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The Evolution of Inflation at the Level of the Danube Region Countries

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Abstract: This paper examines the evolution of inflation in the Danube region over the last five years. Over this period, inflation has been influenced by numerous global and local factors, including the COVID-19 pandemic, geopolitical conflicts, and fluctuations in energy and food prices. The COVID-19 pandemic had a significant impact on inflation, initially reducing it due to falling domestic demand and economic disruptions. As economies recovered, inflation rose, fueled by rising demand and energy prices. The conflict between Russia and Ukraine added further pressures, especially on neighboring countries, leading to increases in inflation due to disruptions in supply chains and rising import costs. Monetary and fiscal policies have played a crucial role in managing these fluctuations. EU Member States have benefited from more stable policy frameworks, which have allowed inflation to be managed more effectively. In contrast, non-EU countries have experienced higher fluctuations in inflation due to political and economic instability. Thus, this paper highlights the complexity of managing inflation in such a diverse region and highlights the need for adaptable and well-coordinated economic policies to maintain economic stability. The coming years will continue to present major challenges, and careful monitoring and rapid responses will be essential to ensure sustainable economic growth and stabilize inflation in the Danube region.

Keywords: inflation; economic consequence; crisis; economic stability

JEL Classification: E30; E31; E64

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1. Introduction

Inflation developments are a key aspect of economic analysis, reflecting price dynamics and their impact on purchasing power and economic stability. In the context of the Danube region, which includes countries as diverse as Austria, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Romania, Slovakia, Slovenia, Serbia, Bosnia and Herzegovina, Montenegro, Moldova and Ukraine, monitoring and understanding inflation becomes particularly complex and important.

The Danube Region is characterized by significant economic and cultural diversity, with each country having its own internal dynamics, economic policies and levels of development. Over the past five years, inflation in this region has been influenced by a number of global and local factors, including the COVID-19 pandemic, geopolitical conflicts, in particular the conflict in Ukraine, and fluctuations in energy and food prices.

This paper aims to analyse the evolution of inflation in the Danube region over the last five years, identifying general trends and country specificities. We examine how monetary and fiscal policies have responded to these challenges and assess the impact of global events on local economies. We also discuss future prospects and the challenges of managing inflation in a changing global economic environment.

In our analysis, we first address the context and causes of inflation fluctuations, followed by a detailed discussion of developments in each country in the region. This approach will allow us to understand not only the general trends but also the specificities of each economy, highlighting the diversity and complexity of the Danube region. In this paper, we aim to provide a comprehensive perspective on how inflation has evolved in this crucial region and to emphasize the importance of rigorous economic analysis in formulating effective economic policies.

2. Inflation Analysis in Danube Countries

The Danube Region, has experienced a number of significant economic challenges over the last five years. Inflation, a crucial indicator of economic stability, has reflected the complexity of interactions between local and global factors, including health crises, geopolitical conflicts and economic policy changes.

Inflation developments in the Danube countries reflect both domestic and external influences. Major fluctuations are often linked to significant economic and geopolitical events, such as financial crises, changes in energy prices and monetary and fiscal policies (Ball, et. al, 2024). Analysis of these data underlines the importance of effective economic policies and regional stability in maintaining manageable inflation rates. In the table no.1 we can see the evolution of inflation rate in each country of the Danube Region in the past 10 years.

Table 1. Anual Inflation rate in the Danube Region Countries in the Period 2013-2023

Country										
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Hungary										
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Czech Republic										
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t										
Montenegro										
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Source: Made by the Authors Based on Data from Eurostat

In the following part we will make an analysis of the inflation evolution in the past 10 years for each country of the Danube Region.

