WHAT HAS THE COVID-19 CRISIS TAUGHT US? ECONOMIC REGIONAL DISPARITIES IN THE EU

CO NÁS NAUČILA KRIZE COVID-19? EKONOMICKÉ REGIONÁLNÍ DISPARITY V EU

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Abstract

This article analyzes the impact of the pandemic on four key macroeconomic indicators – real GDP growth rate, unemployment rate, Harmonized Index of Consumer Prices (HICP), and the current account balance – in 27 EU countries. Using quantitative methods and regression analysis, the study identifies significant geographical disparities and examines the factors that contributed to the varied economic impacts of the pandemic across different countries. The results show that countries with diversified economies and effective governance demonstrated greater resilience, while countries dependent on sectors such as tourism experienced substantial economic declines.

Keywords: COVID-19, economic disparities, European Union, macroeconomic indicators, geographical differences, economic resilience

Abstrakt

Tento článek analyzuje dopad pandemie na čtyři klíčové makroekonomické ukazatele – reálné tempo růstu HDP, míru nezaměstnanosti, harmonizovaný index spotřebitelských cen (HICP) a saldo běžného účtu – ve 27 zemích EU. Pomocí kvantitativních metod a regresní analýzy studie identifikuje významné geografické disparity a zkoumá faktory, které přispěly k různým ekonomickým dopadům pandemie v jednotlivých zemích. Výsledky ukazují, že země s diverzifikovanými ekonomikami a efektivním řízením vykazovaly vyšší odolnost, zatímco země závislé na sektorech, jako je cestovní ruch, zaznamenaly výrazné ekonomické poklesy.

Klíčová slova: COVID-19, ekonomické disparity, Evropská unie, makroekonomické ukazatele, geografické rozdíly, hospodářská odolnost

Introduction

The COVID-19 pandemic represents one of the greatest crises of modern times, affecting nearly all aspects of social and economic life. Its impacts have been felt globally, but for the European Union (EU), this crisis has presented an unprecedented challenge. The pandemic disrupted fundamental economic indicators and caused unprecedented economic problems, manifesting as a recession, increased unemployment, and a rise in public debt. The crisis also highlighted existing economic disparities among EU member states, pointing to the vulnerability of the single market during periods of global shocks.

The literature is beginning to show a number of studies focusing on analyzing the impacts of the COVID-19 pandemic on the economy. Crises of this scale and nature have been the subject of analysis in economic theory for decades. For example, classical business cycle theory points to recurring patterns of expansion and contraction in economies

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(Schumpeter, 1939), with the pandemic representing an external shock that disrupts these cycles. Keynesian approaches emphasize the need for fiscal stimulus during recessions, which aligns with the measures adopted within the EU during the pandemic (Keynes, 1936). Modern studies on the pandemic also include the analysis of asymmetric impacts on individual countries, focusing on differences in economic capacities and crisis response abilities (Baldwin and Weder di Mauro, 2020).

Analyzing the pandemic in the context of the EU also involves comparing individual member states based on their macroeconomic indicators and their responses to the crisis. According to the work of Jordà, Singh, and Taylor (2020), the economic impacts of the pandemic vary significantly depending on structural and institutional factors. Some countries experienced a sharper decline in GDP and higher unemployment, directly related to the extent of their economy's reliance on sectors most affected by the pandemic, such as tourism and services.

In economic literature, the development of GDP, inflation, unemployment, and the trade balance are long-tracked indicators reflecting the state of the economy and its ability to withstand shocks. Crises similar to the pandemic, which disrupt global supply chains, consumption, and investment, usually lead to a significant decline in GDP (Haroutunian, Hauptmeier and Leiner-Killinger, 2020). In the case of the EU, this decline was accompanied by rising unemployment, especially in sectors directly affected by lockdowns and movement restrictions (Kotorov *et al.*, 2021). Inflation, on the other hand, was influenced in some cases by supply disruptions, leading to price increases for certain goods, although overall inflation remained low in many countries (Buelens and Zdarek, 2022).

The pandemic also significantly impacted the trade balance of EU member states. Restrictions in international trade and issues with supply chains led to declines in both exports and imports, disrupting traditional trade relations. Countries with high dependence on foreign trade experienced significant fluctuations in their trade balance, further deepening economic disparities among member states (Carreño *et al.*, 2020; Gorina *et al.*, 2022).

The aim of this paper is to quantify, analyze, and compare how the COVID-19 pandemic affected macroeconomic indicators in EU countries, and to identify factors that contributed to the deepening of regional economic disparities among member states.

Objective and Methodology

The methodology of this research is designed to enable the quantification, analysis, and comparison of the geographic impacts of the COVID-19 pandemic on key macroeconomic indicators in the member states of the European Union (EU), and to identify the factors that contributed to the deepening of economic disparities among these countries.

