IMPACT OF EXPECTED RISKS OF WAGE-PRICE SPIRAL ON SUSTAINABLE ECONOMIC DEVELOPMENT OF THE STATE

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Abstract

Aim of the article. The examination of spiral development hazards is crucial for inflation analysis and forecasting. The growth of the wage-price spiral danger is seen by international organizations as one of the major concerns. Because of this, the paper's goal is to examine the dynamics of changes in prices and wages in order to identify warning signals of impending danger and provide suitable remedies.
Methods. Quantitative analysis of primary, secondary and tertiary sources is used in this paper. It was possible to find and confirm common findings in the research process by comparing data obtained from different types of sources through the triangulation technique.
Results and Conclusions. Recent labor market changes and potential pay pressure on prices have gained prominence in terms of local inflation, raising the possibility of a wage-price spiral. The dangers associated with inflation are still very considerable, even with the recent improvements. It is anticipated that the industrialized nations' central banks would tighten financial conditions even further in the context of a high rate of inflation worldwide. For nations with emerging and expanding economies, the global financial conditions have tightened dramatically, increasing the sovereign risk premium and raising the possibility of further inflationary pressure. Georgia is susceptible to world events since it is a tiny nation with an open economy. Furthermore, recent pay growth in the local labor market has outpaced productivity growth, which highlights labor market inflationary pressures. Thus, maintaining low inflation expectations continues to be a significant task.

Key words: Inflation, wages, sustainable development, wage-price spiral, labor productivity, economic shocks.

1. INTRODUCTION

Global supply chain disruptions brought on by the epidemic, the Russia-Ukraine war, and consecutive economic shocks have generated pressure for hyperinflation. Although it has peaked and is now declining in several nations, inflation is still a major problem on a worldwide scale [Gumata et al. 2017]. Thus, it is important to conduct a thorough analysis of the variables influencing inflation and its causes.

For this reason, we may track the contributions of corporate earnings and labor costs to the dynamics of inflation by observing them alongside other measures. Policymakers are focusing more and more on the dynamics of business earnings and salaries when debating the causes of inflation. The aforementioned breakdown is directly derived from the definition of the GDP deflator, which is a gauge of the costs of goods made in the country. Conversely, there is a substantial correlation between the inflation of the GDP deflator and the inflation of the consumer price index (CPI).

In general, when the level of prices rises in response to an increase in aggregate demand, so do the profits of businesses involved in the market. However, workers also have an incentive to seek greater salaries due to inflationary pressures, which causes wages to rise. The scenario might now go in any of the two following directions:

1. Companies that want to keep their larger profit margins also boost prices as a result of increasing salaries, which raises their nominal cost per unit of labor. It is the spiral of wages and prices. In the event of such a situation, we have the following picture: in the end, both the quickly increasing nominal salaries and the rapidly expanding nominal profits of corporations are the drivers of high inflation.
2. Businesses slow down their profit growth in order to satisfy the need for wage growth. In this scenario, we see that even while salaries would rise significantly during the transition phase, inflation–which was initially driven by rising corporate profits–will decline once more.

Based on the data from the most recent era, the research in our paper paints a specific picture of which scenario is most likely in the instance of Georgia. The GDP deflator decomposition study demonstrates that there was a considerable correlation between the rise in corporate profits and the general price level in Georgia during the Covid-19. Manufacturers have had to boost prices as a result of shortages of some items on the market caused by restrictions put in place at the beginning of the Covid-19 and supply chain disruptions [Zoidze and Tkhilaishvili 2021].

Later, accumulated demand was released together with the lifting of the limitations. This demand has provided producers further motivation to raise prices (and consequently profits) even more, given the continued strain on supply systems. The demand was also impacted by the source of migratory movements following the conflict between Russia and Ukraine. When combined, these variables provide an explanation for why suppliers have raised their pricing, increasing their own profits. It should be mentioned that the workers sought greater pay following the corporations' increases in profits, against a backdrop of rising prices and increased inflationary pressure. Another significant factor was the labor market's density. As a result, businesses had to raise employee compensation in order to draw in and keep talented workers. The primary inquiry, though, is which of the two strategies mentioned above will businesses use to combat the pressure on wages to rise.