Austria

Austria, as a member of the European Union and the euro area, has benefited from the economic and monetary policies of the European Central Bank (ECB). Between 2013-2019, inflation in Austria was relatively stable, with rates ranging between 1-2%, reflecting a robust economy and prudent fiscal policies (Prammer & Reiss, 2023). The COVID-19 pandemic led to a decline in inflation in 2020 due to lockdown measures and reduced economic activity. However, with the economic recovery in 2021, inflation picked up, driven by rising demand and energy prices. In 2022, inflation continued to rise to higher-than-usual levels, also influenced by the European energy crisis and supply chain disruptions. In 2023, inflation in Austria remained relatively high, mainly influenced by energy and food prices. According to Eurostat, the inflation rate was around 8%. Government measures to subsidize energy and the European Central Bank's monetary policies played an important role in tempering inflation, but high import prices continued to exert pressure on consumer prices.

Bulgaria

Bulgaria experienced higher inflation rates than the EU average, due to an economy in transition and volatile energy and food prices. Between 2013 and 2019, inflation fluctuated with rates ranging between 1-3 (Velichkov, 2024). The COVID-19 pandemic initially lowered inflation in 2020, but 2021 and 2022 brought significant price increases, reflecting the economic recovery and rising energy prices. In 2022, inflation was exacerbated by the conflict in Ukraine, affecting energy and food supplies. Bulgaria experienced high inflation in 2023, with an annual rate of around 10%, according to data from the Bulgarian National Statistical Institute. Rising energy and food prices, along with the devaluation of the local currency, were the main contributing factors. Government support measures for households and firms have had a limited impact on controlling inflation.

Croatia

Croatia, which joined the EU in 2013, experienced relatively stable inflation in the first years after accession, with rates ranging between 1-2%. The COVID-19 pandemic led to a fall in inflation in 2020, but 2021 brought a rapid economic recovery, which led to increases in inflation (Rezessy & Maravalli, 2024). In 2022, inflation was influenced by rising energy prices and supply chain disruptions caused by the conflict in Ukraine. In 2023, inflation in Croatia was about 9%, according to the National Bank of Croatia. The main factors behind the increase were high energy and food prices, as well as increased production and transportation costs. Recent eurozone membership has helped stabilize inflation, but the overall impact of the energy crisis has been significant.

Czech Republic

Between 2013-2019, the Czech Republic had moderate inflation, with rates between 1-3%, thanks to a stable economy and prudent monetary policies. The COVID-19 pandemic initially reduced inflation, but the recovery in 2021 brought significant price increases. Inflation continued to rise in 2022, influenced by energy and food prices, and regional instability caused by the conflict in Ukraine (Ãzcan, 2023). The Czech Republic recorded inflation of around 11% in 2023, according to data from the Czech National Bank. The main reasons for the increase were high energy, food and commodity prices, as well as strong domestic demand. Monetary policy measures, including interest rate hikes, have aimed to temper inflation, but the effects have been limited in the short term.

Germany

Germany, as Europe’s largest economy, had relatively stable inflation between 2013-2019, with rates between 1-2%, reflecting ECB monetary policy and a robust economy. The

COVID-19 pandemic led to a fall in inflation in 2020, but the recovery in 2021 brought a pickup in inflation, driven by increased demand and energy prices (Grigoli & Pugacheva, 2024). In 2022, inflation reached high levels due to the energy crisis and supply chain disruptions. Germany had inflation of about 7% in 2023, according to the Bundesbank. Rising energy and food prices, caused by the European energy crisis and disruptions in supply chains, have been the main cause of inflation. Measures to cap energy prices and government subsidies have helped limit the rise in inflation, but challenges remain.

Hungary

Hungary has experienced higher inflation rates than the EU average over the past 10 years, with rates between 2-4% between 2013-2019, reflecting an economy in transition and less predictable fiscal policies. The COVID-19 pandemic initially reduced inflation in 2020, but the recovery in 2021 brought significant price increases. In 2022, inflation continued to rise, influenced by energy prices and regional instability caused by the conflict in Ukraine. In Hungary, inflation was about 14% in 2023, one of the highest in the region, according to the National Bank of Hungary. The main factors include high energy and food prices, the devaluation of the forint and robust domestic demand. Tight monetary policy measures have tried to control inflation, but the overall impact has been significant.

