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REVIEW PAPER

Statistical Analysis of Inflationary Processes' Impact on Economic Development: Trends, Mechanisms and Models

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ABSTRACT

In the current environment of global economic instability and growing competition, statistical analysis plays a key role in forecasting complex economic phenomena. The inflationary process is one of the crucial aspects that determine the economic situation in a country. Inflation, as a complex phenomenon, has a significant impact on pricing and financial stability. The analysis of the scientific literature shows a growing interest in studying the impact of inflationary processes on economic development. The research in this area reveals various aspects of the interaction between inflation and key economic indicators such as production, employment, and investments. The research findings systematize information on the mechanisms and models underlying the interaction between inflation and economic growth. They contribute to the formulation of strategies for managing financial stability. While writing this article, the authors analyzed the dynamics of the inflation rate in Ukraine over the past ten years. The analysis aims to reveal various factors that affect inflationary processes and their impact on multiple aspects of the economic system. The dynamics of inflation, as well as models that help to forecast economic changes, were determined through the prism of statistical analysis. The study of inflation statistical indicators in the context of economic development aims to broaden the understanding of this phenomenon. It also helps to provide grounds for further research and effective management of the country's economy. The authors analyze the impact of inflation on economic development, reveal the factors that lead to price fluctuations and unemployment, and discuss the importance of statistical analysis for understanding and managing economic phenomena.

HIGHLIGHTS

- Inflation, as a complex socio-economic phenomenon, significantly impacts a country's economic system, leading to negative consequences such as hindering long-term investments, causing currency displacement, and creating obstacles to stable societal development.
- The Ukrainian government's measures to control inflation, including anti-inflationary policies and stimulating entrepreneurship, demonstrate a comprehensive approach to overcoming the challenges posed by rising inflation rates. The dynamics of the Consumer Price Index in Ukraine, marked by fluctuations, reflect the country's efforts to manage inflationary trends amidst external and internal crises.

Keywords: Inflation, inflationary processes, inflation mechanisms, statistical analysis, economy, economic development, Consumer Price Index, interest rates, unemployment, tendencies, statistical model

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The dynamics of inflationary processes are an integral component of the financial-economic system in the modern economic environment. For this reason, a statistical analysis becomes a crucial tool for understanding and forecasting their impact on economic development. An increase in prices for goods and services directly affects the population's purchasing ability, the investment climate, and the overall stability of the economy.

The relevance of conducting statistical analysis of inflationary processes' impact on economic development is driven by the need for a more detailed examination of the factors determining trends and mechanisms for inflation control. It also involves the development of effective management strategies to ensure the stability of the financial-economic sector. In this context, the analysis of the impact of inflationary processes is a significant task for the development of monetary policy strategies and for making informed decisions at the government and business levels.

The article focuses on the impact of inflationary processes on economic development, in particular in the context of the Ukrainian economy. Based on a review of scientific literature, the authors identified the key trends and mechanisms of inflationary processes, as well as their relationship with various aspects of financial and economic development. In addition, based on the findings of the statistical data analysis, the authors identified the main challenges faced by the Ukrainian economy in the context of inflation. They also formulated prospects for further studies in this area.

Literature Review

Baumann, P., Rossi, E. and Volkmann, A. (2021) identified the key factors influencing inflation and models for its prediction in their research. The authors concluded that the main influencing factors on inflationary processes include:

- GDP per capita;
- production lags;
- demographic processes.

In addition, they provide compelling evidence of the fact that the interaction of energy prices and energy rents is the driving force behind inflation. The authors used quantitative money theory and the method of local regressions to forecast inflationary processes to substantiate their assumption.

In their research, Baqaee, D., and Farhi, E. (2022) explore the impact of the crisis caused by the COVID-19 pandemic on production volumes, demand for goods, unemployment, and inflation. They utilize a complex model with different economic sectors and factors. The analysis showed that sectoral factors contribute to high unemployment rates. In addition, the effectiveness of stimulating overall demand decreases due to the interaction of production factors.