In 2022, the international economy faced significant problems against the backdrop of the conflict between Russia and Ukraine. Specifically, the sanctions that the international community has placed on Russia in an effort to prevent aggression also cause problems for the economies of many other nations. As a result, growth rates declined in 2022, particularly in developed economies. Severe supply disruptions around the world were added to this, and as a result, monetary policy tightened in reaction to the decline in inflation expectations that resulted in record-high inflation rates in some nations [Alvarez et al. 2022].

2. RESEARCH OBJECTIVE AND METHODOLOGY

Quantitative analysis of primary, secondary and tertiary sources is used in the present study. In addition, the issue discussed in the paper is multi-layered and located at the intersection of several disciplines. Therefore, many factors need to be taken into account, although depending on the format of the paper, attention is focused on the main aspects.

Cross-referencing of information from different sources was used to confirm the accuracy and reliability of the findings. It was possible to find and confirm common findings in the research process by comparing data obtained from different types of sources through the triangulation technique. The mentioned method of data collection provides a multidimensional approach of collecting information from different sources, which contributes to a deep and multifaceted study of the research topic.

Therefore, we formalized the following Research Questions (RQ):

- Research Question № 1: How tight is the labor market?

- Research Question № 2: Given the tightness of the labor market, what pressures are there on wage growth?
- Research Question № 3: To what extent is the growth rate of nominal wages expected to significantly exceed the growth rate of labor force productivity and, therefore, exacerbate the wage-price spiral?

For this purpose, an in-depth analysis of the dynamics of unemployment and wages has been identified within our research.

3. RESULTS AND DISCUSSION

3.1. The relationship between average nominal wages and inflation

The globe is now experiencing hyperinflation as a result of recent events, including Russia's invasion of Ukraine and the extension of the state of war as well as supply chain problems brought on by the Covid-19 outbreak. Global inflationary pressures also increase the likelihood that growing salaries will lead to price increases. In the labor market, salaries have a propensity to rise, especially because of the lengthening of the inflationary phase [Edge 2002]. In the case where the rate of wage growth exceeds the rate of inflation, inflationary pressure is generated by an increase in aggregate demand [Bijnens et al. 2023].

Furthermore, manufacturing costs increase when pay growth outpaces productivity growth, prompting price increases from businesses. A wage-price spiral is the dynamics of wages and prices where a rise in pay can set off a chain reaction of price increases, which in turn drives demand for even greater compensation from the labor force, and so on [Alintissar et al. 2018].

Figure 1. Effects of Inflation on Business Operations

Source: [Fastercapital 2024].

The trend of salary increase in the country is particularly noticeable since the time of high inflation during the pandemic period. For example, in 2020 the average salary was 1,191 GEL, in 2021 it increased to 1,304 GEL, in 2022 to 1,543 GEL, and by the end of 2023 the average salary increased to 1,858 GEL. According to the Monetary Policy Report, wage growth was influenced by high inflation and a shortage of skilled labor. In addition, according to the National Bank of Georgia, in the first years of the pandemic, the increase in inflation in the country was related to the increase in the profits of companies [Zoidze and Abuselidze 2021].
According to datas from National Statistics Office of Georgia, annual inflation for May 2024 has decreased to 2 %, which is lower than the annual inflation target. Inflation has passed its peak, however, high socio-economic and political risks are still expected. Consequently, uncertainty remains at a high level and inflationary risks are still high [National Bank of Georgia 2023].

