

# Analyzing the Main Macroeconomic Trends in Croatia from 2020. to 2023.

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**Thavenet, Filip**

**Undergraduate thesis / Završni rad**

**1999**

*Degree Grantor / Ustanova koja je dodijelila akademski / stručni stupanj:* **University of Zagreb, Faculty of Economics and Business / Sveučilište u Zagrebu, Ekonomski fakultet**

*Permanent link / Trajna poveznica:* <https://um.nsk.hr/um:nbn:hr:148:075696>

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**Faculty of Economics and Business, University of Zagreb**

**Bachelor Degree in Business**

**Analyzing the Main Macroeconomic Trends in Croatia from  
2020. to 2023.**

**Undergraduate thesis**

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**Zagreb, 10th September, 2024**

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# 1. INTRODUCTION

## 1.1. Topic and goal of the thesis

This thesis examines several critical aspects of Croatia's economic development, including foreign trade, tourism, GDP, inflation, labor market dynamics, and fiscal and monetary policies. The primary goal is to analyze the relationship between these sectors and their role in Croatia's overall economic health, especially in light of global challenges such as the COVID-19 pandemic and geopolitical shifts.

The first part focuses on economic growth and GDP by analyzing the limitations of GDP as a sole measure of economic well-being and advocating for a broader approach to assessing long-term societal progress, such as incorporating metrics like "Sustainable GDP." Croatia's GDP growth has been hindered by structural weaknesses, demographic challenges, and external factors like global market fluctuations and geopolitical conflicts despite recovering from a significant 2020 contraction. The thesis further explores inflation and the labor market, particularly within the Croatian context, examining how inflation trends, wage growth, and unemployment rates interact and affect the economy.

Next, the study provides an in-depth analysis of fiscal and monetary policies in Croatia, particularly in response to crises like the pandemic and the 2008 financial crash. It examines the Croatian National Bank's role, the country's recent adoption of the euro, and the broader implications for trade, inflation, and macroeconomic stability.

Lastly, the thesis addresses foreign trade and tourism, exploring Croatia's export and import trends and highlighting the importance of innovation and investment in fostering sustainable growth. It also delves into the effects of the COVID-19 pandemic on Croatia's tourism industry, identifying shifts in tourist preferences and strategies for recovery. Additionally, the thesis discusses the potential impact of Croatia's accession to the Schengen Area on domestic tourism demand and the broader economy.

Overall, the thesis aims to provide a comprehensive understanding of Croatia's economic challenges and opportunities, advocating for a sustainable, diversified approach to long-term economic growth and stability.

## 1.2. Explanation of methodology

This thesis utilizes both primary and secondary data sources. Data were gathered from relevant professional and scientific literature, as well as from credible online articles. Secondary data sources were primarily used to establish the theoretical foundation of the work, to introduce the topic, and to provide the theoretical framework preceding the primary investigation. Some main conclusions were derived from the analysis of selected literature on the subject.

## 1.3. Structure of the thesis

Chapter 1 introduces the thesis by outlining its topic, goals, methodology, and overall structure. Chapter 2 delves into economic growth and GDP, defining these concepts and analyzing Croatia's GDP trends from 2020 to 2023, along with the main factors influencing economic resilience and recovery. Chapter 3 focuses on inflation and the labor market, offering definitions, examining inflation trends in Croatia, and discussing unemployment rates and labor market dynamics. Chapter 4 explores fiscal and monetary policy, starting with definitions, and then providing an overview of Croatia's state budget, government debt from 2020 to 2023, and the fiscal measures undertaken. It also examines the Croatian National Bank's policies and the impact of Croatia joining the Eurozone. Chapter 5 discusses foreign trade and tourism, focusing on export and import trends and the pandemic's impact on the tourism sector and its subsequent recovery. Finally, Chapter 6 concludes the thesis by summarizing the key findings and implications.

## 2. ECONOMIC GROWTH AND GROSS DOMESTIC PRODUCT

### 2.1. Defining Economic Growth and GDP

Economic growth refers to the expansion of a nation's production capacity and overall output over time, commonly reflected by an increase in Gross Domestic Product (GDP) (Kitov, 2008). Gross Domestic Product (GDP) is a crucial metric for assessing a nation's economic performance. It quantifies the total value of all final goods and services produced within a country's borders during a specific time frame, usually one year. (Mohanty, 2019). Despite its importance, GDP alone does not fully account for living standards, inflation, or the effects on poverty and inequality (Kumar, 2017). While GDP serves as a key indicator of economic health, reflecting productivity and wealth, it has notable limitations in capturing the broader aspects of societal well-being, such as living standards, inflation, poverty, and inequality (Kumar, 2017). This has led to ongoing discussions about the need for additional metrics that account for sustainable development and social progress (Gajdosova, 2023).

Even with a high GDP, a country might face sluggish economic growth because of factors such as shifts in demographics and a tendency for people to save rather than spend. . For example, Japan, despite maintaining a high GDP, faced a significant economic slowdown in the second half of 2023, attributed to concerns over insufficient savings and an aging population affecting consumption levels (Oxford, 2024). Similarly, seasonal adjustments in GDP calculations, influenced by changes in the labor force demographics, can affect the perception of economic growth stability, as observed during Canada's 'Great Moderation' period (Dunbar, 2013). A country might display a strong GDP figure, yet underlying issues such as demographic trends, savings behaviors, and seasonal adjustments can lead to low economic growth rates despite the high GDP numbers.

To comprehensively evaluate economic progress, it's essential to consider both GDP and additional factors such as environmental sustainability, societal well-being, and resource efficiency (MacFeely et al., 2024). Critics argue that traditional GDP measurements focus too heavily on economic output, overlooking the broader picture of human and environmental health (MacFeely et al., 2024). This has led to calls for redefining growth to include concepts

like "Sustainable GDP," which would integrate renewable resources, digitalization, and other factors to more accurately reflect long-term economic and social well-being (Bliznina, 2024).

A thorough understanding of economic growth and GDP requires recognizing their role in measuring economic progress and the necessity for additional indicators to effectively evaluate sustainable development. Such an approach should incorporate both economic output and factors that ensure sustainability and improved living standards for future generations.

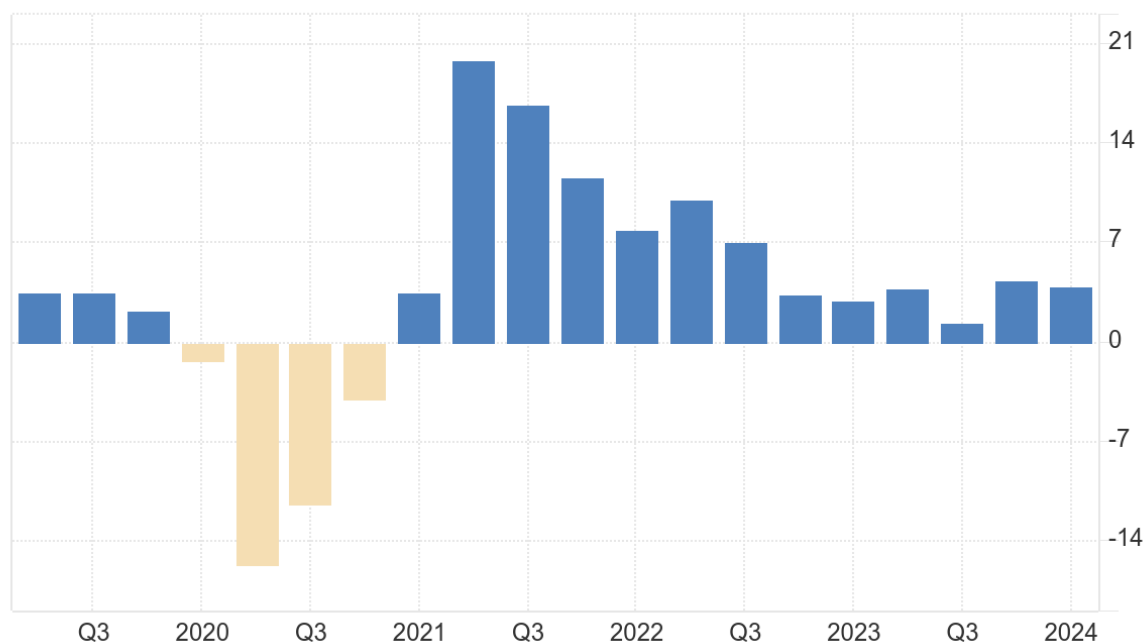
## 2.2. Croatia GDP trends from 2020 to 2023

Between 2020 and 2023, Croatia's GDP underwent significant changes due to global economic conditions, particularly the COVID-19 pandemic, but also the Russia's war of aggression on Ukraine. Aside from the mentioned, Croatia also possesses a number of structural, even country-specific issues that systematically affect its GDP's components. These issues range from structural rigidity (and a relatively newer issue of labour mismatch, one which ails the EU as a whole) of the Croatian labour market, the country's emigration problem (numerous young people leaving the country in search for better living and working conditions abroad), the issue of aging population, as well as constant political turbulence and high perception of corruption. These structural problems, paired with a generally pessimistic outlook of the consumer public along with business cycles going their way, can (and did) influence the GDP to oscillate significantly throughout the years.



Figure 1. Croatia GDP Annual Growth Rate

HR GDP Annual Growth Rate - percent



Source: tradingeconomics.com | Croatian Bureau of Statistics

Source 1. TRADING ECONOMICS. (n.d.). Croatia GDP annual growth rate. <https://tradingeconomics.com/croatia/gdp-growth-annual>

In 2020, Croatia experienced a significant contraction, with negative GDP growth rates in Q2, Q3, and Q4, and the steepest decline occurring in Q2, where GDP dropped by over 14%. In 2021, there was a notable recovery, with GDP growth rates turning positive and peaking above 21% in Q2, indicating a strong rebound from the previous year's downturn. In 2022, the growth rate remained positive but started to decline compared to the highs of 2021, with robust growth particularly in Q1 and Q2, gradually decreasing through the year. In 2023, the growth rates stabilized, showing moderate but positive growth in Q1 and Q2, lower than in the previous two years but indicating a stable economic situation. The projection for 2024 shows a slight increase in the GDP growth rate compared to 2023, indicating continued positive growth but at a modest rate. However, high inflation during this period posed challenges for economic stability, although it is anticipated to gradually decline as labor inputs and excess capacity become more available.