The primary research objective is to quantify and graphically represent the impacts of COVID-19 on macroeconomic aggregate variables in EU countries. To capture the development of macroeconomic variables during the first year of the pandemic, we compared their values to the long-term average (2009–2019), which represents the simple arithmetic mean of the specific indicator's values over 11 years. The long-term average of macroeconomic indicators reflects the arithmetic mean of annual year-on-year changes in GDP, unemployment levels, HICP rates, and the position of the current account balance. These values represent the long-term developmental trend from 2009 to 2019. The long-term average values are rounded to two decimal places.

The research focuses on the period from 2009 to 2020, providing a sufficiently long time series for analyzing trends before and during the onset of the pandemic. The primary analysis includes changes in Gross Domestic Product (GDP), the Harmonized Index

Tab. I: Scoring scale and scale of points

Number of points	GDP growth rate Balance of payments balance		Unemployment rate HICP	
	From (%)	To (%)	From (%)	To (%)
11	10	∞	-5,0	-∞
10	9	10	-4,5	-5,0
9	8	9	-4,0	-4,5
8	7	8	-3,5	-4,0
7	6	7	-3,0	-3,5
6	5	6	-2,5	-3,0
5	4	5	-2,0	-2,5
4	3	4	-1,5	-2,0
3	2	3	-1,0	-1,5
2	1	2	-0,5	-1,0
1	0,1	1	-0,01	-0,5
0	-0,09	0,09	-0,09	0,09
-1	-0,1	-0,99	0,01	0,5
-2	-1	-2	0,5	1,0
-3	-2	-3	1,0	1,5
-4	-3	-4	1,5	2,0
-5	-4	-5	2,0	2,5
-6	-5	-6	2,5	3,0
-7	-6	-7	3,0	3,5
-8	-7	-8	3,5	4,0
-9	-8	-9	4,0	4,5
-10	-9	-10	4,5	5,0
-11	-10	- ∞	5,0	∞

Source: own processing and calculation

of Consumer Prices (HICP) as an inflation indicator, unemployment, and the trade balance. The study relies on extensive secondary data from reliable and verified sources at the national level within the EU, such as Eurostat, the International Monetary Fund (IMF), the European Central Bank (ECB), and other relevant national and international sources. The primary dataset includes a set (27×4×11) of 1,188 data points, which have been statistically processed into secondary data and averages used in the analysis, adding over 200 additional data points.

The study focuses on the EU member states, particularly the 27 countries that were part of the EU during the COVID-19 pandemic. The dataset includes time series from 2009 to 2020, covering a long pre-pandemic period and including the early phases of the pandemic. The timeframe is chosen to ensure a sufficient data range for analyzing long-term trends that could have influenced the vulnerability of individual economies during the pandemic and to track changes in the observed macroeconomic indicators. Quarterly and annual data are collected for each country and each indicator to allow detailed analysis and comparison.

The variables subject to analysis are based on the application of the model of the magic quadrangle. The vertices include GDP, inflation, unemployment, and the trade balance. GDP, as a key indicator of economic activity, represents the total economic output of a country. Inflation is measured using the Harmonized Index of Consumer Prices (HICP), a standardized indicator used in the EU to compare price levels between countries and monitor price stability. Unemployment reflects the labor market situation, with unemployment rates directly impacting social stability and economic well-being. The trade balance considers the ratio of exports to imports, reflecting a country's ability to maintain trade surpluses or deficits, which affect overall economic equilibrium. In the EU, the Harmonized Index of Consumer.

The analysis methodology is based on quantitative statistical and econometric methods, which allow for robust assessment of changes in macroeconomic indicators during the observed period. The primary analytical tool is the Difference-in-Differences (DiD) method, which enables the identification of the pandemic's impact on individual EU countries by comparing pre-pandemic and pandemic periods. This method is suitable for observing situations where direct experimentation is not possible but where control and treated groups exist, in this case, EU countries differently affected by the pandemic. The application of DiD provides the opportunity to compare not only absolute changes in macroeconomic indicators but also differences in these changes between different countries.

Differences between the long-term average (year-on-year change from 2009–2019) and the situation of the macroeconomic variable in 2020 will create the basis for ranking. Each country will receive a specific number of points based on the comparison of its long-term average (2009–2019) and the year 2020. The assigned points characterize the difference between the long-term value of each observed variable and its value in 2020 for all EU member countries. The baseline value of 0 points in the scoring scale represents the long-term average value, specifically determined for each examined country and variable. The percentage difference between the long-term development and the value in 2020 can be positive or negative, and the number of points depends on the size of the percentage difference, which is detailed in the table.

The final phase of the research will involve a comparative analysis of the impact of the pandemic on individual EU countries. This analysis will include comparing changes in GDP, inflation measured by HICP, unemployment, and the balance of payments among countries, and identifying trends that may explain the deepening of economic disparities. The results of the analysis will be discussed in the context of existing literature, and recommendations will be formulated for future policies to mitigate economic inequalities within the EU. To enhance the informativeness of the work and improve its illustrative value, we have decided to assign a color scale to the country-specific point indices, thereby capturing the geographic disparities in the impact of COVID-19 on EU member states.