Romania

Between 2013-2019, Romania experienced robust economic growth, supported by investment, private consumption and favourable fiscal policies. During this period, inflation fluctuated but remained relatively stable, reflecting an expanding economy and a favourable macroeconomic environment (Ãzcan, 2023).

- 2013-2014: Inflation was moderate, with annual rates around 1.5-2%, influenced by prudent monetary policies of the National Bank of Romania (NBR) and stable energy prices.

- 2015: Romania recorded a decrease in inflation, reaching negative values (-0.6%) due to a reduction in VAT on food and lower fuel prices.

- 2016: Inflation continued to be negative (-1.5%), influenced by the continuation of tax reduction policies and low energy prices.

- 2017-2019: Inflation returned to an upward trend, with rates around 1.3-3.8%, on the back of rising domestic demand and higher energy and food prices. In 2018, inflation reached 4.6%, the highest level in this period, reflecting domestic and external inflationary pressures.

Since 2020, inflation in Romania has been strongly influenced by global events, in particular the COVID-19 pandemic and the energy crisis in Europe, accentuated by the conflict in Ukraine.

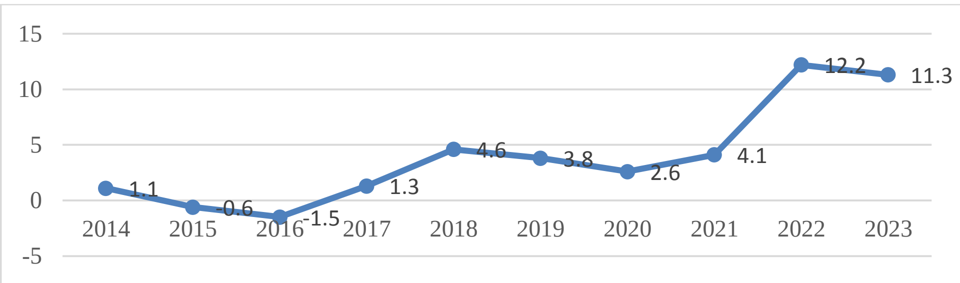
- 2020: The COVID-19 pandemic had a significant impact on the global economy and inflation. In Romania, inflation fell to 2.6% due to economic restrictions, falling demand and low energy prices.

- 2021: With the post-pandemic economic recovery, inflation rose significantly to 5.1%. This was driven by higher energy and food prices, supply chain disruptions and increased domestic demand.

- 2022: Inflation continued to rise, reaching record levels of over 13%. The main factors were rising energy and food prices, aggravated by the war in Ukraine, which severely disrupted supply chains and generated economic instability in the region.

The year 2023 continued to be marked by significant inflationary pressures in Romania, amid the lingering effects of the COVID-19 pandemic and the conflict in Ukraine. Factors such as the energy crisis, high food prices and government measures to mitigate the economic impact played significant roles. The NBR's tight monetary policies have been key to controlling inflation, but Romania's economic future will depend on its ability to navigate these challenges and implement the structural reforms needed to ensure long-term economic stability.

Figure 1. Evolution of inflation rate in Romania in 2014-2023 period



Source: Made by the Authors Based on data from Eurostat

Slovakia

Slovakia, as a member of the euro area, had stable inflation between 2013-2019, with rates between 1-2%, reflecting the ECB's monetary policy and a stable economy. The COVID-19 pandemic initially reduced inflation in 2020, but the recovery in 2021 brought significant price increases. In 2022, inflation was influenced by rising energy and food prices, and regional instability caused by the conflict in Ukraine. Slovakia recorded inflation of around 9% in 2023, according to the National Bank of Slovakia. The main drivers were rising energy and food prices and disruptions in supply chains. Government support measures and monetary policies have helped moderate inflation, but challenges persist.

Slovenia

Slovenia experienced inflation rates between 1-2% between 2013-2019, thanks to a stable economy and prudent monetary policies (Budova, Sulikova & Sinicakova, 2023). The COVID-19 pandemic led to a fall in inflation in 2020, but the recovery in 2021 brought significant price increases. In 2022, inflation continued to rise, influenced by energy prices and supply chain disruptions caused by the conflict in Ukraine. In Slovenia, inflation was around 8% in 2023, according to the National Bank of Slovenia. Rising energy and food prices and robust domestic demand were the main drivers of inflation. Supportive government measures and monetary policies have helped to limit the increase in inflation, but the overall impact of the energy crisis has been significant.

