

# THE INVERSE RELATIONSHIP BETWEEN THE ESSENCE OF INFLATION AND UNEMPLOYMENT AND ANTI-INFLATIONARY POLICIES

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## **Abstract:**

This article examines the essence of the term inflation, types of its calculation, theoretical aspects of the inverse relationship between inflation and unemployment and its impact on the economy, and analyzes anti-inflationary policy.

**Keywords:** Inflation, anti-filiation, Phillips curve, fiscal and monetary policy, consumer price index, manufacturing price index, unemployment.

## **Introduction**

Inflation is considered to be one of the indicators of macroeconomic stability in the conditions of a market economy, and at a time when globalization processes are underway on a global scale and are moving to a holistic system based on single market relations, the category of inflation is an important economic concept. In particular, in order to stabilize inflation rates in the country, the issue of ensuring that the annual inflation rate is up to 9% and the fiscal deficit is up to 4%, and subsequently the development of measures to reduce inflation and the state budget deficit is included in the "Uzbekistan 2030" strategy.

Inflation and unemployment are important structural components of the economy that have a direct impact on a country's macroeconomic stability and living standards. Inflation manifests itself mainly in the form of price increases and depreciation of money, leading to a decrease in stability in the economic system. This leads to negative consequences such as a deterioration in the well-being of the population, a decrease in the purchasing power and a slowdown in investment

activity. High levels of inflation, in turn, will cause economic growth to slow down.

Unemployment, in turn, is the result of incomplete and efficient use of resources in the economy, causing social and psychological problems. An increase in the number of the unemployed leads to an incorrect distribution of resources in the economic system and an increase in social inequality in society. The correlation between inflation and unemployment and their interactions is clearly shown through the Phillips curve, and these relationships play an important role in the effective implementation of economic policy.

In addition, anti-inflationary policies are necessary to control the level of inflation and mitigate its negative consequences. This includes the central bank's monetary policy, the government's fiscal policy, the tax system, and economic reforms aimed at improving production efficiency. These measures are an important tool in controlling inflation and are of great importance in maintaining economic stability.

Thus, effective management of inflation and unemployment are necessary measures to ensure sustainable growth of the country's economy, increase social welfare, and efficient allocation of resources in the economic system. The relevance of the topic stems from the need to ensure sustainable economic growth and social welfare by controlling inflation and unemployment, especially in the modern economic environment.

### **Analysis of literature on the topic**

Inflation is a steady increase in the average (general) level of prices in a country over a certain period, a long-term decrease in the purchasing power of money. Inflation (from Latin *inflationio* - swelling, curl, tension) is one of the main trace factors of the market economy, the higher its pace, the greater the dangerous impact on the economy.

In an inflationary period, the prices of all goods do not always increase, the prices of some goods may remain stable or even decrease.

The term "inflation" was first used in North America during the Civil War of 1861–1865. The term basically denoted a situation in which the paper money supply in circulation overflows relative to the real supply of goods. However, such a description of inflation is far from perfect, nor can it fully explain its root causes. In general, inflation refers to a violation of macroeconomic equilibrium,

an imbalance between supply and demand as a result of a violation of the laws of money circulation.

Representatives of the Keynesian school (John Maynard Keynes, Joan Robinson) considered the main cause of the imbalance to be an excessive increase in demand in conditions of full employment. Therefore, they argued that increasing purchasing power (i.e., gross demand) through budget deficits and the issuance of additional money will not lead to inflation as long as the level of efficient utilization of productive capacities is low.

Representatives of the neoclassical school (Alfred Marshall, Robert Lucas), on the other hand, saw the causes of inflation in excessive production growth and increased production costs. So the Keynesians understood inflation as a process caused by demand, while the neoclassicists understood it as a process caused by supply.

### **Research Methodology**

Since the article is a scientific object of studying the theoretical aspects of the inverse relationship of inflation with unemployment, in the process of analysis, mathematical modeling, induction, as well as historical and logical correlations were widely used.

### **Analysis and Results**

Inflation is the result not only of a disruption of the money circulation, but also of a disruption of the mechanism of integral reproduction, i.e., macroeconomic distortions. In addition to the growth of market prices, the decline in the purchasing power of the monetary unit, there are the following three signs of inflation manifestation:

1. fluctuations in exchange rates;
2. Increasing prices and decreasing terms of lending;
3. Growth in the price of the consumer basket consisting of daily necessities.

The relative variation in the average of prices is referred to as the inflation rate. In macroeconomic models, the inflation rate can be expressed as:

$$\Pi = \frac{P - P_{-1}}{P_{-1}}$$

In this:

$\pi$  is the annual inflation rate;

P - the price index of the current year;

P-1 – bazis narx induction.

