

## The Economic Consequences of the COVID-19 Crisis on the Economy of the Republic of North Macedonia

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**Abstract** – The COVID-19 pandemic brought rapid and unexpected changes across the global economy. Fiscal and monetary policies lacked prepared mechanisms and teams to manage such a crisis, further weakening the ability to mitigate its consequences on economic activity. The COVID-19 crisis represents one of the largest global shocks in recent history and significantly influenced the economic flows of the Republic of North Macedonia. It caused severe disruptions in production, transportation, and trade, leading to a slowdown in economic activity and reduced revenues for many companies. Regarding exports, the Macedonian economy faced decreased international demand, particularly in the automotive industry and metallurgy—key export sectors. Imports also declined due to reduced domestic demand and disruptions in global supply chains. These processes directly affected foreign direct investment (FDI), which, under conditions of uncertainty and diminished risk appetite, was redirected toward safer markets, leading to postponed or reduced planned investments in the country. The most visible indicator of economic slowdown was the drop in Gross Domestic Product (GDP) in 2020, as a consequence of lower productivity and consumption. Nevertheless, the gradual adaptation of economic actors and government support measures enabled partial stabilization. The analysis shows that the COVID-19 crisis not only highlighted the structural weaknesses of the Macedonian economy but also emphasized the need for market diversification, greater digitalization, and enhanced resilience to future crises.

**Keywords** – COVID-19; Macedonian economy; Gross Domestic Product; Foreign Direct Investment (FDI); Exports; Imports; Unemployment.

### I. INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) officially declared COVID-19 a global pandemic [1]. As a response to this unprecedented health crisis, which rapidly spread across almost every country worldwide, governments introduced strict restrictive measures, including citizen isolation and the suspension of significant parts of economic activity.

The Republic of North Macedonia registered its first confirmed case at the end of February 2020. Soon after, the number of infections increased sharply, and on March 13, 2020, a state of crisis was declared in

the municipalities of Debar and Centar Župa. Strict nationwide measures followed, significantly restricting mobility and business activity.

Meanwhile, the global economy was already heading toward a deep recession. As noted by Krugman [2], such a scenario can be described as a “depression economy,” a situation in which traditional instruments of monetary and fiscal policy are limited in their effectiveness.

To cushion the economic shock, the Government of North Macedonia adopted several support packages aimed at small and medium-sized enterprises (SMEs), job preservation, and protection of vulnerable social groups [3]. The National Bank of the Republic of North Macedonia (NBRNM) also intervened through the credit system, offering loans with lower interest rates and introducing a repayment moratorium of three to six months [4].

The negative impact on the domestic economy was profound. In 2020, Gross Domestic Product (GDP) recorded a real decline of -4.7% compared to the previous year [5]. The COVID-19 crisis also had a direct impact on the country’s foreign trade. Exports decreased due to lower international demand and disrupted global supply chains, particularly in the automotive and metallurgy sectors, which represent key export industries [6]. Imports also fell, reflecting reduced domestic demand and a decline in the import of raw and intermediate goods [6]. These developments created trade imbalances and underscored the Macedonian economy’s dependence on foreign markets.

## II. MATERIALS AND METHOD

This study aims to analyze the impact of the COVID-19 crisis on the Macedonian economy through the dynamics of Gross Domestic Product (GDP), exports, imports, and foreign direct investment (FDI). The primary focus is placed on how the pandemic affected the real sector and the key channels through which the crisis was transmitted.

To achieve this, econometric methods were applied in order to determine the relationship between selected macroeconomic indicators and economic growth [7]. The analysis is structured to measure both the direct and indirect effects of the COVID-19 crisis, with FDI considered as an intermediary factor influencing imports and exports.

The study is based on secondary data obtained from official statistical sources, including the State Statistical Office of the Republic of North Macedonia, the World Bank, and reports of the National Bank of the Republic of North Macedonia [5], [6], [8]. Data covering the period 2015–2023 were analyzed to capture pre-crisis, crisis, and post-crisis dynamics.

The methodology also accounts for the interaction of economic factors during the crisis, which was predominantly negative, as well as the recovery dynamics observed in the subsequent years [9]. By applying regression analysis, the study evaluates the relative importance of FDI, exports, and imports as determinants of GDP growth during the COVID-19 period.

## III. RESULTS

The regression analysis examined the relationship between Foreign Direct Investment (FDI), exports, imports, and real GDP growth (%) during the period 2015–2023.