The growth in GDP is largely attributed to rising public sector investment and resilient private consumption, crucial factors in offsetting the subdued performance of exports (OECD, 2023).

Overall, Croatia's economy is on a slow but steady path to recovery, with expectations of improved growth rates in the coming years, reflecting economic resilience despite ongoing challenges. The dynamic of Croatia's GDP growth rates is however, in line with how the rest of Europe reacted to the Covid-19 crisis and the economic dynamic that it has caused in the day. The post-Covid jump was quickly snuffed by rising inflation that hit the entire global economy, which deflated much of the Covid-time growth, especially in the wake of monetary contractions to stabilize inflation together with Croatia's admittance into the Euro area and the adoption of the Euro currency. The Euro adoption disrupted consumption patterns of individuals while also changing the general prices remarkably, as it was a period of converting the old Kuna pricing, to the new Euro system, which resulted in skewing the original market prices of many everyday items, thus also affecting consumption patterns and in turn, demand.

### 2.3. Main influencing factors of Croatia's Gross Domestic Product Dynamics

Croatia's GDP patterns are shaped by a complex mix of demographic, economic, and external influences. A significant concern is the projected decline in the working-age population, which is expected to hinder GDP growth by diminishing the workforce's contribution to economic productivity (Akrap, 2019). This issue is compounded by long-standing emigration, which depletes human capital and reduces consumer demand, further constraining economic output (Akrap, 2019). Additionally, income divergence remains a critical challenge; Croatia lags behind older EU members in income convergence and is currently the worst performer among new EU states in this regard, indicating structural issues that impede robust growth (Čeh Časni, Palić i Vizek, 2018).

Urban migration, spurred by mid-20th century centralized development, has resulted in significant rural-to-urban movement. Although this trend has potential economic benefits, it has also led to social issues, including inadequate housing and declining birth rates, which negatively impact productivity (Akrap, 2019). The shift from a labor-intensive to a capital-intensive economy has exacerbated job mismatches, especially for large cohorts born between the world wars, contributing to higher unemployment rates and further straining GDP growth (Akrap, 2019).

Croatia's economic structure has also seen notable changes, including a transition to a services-led growth model (Čeh Časni, Palić i Vizek, 2018). While investments in non-tradable services

have bolstered GDP, this reliance has not matched the growth rates of other new EU members, revealing potential weaknesses in the economic structure. Government consumption has temporarily supported GDP growth, but its sustainability is uncertain without concurrent productivity improvements or private sector expansion (Čeh Časni, Palić i Vizek, 2018). The ongoing deindustrialization and technological downgrading in the tradable sector have also hampered economic performance by slowing growth and reducing competitiveness (Čeh Časni, Palić i Vizek, 2018).

Furthermore, external factors play a significant role in shaping GDP trends. Terms of trade, which influence domestic purchasing power and real income, are crucial for economic stability (Škare, Šimurina i Tomić, 2012). Global market fluctuations, given Croatia's status as a small open economy, can significantly affect GDP growth by introducing external shocks (Škare, Šimurina i Tomić, 2012). Stable terms of trade support efficient resource allocation, enhance productivity, and reduce inflationary pressures, all of which are crucial for maintaining a healthy economic environment. Low interest rates and government subsidies have stimulated borrowing and investment in property, contributing to economic activity (Oxford, 2023). However, rising property prices could indicate a potential bubble, which, if burst, may threaten financial stability and impact GDP negatively. Income inequality, exacerbated by increasing property prices, and the impact of an EU economic slowdown could further strain Croatia's economic performance, as reduced foreign investment and rising social tensions may hinder overall growth (Oxford, 2023).

## 2.4. Economic resilience and recovery patterns

The COVID-19 pandemic has caused a severe economic crisis. In order to get out of the crisis faster and build more resilient societies, the EU established the Recovery and Resilience Mechanism in February 2021 (European Commission, 2021). The mechanism aims at mitigating the consequences of the pandemic and strengthening the resilience of European economies through a green and digital transition (European Commission, 2022). Member States must prepare their own plans for the use of funds from the Mechanism.

The Croatian National Recovery and Resilience Plan 2021-2026 (NPOO) focuses on green and digital transition, and includes projects for sustainable growth and strengthening cohesion (Republic of Croatia, Ministry of Justice, Public Administration and Digital Transformation,

n.d.). Croatia has secured almost 9.9 billion euros for the plan, of which 6.3 billion are grants and 3.6 billion are soft loans. The plan includes five areas and one initiative: Economy, Public Administration, Education, Labor Market, Health, and the Initiative for Building Reconstruction (Republic of Croatia, Ministry of Justice, Public Administration and Digital Transformation, n.d.).

Due to the crisis, the Croatian economy fell by 8.4% in 2020, but measures to preserve jobs helped maintain employment. The focus is on strengthening competitiveness and innovation through green and digital transition and the development of new technologies (European Commission, 2023). Key measures include the development of an energy-sustainable transport system, sustainable water and waste management, and the improvement of agriculture for greater food security (Government of the Republic of Croatia, n.d.). Sustainable development of tourism and additional investments in the cultural and creative sector are also planned. Goals include economic recovery and increased resilience, reducing environmental footprint and pollution, improving water and waste management, developing sustainable transport systems, and sustainable use of natural resources and strengthening agriculture (European Commission, 2023).

Improvement of public administration, judiciary and state property is crucial for Croatia's recovery after the pandemic and earthquake. The focus is on building a digital, efficient public administration and strengthening the capacity to implement reforms, along with further decentralization and better integration of local units for sustainable planning (Republic of Croatia, n.d.). Digitization will drive technological and system advancements, fostering economic resilience and generating new jobs. Key priorities also include enhancing legal certainty through judicial modernization and anti-corruption efforts, as well as strengthening the fiscal framework and improving state asset management (Republic of Croatia, n.d.). The goal is to build a fairer and more efficient society based on the rule of law and good governance.

The pandemic has had a significant impact on education and science, which are key to Croatia's competitiveness (Sever Mališ, Mamić Sačer i Žager, 2022). In order to respond to the acceleration of digital changes, it is necessary to modernize the education system and improve research capacities. The goal is to adapt education to the needs of the future labor market and to strengthen scientific institutes and cooperation with the economy (Republic of Croatia, Ministry of Science and Education, n.d.). Education reform and infrastructure improvement should prepare students for new challenges, while strengthening research capacities will encourage innovation and cooperation with the business sector.

The pandemic has also seriously affected the labor market, reducing economic activity and social security. It is necessary to ensure the preservation of jobs, improve social protection and stabilize the pension system, while simultaneously creating new quality jobs and reducing unemployment (Grad Zagreb, n.d.). Incentives for lifelong learning and modernization of legislation will help in adapting to the labor market and creating quality jobs. Also, it is important to continue with the pension reform to improve pensions and reduce poverty and develop social services for vulnerable groups (Grad Zagreb, n.d.).

During the pandemic, the health of citizens became a priority, which required an increase in spending on the health system and medical equipment (Grad Zagreb, n.d.). To ensure sustainable and efficient healthcare, the system must be modernized with digitalization and technologies like telemedicine, while also enhancing access to care, particularly for socially vulnerable groups (Mumtaz et al., 2023). This approach is crucial for the preservation of health, the stability of the economy and the success of all economic activities.

After the pandemic hit Croatia, the earthquakes made the situation even more difficult, causing damage of around HRK 120 million and forcing many citizens to leave their homes (Government of the Republic of Croatia, n.d.). Reconstruction of affected areas involves not only repairs but also the modernization of buildings to enhance seismic resilience and energy efficiency. High-energy-consuming buildings with significant CO<sub>2</sub> emissions require energy retrofitting, which presents a substantial financial challenge (Grad Zagreb, n.d.). The recovery plan is aimed at speeding up reconstruction while reducing administrative barriers and digitizing processes, covering all types of buildings (Republic of Croatia, Ministry of Physical Planning, Construction and State Assets, n.d.). The goal is to improve the resilience of buildings, rationalize energy consumption and reduce the ecological footprint of the building sector.

The Croatian economy continues its strong expansion in 2024, driven mainly by domestic demand. Real GDP growth is expected to reach 3.6% in 2024, up from 3.1% in 2023, supported by strong personal consumption and significant investment growth (HNB, 2024). Investment, especially robust in the first half of 2024, could surpass earlier projections and reach double digits, reflecting positive trends in both private and public sectors. However, the contribution of net exports is expected to decline due to higher imports and a fall in service exports in early 2024. Nominal tourism revenues could still hit record levels despite weaker real exports in tourism. The GDP growth forecast for 2024 has been raised by 0.4 percentage points compared to June estimates (HNB, 2024). For the remainder of the projection period, GDP growth is

expected to average 3.0%, slightly above earlier forecasts (HNB, 2024). External demand and investment, supported by EU funds, will continue to recover, though at a slower pace. Strong labor market performance and personal consumption growth are also expected to persist. Risks to this outlook are slightly negative, mainly due to potential geopolitical tensions and weak growth among key trade partners.

## 3. INFLATION AND THE LABOR MARKET

### 3.1. Defining Inflation and Labor Market

This subchapter will define inflation and the labor market, establishing a foundational understanding prior to examining these concepts in the context of Croatia.

#### 3.1.1. Inflation

Inflation, defined as a continuous rise in prices, can have profound economic, social, and ethical consequences. Theories on inflation vary, with some viewing it through a monetary lens—where an increase in the money supply outpaces demand, leading to reduced purchasing power—while others attribute it to social pressures driving costs up (Hansen, 2023; García, 2023). High levels of inflation are widely recognized as harmful to the economy, prompting monetary authorities to take measures to maintain output and financial stability (Garcia, 2023).