Nesvetov O.O. and Dubrova Yu.M. (2023) investigated modern aspects of anti-inflationary regulation in Ukraine. They also identified key steps for further restraining inflation rates and achieving the set target level. It is noted that the success of inflation regulation depends on balanced measures by the government and the National Bank. In this context, the authors outlined key directions for action, including:

- developing state programs to stimulate competitive production;
- implementing transparent monetary and credit policies;
- improving the tax system with a regulatory focus.

In their study, Tarasevich, N.V. and Tretyak, I.V. (2022) concluded that inflation in Ukraine is one of the most acute problems in the country's economic development. The authors analyzed the socio-economic consequences and causes of deepening inflation, emphasizing the necessity of government regulation of inflationary processes. They also identified the current priority areas of anti-inflationary policy.

At the same time, Palekhova V. (2022) provided a detailed analysis of the evolution of scientific discussions on inflation during the pandemic. The author systematized the main factors that influenced inflation during martial law. She emphasized that, despite the importance of all specified factors, the prevailing supply-side determinants were the crises of global value chains during both the pandemic and martial law inflation. The author also noted that while the inflation during the pandemic was mainly related to "chip inflation," the new phase of inflation caused by the full-scale invasion is broader in nature. The new phase of inflation was driven by rising commodity prices and indicated its lasting impact and global consequences.

METHODS

The following methods were applied while conducting this study:

- Analysis of scientific literature. This method was used to define the basic concepts and mechanisms for preventing inflationary processes).
- Generalization method was employed to study current trends in economic development in the context of inflationary processes).
- Statistical data analysis. This method was applied to analyze the level of inflation and unemployment in Ukraine over the past ten years).
- Comparative analysis. This method was used to determine the most effective models and ways of influencing inflationary processes).

RESULTS

In the modern world, economic development is one of the key components of a country's and its economy's stability. However, the factors influencing this process are constantly changing. For this reason, they necessitate a deep and comprehensive analysis. Inflation is one of such crucial factors addressed at the macroeconomic level. Inflationary processes can significantly impact a country's economic development. It determines the economy's pace, stability, and competitiveness.

Inflation is a complex socio-economic phenomenon affecting numerous countries, including Ukraine. A high level of inflation complicates the economic system. In turn, it leads to negative consequences for long-term investments and economic growth. This phenomenon results in the displacement of the national currency by foreign ones in the domestic market. Such a situation creates severe obstacles to the stable development of the social, political, and other spheres of society. The impact of inflation extends beyond economic indicators, posing challenges for society in various aspects. While hindering long-term investments, inflation undermines the foundations of economic stability. At the same time, the displacement of the domestic currency by foreign currency deepens problems in foreign trade and balance of payments (Schacter, 2022).

Inflation mechanisms are closely related to the economy's interaction between aggregate demand and aggregate supply. When the inflationary money supply enters the economy, its active influence on the demand sector is observed. A recurring phenomenon of this nature can lead to the formation of a stable gap between overall demand and overall supply, creating conditions for inflationary imbalances in markets (Guerrieri *et al.* 2022). Therefore, to restrain inflationary processes, the state must employ appropriate tools and mechanisms within the defined government policy to prevent inflation (see Table 1).

As an example of the effective use of mechanisms to prevent inflationary processes, in early 2016, the National Bank of Ukraine transitioned to inflation targeting after preparatory work, including creating technical and institutional prerequisites. The process involved:

- The development of macroeconomic models.
- Ensuring the bank's independence.
- Implementing key elements of inflation targeting.
- Contributing to transparent monetary policy and the evolution of the monetary transmission mechanism.
- Enhancing the impact of the National Bank on inflation processes.

The approval of the Basic Principles for 2017 in December 2016 cemented inflation targeting as the Ukraine monetary and credit policy strategy (Voykhevich, 2023).