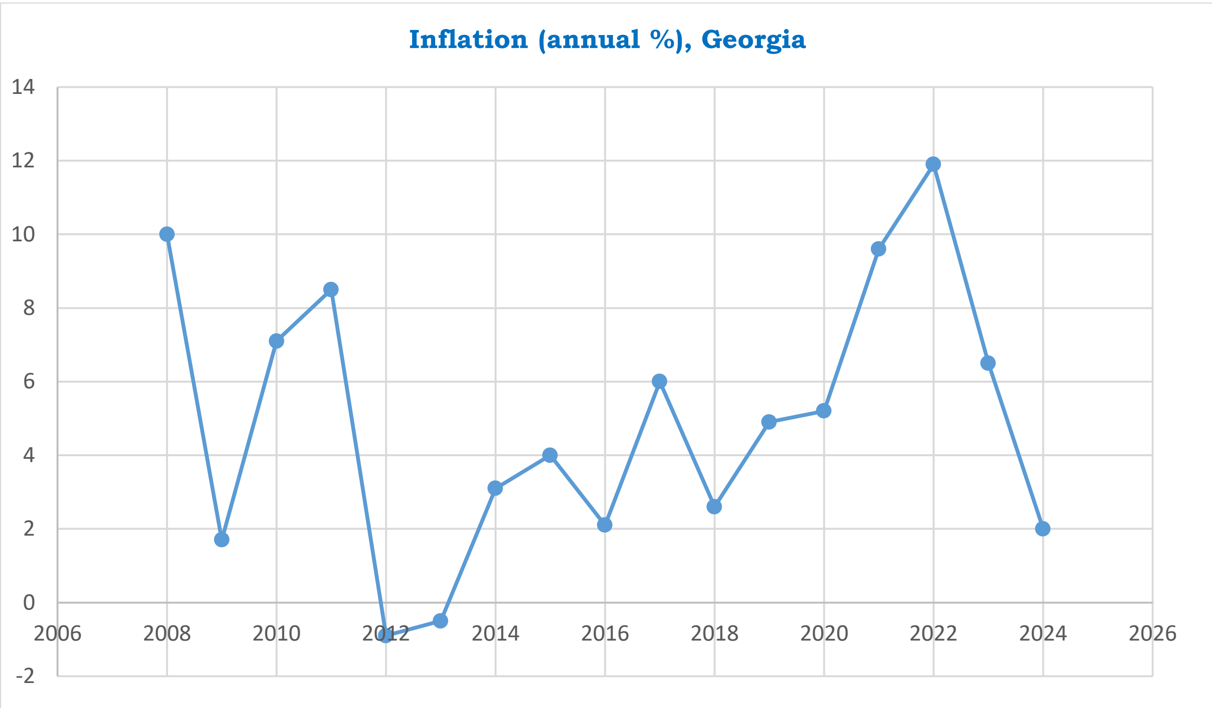

Figure 2. Inflation, consumer prices (annual %) – Georgia
Source: [National Statistics Office of Georgia 2024a].

The recent decline in factors that contributed to high inflation–price increases for food items and energy resources on global markets, as well as higher transportation costs–has also resulted in a decrease in imported inflation. Inflation is also lowered by tighter monetary policy, fiscal restraint, and a stronger currency rate [National Bank of Georgia 2023].

Despite the favorable trends, inflationary risks and uncertainties are still significant, necessitating tighter monetary policy. True, the good trends in foreign markets offer us cause to be cautiously optimistic, but future dynamics remain unpredictable. Furthermore, salary growth in the local labor market has recently outpaced productivity growth. As a result, the cost of staff per unit of production has increased significantly, highlighting the labor market's inflationary pressures [Darsavelidze 2019]. Other else being equal, inflation fell within the target range due to a tight monetary policy and the progressive removal of supply shocks. As a result, monetary policy has been loosened, and the monetary policy rate has fallen to 8 %.

In terms of inflationary pressures, an uncertain geopolitical environment is one of the external causes, while the National Bank highlights the possibility of a wage-price spiral, which indicates that salaries rise faster than productivity. This highlights inflationary pressures from the labor market.

Wages in the job sector are likely to rise as the inflationary environment continues. When pay growth exceeds inflation, aggregate demand rises, creating inflationary pressure. In addition, when pay growth outpaces productivity growth, manufacturing costs rise, prompting corporations to raise prices. Wage and price dynamics, in which an increase in wages can trigger a wave of price increases, which in turn leads to a demand for even higher wages from the labour force, and so on. It is known as a wage-price spiral (Figure 3). In this sense, the labor market's inflationary pressures become apparent, necessitating the implementation of a rigorous policy.

Figure 3. Wage-Price Spiral Model

Source: [Ahmed 2024].

Employees and/or job seekers will have an incentive to demand higher salaries if, following an inflationary shock (such as events like a pandemic or a significant inflow of migrants), expectations are established that the total price level will continue to grow once the shock wears off [Zoidze and Veshapidze 2022]. Georgia's actual inflation rate has been significantly below the target rate for an extended period of time due to a string of shocks, which raises the possibility that medium-term inflationary expectations may rise.
Recognizing the risk motivates job seekers to ask for more pay (Figure 4).