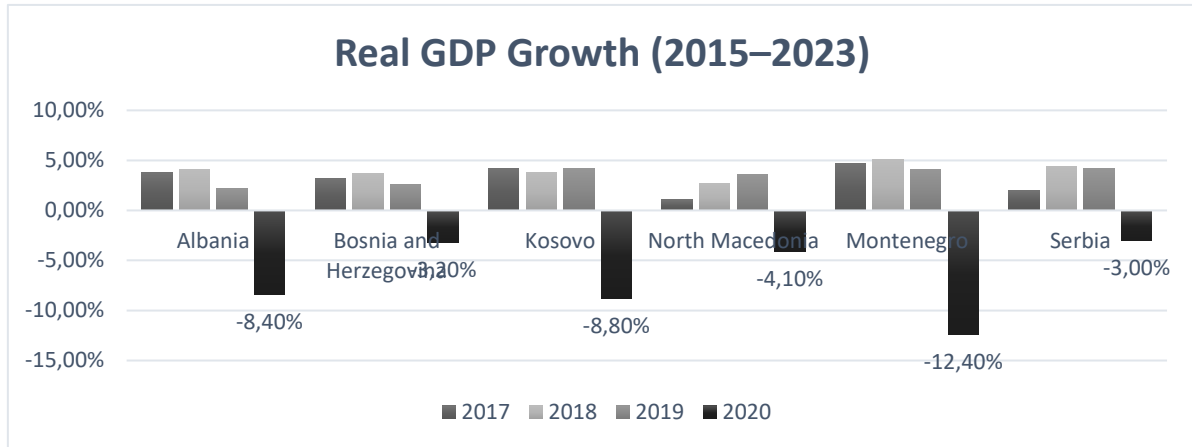


Fig. 1. Real GDP growth in North Macedonia, 2015–2023

The regression model results are summarized in Table 1.

Table 1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.999 <sup>a</sup>	.999	.995	.2550
<b>a. Predictors: (Constant), Imports (% of GDP), FDI, Export (% of GDP)</b>				

The significance of the regression model is confirmed by ANOVA results (Table 2).

Table 2 ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.943	3	18.314	281.724	.044 <sup>b</sup>
	Residual	.065	1	.065		
	Total	55.008	4			
<b>a. Dependent Variable: Real GDP growth (%)</b>						
<b>b. Predictors: (Constant), Import (% of GDP), FDI, Export (% of GDP)</b>						

The estimated coefficients are presented in Table 3.

Table 3 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-220.570	14.380		-15.338	.041
	FDI	.731	.129	.470	5.686	.111
	Exports (% of GDP)	7.682	.471	6.555	16.299	.039
	Imports (% of GDP)	-2.868	.166	-6.351	-17.265	.037
a. Dependent Variable: GDP growth (%)						

The results indicate three main findings:

1. FDI had a positive but statistically insignificant effect ( $p = 0.111$ ).
2. Exports had a strong and significant positive effect on GDP growth ( $p = 0.039$ ).
3. Imports had a significant negative effect on GDP growth ( $p = 0.037$ ).