Serbia

Serbia, as a non-EU country, has seen larger fluctuations in inflation over the past 10 years, with rates between 2-4% between 2013-2019. The COVID-19 pandemic initially reduced inflation in 2020, but the recovery in 2021 brought significant price increases. In 2022, inflation continued to rise, influenced by energy prices and regional instability caused by the conflict in Ukraine. Serbia experienced inflation of around 12% in 2023, according to the National Bank of Serbia. The main factors include high energy and food prices, the devaluation of the dinar and strong domestic demand. Government support measures have had a limited impact on controlling inflation and monetary policies have been adjusted to temper price increases.

Bosnia and Herzegovina

Bosnia and Herzegovina has experienced variable inflation rates over the last 10 years, averaging between 1-3% between 2013-2019 (Mužić & Žilić, 2023). The COVID-19 pandemic initially reduced inflation in 2020, but the recovery in 2021 brought significant price increases. In 2022, inflation continued to rise, influenced by energy and food prices, and supply chain disruptions caused by the conflict in Ukraine. In Bosnia and Herzegovina, inflation was around 9% in 2023, according to the Statistical Agency of Bosnia and Herzegovina. Rising energy and food prices and robust domestic demand were the main drivers of inflation. Government measures and monetary policies had a limited impact on moderating inflation.

Montenegro

Montenegro experienced inflation rates between 1-3% between 2013-2019, reflecting a small and open economy. The COVID-19 pandemic initially reduced inflation in 2020, but the recovery in 2021 brought significant price increases. In 2022, inflation was influenced by higher energy and food prices, and supply chain disruptions caused by the conflict in Ukraine. Montenegro recorded inflation of around 11% in 2023, according to the Central Bank of Montenegro. High energy and food prices and strong domestic demand were the main drivers of inflation. Government support measures had a moderate impact on inflation control.

Moldova

Moldova has experienced large fluctuations in inflation over the past 10 years, with rates ranging between 3-7%, reflecting an economy in transition and political instability (Kopych & Shevchuk, 2023). The COVID-19 pandemic initially reduced inflation in 2020, but the recovery in 2021 brought significant price increases. In 2022, inflation continued to rise, influenced by energy and food prices, and supply chain disruptions caused by the conflict in Ukraine. Moldova had inflation of about 15% in 2023, according to the National Bank of Moldova. The main causes include high energy and food prices, supply chain disruptions and regional instability. Monetary and fiscal policy measures have tried to control inflation, but economic challenges persist.

Ukraine

Ukraine has experienced extremely high inflation over the past 10 years, with rates reaching double-digit levels, particularly during periods of political and economic instability (Tsapin & Faryna, 2024). The conflict in eastern Ukraine and Russia's annexation of Crimea in 2014 had a devastating impact on the economy and inflation. In 2020, the pandemic temporarily dampened inflation, but in 2021 and 2022, inflation increased significantly, peaking at a rate of 26.6% in 2022 due to major disruptions caused by the Russian invasion. Ukraine experienced extremely high inflation in 2023, about 22%, according to the National Bank of Ukraine. The ongoing conflict with Russia, major disruptions in supply chains and rising energy and food prices were the main drivers of inflation. Monetary policy measures have had limited impact and the economic and social challenges are significant.

3. Factors Influencing the Inflation Trend

3.1. Pre-Pandemic Period (2013-2019)

In the pre-pandemic period, most countries in the Danube region experienced relatively stable inflation, with the exception of some fluctuations caused by changes in energy and food prices. For example, Germany and Austria maintained low and stable inflation rates, reflecting their strong economies and prudent monetary policies. In contrast, countries such as Romania and Hungary had higher inflation rates, due to their transition economies and less predictable economic policies (Czakó, Fekete & Poreisz, 2014).