Inflationary processes at the current stage pose a severe threat to social, economic, and political stability in Ukraine and numerous countries worldwide. The rise in prices for goods and services negatively affects the competitiveness of domestic products. It promotes the import of substandard goods, leading to a decline in economic balance, a decrease in exports, and an increase in unemployment. This, in turn, contributes to the deformation of the economic structure and exacerbation of economic problems.

Table 1: Mechanisms for preventing inflationary processes

Name	Description	Influence
Changes in key interest rates	The National Bank of Ukraine used a monetary instrument to set a benchmark for banks and other financial market participants regarding the cost of raised and placed funds.	Changes in key interest rates have a significant impact on inflation and the functioning of the financial and economic environment. An increase in interest rates leads to an increase in the cost of credit resources, which, in turn, complicates access to financing and leads to a decrease in investment and consumer expenses. High-interest rates cause changes in the attractiveness of loans compared to alternatives, encouraging savings, thereby reducing turnover and affecting the dynamics of cash flow in the economy.
Short-term rate transmission	The mechanism of interaction between the key interest rate and inflationary processes.	The dynamics of long-term financial market yields and their relationship with the level of interest on government securities, in particular, domestic government bonds (DGBs).
Transmission of the rate through an exchange rate	The ability to carry out a financial and operational maneuver, which consists of obtaining a loan in one country at a lower rate and using the received funds to purchase bonds or other financial instruments in another country with a higher yield, resulting in potential profit from the difference in interest rates.	An increase in such interest rate is intended to stimulate an increase in foreign currency inflows. It leads to a higher demand for the national currency and a strengthening of its position in the foreign exchange market.
Inflation targeting	A strategic approach to monetary policy aimed at achieving a clearly defined inflation rate, which is the main target for the systematic management of economic processes.	Under these conditions, inflation does not impede sustainable economic growth. Long-term inflationary trends, which are determined by inflation expectations, influence business decisions on investment, borrowing, and prices, as well as shape the allocation of household income between consumption and savings.

Source: *Compiled by the authors based on (NBU, 2023).*

The increase in inflation stimulates increased demand for foreign currency, prompting currency speculation and capital outflows abroad, which, in turn, intensify pressure for price increases. In addition, inflationary processes significantly impact the credit sector. They reduce credit availability, as the value of money in the review period is unstable (Bartko, 2023).

The negative consequences of inflation are also used in some cases as a tool by banks and government institutions. For example, the tactic of short-term stimulation of inflation is used to devalue government debts. It involves the issuance of "non-productive" money aimed at increasing budget expenditures and boosting economic activity, although this also carries risks for economic stability and the financial system (Higgins, 2021).

The statistical analysis of the impact of inflationary processes on economic development becomes a key instrument for understanding this phenomenon and determining effective strategies for financial management. In this context, the study of a large amount of statistical data, such as consumer price indices, unemployment rates, and other economic indicators, can reveal complex relationships underlying the impact of inflation on the development of the national economy (Suprun, 2022).

In the Ukrainian economy, there are several reasons for inflation. In addition, this problem is highly complex and multifaceted. Despite numerous studies focusing on this issue, forming a unified and consistent concept of the causes of inflation becomes a real challenge. The diversity of research directions underscores the complexity of the problem and the variety of factors influencing inflationary processes.

The inflation issue in Ukraine is defined not only by theoretical aspects but also by significant practical consequences. Inflation, affecting price formation and causing severe damage to the country's economy, must be considered a complex dynamic system. A necessary consequence is a crisis in state finances, leading to a constant reduction in the real value of budget incomes and, consequently, forcing the state to restrict its expenditures.

Anti-inflationary policy, developed in response to changing conditions in the economic environment, becomes a necessity. By adapting and adjusting strategies depending on the situation, the Ukrainian government seeks to implement anti-crisis programs to protect against the impact of inflationary processes. The main challenges faced by the government include:

Issues with pricing for food products.