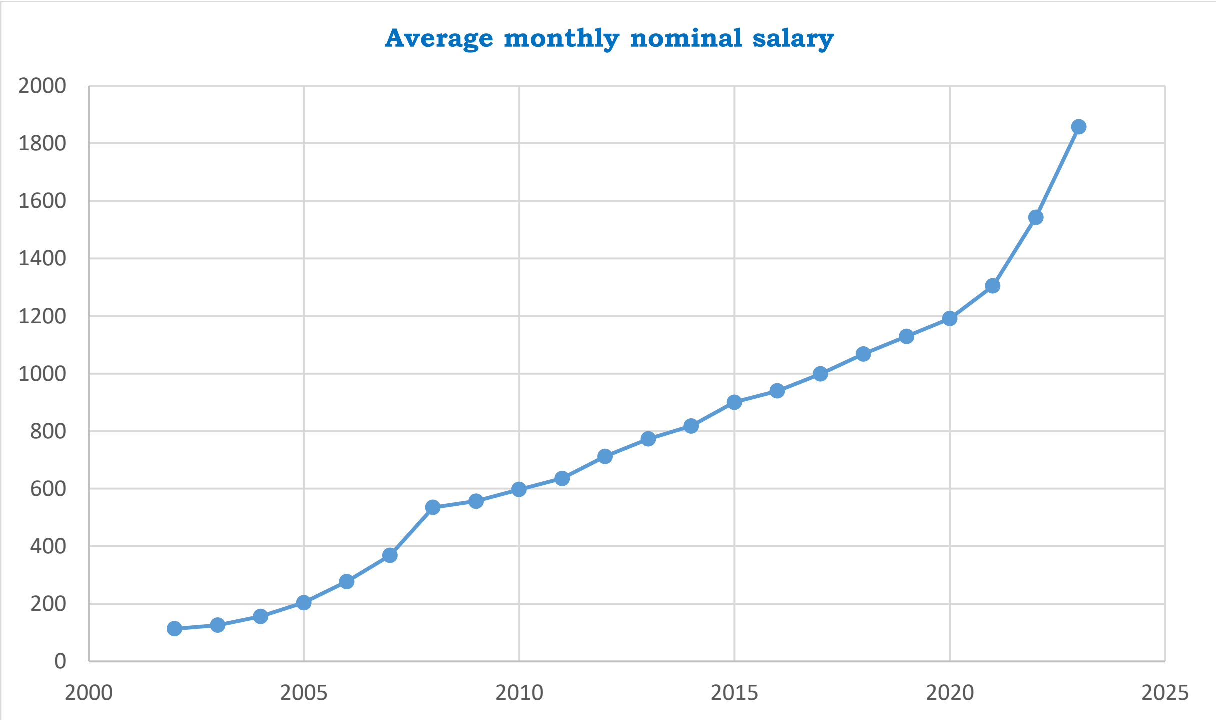

Figure 4. Average monthly nominal salary, Georgia

Source: [National Statistics Office of Georgia 2024b].

Note: Nominal salary is given in GEL – current exchange rate: 1 USD = 2.80 GEL (25.06.2024).

On the other side, high wages boost the cost of manufacturing (Figure 5), raising the general level of prices and exacerbating the inflationary environment.
Given the correlation between inflationary expectations and wage growth, it is important to keep a careful eye on the dynamics between both of these factors in order to respond appropriately when the spiral clearly begins to emerge [Gelantia 2023]. A stringent monetary policy is mostly maintained to lessen this danger, even if Georgia's general inflation rate is already trending downward and global markets are beginning to stabilize as well [Pertaia 2023].