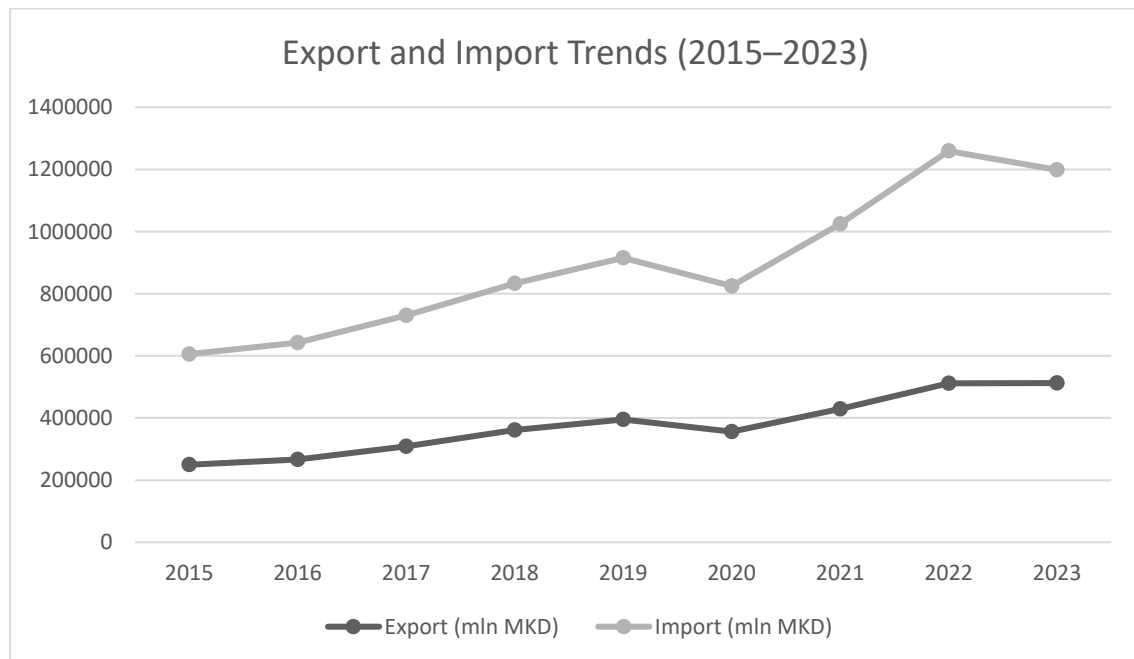


Fig. 2. Export and import trends in North Macedonia, 2015–2023

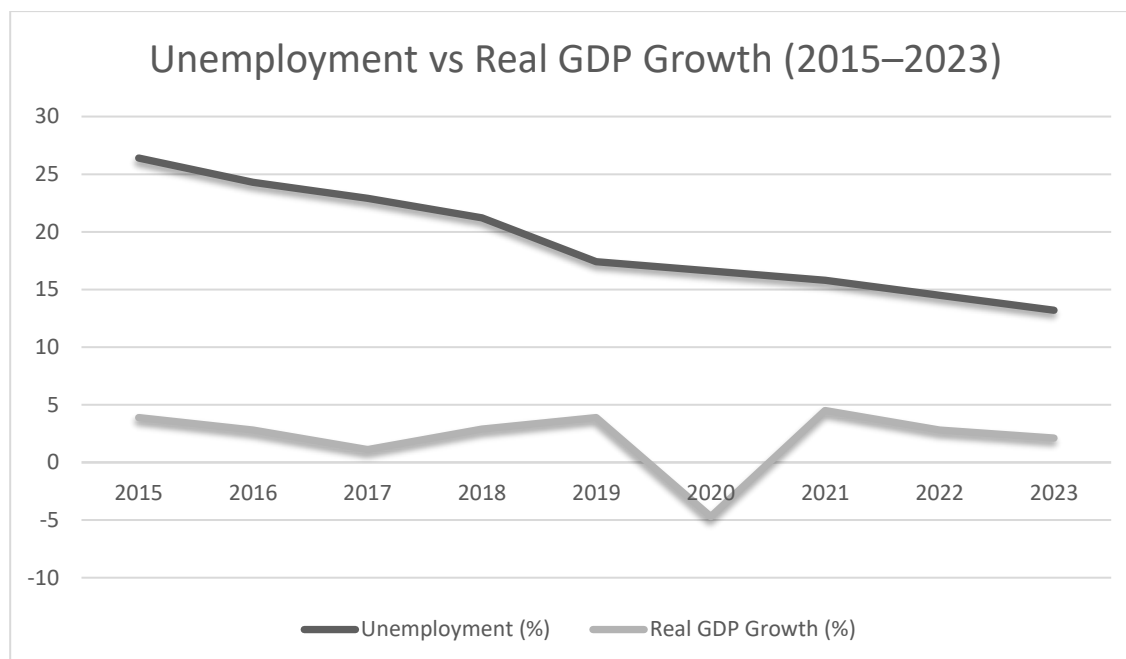


Fig. 3. Unemployment rate and real GDP growth in North Macedonia, 2015–2023

#### IV. DISCUSSION

The results confirm the high dependence of the Macedonian economy on international trade and capital flows, a characteristic shared with many small and open economies [11]. The strong positive effect of exports on GDP growth emphasizes the strategic importance of developing export-oriented sectors. Diversification of export markets and the strengthening of domestic production capacities are therefore crucial in reducing vulnerability to external shocks.

The negative effect of imports suggests that increased reliance on foreign goods during the crisis did not contribute to economic recovery. This finding is consistent with studies on other Western Balkan economies, which similarly recorded contractions in GDP growth linked to weakened domestic production and high import dependence [12].

The limited and statistically insignificant influence of Foreign Direct Investment (FDI) can be attributed to heightened uncertainty and postponed investment decisions during the pandemic. This aligns with international evidence showing that global FDI flows fell sharply in 2020 as investors shifted capital toward safer markets [13].

These findings underscore the structural vulnerabilities of the Macedonian economy: heavy reliance on exports in a few sectors (automotive and metallurgy), insufficient domestic production capacity, and limited resilience of investment flows. At the same time, the results highlight opportunities for policy action. Strengthening industrial policy, stimulating domestic supply chains, and accelerating digitalization would enhance competitiveness and reduce external dependency.

#### V. CONCLUSION

The COVID-19 crisis represents the most severe negative shock to the Macedonian economy in the last two decades. The sharp contraction of GDP in 2020, combined with disruptions in trade and investment flows, highlighted the structural weaknesses of a small and open economy highly dependent on external markets.

The regression analysis demonstrated that exports were the main positive driver of growth, while imports exerted a significant negative effect. Foreign Direct Investment (FDI), although generally a contributor to economic expansion, showed a limited impact during the pandemic due to heightened global uncertainty and delayed projects.

The findings underline the importance of pursuing policies that strengthen economic resilience. Future strategies should focus on diversification of export markets, expansion of domestic production capacities, and targeted measures to reduce excessive dependence on imports. Additionally, accelerating digital transformation and improving conditions for foreign investment can provide long-term stability.

In conclusion, the COVID-19 crisis not only exposed the vulnerabilities of the Macedonian economy but also created an opportunity to reorient development policies toward greater competitiveness, sustainability, and preparedness for future global shocks.

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