The surge in consumer inflation significantly impacts purchasing power, disproportionately affecting lower-income households more than higher-income ones (Amores et al., 2024). The rise in prices leads to a decline in real wage growth, pushing many countries into negative figures and reducing the purchasing power of the middle class, with low-income groups bearing the brunt of the cost-of-living crisis (Vasquez-Alvarez, Xu i Belser, 2022). Research on consumer reactions to inflation shows that individuals often find it difficult to adjust their habits and purchasing behaviors in response to perceived price increases, highlighting a limited awareness of price indices and economic shifts (Poser i Shipchandler, 1979). Therefore, the combination of high consumer inflation and inadequate policy responses threatens to erode real incomes further, increase inequality, and potentially fuel social unrest, ultimately hindering economic recovery (Vasquez-Alvarez, Xu i Belser, 2022).

Inflation can manifest in various forms. "Goods inflation" occurs when demand outpaces supply or production costs rise, while "asset inflation" involves significant increases in the prices of real estate or stocks, often fueled by speculation and expansionary monetary policies (Brown, 2017). Moreover, discrepancies between "official" and "real" inflation rates—where the former

is based on government statistics and the latter reflects public perception—can create distrust in reported figures and complicate policy responses (Glushchenko, 2013).

While inflation is often seen as a monetary issue, its multifaceted nature suggests it is influenced by a combination of economic and social factors. If left unchecked, it threatens not only economic recovery but also social cohesion, as increasing inequality and diminishing real incomes could lead to long-term instability. Addressing inflation effectively requires a comprehensive approach that considers both monetary and social dynamics.

### 3.1.2. Labor Market

Serena (2016) through Pert (1990) and Dobrota (1997), defines the labour market as an economic “space” in which the pricemakers, the so-called equity holders act as buyers of labour, as the demand. Meanwhile, the owners of human capital (the workers) act as the supply. The space operates on the basis of a price mechanism, which is connected to wages, products prices, and the amount of labour. Blanchard (1996) defines the labour market through the interaction between the supply of labour (which constitutes workers, people willing to trade their time and skills for money) and its demand (producers, firms). The market is managed with the dynamic between price setting and wage setting, where the price-setters, firms, structure the prices of their goods in relation to, among other things, the wages paid out to employees. On the other hand, the wage setting is managed by syndicates and employees themselves, in relation to their own purchasing power and living standard in part defined by the real wage (expressed as nominal wage over price). What stabilizes the two forces is the unemployment rate, specifically the natural (structural) rate of unemployment which persists when the labour market is in equilibrium (Rossana, 2011). It is a complex ecosystem encompassing industries, occupations, skills, and firms, all interconnected and influenced by various factors (Kim, Ahn i Park, 2024). Demographics, education, technological advancements, and economic conditions significantly impact labor supply and demand, affecting wage rates and employment levels across different sectors and regions (Rocianto i Dewi, 2023).

Different economic theories, such as classical, Keynesian, and institutional approaches, offer diverse perspectives on labor market dynamics. These theories emphasize concepts like full employment, government intervention, and the role of institutions in regulating labor markets (Cherkashyna, 2022). Grasping these complex factors is essential for policymakers, businesses,



and individuals to make informed choices about workforce planning, educational policies, and employment strategies in a constantly changing economic environment (Rocianto i Dewi 2023).

Technological advancements and globalization have transformed job availability and the skills required by employers, leading to shifts in employment patterns and wage differentials across countries (Rocianto i Dewi 2023). Economic conditions, government policies, and social trends also play crucial roles in determining labor market outcomes. Generally, economic growth increases labor demand and potentially raises wages, while economic downturns can lead to higher unemployment rates and downward pressure on wages (Rocianto i Dewi 2023).

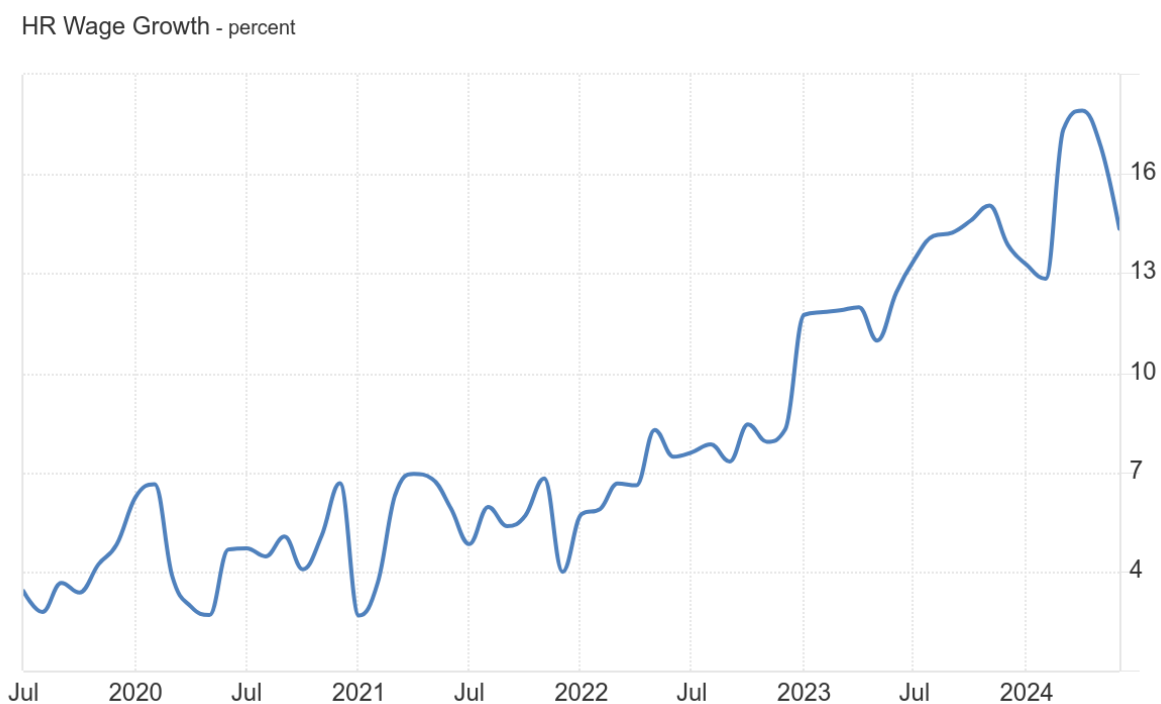
Furthermore, the digital transformation of the economy highlights the importance of human capital. This shift necessitates adapting workforce planning, education policies, and employment strategies to develop labor resources effectively (Carenko, 2023). Understanding the influences on labor market trends is essential for navigating the complexities of employment and wage dynamics in a rapidly changing world.

### 3.1.3. Wage Growth in Croatia

As wages tend to represent one of the trajectorial factors of price setting and suggest a valuing system for skillsets and human capital in general, it is essential to take them into analytical consideration, especially in Croatia amidst the Covid crisis and its admission to the Euro area. This section will provide a deeper dive into the wage growth and its trends, as well as its underlying factors and drivers.

The following graph shows recent trends in wage growth in Croatia from mid-2019 to mid-2024.

Figure 2. Wage Growth in percentage



Source: tradingeconomics.com | Croatian Bureau of Statistics

Source 2. *TRADING ECONOMICS*. (n.d.). Croatia Average Net Monthly Wages YOY. <https://tradingeconomics.com/croatia/wage-growth>

Initially, wage growth fluctuated modestly between 3% and 6% until mid-2021. However, from mid-2022 onwards, wage growth increased sharply, rising from approximately 7% to over 10% by early 2023. This trend continued, reaching a peak of over 16% in 2024. Although there is a slight decline from this peak, the wage growth rate remains high, staying above 13% in mid-2024. Overall, the graph indicates significant wage growth in Croatia in recent years, particularly from 2022, reflecting strong labor market dynamics and possibly responding to factors such as increased labor demand, inflationary pressures, or policy changes. However, this does not necessarily mean that the purchasing power of the residents has increased, as high inflation rates may have offset the wage growth. The more recent wage growth was boosted by tighter labour market reform policy as well as wage outlays, in addition to a strong (and rapid) inflow of non-EU workforce which has helped ease up supply shortages for workers and help streamline wage-price relations. Wage growth can also be contributed to a good touristic season and the gradual return of conventional tourism dynamics after Covid hit. Since tourism is Croatia's strategically most important sector, oftentimes it will dictate how future policies are

going to be structured as well as how the macroeconomic fundamentals will behave (Directorate-General for Economic and Financial Affairs, 2024).