The influence of monopolies on prices, as well as

Stabilization of the hryvnia exchange rate (Tarasevich et al., 2022).

In modern conditions, various monetary, credit, budgetary, and tax measures aim to stabilize the economic situation and reduce inflationary pressure. In light of these challenges, it is essential to consider both the effectiveness of particular measures and their overall impact on Ukraine's economic development.

First and foremost, it is essential to develop measures aimed at harmonizing the pace of improving the population's standard of living, considering the actual capabilities of the economy. It is necessary to index the main fixed incomes of citizens, considering the growth of unemployment. Unemployment is known to be one of the negative consequences of inflation. The fight against it is determined by the need to ensure the social and economic protection of citizens (Bazaluk et al., 2020).

Secondly, the normalization of the exchange rate becomes an absolutely necessary measure to end any misunderstandings in international trade operations. As long as foreign currency is used for more than just imports and current payments, the strategy of "playing down" is doomed to failure.

In addition, some steps should be taken to improve the conditions for entrepreneurial activity. At the same time, it will help to reallocate part of citizens' funds from the consumer market to business development. It will not only support entrepreneurial initiatives but also expand the range of goods and services on the consumer market. Such an approach will promote economic activity and help balance the impact of inflationary processes on citizens' standard of living (Nesvetov et al., 2023).

Considering various economic and political changes, inflation takes on different forms and changes in its dynamics. It poses the task of detailed analysis of these changes and formulating the main causes of inflationary processes. In addition, inflationary processes interact with various aspects of economic development, affecting financial stability, consumer demand, and the overall economic climate. In this regard, it is essential to consider the context of economic and political realities to fully understand and address the complex economic problem in Ukraine (Mysak, 2022).

High unemployment and high inflation rates are significant manifestations of macroeconomic instability and quite acute social issues in the modern economy. Therefore, within the framework of researching the impact of these factors on the economic development of Ukraine, it is worth conducting a statistical analysis of indicators characterizing the inflation rate (Table 2) and unemployment over the past years.

Table 2: Inflation rate in Ukraine during 2013-2023

Year	Consumer Price Index, %	Inflation, %	Cumulative Inflation Index, %
2013	100,5	0,5	100,2
2014	124,9	24,9	100,7
2015	143,3	43,3	129,4
2016	112,4	12,4	181,5
2017	113,7	13,7	204,3
2018	109,8	9,8	233,1
2019	104,1	4,1	254,7
2020	105	5	262,9
2021	110	10	279,1
2022	126,6	26,6	307
2023	103,8	3,8	386,8

Source: *Compiled by the authors based on (Minfin Ukrainy, 2023).*

By analyzing the inflation rate in Ukraine from 2013 to 2023, we can identify some key trends and patterns in the country's inflationary processes. In 2015, there was a significant increase in the consumer price index by 43.3%, indicating the following:

- a high inflation rate, possibly triggered by economic difficulties such as the devaluation of the national currency;
- a decrease in trust in the financial system;
- other negative factors.

However, in 2016, there was an attempt to regulate inflationary processes, affecting the growth rates of the consumer price index by reducing them to 12.4%. This may suggest the implementation of measures to combat inflation, such as limiting the money supply or changes in monetary and credit policy.

Furthermore, in 2022, a substantial inflation increase (26.6%) was observed. It attributed to the onset of a full-scale invasion and the resulting deterioration of the trade balance, as well as political and economic crises. A rapid decline in the consumer price index and inflation marks 2022 to 2023. That indicates the government's efforts to control inflationary trends and changes in economic conditions.

It is also worth tracking the dynamics of the inflation index over the selected period to understand the whole picture. The dynamics of the inflation rate in Ukraine during the analyzed period are shown in Fig. 1.

$$\ln\left[\frac{\pi}{1-\pi}\right] = \propto + \beta_1 x_1 + \beta_2 x_2 + \ldots \ \beta_k x_k$$

Source: *Compiled by the authors based on (Derzhstat Ukrainy, 2023).*

Fig. 1: Inflation rate dynamics in Ukraine during 2013-2023

Overall, the Consumer Price Index in Ukraine shows fluctuations during this period. The highest level of inflation was recorded in 2015, when the consumer price index increased by 43.3%. Over the following years, this index gradually decreases, varying from positive to negative values.