During this period, inflation was also influenced by the policies of the European Central Bank (ECB), which kept interest rates low to stimulate economic growth in the wake of the 2008 financial crisis. This loose monetary policy has helped to maintain moderate inflation in most euro area countries, including those in the Danube region.

3.2. Impact of the COVID-19 Pandemic (2020-2021)

The COVID-19 pandemic has had a profound impact on economies around the world, and the Danube region was no exception. In 2020, most countries in the region experienced a fall in inflation due to reduced domestic demand and disruptions in supply chains. For example, Austria and Germany experienced low inflation rates, reflecting lower economic activity and tight lockdown measures (Stefanova, 2016).

In contrast, some countries in the region, such as Serbia and Ukraine, experienced higher fluctuations in inflation due to economic instability and supply problems. The pandemic has highlighted the economic vulnerabilities of these countries and underlined the need for more robust and flexible economic policies.

3.3. Economic Recovery and Rising Inflation (2021-2022)

With the post-pandemic economic recovery in 2021, inflation has started to increase in most countries in the Danube region, driven by rising demand and energy and food prices. This trend has been observed in all countries in the region, including Germany, Romania and the Czech Republic. Rising energy prices, driven by both the global economic recovery and supply constraints, have had a domino effect, leading to increases in production costs and, ultimately, consumer price increases.

Geopolitical conflicts, particularly the conflict between Russia and Ukraine, have added further pressures on inflation in the region. In 2022, Ukraine recorded extremely high inflation, reaching 26.6%, reflecting the severity of the economic impact of the conflict. The impact of this conflict has also been felt in other countries in the region, leading to increases in inflation and further economic instability.

3.4. Monetary and Fiscal Policies

Monetary and fiscal policy responses have varied across countries in the region, but all have implemented measures to control rising inflation. European Union member countries have benefited from European Central Bank policies that have helped stabilize prices (Swart, et. al, 2016). For example, Austria and Germany have benefited from ECB policies. At the same time, non-EU countries such as Serbia and Moldova have implemented national measures to stabilize prices. In 2023, many countries were able to reduce inflation rates through adjustments in monetary and fiscal policies, demonstrating their ability to respond effectively to economic challenges.

3.5. Regional Divergences and Future Prospects

Although overall trends were similar, there were significant differences across countries in the levels and causes of inflation. Non-EU countries, such as Moldova and Ukraine, experienced higher fluctuations and higher inflation, largely due to political and economic instability. In contrast, EU countries have benefited from a more stable political and economic framework, which has contributed to more effective inflation management.

Going forward, inflation management will continue to be a major challenge for the Danube countries. Economic policies will have to adapt rapidly to global and local changes to maintain economic stability. As economies fully recover from the pandemic and regional conflicts, it is essential that governments implement policies that support sustainable growth and control inflation. Careful monitoring of the factors influencing inflation and swift and appropriate policy responses will be crucial to ensure long-term economic stability.

4. Conclusions

Over the last ten years, inflation in the Danube region has been significantly influenced by global and local factors. The COVID-19 pandemic initiated a reduction in inflation due to lower demand and economic disruptions, but with the post-pandemic economic recovery in 2021, inflation started to rise again, fueled by increased demand and higher energy and food prices. The conflict between Russia and Ukraine in 2022 had a profound impact, increasing inflation through disruptions in supply chains and rising energy prices. Monetary and fiscal policies have varied across countries, but all have implemented measures to control rising inflation, with EU member countries benefiting from more stable policy frameworks. In the future, managing inflation will remain a major challenge, with the need for adaptable and well-coordinated economic policies essential to maintain economic stability. The year 2023 was characterized by high inflationary pressures in all countries of the Danube region, mainly driven by rising energy and food prices and geopolitical instability. Government measures and monetary policies varied in effectiveness, but global economic challenges continued to significantly influence inflation across the region. Going forward, managing inflation will require coordinated and adaptable economic and monetary policies to ensure long-term economic stability.

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