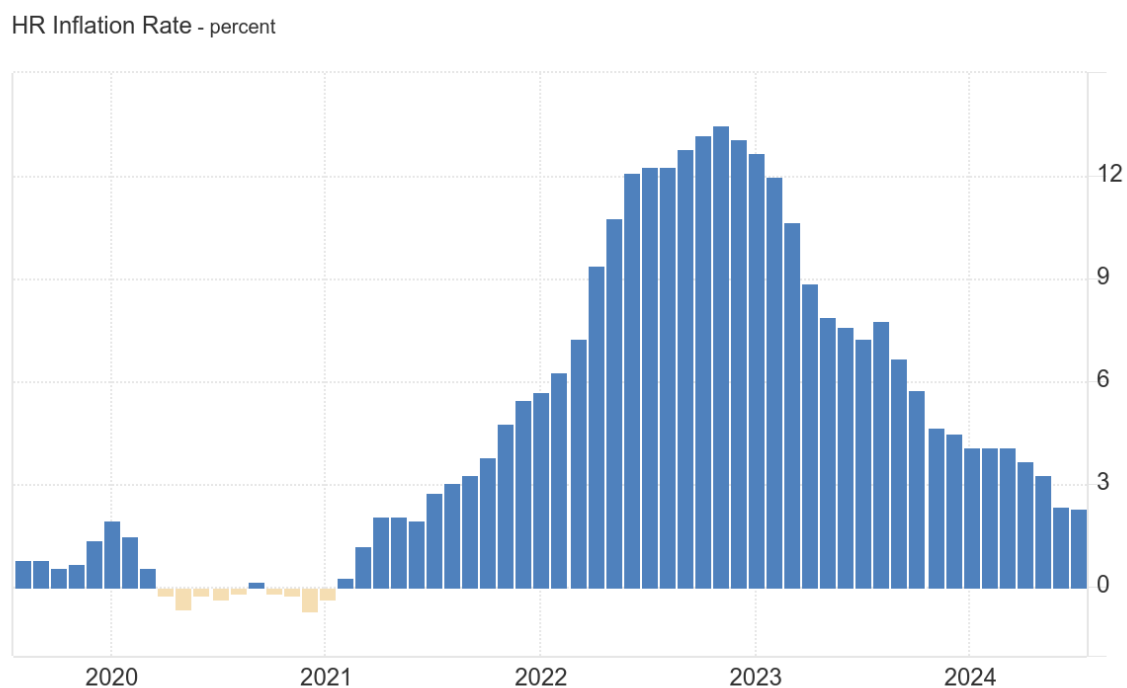
The labor market remains very strong, and in 2024, employment growth and a reduction in unemployment are expected to accelerate further, with nominal gross wages likely to rise more than previously anticipated. Supported by positive developments and stronger economic activity, employment could increase by 3.0% over the course of 2024 compared to the previous year. In 2025 and 2026, employment growth is expected to continue, though at a slower pace. The registered unemployment rate could fall to around 5.2% this year and remain below 5% for the rest of the projection period (HNB, 2024). As for wages, the growth in public sector wages has exceeded expectations based on data available at the time of the June projections (HNB, 2024). Now, it's expected that the average gross wage will rise by 14.9% nominally in 2024, a rate similar to 2023, while real wage growth could accelerate to 10.8%. In the following years, a significant slowdown in the annual growth of gross wages is expected (HNB, 2024).

## 3.2. Inflation trends in Croatia

### 3.2.1. Croatia's inflation rates

The inflation rate in Croatia has been significantly influenced by global events such as the COVID-19 pandemic and geopolitical conflicts, including the wars between Russia and Ukraine, as well as the Israel-Palestine conflict, in addition to the business and policy cycle motion. This impact is clearly depicted in the figure below, which illustrates the fluctuations in Croatia's inflation rate from 2020 to early 2024.

Figure 3. Croatia's inflation rates



Source: tradingeconomics.com | Croatian Bureau of Statistics

Source 3. TRADING ECONOMICS. (n.d.). Croatia inflation rate.  
<https://tradingeconomics.com/croatia/inflation-cpi>

In 2020, the inflation rate fluctuated around 0%, with periods of slight deflation, particularly in the middle of the year. The trend in 2021 began with a deflationary phase but shifted to a steady rise in the inflation rate starting mid-year, moving into positive territory and continuing to climb by year-end. The year 2022 experienced a significant surge in inflation, peaking at around 12% by mid-year and maintaining high levels throughout most of the year. In 2023, the high inflation persisted in the first half but began a notable downward trend in the latter half, with the inflation rate steadily decreasing. Early data for 2024 indicates that the inflation rate continues to decline, reaching approximately 3% in the initial months.

The graph reveals a period of economic volatility with low and negative inflation initially, a steep rise peaking in 2022, and a gradual decline, thereafter, reflecting significant economic events and policy interventions impacting inflation trends in Croatia. The inflation's 2022 rise was to be expected since many countries, including the ones imposed as the leading forces when it comes to influencing fluctuations in the main macroeconomic variables. Both the EU and the US economies were caught amidst a rapidly rising inflation caused by the strong demand

increases during Covid and expansionary sentiments that led many firms to overextend regarding expanding their staff. Personal consumption did not cease to increase, and it was time to carry out tighter public policies to fight inflation and bring it back to its target. Croatia was, of course, no different, also showing steep inflation rate increases followed by efforts to stabilize them, along with an additional issue of Euro adoption and the national market changes that it brought. Still, it can be seen that inflation fell to the accepted range, marking a period of low, stable prices and the escape from the bout of an overheated economy. Finally, what looks like a positive outcome for Croatia's price change rates is the fact that there is no looming deflation and latent fear of a liquidity trap (as famously shown during the housing crisis).

When looking at inflation through a magnifying glass, in more depth, aside from presenting its 4,1% rate in 2024 compared to 2023, DZS (2024) provided also an overview of its main components and how the changes in their prices affected the general consumer price index (CPI) in Croatia. Using the European Classification of Individual Consumption according to Purpose (ECOICOP) classification, DZS (2024) lists the following categories: transport, recreation and culture, restaurants and hotels, clothing and footwear, alcoholic beverages and tobacco, housing and utilities, house equipment and maintenance, health, communications, education, food and non-alcoholic beverages, and miscellaneous goods and services. According to the report, restaurants and hotels contributed the most to total inflation, with a rise in 10,4% YoY, followed by miscellaneous goods and services with a 5,9% increase, then with food and non-alcoholic beverages and health, both contributing with a 5,7% increase YoY. Education contributed with a 5,4% increase, recreation and culture with a 4,9%, transport with a 4,3%, and alcoholic beverages and tobacco with a 4% increase. With that in mind, restaurants and hotels contributed 0,53 basal points (bp) to inflation, misc. Goods and services with 0,37 bp, food, non-alcoholic beverages, and health with 1,51 and 0,18bp respectively, education with 0,04bp, rec. And culture with 0,25, transport with 0,6, and alcoholic beverages and tobacco with 0,2 bp contributed. The table below provides the inflation rate and its components in more depth by also presenting the change throughout months along with a comparison via a YoY approach.

*Table 1. Consumer price index in Croatia, special aggregates, February 2024, % change*

ECOICOP		Weight	$\frac{\text{II. 2024.}^{2)} - \text{Ø}}{\text{2015.}}$	$\frac{\text{II. 2024.}}{\text{II. 2023.}}$	$\frac{\text{II. 2024.}}{\text{I. 2024.}}$	$\frac{\text{III. 2023.} - \text{II. 2024.}}{\text{III. 2022.} - \text{II. 2023.}}$
<b>00</b>	<b>CPI - total</b>	<b>1.000,00</b>	<b>127,1</b>	<b>4,1</b>	<b>0,2</b>	<b>6,6</b>
01	Food and non-alcoholic beverages	264,85	142,6	5,7	-0,6	10,9
02	Alcoholic beverages and tobacco	50,29	134,8	4,0	0,1	5,3

03	Clothing and footwear	64,40	104,7	2,5	-0,6	6,8
04	Housing, utilities, and fuel	167,48	118,7	-0,1	0,1	4,2
05	House staff, equipment and maintenance	57,54	127,6	2,7	-0,1	7,2
06	Health	31,54	119,1	5,7	0,3	6,3
07	Transport	138,57	124,0	4,3	1,4	0,7
08	Communication	52,77	102,6	2,7	-0,2	2,8
09	Recreation and culture	52,01	122,0	4,9	1,1	6,4
10	Education	7,01	110,3	5,4	0,0	4,1
11	Restaurants and hotels	50,88	159,3	10,4	0,8	13,4
12	Miscellaneous goods and services	62,66	126,3	5,9	0,8	8,0

Source 4. DZS (2024).

Looking at monthly rates, transport also led with a 1,4% increase, followed by recreation and culture with 1,1%, then restaurants and hotels and miscellaneous goods and services with 0,8% increases respectively.

Looking at the special aggregate allocation of the CPI, consisting of the following components: food, beverages and tobacco with its subcategories non-processed foods and processed foods, energy with its subcategory of industrial non-consumable goods, energy excluded, and services.

Table 2. Consumer price index in Croatia, February 2024, % change

	Weight	II. 2024. <sup>1)</sup> Ø 2015.	II. 2024. II. 2023.	II. 2024. I. 2024.	III. 2023. – II. 2024. III. 2022. – II. 2023.
<b>Goods</b>	<b>739,38</b>	<b>128,0</b>	<b>3,3</b>	<b>0,1</b>	<b>6,4</b>
Food, beverages and tobacco	315,14	141,4	5,4	-0,5	10,0
Non-processed foods	86,04	135,2	8,1	-1,5	12,2
Processed foods	229,10	144,1	4,4	-0,1	9,1
Energy	158,32	122,5	0,3	1,5	0,3
Industrial non-consumable goods, energy excluded	265,92	116,4	2,5	-0,2	6,2
<b>Services</b>	<b>260,62</b>	<b>124,2</b>	<b>6,4</b>	<b>0,5</b>	<b>7,2</b>
<b>Total</b>	<b>1.000,00</b>	<b>127,1</b>	<b>4,1</b>	<b>0,2</b>	<b>6,6</b>
Total excl. Energy	841,68	128,0	4,8	-0,1	7,9
Total excl. Energy and food	602,81	122,4	4,6	0,2	6,7
Total excl. Energy, food, beverages, and tobacco	526,54	120,4	4,4	0,2	6,7
Total excl. energy and non-processed foods	755,64	127,3	4,4	0,1	7,5

Source 5. DZS (2024).

As can be seen from the table 2, the highest increase is contributed to the services components, with 6,4%, followed by food, beverages, and tobacco with 5,4%, then industrial non-consumable goods excl. Energy with 2,5%, and energy with a 0,3% increase. On a monthly basis, energy leads with 1,5%, then services with 0,5%. Opposed to the latter, foods, beverages,

and tobacco fell for 0,5% monthly, as well as industrial non-consumable goods excl. Energy, with a 0,2% slump.

It is quite evident that foods make up the majority of CPI's movements across the analyzed time period, which is also in line with the fact that personal consumption is Croatia's most heavily weighted GDP component.