As of the end of 2022, consumer inflation in Ukraine stood at 26.6% on an annual basis. Such an increase in the price level is primarily attributed to the consequences of the onset of full-scale war. It leads to disruptions in supply chains, destruction of production, restrictions on the supply of goods and services, and increasing business costs. It is also worth noting that the correction of the exchange rate of the hryvnia to the dollar and the overall global inflation contribute to the process of accelerated inflation in Ukraine.

However, in 2023, there is an observed beginning of a slow economic recovery. It is characterized by further liberations of Ukrainian territories, the functioning of the "grain corridor," and the rapid adaptation of businesses to new conditions. These factors have a certain positive impact on the economic situation and provide a basis for further development of Ukraine's economy.

Despite the gradual revival of economic activity in Ukraine, unemployment remains high, as evidenced by the data in Table 3. This situation is explained by the fact that most enterprises still operate with a lower capacity level than before the onset of full-scale war and cannot expand their workforce.

The loss of income due to increased unemployment resulting from the reduction in the productivity of domestic enterprises leads to a significant deterioration in the well-being of citizens. This, in turn, restricts consumer demand. Therefore, if real consumer incomes decrease due to the rise in unemployment, it can lead to a reduction in consumer demand and impact the Consumer Price Index. A reduced demand temporarily restrains price increases as producers seek to maintain their competitiveness. However, in the long term, domestic enterprises may raise prices to compensate for losses. However, as seen in the dynamics (Fig. 2), the unemployment rate in 2023 is approaching its previous values. This is due to the adaptation of entrepreneurs to changing economic conditions during martial law, the establishment of a system of state microgrants for business development, and the introduction of social assistance, etc.

Analysis of the unemployment rate in Ukraine over the past decade shows a consistently high value of this indicator. Despite certain positive economic development trends before the onset of the pandemic, unemployment remains a serious challenge, especially during military conflict. Therefore, the current issue facing the country is improving the strategy for stimulating economic

Table 3: Unemployment rate in Ukraine during 2013-2023

Period	Registered unemployed, thousand people	Employed population, thousand people	Total population, thousand people	Unemployment rate, %
2013	487,6	18901,8	45426,2	7,70%
2014	458,6	17188,1	42928,9	9,70%
2015	461,1	15742	42760,5	9,50%
2016	407,2	15626,1	42584,5	9,70%
2017	352,5	15495,9	42386,4	9,90%
2018	341,7	15718,6	42153,2	9,10%
2019	338,2	15894,9	41902,4	8,60%
2020	459,2	15244,5	41588,4	9,90%
2021	295	14957,3	41167,3	10,30%
2022	186,5	13341,91	41167,3	10,45%
2023	97,3	11149,84	36638,9	10,27%

Source: *Compiled by the authors based on (Minfin Ukrainy, 2023).*

$$1\mathrm{n}\left[\frac{\pi}{1-\pi}\right] = \propto + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9$$

Source: *Compiled by the authors based on (Derzhstat Ukrainy, 2023).*

Fig. 2: Dynamics of the unemployment rate in Ukraine during 2013-2023

growth and labor market development to ensure a sustainable socio-economic situation in Ukraine (Levytska *et al.* 2022).

Thus, Ukraine's economic situation in recent years can be characterized as a crisis driven by various external and internal factors, which have led to an increase in inflation. In conditions of economic instability and internal difficulties, inflation becomes not only an integral part of the economic process but also an active response to external influences and internal problems.