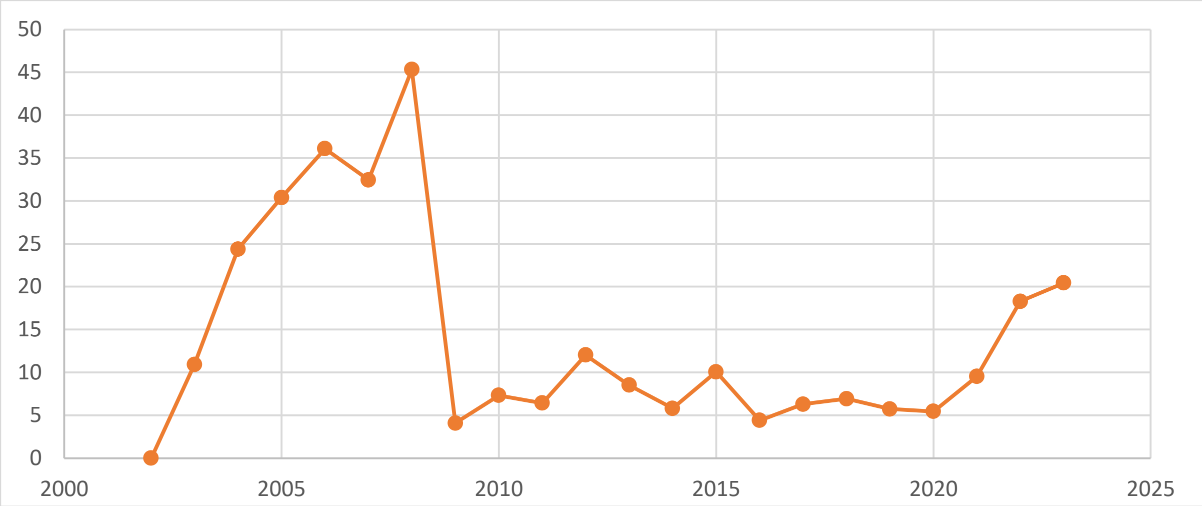

Figure 5. Average annual salary growth rate, 2002–2023

Source: [National Statistics Office of Georgia 2024c].

It should be mentioned that one of the supply variables influencing inflation is the recent strong strengthening of the currency rate. While this influence will continue to have a short-term impact on inflation, it is anticipated to progressively diminish. Furthermore, as indicated by consensus estimates from around the world, the prices of commodities on global markets should continue to stabilize [Kolsrud and Nymoen 2014]. This, along with the trend of declining transportation costs, will reinforce the downward pressure on imported inflation [Suthaharan and Bleakley 2022].

Recent labor market changes and potential pay pressure on prices have gained prominence in terms of local inflation, raising the possibility of a wage-price spiral [Franta and Vlcek 2024]. The convergence of inflation to the target rate has been noticeably delayed in light of the most severe shocks of recent years [Gali 2023]. As a result, it is more important than ever to make sure that inflation is gradually brought down to avoid endangering the National Bank's credibility and depressing inflationary expectations in future years.

3.2. Economic growth and labor productivity

The World Bank assesses Georgia's economic growth positively, but feels that increasing productivity and creating high-paying employment remain challenging concerns in the country.

The World Bank's economic memorandum for Georgia states that many types of changes will be required in order to keep GDP growth within the range of 4–4.5 %. Increased capacity, connectivity, and competitiveness will help a nation better navigate global trends such as declining economies, mounting debt, threats to global value chains, modern technology, and climate change, all of which can either threaten or create opportunities for economic growth [Galt and Taggart 2023].

The fact that agriculture accounts for about 5 % of employment is also mentioned in this paper. Furthermore, there is a notable distinction in the productivity of those working in agriculture compared to other economic sectors, suggesting that there is still places for structural change.

Future business productivity gains and the capacity to seize possibilities in foreign markets will increasingly determine Georgia's economic growth (Figure 6).