Lastly, a glimpse at inflation perception will also be given in order to disseminate all the previously showcased data. According to HNB (2021), based on a sample of 1000 monthly participants and using a questionnaire method testing the participants' perception of price levels of certain categories of goods and services, the perception of inflation was considerably higher than the real inflation rate in the country. For the year 2021, the perceived inflation rose a little higher than 24%, with the real inflation being a mere 3,8%, concluding that the consumers' and investors' sentiments are quite pessimistic and rooted in fear of high prices. Also, said prices are perceived as even higher than they really are, thus additionally adding to the fact that the Croatian living standard may be significantly hindered when looking at the weak ratio between inflation and wage growth rates. People tend to think inflation is much higher than it is, possibly feeling as though their existing consumer and investor powers are worsening every month. There is no data available that is more recent, but it is safe to assume, considering all what was shown, that the above sentiment still remains, if not being additionally intensified with high inflation news across the globe. Figure 4 shows the comparison between perceived and real inflation rates, with the red line presenting perceived and the grey line presenting real inflation.

*Figure 4. Perceived and realized inflation rate comparison in Croatia, 2021, % change*



*Source 6. HNB (2021).*

### 3.2.2. Croatia's inflation per purchasing power

According to the study of Bogdan (2024), for the average Croatian consumer, about half of their spending goes to food, housing, and fuel. The prices of these items significantly influence the country's inflation rate, and since Croatia imports much of its food and fossil fuels, global market prices heavily impact domestic prices.

During the pandemic year of 2020, inflation was nearly zero, with negative rates from March to December, driven by lower demand for energy due to economic shutdowns. However, food prices did see some increase early in the year.

As the economy rebounded in 2021, demand and prices for energy products rose, driving inflation. In 2022, average inflation was 10.6%, with food prices up 16.4% and fuel prices up 23.1%, especially diesel (Bogdan, 2024). The rise in inflation since spring 2022 was partly due to the Russia-Ukraine conflict, which affected energy and food import costs. Despite public perception, research indicated that the increase in food prices was not due to traders' greed (Bogdan, 2024).

In 2023, food prices remained a major inflation driver, alongside restaurant and hotel prices, though fuel prices had a negative impact on inflation due to government measures. The introduction of the euro was feared to cause inflation, but initial data showed only a 0% monthly inflation rate in February 2023, with food prices rising by around 1% (Bogdan, 2024). Research suggested a significant impact on food, restaurant, and clothing prices due to the euro, though overall inflation remained stable.

### 3.3. Types of unemployment

Unemployment manifests in various forms, each driven by distinct causes and presenting unique implications. Key types include frictional, structural, cyclical, and institutional unemployment. Understanding these categories is crucial for addressing employment challenges effectively.

Frictional unemployment occurs when individuals are temporarily between jobs or entering the workforce, reflecting the time taken to find suitable employment (Ismailov et al., 2021; Janjghava, 2022). The rise of the digital economy has been shown to reduce frictional



unemployment by facilitating job matching through digital platforms, particularly in developing countries ("Incidence of the Digital Economy and Frictional Unemployment," 2022). Labor market frictions, such as matching elasticity and trade policies, can further influence this type of unemployment, highlighting the need for policies that enhance labor market efficiency (Li & Zeng, 2021; Carrère et al., 2020).

Structural unemployment, by contrast, arises from fundamental shifts in the economy, often driven by technological advancements or changing consumer demands that create a mismatch between workers' skills and available jobs (Yahyaoui & Amine, 2022). Measuring structural unemployment is challenging due to its complexity, with proxies such as the Beveridge curve and NAIRU often employed (Genda & Kondo, 2003; Beissinger, 2004). Factors like age, education, and long-term unemployment trends suggest that structural unemployment may require more than just supply-side adjustments (Larsen, 2003).

Cyclical unemployment fluctuates with economic cycles, increasing during recessions when demand for goods and services declines, and decreasing during periods of economic expansion (Ismailov et al., 2021; Yahyaoui & Amine, 2022). Studies confirm that cyclical unemployment is inversely related to GDP, as seen in Okun's Law, where GDP contractions lead to higher unemployment rates (Khalifa & Abdelwahad, 2024). Demographic groups, particularly younger and less-educated workers, are more vulnerable to cyclical unemployment during downturns (Forsythe & Wu, 2021).

Institutional unemployment stems from policies and regulations that affect labor markets, such as minimum wage laws or union activities (Ismailov et al., 2021). Effective government expenditures, especially in countries with strong institutional frameworks, have been shown to mitigate unemployment. For instance, increased government spending in Asian countries, supported by robust institutions, has led to significant reductions in unemployment (Pham, 2024). However, weak institutions can hinder job creation, necessitating targeted interventions to improve institutional quality and adapt to technological changes brought by the Fourth Industrial Revolution (Tran et al., 2023).

While each type of unemployment presents its own challenges, their interplay complicates labor market dynamics, making it essential to adopt comprehensive policy responses that address both short-term and long-term unemployment trends.

### 3.4. Unemployment rate and labor market

The line graph, shown below, illustrates the unemployment rate in Croatia from 2020 to 2024, measured in percentage points. The y-axis, ranging from 4% to 10%, indicates the unemployment rate, while the x-axis spans the years 2020 to 2024.

Figure 5. Croatia's unemployment rate



Source: tradingeconomics.com | Croatian Bureau of Statistics

Source. TRADING ECONOMICS. (n.d). Croatia unemployment rate.  
<https://tradingeconomics.com/croatia/unemployment-rate>

Starting in 2020, the unemployment rate remains relatively stable but begins to rise towards the end of the year, peaking in early 2021. Following this peak, the rate fluctuates, showing a general declining trend with occasional increases. Throughout 2021 and 2022, there are noticeable ups and downs, but the overall trajectory remains downward. In 2023, the unemployment rate continues to decrease, with some minor fluctuations. By 2024, the rate drops significantly, approaching 5%.

Croatia's total unemployment rate in 2024 hit record lows, placing it together with Portugal's and Lithuania's. Still, what is socially, demographically, and economically more important for the nation, its youth unemployment rate, still retains a two-digit value, reflecting its continuous problem with young people leaving the country in search for better living conditions, mainly due to unprecedentedly high real estate prices, making house owning for young couples almost unattainable, thus also hindering the opportunity to raise a family.

### 3.5. Labor market challenges in Croatia

Croatia's labor market faces significant challenges driven by demographic changes, skill mismatches, and structural unemployment, all of which have been exacerbated by external migration and the country's transition to a market economy. Demographic shifts, particularly population aging, are shrinking the workforce and increasing dependency ratios, with regions like Slavonia suffering from severe outmigration, which limits economic growth (Bulman, 2023 & Christiaensen et al., 2019). The emigration of young, skilled workers further compounds these labor shortages (Komušanac, 2024). Structural unemployment remains high, especially among youth and individuals with tertiary education, pointing to a deep disconnect between educational outcomes and labor market needs (Komušanac, 2024). Additionally, the labor market is characterized by a notable mismatch between the skills provided by educational institutions and those demanded by employers, particularly in advanced sectors (Gladoić & Bejaković, 2020). This mismatch is driven by ineffective communication between education providers and industries, a lack of comprehensive labor market information, and an overall sluggish response to the rapid pace of globalization and technological advancements (Bejaković & Mrnjavac, 2014). As a result, employers struggle to fill critical positions, especially in regions with lower employment rates, such as Slavonia, where only 51% of the working-age population is employed (Christiaensen et al., 2019).

These skill mismatches have significant consequences, including stunted productivity, slower innovation, and job dissatisfaction, leading to underutilization of human capital (Brunello & Wruuck, 2019). Despite these challenges, there is potential for improvement through the expansion of re-skilling programs, better alignment of educational outcomes with market needs, and the introduction of policies to leverage the skills of immigrants and returning emigrants (Dedukić, 2022). However, persistent issues such as corruption, nepotism, and systemic

inefficiencies in educational and labor market policies hinder the effectiveness of these solutions (Dedukić, 2022). Addressing these challenges requires a comprehensive approach involving targeted labor market interventions, enhanced collaboration between industries and educational institutions, and improved labor market information systems to anticipate future skill needs (Osmani et al., 2024). Without such reforms, Croatia's labor market faces long-term risks of reduced competitiveness, slower economic growth, and ongoing brain drain.

## 4. FISCAL AND MONETARY POLICY

### 4.1. Defining Fiscal and Monetary Policy

Fiscal and monetary policies each play unique roles in managing the economy, particularly during times of crisis. Fiscal policy centers on government decisions regarding spending and taxation to impact economic activity, while monetary policy is concerned with regulating the money supply and interest rates, usually managed by a central bank. Research shows that these two policies have different operators and targets—fiscal policy tends to be less flexible but can be more directly effective in stimulating the economy during downturns, as demonstrated by U.S. strategies during the 2008 financial crisis and the COVID-19 pandemic (Wang, 2024).

The interaction between fiscal and monetary policies is crucial for economic stabilization. For instance, the use of expansionary monetary policy alongside restrictive fiscal measures has proven effective in stabilizing both national and global economies during financial crises, highlighting their interdependence (Hayo i Niehof, 2023). Therefore, while fiscal policy directly impacts demand through government intervention, monetary policy primarily shapes the broader financial environment, underscoring their complementary yet distinct roles in economic management.

This chapter shows detailed research of monetary and fiscal policy, from defining the terms to showing the Croatia's situation.

#### 4.1.1. Fiscal Policy

Fiscal policy plays a vital role in achieving macroeconomic stability and growth, as evidenced by numerous studies (Daniel et al., 2006). It encompasses government spending and taxation strategies that directly influence economic performance, such as capital market strength and public debt sustainability. By stabilizing the economy, redistributing resources, and regulating economic behavior, fiscal policy serves multiple functions in shaping a nation's economic landscape. For example, active fiscal policy can cushion the effects of economic shocks and improve welfare, especially when monetary policy tools are limited, such as during periods when interest rates are near zero (Le, Meenagh i Minford, 2024).