Therefore, inflation, as a persistent phenomenon in the economy of any country, particularly vividly manifests itself during crises, political instability, and other stressful situations. In such periods, it is challenging to determine the specific causes of its emergence and growth. In the context of modern Ukraine, several significant factors contributing to the acceleration of inflationary processes are highlighted. The first and most substantial factor is the dependence of domestic prices on world prices for energy resources, which constitute a significant part of imports. Additionally, continuously increasing tariffs in the housing and communal services sector, due to uneven raises, lead to losses for consumer incomes and contribute to the annual inflation rate growth. Thus, it is difficult to identify unequivocal causes of inflation in the complex economic context. However, researching factors such as global prices and rising tariffs is crucial for understanding the dynamics of this phenomenon in modern Ukraine (Mysak, 2022).

Among the relevant inflation models, it is worth highlighting the Phillips and Friedman models, as well as the modeling of inflationary inertia and inflation expectations. These models are currently the most commonly used inflation models developed based on analyzing certain concepts or aspects of inflation.

The Phillips model is one of the fundamental theoretical models of inflation. According to it, there is an inverse relationship between unemployment and changes in the price level. In particular, when the unemployment level decreases, high wages put pressure on business expenses, leading to an increase in prices. Conversely, with an increase in unemployment, businesses have less pressure on wages, resulting in price stability. In turn, the Phillips curve graphically represents the relationship between inflation and unemployment, demonstrating their inversely proportional interdependence. The dynamics of their indicators show that when the unemployment rate rises, nominal wages grow less and vice versa (Basu, 2022).

A common phenomenon in contemporary inflation forecasting practice is the use of the monetarist model by M. Friedman. Therefore, a model based on M. Friedman's quantity theory of money takes the following form:

$$\pi_t = f(y_t, y_{t-1}, \ldots y_{t-p}), m_t, m_{t-1}, \ldots, m_{t-r}, v_t, v_{t-1}, \ldots, v_{t-S}) + e_t,$$

where y_t, m_t, v_t represent the respective percentage changes in real GDP, the money supply, and the velocity of money.

Quantitative theory of money does not account for the introduction of lags for relevant variables into the model. However, it is worth noting that the introduction of a lag in GDP may suggest that the economy adapts to changes in market conditions with a certain delay, determined by the restructuring or implementation of new production capacities. Since GDP is also income, the use of lags can be interpreted as a reflection of permanent income, where accumulated resources from previous periods can be spent in the current one (Baumann *et al.* 2021).

Modeling inflationary inertia and expectations is a key aspect of statistical analysis. It is based on a behavioral approach, where the main focus is on the impact of previous inflation levels on its current rate. When using this modeling, inflation in the current period can be represented as a function of inflation levels in previous periods as follows:

$$\pi_t = f(\pi_{t-1}, \pi_{t-2}, \ldots, \pi_{t-S})$$

where π_t is the inflation level during the period t; π_{t-s} is the inflation level during the period (t–s), i.e., with a lag s.

In addition, this approach assumes that the impact of previous inflation levels has a defined correction coefficient, indicating the significance of their current influence. These scales can change over time, which complicates the analysis and allows us to consider inflation in the current period as a function of past levels. Such models are similar to autoregressive models and can be an effective tool for understanding and predicting the dynamics of inflationary processes (Kramar *et al.* 2022).

However, the development of inflationary processes depends on numerous factors, complicating the creation of accurate models. The monetary factor, including the volume of broad money and the exchange rate, plays a crucial role in shaping price levels. Exchange rate stability affects prices for goods in the consumer basket. In turn, real economic growth expands aggregate supply and reduces inflation rates, stimulating competition (Roubini, 2021).

Therefore, today, Phillips' model, Friedman's model, and modeling of inflationary inertia and expectations define modern approaches to the analysis and prediction of inflationary processes. Additionally, essential factors influencing inflation remain monetary, such as the volume of broad money, the exchange rate, and the stability of the exchange rate, which affects the prices of goods and services in the market.

DISCUSSION

To some extent, we agree with the conclusions made by Baumann, P., Rossi, E., and Volkmann, A.

