment, which is not reflected in statistics.

As for the second important indicator of unemployment - its average duration, the dynamics is shown in Figure 6.

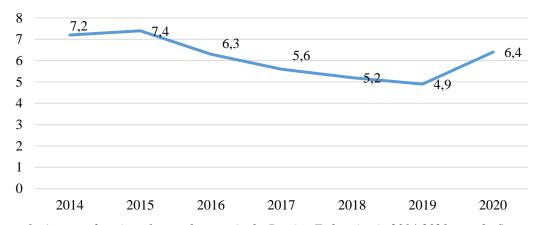


Figure 6 - Average duration of unemployment in the Russian Federation in 2014-2020, months Source: [12]

The average duration of recorded unemployment at the end of 2020 was 6.4 months, an increase compared to the number at the end of 2019 by 1.5 months, which also became the worst indicator over the past 5 years. Compared to 2015, which was the peak of the second wave of the crisis, the duration of unemployment is still 1 month less. [12].

In 2020 it is notable that in general, in the first half of the year, and especially in April-May 2020 the situation has become worse due to the coronavirus. Interestingly, the growth in the number of unemployed in April 2020 in annual terms (that is, by April 2019) was 21%, and compared with March 2020 - 23.4%, follows from the data of Rosstat [12]. Thus, the unemployment rate in April was 5.8% of the labor force after 4.7% in March 2020, which is the highest value since April 2016 [11]. All the while according to analysts' calculations in the second quarter of 2020, which was the peak of the coronavirus in Russia, the number of unemployed in Russia reached 9.3 million people - 12.1% of the economically active population of the country, which is twice as much as the official Rosstat data. If we take into account the Russians transferred to part-time employment and sent on leave without pay, then the number of actually unemployed turns out to be even higher.

And just in September 2020 alone the total number of unemployed in Russia decreased by 31 thousand compared to August, amounting to 4.78 million people. [12]. This is the first cut since the start of the coronavirus pandemic. Until the end of the year, the

unemployment rate declined slightly, but generally remained above the government's target levels.

Ministry of Economic Development of the Russian Federation laid out a basic version of the macro forecast the average annual unemployment rate in 2020 at 5.7% of the labor force after 4.6% in 2019. In 2021, the average annual unemployment rate was expected to decrease to 5.4%, in 2022 - to 4.9%, in 2023 - to 4.7% [11]. Forecasts for 2020 were not destined to come true.

To answer the question as to what the unemployment rate in Russia in 2021 is going to be, many focused on the inevitability of taking into account the coronavirus, economic and geopolitical factors, and the restructuring of the economy in relation to the extension of sanctions. At the same time, according to government data, by the end of 2021 the number of employed (according to the methodology of the International Labor Organization) will practically reach the level of 2019 (on average, 71.7 million people per year, compared with 71.9 million people in 2019). ... The average unemployment rate for 2021 will be 5.2%. In 2022-2023 the unemployment rate is forecasted at the level of 4.7% and 4.6% [11], respectively, that is, it will actually reach the "natural" level.

In general, the economic essence of natural unemployment lies in the policy of achieving market equilibrium. Trends such as declining real wages, imperfect level of competition, distorted information, unregulated migration cause negative "leaps" in interest rates. It's never zero but when it is controlled, special directions and measures are used (Figure 7).

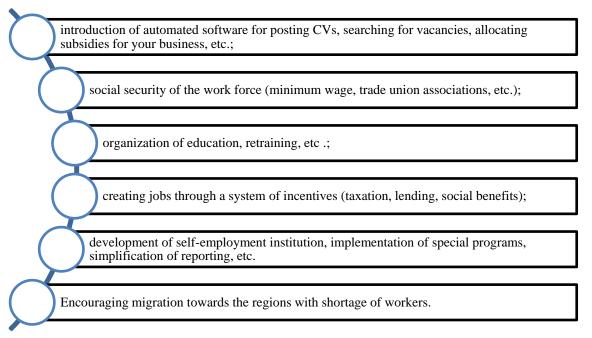


Figure 7 – Measures to keep unemployment at the natural rate Source: [10]

In Russian circumstances it is worth considering the scale of hidden unemployment. We believe that the following programs can also be involved in solving the problem of unemployment:

- special programs in the field, for example, industrial development (they would provide both economic and employment growth);
- programs aimed at ensuring accessibility to all those in need of additional vocational training or retraining;
- special programs to assist in the development of small business (individual private and family enterprises).

The maximum effect of the programs can only be reached with the help of their operational regulation and adaptation to ever-changing socio-economic situation in the country, and a predominant focus on increasing the competitiveness of goods and services.

Based on the results of our research, the following conclusions can be drawn:

1. According to Russian law, unemployed are able-bodied citizens who do not have work and earnings, are registered with the employment service in order to find a suitable job, are looking for a job and are ready to start it.

Among the main types of unemployment, it is worth highlighting frictional, cyclical, structural, etc. Full and underemployment as a category interconnected with unemployment affects the statistics of unemployment and the labor market as a whole.

- 2. Because unemployment is a phenomenon inherent in any economy and any country, then the concept of "natural" unemployment rate is defined. Let's note that it's natural in the name only. Moreover, each country has its own "natural" level. Natural unemployment rate is a phenomenon of unemployment of the population, when a certain proportion of people move between enterprises, industries, due to the search for better conditions, specializations or depending on the season. The indicator corresponds to the efficient and rational use of labor resources. The natural level is considered to be the unemployment rate of 4-5%.
- 3. According to the Federal Statistics Service, the unemployment rate increased in 2020 due to the coronavirus and quarantine restrictions. by 1.5 p.p. compared to 2019 and became the highest in the last 5 years (6.1%). The average duration of registered unemployment at the end of 2020 was 6.4 months, an increase compared to the value at the end of 2019. by 1.5 months, which also became the worst indicator over the past 5 years.

According to government, the average unemployment rate for 2021 will be 5.2% In 2022 - 2023, it is projected at 4.7% and 4.6%, respectively, that is, in fact, it will reach the "natural" level.

- 4. Specifics of employment and unemployment in the Russian Federation in 2020-2021 suggest, in our opinion, the following measures:
 - stimulation of industry, trade and public works;
 - development of a system of public-private partnership, including in the field of small business;
 - it is necessary to simplify as much as possible the registration and payment of unemployment benefits and increase its size by at least 25%, calling it, for example, "a temporary subsidy due to loss of income due to forced self-isolation";
 - to increase the state order, subject to the preservation of employment at enterprises;
 - to subsidize the arrears of payments for utilities of unemployed Russians;
 - to increase the period of granting gratuitous subsidies to small and mediumsized enterprises for the payment of wages based on the minimum wage per employee up to one year;
 - consider the option of easing the conditions for the appointment of an early pension.

Thus, it is possible to try to provide a reliable economic and social basis during the crisis for the development of production, the formation of new jobs, which will expand the sphere of effective and full employment, i.e., the "natural" unemployment rate.

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