The effectiveness of fiscal policy is highly context-dependent, with challenges such as slow implementation and political pressures potentially diminishing its impact (Ltaifa i Callen, 2024). Additionally, fiscal policy design must account for redistributive effects, particularly pro-poor adjustments, to protect vulnerable populations during economic crises (Jha, 2023). For instance, Saudi Arabia's ongoing fiscal reforms, aimed at diversifying revenue sources and enhancing expenditure management, underscore the importance of a balanced approach to fiscal adjustments to maintain growth and address oil price volatility (Ltaifa i Callen, 2024). While fiscal policy is essential for economic stabilization, its success depends on careful implementation and a keen awareness of the specific economic context (Hidoyatovna i Kizi, 2024).

Fiscal policy involves several key components vital for regulating a nation's economy. These include the management of state income, encompassing tax and non-tax revenues to ensure economic stability, and the allocation of state expenditures, focusing on directing budgetary resources to priority sectors while managing public debt (Ogriko i Kret, 2018). Fiscal policy also serves multiple functions, such as stabilizing the economy, redistributing resources, and regulating economic behavior through various fiscal tools (Yakushko, 2022). Effective fiscal management emphasizes transparency, accountability, and long-term financial planning to mitigate risks and build public trust (Harchenko, 2024). Incorporating innovative technologies and encouraging public participation in the budget process can further enhance the effectiveness of fiscal policy.

Government spending, a key component of fiscal policy, plays a vital role in driving economic growth, ensuring stability, and promoting equity. Historical analysis, such as during the interwar period, suggests that government spending was less effective in stimulating output growth than initially thought, indicating limited counter-cyclical benefits in that era (Martineau i Smith, 2015). However, in contemporary settings, public expenditure is recognized as a vital tool for economic stabilization and development, particularly in federal systems like India. It has the potential to correct market distortions, promote positive externalities, and support both developed and underdeveloped economies (Youkta i Nupur, 2020). The evolution of fiscal policy in India illustrates that while public expenditure can drive growth and equity, it must be balanced with sustainable public finances to avoid fiscal deficits.

While government spending and other elements of fiscal policy are essential for driving economic growth and ensuring stability, their effectiveness varies based on historical context and economic conditions. Therefore, careful policy design, mindful of the specific context, is

crucial for achieving strategic goals such as economic growth, poverty reduction, and the creation of a favorable investment climate.

#### 4.1.2. Monetary Policy

Monetary policy is a key tool for managing economic stability and growth, especially during financial crises. Central banks utilize various strategies, such as interest rate adjustments and quantitative easing (QE), to address inflation, unemployment, and recessionary pressures. For example, the Federal Reserve's actions have global repercussions, influencing financial markets beyond U.S. borders (Wang, 2024). Effective monetary policy is crucial for ensuring national economic security, as it regulates money supply, stabilizes the currency, and fosters economic resilience (Myskiv i Vinichuk, 2022).

Central banks implement monetary policy through a range of tools aimed at promoting economic stability and growth. Key instruments include adjusting the federal funds rate, engaging in QE, and providing forward guidance, which help central banks like the Federal Reserve manage employment and price stability (Bernanke, 2020). Other tools, such as open market operations and lending facilities, are employed by central banks like the Bank of Korea to manage money supply and interest rates (Cambridge University Press, 2022). Emerging technologies, including machine learning and advanced communication strategies, are increasingly integrated into central banking practices to enhance data analysis and inform policy decisions, thereby improving market expectations and policy outcomes (Araujo et al., 2023).

Interest rates are a fundamental aspect of monetary policy, significantly impacting borrowing, spending, and investment behaviors. Increasing interest rates raises borrowing costs, which can slow economic growth by decreasing consumer spending and business investment. On the other hand, reducing interest rates can encourage economic activity by making credit more readily available. However, simply reducing rates does not guarantee higher growth, as the effects of interest rates are influenced by various factors, including technological development and economic conditions. Moreover, while interest rate hikes are often used to combat inflation, they can also negatively affect employment and investment, creating complex trade-offs for policymakers.

Forward guidance, a modern monetary policy tool, plays a vital role in shaping expectations and influencing economic outcomes. It helps central banks manage policy rates, reduce

uncertainty, and stimulate the real economy by addressing financial market frictions (Jiang i Huang, 2023). The effectiveness of forward guidance depends on the clarity of the guidance and the public's expectations, which can significantly impact policy transmission.

Monetary policy plays a crucial role in managing economic stability, with its effectiveness hinging on the strategic use of various tools, the ability to adapt to changing conditions, and the coordination with fiscal policy to maximize economic output and stability.

## 4.2. Overview of budget, government debt, and fiscal measures in Croatia

### 4.2.1. Overview of state budget in Croatia

The Croatian parliament has made several revisions to its state budget in response to various crises, including the COVID-19 pandemic and natural disasters like the Zagreb earthquake. The 2022 budget revision increased expenditures, particularly for the health sector, and the deficit widened to 2.8% of GDP (Croatian Parliament, 2022). Despite opposition criticism that the budget benefits the state more than citizens, the government emphasized that these measures aim to maintain economic stability and social security.

For 2023, the first budget in euros projects revenue of nearly €25 billion and expenditure of €26.7 billion, with a deficit set at 2.3% of GDP (Croatian Parliament, 2022). The budget focuses on supporting economic growth, social care, and post-earthquake reconstruction, while also preparing for the challenges of joining the eurozone. However, opposition parties criticized the lack of serious reforms and warned of potential declines in wages and pensions (Croatian Parliament, 2022). Despite these concerns, the government insists its fiscal policies are appropriate for the coming year.

### 4.2.2. General government debt from 2020 until 2023 in Croatia

This chapter provides overview of government debt from 2020 until 2023 in Croatia.



Table 3. Total financial sector liabilities, by instruments, consolidated - % of GDP

TIME	2020	2021	2022	2023
<b>LABEL</b>				
<b>TOTAL</b>	185,1	176,7	161,7 p	179,2 p
<b>Deposits</b>	109,8	105,3	100,2 p	114,8 p
<b>Debt securities</b>	0,3	1,2	1,3 p	1,6 p
<b>Loans</b>	5,3	4,2	4,0 p	4,2 p
<b>Equity and investment fund shares</b>	28,3	26,5	21,4 p	23,0 p
<b>Insurance, pensions etc.</b>	39,3	37,7	32,6 p	33,3 p

Source 7. Author according to Eurostat data.

The table provides an overview of Croatia's debt structure from 2020 to 2023, showing changes across key financial components such as deposits, debt securities, loans, equity and investment fund shares, and insurance/pension-related assets. It is evident that deposits take up the majority of the GDP share compared to other instruments, which reflects the functionality of the national banking system, followed by insurance, pensions etc., also a reflection of the public nature of Croatia's health insurance and pension finances. Lastly and on the third place are equity and investment fund shares, part of the nation's capital market movements. The rest is taken by loans and debt securities reflecting credit activity.

Over this period, Croatia's total debt decreased from 185.1 in 2020 to 161.7 in 2022, before rising again to a provisional 179.2 in 2023, suggesting a shift after two years of reduction. Deposits, which formed the largest part of the debt, declined steadily from 109.8 in 2020 to 100.2 in 2022 but saw a significant rise to 114.8 in 2023, indicating increased savings or institutional financial movements. Debt securities, while a smaller component, increased from 0.3 in 2020 to 1.6 in 2023, reflecting a growing reliance on financial instruments like bonds. Loans decreased from 5.3 in 2020 to 4.0 in 2022, with a slight recovery to 4.2 in 2023, signaling

a stabilization after earlier reductions. Equity and investment fund shares saw a sharp decline from 28.3 in 2020 to 21.4 in 2022, followed by a partial recovery to 23.0 in 2023, likely due to shifting investment patterns post-pandemic. Insurance and pension-related assets also declined from 39.3 in 2020 to 32.6 in 2022, with a minor rebound to 33.3 in 2023, potentially reflecting changes in long-term savings or market conditions. Overall, the data highlights a period of adjustment, with total debt initially decreasing but rebounding in 2023, driven by fluctuations across various financial instruments.

Table 4. Net external debt - annual data, % of GDP

TIME	2020	2021	2022	2023
<b>GEO (Labels)</b>				
<b>Ext debt % GDP</b>	14,4	5,0	1,2	-3,4

Trade partner = REST OF THE WORLD

Source 8. Author according to Eurostat data.

The table shows Croatia's external debt as a percentage of GDP from 2020 to 2023, with the trade partner defined as "Rest of the World." In 2020, external debt stood at 14.4% of GDP, indicating a significant proportion of foreign debt relative to the country's economic output. This percentage dropped sharply to 5.0% in 2021, continuing to decline further to 1.2% in 2022. By 2023, Croatia's external debt as a percentage of GDP had turned negative at -3.4%, suggesting that the country might have become a net creditor to the rest of the world, with foreign assets exceeding external liabilities. This trend highlights a significant reduction in external debt over the observed period, potentially reflecting improved financial stability or changes in international borrowing and lending activities. It is relevant to state that Croatia's external debt now sits on a record low, an issue that was affecting the economy for quite some time in the past. Its public debt values significantly lower than EU average, at the moment.

Table 5. General government debt

	TIME	2020	2021	2022	2023
<b>Croatia</b>					
<b>Cons gross debt million EUR</b>		43.780,8	45.743,6	46.334,0	48.191,3
<b>% of GDP</b>		86,1	77,5	67,8	63,0

Source 9. Author according to Eurostat data.

