



## THE RELATIONSHIP BETWEEN THE UNEMPLOYMENT RATE AND ECONOMIC GROWTH: BASED ON A. OKUN'S LAW AND THE THEORY OF NATURAL UNEMPLOYMENT

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### ABSTRACT

*This article discusses the economic content of unemployment, methods for measuring its level, as well as the essence of the theory of natural unemployment. The existence of frictional and structural unemployment in the labor market is explained. The article analyzes the economic consequences of unemployment - a decrease in production, a decrease in national income, and a negative impact on social stability. It is also substantiated that, according to A. Okun's law, each percentage increase in the unemployment rate above the natural rate leads to a certain decrease in gross domestic product. This theoretical approach is of great importance in determining the economic cost of unemployment and developing labor market regulation policies. The results of the study show that improving employment policy, improving labor force skills, and increasing labor market flexibility are effective ways to reduce unemployment.*

**Introduction.** Unemployment is the situation where a portion of the economically active population is unable to find suitable work and becomes part of the labor reserve. In Uzbekistan, the concept of unemployment officially gained legal force with the adoption of the "Law on Employment of the Population" in 1992 (a new version of this law was adopted on May 1, 1998).

Unemployment is one of the major socio-economic problems that directly affects human interests. Losing a job leads to a decline in family living standards for many people, causes personal life instability, and has a serious psychological impact on individuals.

In current economic life, unemployment manifests as the supply of labor exceeding the demand for it. The causes of unemployment vary: with technological development, labor productivity increases, and compact, low-labor jobs remain. In the economy, the balance of total supply and demand is disrupted; a decrease in market demand for goods also reduces the demand for labor, resulting in a surplus of labor force. With economic development, the demand for skilled labor increases, while unskilled workers become unnecessary; in cases where the population grows faster than workers, a part of it becomes surplus and remains unemployed.

The unemployed are a part of the labor force who are not employed in social production but wish to work and are actively seeking employment.

**Measuring Unemployment.** The unemployment rate is defined as the ratio of unemployed people to the labor force (in percentage) and can be determined by the following formula:

Unemployment rate = (Number of unemployed / Labor force) × 100

**Types of Unemployment.** The following types of unemployment exist:

**Frictional unemployment** - temporary unemployment due to various reasons (moving to a new place of residence, changing profession, childcare, choosing a new job). This is considered voluntary unemployment.

**Structural unemployment** - occurs when people who worked in old sectors have not yet acquired the skills needed for new sectors when the production structure changes.

**Cyclical unemployment** - related to economic downturns, resulting from a decrease in production. This is forced unemployment.

**Seasonal unemployment** - occurs when people employed in seasonal work become unemployed after the season ends.

**Structural unemployment** - this is a type of unemployment that arises as a result of changes in the economic structure when the skills, profession, location, or knowledge of the existing labor force no longer match the demand in the labor market. That is, there are job vacancies, but there are not enough qualified personnel for them, or the skills of existing workers do not meet the requirements. This type of unemployment is usually long-term and difficult to resolve in a short time.

**Hidden unemployment** - when officially employed people work only part-time. This includes those who have switched to shortened workdays or workweeks, and those who have taken unpaid leave due to lack of work.

The unemployed, along with the employed, constitute the country's labor force. The main purpose of studying the problem of unemployment in the economy is to develop measures related to expanding the country's (enterprises') internal capacity and further improving the living standards of the population by improving employment.

It should be noted that the unemployed include not only those dismissed for various reasons, but also those who voluntarily left their jobs and are trying to find new work. The composition of unemployment includes 4 main categories of labor force depending on its causes: those who lost their jobs as a result of dismissal; those who voluntarily left their jobs; those looking for work after a break; and those looking for work for the first time. The interrelationships between these categories depend on the stages of economic development.

At the national level, an unemployment rate of 3-5% is considered normal for the economy (the natural limit of unemployment). To reduce the unemployment rate, population employment programs are developed, enterprises are built, new jobs are created, staff are trained and retrained for new professions, and employment support funds are established. According to labor laws, unemployed people receive unemployment benefits through labor exchanges.