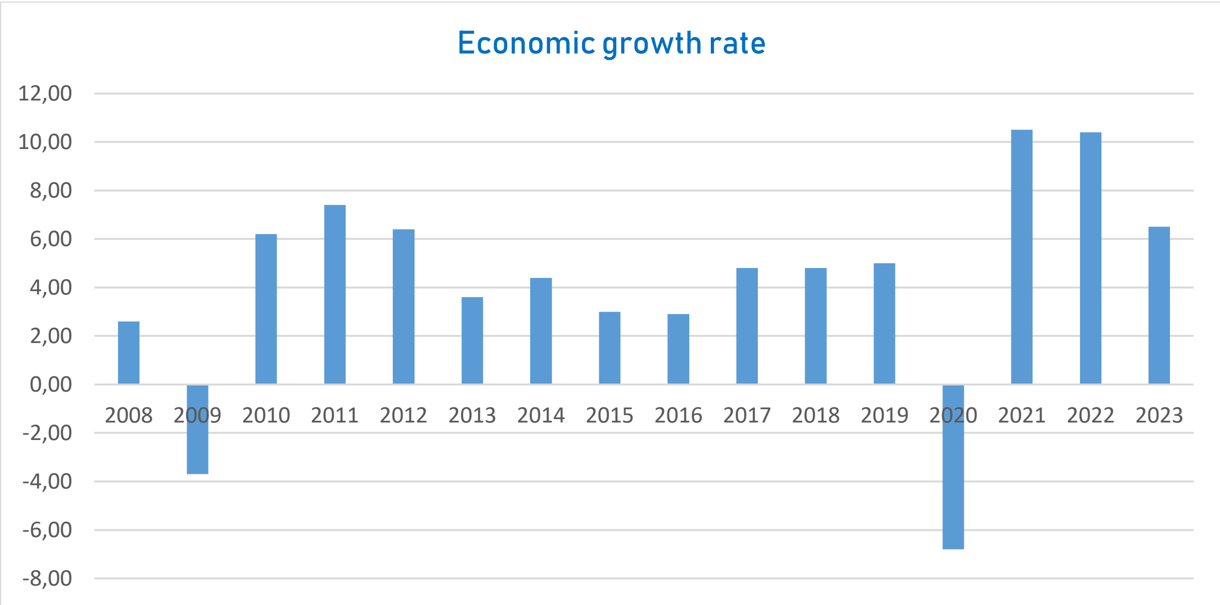

Figure 6. Economic growth rate, Georgia, 2008–2023

Source: [National Statistics Office of Georgia 2024d].

A more engaged and competent labor force can also counteract current demographic trends and boost output. Georgian businesses should concentrate on building stronger connections and turn a greater eye toward exporting [Zoidze and Abuselidze 2023].

In order to maintain the nation's sustainable socioeconomic growth, high rates of investment must be restored while limiting debt [Otinashvili et al. 2023]. This can be done by maintaining a sound macroeconomic policy, enhancing corporate governance, improving the effectiveness of state-run businesses, and improving household financial literacy [Businessformula 2022].

Compared to wage growth, due to the low rate of productivity growth, the cost of personnel per unit of production has increased by about 8 % per year, which raises the risks of the development of a wage-price spiral. In this regard, the inflationary pressure from the labor market becomes noticeable, which requires maintaining a strict policy.

According to the data of the National Statistics Office of Georgia, in the first quarter of 2024 the unemployment rate in Georgia decreased to 14 %, while the average rate for 2023 was 16.4 %.

A substantial rise in economic activity, along with fundamental labor market issues, has the potential to cause labor shortage [Armendariz and Myrvoda 2023]. In such cases, organizations have numerous levers at their disposal to encourage employee retention and/or recruit fresh talent, one of which is a reasonably high pay offer [Demary and Hüther 2022; Malikane 2012].

Based on the analysis of the relationship between the level of unemployment and the announcement of vacancies, we can note that as of the first quarter of 2024, the efficiency of the labor market has decreased compared to the pre-pandemic period [Zoidze 2020]. From the second half of 2021, the efficiency of the labor market has decreased significantly. The reduced efficiency of the labor market, on the other hand, meant that it was difficult for the employer to find a worker. Since the first quarter of 2022, the unemployment rate has decreased (Figure 7), while the vacancy announcement rate has increased, which is the result of the rapid recovery of the economy.