The table presents Croatia's consolidated gross debt in millions of euros and its percentage relative to GDP from 2020 to 2023. In 2020, Croatia's gross debt stood at 43,780.8 million EUR, representing 86.1% of GDP, indicating a high debt-to-GDP ratio. By 2021, the debt increased to 45,743.6 million EUR, but the debt-to-GDP ratio decreased to 77.5%, suggesting economic growth that outpaced the increase in debt. In 2022, gross debt rose slightly to 46,334.0 million EUR, while the debt-to-GDP ratio continued to drop to 67.8%. By 2023, gross debt reached 48,191.3 million EUR, with the debt-to-GDP ratio falling further to 63.0%. This trend shows that while Croatia's gross debt increased over time, its debt burden relative to GDP consistently declined, indicating improving economic conditions and a more sustainable debt position. To support above claims of Croatia's gradually healthier and healthier debt trajectory, it is evident that the debt shows a negative trend throughout the years in a continual effort to stabilize it and bring a more streamlined outlook to the country's debt structure.

Table 6. Government consolidated gross debt by components - annual data

	TIME	2020	2021	2022	2023
<b>LABEL</b>					
<b>Consolidated gross debt</b>		43.881,9	45.628,9	46.346,3	48.191,3
<b>Government consolidated gross debt - currency deposits</b>		45,5	46,7	47,6	53,8
<b>Government consolidated gross debt - debt securities</b>		30.826,5	32.023,9	31.838,9	34.105,4
<b>Government consolidated gross debt - loans</b>		13.010,0	13.558,3	14.459,8	14.032,2

Source 10. Author according to Eurostat data.

The table outlines Croatia's consolidated gross debt and its main components from 2020 to 2023, showing a steady increase in overall debt. Consolidated gross debt rose from 43,881.9 million EUR in 2020 to 48,191.3 million EUR in 2023. Government debt held in currency deposits increased moderately, from 45.5 million EUR to 53.8 million EUR during this period. The largest component, debt securities, saw a rise from 30,826.5 million EUR in 2020 to

34,105.4 million EUR in 2023, indicating a growing reliance on bond issuance. Meanwhile, government debt in loans grew from 13,010.0 million EUR in 2020 to 14,459.8 million EUR in 2022, before slightly decreasing to 14,032.2 million EUR in 2023, reflecting some stabilization or repayment. This overall trend points to a gradual increase in Croatia's debt, with the government mainly relying on debt securities as the primary borrowing instrument.

#### 4.2.3. Fiscal measures in Croatia

Fiscal measures in Croatia are designed to stimulate economic growth, address labor market issues, and reduce inequalities. Research highlights that fiscal decentralization has generally fostered economic growth by enhancing local governance and service delivery, which boosts citizen engagement and accountability (Matić, 2024). However, the effectiveness of fiscal equalization remains limited, as it often relies on non-economic criteria, resulting in persistent fiscal disparities among local units (Primorac, 2015). Additionally, high labor taxation in Croatia has negatively impacted employment rates, suggesting that the tax burden reduces work incentives (Deskari-Škrbić, Drezgić i Šimović, 2018).

While fiscal policies have made some progress in reducing inequality, they have not sufficiently addressed poverty, especially among families with children and retirees. This indicates a need for reform in tax and social spending structures to better target poverty alleviation. Furthermore, the overall impact of fiscal measures on Croatia's economy shows that while they aim to stabilize and promote equity, their implementation reveals areas needing improvement.

The effectiveness of fiscal policy is also influenced by government consumption, which significantly affects employment, output, and inflation (Deskari-Škrbić, Drezgić i Šimović, 2018). Positive government spending shocks tend to boost output, while tax shocks, particularly those from indirect taxes, often have a negative effect. Automatic stabilizers are crucial for mitigating economic fluctuations, reinforcing the need for a well-balanced fiscal strategy (Gnip, 2011).

Comparatively, Croatia faces challenges such as a high labor tax burden that affects employment rates and excessive public debt relative to EU stability and growth guidelines (Deskari-Škrbić, Drezgić i Šimović, 2018). In contrast, other Central and Eastern European countries have managed their public debt more effectively. Croatia could also benefit from adopting best practices from other countries, such as Norway's and Austria's hydrocarbon fiscal

regimes, to improve its own fiscal framework (Kolovrat, Jukić i Sedlar, 2021). Overall, substantial reforms are needed in Croatia's fiscal policies to enhance economic stability and growth.

### 4.3. Croatian National Bank's policy

The Croatian National Bank (HNB) is central to managing the nation's monetary policy and addressing economic and housing market challenges. Established to uphold price stability and support economic policy, the HNB has utilized various monetary and macroprudential tools, especially during crises like the 2008 financial downturn that severely affected Croatia's economy and banking sector (Kotarski i Tkalec, 2018). While Croatia had kuna as their national currency, the HNB included a float exchange rate policy, which allowed it to intervene as needed to stabilize the kuna against the euro, thus maintaining financial stability (Mance, Živković i Mance, 2015). Additionally, the bank has pursued expansionary monetary policies to boost economic activity. However, the impact of these measures on inflation and asset prices has been subject to debate.

The HNB's involvement in the housing market includes the SSK mortgage subsidy program, which was intended to promote homeownership but has instead contributed to rising house prices without a substantial increase in homeownership rates (Fernandez i Bežovan, 2023). This reflects a shift towards financialized growth rather than addressing fundamental housing needs.

The HNB's policies significantly affect inflation in Croatia, primarily through its managed float exchange rate system. Although the HNB focuses on maintaining price stability by managing the exchange rate, inflation in Croatia is heavily influenced by external factors rather than domestic monetary policy (Živko i Bošnjak, 2018). The anti-inflation stabilization program implemented in 1993 initially brought about deflation and stability (Gil-Alana, Mervar i Payne, 2016), but recent inflation has surged above 10% in 2022, raising concerns about how euro adoption might impact prices.

Moreover, the HNB's monetary policy interacts complexly with inflation through foreign investment and exchange rate fluctuations, which affect the money supply (Živko i Bošnjak, 2018). While selective price controls, like those on milk products, have provided some relief for specific goods, they have not significantly influenced overall inflation. Thus, while the

CNB's policies are crucial in managing inflation, their effectiveness is influenced by external economic conditions and structural factors.

#### 4.4. Impact of joining the Eurozone

On 1st January 2023 Croatia adopted the euro and became the 20th member of the euro area. The impact of this has been discussed in multiple research papers before happening. As the world is currently faced with wars on multiple sides, inflation and many other economic implications are making discussions about Croatia's challenges from joining Eurozone very complicated. Meanwhile, this chapter will focus on what researchers mentioned before it happened.

Croatia's entry into the Eurozone in January 2023 brings both opportunities and challenges. On the positive side, adopting the euro is expected to bolster macroeconomic stability and reduce currency fluctuations, benefiting crucial sectors like tourism by enhancing Croatia's appeal as a travel destination (Emerald Expert Briefings, 2022). The shift to EU governance procedures is also likely to improve strategic planning and utilization of EU funds, aiding in the country's economic reforms (Lang, 2024). However, the transition is not without its difficulties. Rising inflation, which recently spiked above 10%, raises concerns about whether adopting the euro will exacerbate price increases (Emerald Expert Briefings, 2023). This could strain government budgets and affect state-owned enterprises.

Furthermore, the adoption of the euro could impact Croatia's trade dynamics. While it is expected to enhance trade within the EU by reducing exchange rate risks and transaction costs, it may also lead to a decrease in trade with non-EU countries (Šiljak, 2022). Moreover, the loss of an independent monetary policy could restrict Croatia's capacity to address economic shocks, thereby impacting its competitiveness in international markets (Šiljak, 2022).

The property market poses another concern, with rising house prices potentially threatening financial stability, particularly if influenced by fluctuating foreign demand due to broader EU economic conditions (Emerald Expert Briefings, 2023). Small and medium enterprises (SMEs) in Croatia also face challenges with GDPR compliance, which may affect their readiness for the Eurozone's regulatory environment (Mladinić, Vukić i Rončević, 2023).

To ensure a smooth transition, Croatia should address public concerns about price stability and inflation, implement effective communication strategies about the euro transition, and meet Maastricht criteria to minimize economic shocks (Mujačević i Martić, 2023). Strengthening formal institutions and improving tax morale are also crucial for integrating informal economic activities and ensuring a stable economic environment post-euro adoption (Barić, Franić i Polak, 2016). By carefully managing these aspects, Croatia can navigate the complexities of joining the Eurozone and leverage the benefits while mitigating potential risks.

## 5. FOREIGN TRADE AND TOURISM IN CROATIA

### 5.1. Export and import trends

Croatia's trends in exports and imports reveal a complex interaction of economic factors, highlighting both challenges and opportunities as the nation carves out its position in the global market. Over the last twenty years, international trade has significantly contributed to Croatia's economic growth, with exports being particularly vital, especially after the country joined the EU (Srdelić i Davila-Fernandez, 2024). For instance, the cereals market highlights this dynamic, with Croatia maintaining its position as a net exporter of corn and wheat, while relying on imports for other grains due to production challenges (Sušac et al., 2020).

Despite the positive impact of EU membership on export performance, particularly with improved access to European markets, Croatia's overall export growth has been sluggish since the financial crisis, hampered by low diversification and competitiveness (Orsini, 2017). While the food industry has shown resilience and strong competitive advantages in CEFTA markets, it still faces pressures to innovate and diversify (Buturac, 2015). Large enterprises continue to dominate export volumes, yet small and medium-sized firms have started contributing more significantly, signaling a gradual recovery (Valdec i Zrnc, 2018). However, strategic investments in innovation and a more diversified export structure are critical to sustaining long-term growth (Aprahamian i Correa, 2015).

On the import side, Croatia has experienced a high dependence on imports, particularly in the service sector, largely driven by tourism (Orsini, 2017). This reliance complicates the balance of trade, even though the country has managed to achieve a current account surplus. The sustainability of this surplus depends on maintaining competitiveness and diversifying the economy beyond tourism. Historical import trends also provide insight into Croatia's evolving economic landscape. Croatia's import demand has shown a persistent high-income elasticity, meaning that as income levels rose, so did the demand for imports, while the impact of relative prices diminished (Bošnjak et al., 2019).