**Natural Unemployment Theory.** Natural unemployment is the minimum and inevitable level of unemployment that exists even when the economy is fully stable. That is, the lowest unemployment that the economy can achieve without increasing inflation. According to this theory, it is impossible to reduce unemployment to zero, because in the labor market people change jobs, skills do not match, or for other reasons, people remain temporarily unemployed.

**Economic Consequences of Unemployment. A. Okun's Law.** When all available resources are fully utilized or at the natural rate of unemployment, the volume of products that can be created in the economy is called the production potential of the economy. The country's production potential is measured by the potential GDP indicator. Due to macroeconomic instability, during economic downturns, the country does not fully utilize its economic

potential, and the created real GDP ( $Y_h$ ) falls behind the potential GDP ( $Y_p$ ) volume. That is, a GDP gap (YUZ) occurs.

$$YUZ = (Y_h - Y_p) / Y_p \times 100$$

Potential GDP refers to the production volume possible when all production resources in the country are fully utilized. When calculating potential GDP, it is assumed that unemployment in the country is not completely absent, but exists at a natural level. As a result of an increase in the unemployment rate, the economy cannot achieve the potential GDP volume. Therefore, maintaining and regulating unemployment at its natural level at the national level is of great economic importance.

The higher the actual unemployment rate is above its natural rate, the greater the GDP gap. Therefore, potential GDP is greater than actual GDP. The quantitative relationship between the unemployment rate and GDP gap was mathematically proven by English economist Arthur Okun. Therefore, this law is called Okun's Law.

The essence of the law is that if the actual unemployment rate exceeds its natural rate by one percent, that is, if cyclical unemployment is 1 percent, the national economy produces 2.5 percent less GDP. A lower GDP level, in turn, indicates relatively lower incomes of production participants and reduced opportunities to invest in future economic development. Okun's Law allows determining the volume of product losses at different levels of unemployment. Currently, this coefficient, called the  $\beta$  coefficient, is considered to be in the range of 2 to 3 percent.

Okun's Law can be represented in the formula as follows:

$$YUZ = -2.5[u - u^*]$$

Where:

$u^*$  - natural unemployment rate

$u$  - actual unemployment rate

By combining the formula expressing the GDP gap with Okun's Law formula, we get the following general formula:

$$(Y_h - Y_p) / Y_p \times 100 = -\beta[u - u^*]$$

Let us consider the inverse aspect of the quantitative relationship explained by Okun's Law. Economic studies show that a 2-3 percent increase in GDP does not lead to a 1 percent reduction in cyclical unemployment. That is, the initial 1 percent economic growth can be achieved through increased efficiency of resource use as a result of scientific and technological progress, and during this period, population growth also prevents a decrease in the number of unemployed. However, every 2-3 percent economic growth above the initial 2-3 percent leads to a 1 percent reduction in cyclical unemployment.

Therefore, to eliminate 1 percent cyclical unemployment, 4-6 percent annual economic growth must be ensured.

**Conclusion.** Unemployment is one of the most important economic and social phenomena in the labor market. Through measuring the unemployment rate, it is possible to assess the employment situation in the country, the level of economic activity, and the living conditions of the population. Analyses show that not all types of unemployment are the same, and each has different effects on the economy.

According to the natural unemployment theory, a certain level of unemployment consisting of frictional and structural unemployment is inevitable and normal in any developed economic system. Reducing it to zero is not only impossible but can also harm economic stability, as the labor market is always in motion and in the process of adaptation.

The economic consequences of unemployment are very broad: a decrease in production volume, loss of national income, increased government budget expenditures, decline in population welfare, and increased social tension. Okun's Law is of important theoretical importance in determining the losses that unemployment brings to the economy. According to this law, each percentage point increase in the unemployment rate above the natural norm

leads to a certain decrease in national production volume, which clearly shows the macroeconomic cost of unemployment.

Thus, effective management of unemployment, increasing flexibility in the labor market, improving the skills of the workforce, and structural modernization of the economy are considered as the main factors for ensuring employment. Achieving stable employment in the labor market is an important condition not only for economic growth but also for social stability and improving population welfare.

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