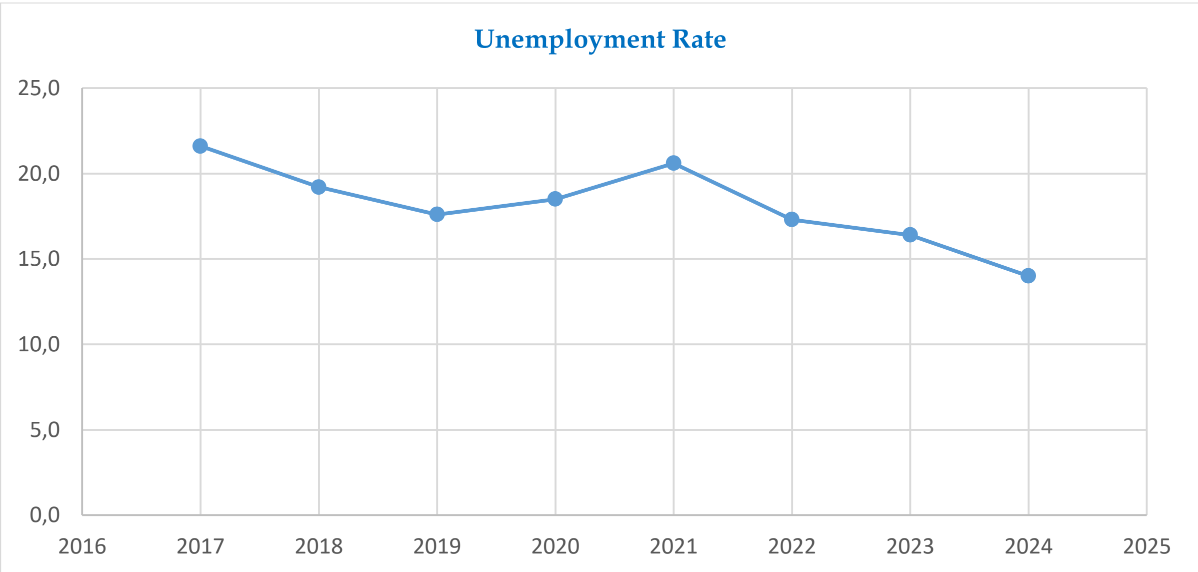

Figure 7. Unemployment Rate, Georgia, 2017–2024

Source: [National Statistics Office of Georgia 2024e].

All things considered, this shift suggests that the labor market is becoming increasingly crowded as businesses search for employees and the proportion of job searchers is decreasing. With decreased efficiency and tighter markets, there is a greater chance of inflationary pressures developing. Simultaneously, throughout the last period, there has been an increase in employment and a decrease in unemployment in the labor market. The patterns of these variables also show how crowded the job market is and how few workers there are [National Bank of Georgia 2023].

Recent data indicates that nominal and real salaries are rising in both the industrial and service sectors. Nominal earnings have been on the rise, especially during the post-pandemic period. But in the post-pandemic era, nominal salaries increased in tandem with strong productivity development, which prevented production costs from rising and, as a result, avoided inflationary pressure. But recently, as productivity growth has slowed, the rise in production costs per unit of product has come to light, raising the possibility of inflation brought on by the labor market.

However, the rise in real wages since the first quarter of 2022 might indicate that workers are basing their salary expectations on anticipated inflation. There may be a risk of a spiral with this labor market signal. Expectations of future price adjustments have a major role in how the spiral develops. The employee and/or job seeker will have an incentive to demand higher pay if, following an inflationary shock, there is an expectation that the general level of prices will continue to rise after the shock ends.

Georgia's actual inflation rate has been significantly below the target rate for an extended period of time due to a string of shocks, which raises the possibility that medium-term inflationary expectations may rise. When job applicants realize they are taking this risk, they want more money. Conversely, high wages exacerbate the inflationary backdrop by driving up production costs and raising the general level of prices (Table 1).

Given the correlation between inflationary expectations and wage growth, it is important to keep a careful eye on the dynamics between these two variables in order to respond appropriately when the spiral clearly begins to emerge [Hofmann et al. 2012]. A stringent monetary policy is mostly maintained to lessen this danger, even if Georgia's general inflation rate is already trending downward and global markets are beginning to stabilize as well [Lorenzoni and Werning 2023].

Table 1

Macroeconomic forecast risks of Georgia and impact on inflation

	Macroeconomic forecast risks	Impact on inflation
1.	Higher-than-expected interest rate hikes and recessions in developed countries	Inflation rise – risk of above-average impact
2.	Deterioration of the geopolitical situation	Rising inflation – high impact risk
3.	A decrease in the credibility of central banks amid increased global inflation	Rising inflation – high impact risk
4.	Decrease in foreign demand and deterioration of the current account balance	Inflation rise – risk of above-average impact
5.	Exacerbation of the wage-price spiral	Inflation rise – risk of above-average impact
6.	Lower than expected prices of commodity products on international markets	Inflation reduction – medium impact risk

Source: [National Bank of Georgia 2023].

Georgia has a tiny open economy thus the economic status of its trading partners has a substantial influence. Thus, the above-mentioned estimates for Georgia's economic indicators are heavily reliant on assumptions about the predicted patterns of economic development, inflation, and exchange rates in the key trading partner nations.