The so-called "70-sum rule" is also used in macroeconomics to measure the amount of inflation. The essence of this method is to show that if prices increase in stable conditions, after several more years the price will double. To do this, it is enough to divide 70 by the annual inflation rate. I mean:

Number of years required for grades to double =  $70/\pi$

For example, the Inflation Chart in 2024 in Uzbekistan showed an aging 10%. This means that if the inflation rate is 10%, the rate of prices will double in 7 years ( $70/10=7$ ).

See also[edit] That is, the economy's productive capacity close to full employment cannot keep up with growing gross demand. Or, it arises from an increase in prices for goods and services as a result of a decrease in the supply of goods and services in the country's economy.

In the context of expected inflation, there is a need to take measures to reduce the impact of inflation on income, that is, maintain the level of real income. To calculate this, the Fisher equation can be used:

$$i = r + \pi_{kut}$$

here:

i-nominal interest rate;

r- real foiz strikers;

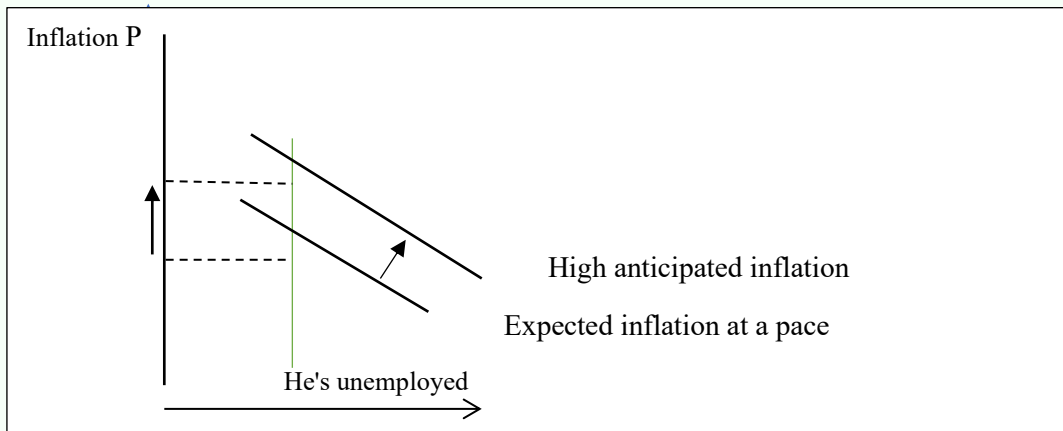
$\pi_{kut}$  is the expected inflation rate.

When the inflation rate exceeds 10 percent, the Fisher equation looks like this:

$$r = \frac{i - \pi_{kut}}{1 + \pi_{kut}}$$

As the economy approaches potential levels in its development, it will be forced to choose between alternative options such as either increasing employment or lowering the inflation rate. That's because in the short term, there's an inverse correlation between unemployment and inflation. Reducing unemployment means that additional funds need to be allocated to create jobs, which in turn will lead to higher wages. As a result, both conditions lead to an increase in the price level, that is, the occurrence of demand inflation.

Inflation is calculated by the Philips curve to calculate the correlation between unemployment and unemployment.



- $u$ — the current unemployment rate.
- $u^n$ — the level of natural or normal unemployment, that is, a consistent and stable level of unemployment in the economy.
- $\beta$  — the coefficient of elasticity between unemployment and inflation (usually positive).

If the **unemployment rate**  $u$  is below the natural level (i.e.,  $u < u^n$ ) - that is, unemployment has decreased, the rate of inflation will  $\pi$  increase. This may be due to increased demand and rising wages, which will lead to an increase in the price level. If the unemployment rate is high, the rate of inflation will go down, as declining demand and slowing wages will prevent prices from rising.  $u^n$

Suppose the natural unemployment rate ( $u^n$ ) is 6%. The government relaxed monetary policy in an attempt to stimulate economic growth, resulting in an unemployment rate falling to 4%. We will determine how the rate of inflation will change in the process.  $u^n$

$\pi^e = 8\%$  (expected inflation rate)

$\beta = 1.2$  (elastic coefficient)

$u = 4\%$  (current unemployment rate)

$u^n = 6\%$  (natural unemployment rate)

Solution of the issue:  $\pi = 8\% - 1.2 \times (4\% - 6\%)$   $\pi = 8\% - 1.2 \times (-2\%)$

$$\pi = 8\% + 2.4\% \quad \longrightarrow \quad \pi = 10.4\%$$

Inflation increased from 8% to 10.4% as the unemployment rate fell below its normal level of 6%. This shows that inflation increases when unemployment decreases, according to the Philips curve.

The economic experience of developed countries shows that great achievements have been made in the fight against inflation, both theoretically and practically.