(2021). It should be noted that their study provides a comprehensive analysis of the main factors that affect inflation and its forecasting models. However, the authors argue that the key determinants of inflation are GDP per capita, production lag, and demographic processes. This, in our opinion, is not a sufficiently meaningful answer since unemployment also affects inflation. In particular, their research points to the significant impact of the interaction of energy prices and energy rents as the main driving factor of inflation, which is relevant in the context of inflationary processes in Ukraine.

We support the opinion of Baqaee, D., and Farhi, E. (2022), as their research paper explores an essential aspect of the crisis' impact on the economy through the analysis of output and demand, unemployment, and inflation. The use of a complex model with different sectors and factors that consider various aspects of economic interaction emphasizes the practical significance of their findings. The authors determined that sectoral factors contribute to high unemployment. Moreover, the interaction of factors of production leads to a decrease in the effectiveness of stimulating overall demand.

We agree with Nesvetov O.O. and Dubrova Yu.M. (2023) since their study of the current aspects of anti-inflationary regulation in Ukraine further highlights key steps to curb inflation. By highlighting several key action areas, such as developing government programs to stimulate competitive production, implementing a transparent monetary policy, and improving the tax system with a regulatory focus, the authors provide a clear path to achieving the country's anti-inflationary policy goal.

At the same time, we agree with Tarasevich N.V. and Tretyak I.V. (2022), whose research provides a detailed analysis of the socio-economic consequences and causes of deepening inflation. The authors pay special attention to the need for state regulation of inflationary processes. Their findings on the current priority areas of anti-inflationary policy highlight the necessity for systemic measures to curb inflation and stabilize the economic situation.

We support Palekhova V. (2022), as her study reveals in detail the evolution of scientific discussions on inflation during the pandemic and full-scale invasion. The systematization of the main factors affecting inflation in these conditions is practically vital for further research in this area. In addition, the conclusions about the global nature of inflationary processes emphasize the importance of considering such factors in determining effective strategies to counteract inflationary processes.

CONCLUSION

Inflation is a complex socio-economic phenomenon that has a significant impact on the economic system. High inflation rates have negative consequences for long-term investment and economic growth. They also cause the displacement of the national currency by foreign ones, creating obstacles to the stable development of society. The inflation mechanisms are closely related to the interaction of aggregate demand and aggregate supply in the economy. The analysis shows that monetary instruments, such as changes in key interest rates and the transmission of short-term rates through the exchange rate, are important means of influencing inflation. The government is currently implementing appropriate measures. They include anti-inflationary policies and stimulating entrepreneurship to overcome the difficulties caused by the rising inflation rate. It is essential to ensure harmonization of the pace of living standards growth and stabilization of the exchange rate, given their complex impact on the country's economic development.

Based on the results of the inflation analysis, it was determined that 2022 was marked by a rapid increase in inflation due to the beginning of the full-scale invasion and the economic crisis. However, in early 2023, the government made an attempt to control inflationary trends. In general, the dynamics of the Consumer Price Index in Ukraine show fluctuations during the period under review, with changes from positive to negative values. The negative consequences of inflation are determined by the significant impact on the economy and society, in particular, the public finance crisis and high unemployment.

According to the unemployment rate analysis, it should be noted that the loss of income is caused by an increase in the unemployment rate as a result of a decline in the productivity of domestic enterprises. Such a situation leads to a significant deterioration in the welfare of citizens, which limits consumer demand.

In addition, the study identified current inflation models, which are currently essential tools for forecasting inflationary processes. However, the development of inflation depends on numerous factors, such as the exchange rate, real economic growth, etc. Precise models require constant improvement to take into account the complexity of the economic environment.

Thus, the economic situation in Ukraine is marked by a crisis caused by external and internal factors. The latter factors have led to an increase in the inflation rate. Instability and internal difficulties make inflation an integral part of the economic process and an active response to external influences and internal challenges.

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