In the alternative scenario, the fundamental macroeconomic forecast's risks–which have a significant influence on inflation–come to pass. The concept primarily presupposes a worldwide recession [Saunders and Denniss 2022]. Conversely, the quick reaction of developed country central banks to the global inflationary environment is what triggers recessions [Sławiński and Hausner 2018].

This risk scenario also predicts that the situation locally would worsen due to an immediate decrease in financial flows from Russia and an extension or intensification of the conflict between Russia and Ukraine. The external demand for goods and services will decline in such a situation as compared to the base case, which will eventually have a negative effect on the current account deficit. The country's and the region's risk premium will rise, raising the possibility of capital flight and impeding foreign investment intake [Storm 2024]. In turn, this will exert pressure on inflation and the currency rate [Lucas 2021].

The aforementioned dangers will materialize, and as a result, the real economy's size won't grow considerably in 2024. A situation like this would result in a decline in foreign demand, a worsening of economic agents' expectations, and increased pressure on the currency rate to devalue [Stanford 2023]. The latter will put more pressure on inflation through intermediate costs and expectations since it takes dollarization into account [Mokoka 2017].

The likelihood of a shock to the credibility of monetary policy would rise dramatically and long-term inflation expectations will be jeopardized if inflation deviates from its target rate. As a result, pay pressures will rise, and the forecast for an inflationary environment will get worse as nominal wage growth continues to outpace labor productivity growth [Oxford Analytica 2021].

The inflationary effect will be largely mitigated by decreased energy carrier costs (because to poor global demand). Maintaining the desired inflation rate will be challenging if the aforementioned acute situation occurs.

Conversely, the National Bank exhibits the least amount of leniency for this kind of circumstance, as seen by the quick tightening of monetary policy, the use of additional instruments when necessary, and the sustained maintenance of the tighter stance.

4. CONCLUSIONS

In Georgia, for the second quarter of 2024, inflation continued to decrease, from the second half of the year, other things being equal, it will remain within the target index in the medium term. The gradual reduction of inflation will be supported by the stabilization of commodity prices on the international markets and the exchange rate supported by strong foreign inflows in recent periods, along with the normalization of economic activity. The annual growth rate of the exchange rate will decrease, which is due to the normalization of foreign inflows and the base effect of the high real GDP growth of the previous year, on the one hand, and the tight monetary policy and fiscal consolidation on the other hand.

There are still substantial impact risks associated with the base scenario as things stand. The most severe of these is taken into account in the alternate prediction scenario. Specifically, in industrialized nations in reaction to a climate of inflation, a recession brought on by interest rates that were higher than anticipated, an instantaneous reduction in Russian cash inflows, and an extension or further escalation of the conflict between Russia and Ukraine. Simultaneously, in light of inflation that departed from the goal rate for an extended duration,

The scenario takes into account the likelihood of increasing inflationary expectations and confidence shocks, as well as the fact that nominal pay growth is substantially faster than labor force productivity growth, which exacerbates the wage-price spiral. The National Bank has the lowest tolerance for this scenario, which calls for a prolonged maintenance of the tighter posture, a significant tightening of monetary policy, and the possible employment of additional tools.

A decline in external demand and a worsening of the current account balance relative to the base case are anticipated in the event of a worldwide recession. This will result in a weaker currency rate, which will push up inflation and only partially offset the effects of limiting aggregate demand and falling energy and food costs due to a decline in global demand.

The predicted course of inflation is also influenced by measures of Russian financial inflows, the likelihood that the conflict between Russia and Ukraine will continue or worsen, and the methods used to end it. Due to the ongoing high dollarization, a significant decline in Russian capital inflows will put downward pressure on the foreign currency market and raise inflationary pressure through expectations and intermediate costs.

Furthermore, if the full-scale conflict ends or intensifies later than anticipated, it will, on the one hand, weaken the trade and financial channels that have been disrupted by the war and expose those channels whose negative effects have not yet been felt by the Georgian economy due to Russian inflows. On the other side, the likelihood of enacting more sanctions and supply restrictions on Russia will rise along with the region's risk level.

Furthermore, it should be mentioned that the likelihood of a shock to the credibility of monetary policy and a rise in long-term inflation expectations grows dramatically in the context of successive shocks, since this delays the convergence of inflation to the target rate. Overall, this increases the likelihood of a wage-price spiral, where nominal pay growth continues to outpace the development in labor productivity, hence exacerbating the likelihood of an inflationary environment.

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