However, it is practically impossible to completely eliminate inflation, since the factors contributing to its formation (internal and external, monetary and nonmonetary) cannot be completely eliminated. Therefore, the main goal of modern economic strategy is not to completely eradicate inflation, but to control and control it, as well as to minimize its economic and social negative effects.

World experience has shown that each country develops different anti-inflation policies based on its level of development, economic, social conditions. Anti-inflationary policies can be active aimed at eliminating the causes of inflation and passive aimed at adapting to inflationary conditions. The anti-inflationary policy is conducted in two ways: **an active anti-inflationary policy** – ensuring price stability through monetary and fiscal measures. **Passive anti-inflationary policy** is allowing the economy to adjust to the inflationary conditions. Anti-inflationary policies include:

- regulation of gross demand;
- adjustment of the gross offer;

Representatives of the Keynesian school of economics believe that it is possible to increase the volume of gross supply by supporting the first line of anti-inflationary policy, stimulating effective demand through government orders and cheap credit policies. They believe that such measures will significantly ease the processes of economic slowdown and help reduce the unemployment rate. However, such a policy could lead to a government budget deficit and create the need for additional monetary issuance. Keynes proposed to cover the government budget deficit through long-term government debt, through which he aimed to support economic activity and keep inflationary pressures under control.

Adherents of the monetarist direction of anti-inflationary policy came into being later, when the Keynesians' proposals to combat inflation were not always effective and shortcomings were revealed. In particular, public debt has been exaggerated in a number of countries. Under these conditions, monetarists proposed methods of radical disinflation. They proposed limiting gross demand through confiscation-type monetary reform and reducing the budget deficit by cutting social programs.

The essence of anti-inflationary policy. Anti-inflationary policy is a measure to combat inflation through monetary reforms by government agencies. The methods of monetary reform are as follows:

- abolition, i.e. announcement of the exclusion of obsolete monetary units and the introduction of new ones.

– devaluation, that is, a decrease in the composition of gold in monetary units or a decrease in the exchange rates of gold, foreign currency, silver in national currencies.

- Denomination, i.e. a method of cutting out zeros.

The main measures to reduce inflation:

- An explanatory policy, the purpose of which is to establish the most trusting relationship with the public on public finances and its political activities. This policy is done through the media;

- Establishment of a stabilization fund whose purpose is to support the national currency through interventions, as well as minimize cyclical penalties in the economy;

Formation of a stable exchange rate, as well as the introduction of certain restrictions on foreign exchange and foreign economic policy;

- Increase exports and import reduction to strengthen the position of the national currency

Today, the fight against inflation has become an important factor in ensuring the competitiveness of the national economy. In 2003, the sharp decline in the inflation rate calculated on the basis of the consumer price index was influenced by changes in macroeconomic policy and changes in methodology. An example of such changes is the tightening monetary policy of the Central Bank to compensate for the state budget deficit since 2003, measures aimed at controlling inflation. According to the data, the consumer index in 2024 was 109.8%, that is, an increase of 9.8% compared to December last year. Also, in November 2024, the headline consumer price index was 100.9%, indicating an increase of 10% compared to November last year. In January 2025, the consumer price index in the Republic of Uzbekistan increased by 0.7% compared to December last year. On an annual basis, that is, compared to January 2024, the consumer price index increased by 9.9%. In January, food prices rose in price by an average of 0.8%, non-food goods by 0.3%, and paid services provided to the population by 1.1%. These indicators reflect the growth of the inflation rate in the country and the increase in prices in various product and service segments.

## **Conclusion and Suggestions**

Inflation is an indicator of the country's economic development as an economic category, which means a steady increase in the average (general) level of prices in a country over a certain period and a long-term decrease in the purchasing power of money. In world practice, it is observed that the best solutions to controlling inflation rates are methods of changing the composition of taxes, reducing the share of direct taxes in gross tax revenues, increasing the share of indirect taxes, reducing rates, strengthening their incentive functions, reducing state budget expenditures. Anti-inflationary policy is aimed at ensuring a stable price level in the economy, keeping unemployment at an acceptable level and stimulating economic growth. As a result of our research and research, we have developed the following proposals to bring down inflation:

First, it is necessary to ensure long-term stability by adapting monetary policy to the causes of inflation. Thanks to this method it is important to increase the liquidity of the banking sector and control the orientation of loans to production.

Second, Optimization of Tax and Budget Policy. In this process, effective planning of public expenditures in order to reduce the budget deficit; improving the efficiency of public investment and reducing the impact of social spending on inflation; It is advisable to focus on increasing budget revenues by reducing the hidden economy and controlling the payment of taxes.

Thirdly, it is possible to control inflation through systemic measures such as stabilizing prices by forming stocks of food and strategic products in the domestic market, regulating energy prices and increasing efficiency in the energy sector, and reducing the cost of products by improving the transport and logistics system.

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