Foreign direct investments (FDI) have not significantly boosted export growth, as they have been predominantly directed toward the service sector rather than manufacturing (Franc, 2017). This trend underscores the need for policy measures that enhance the export capacity of the



manufacturing sector to ensure long-term economic stability. Overall, Croatia's trade dynamics underscore the importance of a balanced approach to both exports and imports, with a focus on innovation, diversification, and strategic investments to bolster its position in international trade and ensure sustainable economic growth.

## 5.2. Impact of the pandemic on the tourism sector and recovery

The COVID-19 pandemic had a profound impact on Croatia's tourism sector, leading to significant economic losses and a sharp decline in international tourist arrivals, particularly in the Adriatic region. Before the pandemic, Croatia enjoyed steady growth in tourism, with nearly 19.6 million visitors in 2019. However, 2020 saw a dramatic drop in both arrivals and overnight stays, severely affecting local economies and businesses. The pandemic's effects were further exacerbated by geopolitical events like the war in Ukraine, which added to the challenges faced by Croatia's tourism economy (Podhorodecka i Cobb, 2024).

In response to these challenges, various strategies have been implemented to facilitate recovery. Regions such as the Opatija Riviera have adapted their hotel management strategies to focus on enhancing service quality and guest satisfaction, which are crucial for long-term sustainability and competitiveness (Alkier, Milojica i Roblek, 2023). Additionally, Croatia, along with other Mediterranean countries, has emphasized the importance of developing cross-border tourism products, enhancing digital marketing strategies, and promoting domestic tourism (Tymoshchuk, 2024). These efforts have shown some initial signs of recovery, as seen in the summer of 2021, when the tourism sector achieved results comparable to pre-pandemic levels due to effective containment measures and a favorable epidemiological situation (Mataković, 2022).

However, the full recovery of the tourism sector remains uncertain, as the long-term effects of the pandemic continue to influence travel behaviors and industry practices. Post-pandemic tourist preferences in Croatia have shifted significantly, with travelers becoming more budget-conscious, favoring shorter and less frequent vacations, and prioritizing destinations that offer privacy and adhere to hygiene standards (Goncu i Kamasak, 2024). There is also a growing emphasis on sustainable tourism practices, local food options, and nature experiences, reflecting a broader trend towards more environmentally conscious travel.

To address these evolving preferences and ensure a sustainable recovery, Croatia is implementing innovative initiatives across various sectors. For example, tourism education is being enhanced to integrate digital and experiential learning, better preparing students for the industry's changing demands (Wang, Yang i Xi, 2024). The hotel sector, particularly in Opatija, is adapting business models to prioritize service quality, while the tourism industry is exploring digital technologies and new offerings to meet shifting consumer preferences (Alkier, Milojica i Roblek, 2023). Museums in Croatia are also leveraging digital initiatives to engage audiences remotely, maintaining interest and building resilience against future crises (Buršić, Golja i Benassi, 2023).

While Croatia's tourism sector has shown resilience in the face of significant challenges, a comprehensive and strategic approach is essential for sustainable growth. This includes focusing on safety, sustainability, and local experiences to adapt to the evolving demands of post-pandemic travelers and ensure long-term economic stability.

### 5.3. Impact of Croatia's Schengen area admittance on domestic tourism demand

Croatia's accession to the Schengen Area is expected to have profound effects on its tourism industry and overall economy, offering both opportunities and challenges. The removal of border controls will significantly enhance accessibility for both domestic and international travelers, potentially leading to a surge in tourist arrivals (Beljo et al., 2023). Easier travel, particularly from neighboring EU countries, is anticipated to boost domestic tourism demand and contribute to the broader growth of the regional tourism sector (Keček, 2022). Historically, increased mobility within the Schengen zone has correlated with higher tourism flows, and Croatia is likely to see similar trends, benefiting from its proximity to several EU member states (Beljo et al., 2023).

Tourism is a crucial component of Croatia's economy, contributing approximately 20% of its GDP (Beljo et al., 2023). The expected rise in tourist numbers could further bolster economic stability and growth, with foreign tourist expenditures historically helping to mitigate economic downturns (Gržinić & Šergo, 2023). Additionally, Schengen membership presents opportunities for diversifying Croatia's tourism offerings, moving beyond traditional models focused on the "sea and sun" and toward a more varied and sustainable tourism strategy (Orsini

& Ostojić, 2018). Improved infrastructure, supported by EU funds, will be key in this transition, helping Croatia cater to increased tourist volumes while promoting long-term sustainability (Zlomislić, 2017).

While the benefits are substantial, Croatia will also face challenges, particularly regarding increased competition among EU destinations (Zlomislić, 2017). The enhanced accessibility could lead to shifts in tourist flows, making it necessary for Croatia to maintain high standards and competitive pricing to continue attracting visitors (Radnić et al., 2009). Furthermore, issues like labor shortages in the tourism sector and potential wage pressures will require careful management. Labor market dynamics may shift, with increased demand for specialized skills in hospitality and tourism-related services (Ateljevic & Čorak, 2006).

In addition to economic impacts, Croatia's Schengen accession is likely to enhance perceptions of safety and stability, further attracting international tourists (Gržinić & Šergo, 2023). The integration of stronger border security frameworks aligned with Schengen regulations could mitigate risks associated with illegal migration, although this will also place pressure on Croatia's border management systems (Čeko & Held, 2019). To address these complexities, Croatia will need to balance growth in tourism with sustainable practices, ensuring that increased visitor numbers do not strain local resources or the environment (Zlomislić, 2017).

Croatia's Schengen membership represents a critical turning point for its tourism sector, offering the potential for economic growth, improved regional cooperation, and enhanced security, while also requiring strategic planning to navigate emerging challenges.

## 6. CONCLUSION

Economic growth reflects the increase in a nation's production capabilities, often measured by GDP, which captures the total value of goods and services produced within a country. While GDP is a key indicator of economic performance, it does not fully account for living standards, inflation, or inequality. For instance, Japan experienced an economic slowdown in 2023 despite a high GDP, highlighting the limitations of GDP as a comprehensive measure.

Between 2020 and 2023, Croatia's GDP fluctuated due to the COVID-19 pandemic and external factors like Russia's war in Ukraine, with a significant contraction in 2020 followed by a recovery and stabilization at lower growth rates by 2023. This recovery was driven by public investment and private consumption, though challenges like a declining workforce, emigration, and income divergence continue to constrain growth. Additionally, Croatia's shift to a services-led economy has exposed structural weaknesses, and external factors such as global market fluctuations and rising property prices further influence GDP trends. To address these challenges and enhance resilience, Croatia has implemented a National Recovery and Resilience Plan, focusing on green and digital transitions, sustainable development, and modernization across various sectors, particularly in response to the compounded impact of the pandemic and earthquakes.

Inflation, defined as a continuous rise in prices, significantly affects purchasing power and can erode real incomes, particularly impacting lower-income households more severely. Theories of inflation vary, but high levels are generally harmful to economic stability and can lead to social unrest if not managed properly. The labor market, driven by supply and demand dynamics, encompasses various factors like demographics, education, and technology, influencing wage rates and employment levels. Technological advances and globalization have shifted job availability and required new skills, impacting employment patterns.

In Croatia, inflation has fluctuated significantly due to global events such as the COVID-19 pandemic and geopolitical conflicts. Inflation was near zero in 2020 but surged to about 12% in mid-2022 before declining to around 3% in early 2024. Major drivers of inflation included food, housing, and fuel prices, heavily influenced by global market fluctuations. Despite concerns about the euro's impact on inflation, the overall rate remained stable with some price increases in food and services.

The unemployment rate in Croatia showed stability in 2020 but increased in early 2021. It then fluctuated before trending downward, reaching approximately 5% by 2024.

Fiscal and monetary policies are essential tools for managing economic stability, each playing distinct roles. Fiscal policy involves government decisions on spending and taxation to influence economic activity, with its effectiveness often dependent on the context and implementation. For instance, during downturns, fiscal policy can directly stimulate the economy, as seen in responses to the 2008 financial crisis and the COVID-19 pandemic. However, it can be less flexible due to political and implementation challenges. Conversely, monetary policy, managed by central banks, focuses on controlling the money supply and interest rates to stabilize the financial environment.

Tools like interest rate adjustments and quantitative easing are crucial for addressing inflation and recession, though their effectiveness can be influenced by external factors and economic conditions. In Croatia, fiscal policies have been adjusted to address crises, with recent budgets projecting deficits and focusing on economic growth and social care. Government debt has fluctuated, with a notable increase in 2023, reflecting ongoing fiscal pressures.

The Croatian National Bank (HNB) plays a significant role in monetary policy, facing challenges such as managing inflation and the housing market. The recent adoption of the euro in January 2023 brings both opportunities, like enhanced macroeconomic stability and improved strategic planning, and challenges, including concerns about rising inflation and impacts on trade and monetary policy flexibility.

Croatia's foreign trade and tourism sectors reveal a complex interplay of challenges and opportunities. The country remains a net exporter of corn and wheat but relies on imports for other grains due to production limitations. EU membership has facilitated access to European markets, yet overall export growth has been sluggish due to low diversification and competitiveness. Large enterprises dominate exports, though small and medium-sized businesses are increasingly significant. Croatia's high dependence on imports, driven largely by tourism, complicates the trade balance despite achieving a current account surplus. Foreign direct investments (FDI) have largely targeted the service sector, underscoring the need for policy measures to boost manufacturing exports.

The COVID-19 pandemic severely affected Croatia's tourism, with a sharp decline in arrivals and economic losses, worsened by geopolitical events like the war in Ukraine. Recovery strategies include enhancing service quality, promoting cross-border tourism, and leveraging

digital marketing. While there have been signs of recovery, such as improved tourism figures in summer 2021, long-term recovery remains uncertain as traveler preferences shift towards budget-friendly, shorter trips and a focus on hygiene and sustainability. Croatia is responding with initiatives in tourism education, digital engagement, and a focus on local and sustainable experiences to adapt to these changes and ensure future economic stability.

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