Results

The aim of this paper is to quantify, analyze, and compare how the COVID-19 pandemic affected macroeconomic indicators in EU countries, and to identify factors that contributed to the deepening of regional economic disparities among member states.

The GDP growth rate is specific to each country and each period. For the time frame we selected (2009–2020), it is characteristic that the lowest GDP growth rates were recorded by EU member states in both boundary years (2009 and 2020). Generally, from 2015, we observe a recovery in the economies of all EU states (except Greece) from the previous crisis period. The comparison of the long-term average real GDP growth rate and the values from 2020 gives us rather clear results. Out of 27 analyzed countries, 26 experienced a drop in real GDP growth rate, resulting in negative values. Malta and Spain saw a double-digit negative decline in real GDP growth. On average, the difference between the long-term average and the year 2020 was nearly -7%. The only exception is Ireland, where the comparison of long-term values and the 2020 values revealed that during 2020, the Irish economy achieved a positive real GDP growth of 0.65%.

From 2009, the EU saw a gradually increasing unemployment rate until 2014, when it peaked. Subsequently, it experienced a consistent annual decline (approximately one percentage point) until

Tab. II: Long-term average and development in 2020 (%)

Indicator/ COUNTRY	GDP growth rate			Unemployment rate			HICP			Balance of payments balance		
	LTA	2020	2020 - *LTA*	LTA	2020	2020 - *LTA*	LTA	2020	2020 - *LTA*	LTA	2020	2020 - *LTA*
EU (27)	1,05	-5,9	-6,95	9,4	7,1	-2,3	1,34	0,7	-0,64	0,88	1,20	0,32
Belgium	1,29	-5,7	-6,99	7,5	5,6	-1,9	1,63	0,4	-1,23	0,46	0,83	0,37
Bulgaria	1,58	-4,4	-5,98	8,9	5,1	-3,8	1,24	1,2	-0,04	0,06	-0,38	-0,44
Czechia	1,85	-5,8	-7,65	5,2	2,6	-2,6	1,55	3,3	1,75	-0,49	3,61	4,10
Denmark	1,22	-2,1	-3,32	6,6	5,6	-1,0	1,05	0,3	-0,75	7,22	8,13	0,92
Germany	1,27	-4,6	-5,87	5,0	3,8	-1,2	1,32	0,4	-0,92	7,18	7,00	-0,19
Estonia	1,99	-3,0	-4,99	8,8	6,8	-2,0	2,35	-0,6	-2,95	1,23	-0,46	-1,70
Ireland	5,25	5,9	0,65	10,9	5,7	-5,2	0,21	-0,5	-0,71	-0,40	-2,09	-1,69
Greece	-2,28	-9,0	-6,72	20,5	16,3	-4,2	0,80	-1,3	-2,10	-4,20	-6,57	-2,37
Spain	0,62	-10,8	-11,42	20,3	15,5	-4,8	1,09	-0,3	-1,39	0,48	0,84	0,36
France	1,03	-7,9	-8,93	9,4	8,0	-1,4	1,16	0,5	-0,66	-0,78	-1,87	-1,09
Croatia	0,37	-8,1	-8,47	12,8	7,5	-5,3	1,26	0,0	-1,26	0,35	0,09	-0,26
Italy	-0,24	-8,9	-8,66	10,5	9,2	-1,3	1,17	-0,1	-1,27	0,64	3,81	3,17
Cyprus	1,40	-5,2	-6,60	10,7	7,6	-3,1	0,78	-1,1	-1,88	-4,42	-10,19	-5,77
Latvia	0,99	-3,6	-4,59	12,1	8,1	-4,0	1,59	0,1	-1,49	-0,06	2,91	2,97
Lithuania	1,93	-0,1	-2,03	10,9	8,5	-2,4	1,99	1,1	-0,89	0,28	7,36	7,08
Luxembourg	2,08	-1,8	-3,88	5,5	6,8	1,3	1,57	0,0	-1,57	5,33	4,02	-1,31
Hungary	1,94	-4,7	-6,64	7,7	4,3	-3,4	2,53	3,4	0,87	1,35	-1,48	-2,83
Malta	5,30	-8,3	-13,60	5,4	4,4	-1,0	1,60	0,8	-0,80	1,85	-3,07	-4,92
Netherlands	1,00	-3,8	-4,80	5,4	3,8	-1,6	1,44	1,1	-0,34	8,77	6,97	-1,80
Austria	1,05	-6,7	-7,75	5,2	5,4	0,2	1,75	1,4	-0,35	2,01	1,88	-0,13
Poland	3,57	-2,5	-6,07	7,5	3,2	-4,3	1,67	3,7	2,03	-2,41	2,90	5,31
Portugal	0,50	-8,4	-8,90	11,5	6,9	-4,6	1,02	-0,1	-1,12	-2,06	-1,06	1,00
Romania	2,33	-3,9	-6,23	6,1	5,0	-1,1	2,80	2,3	-0,50	-3,27	-5,08	-1,81
Slovenia	1,07	-4,2	-5,27	7,6	5,0	-2,6	1,28	-0,3	-1,58	3,07	7,38	4,32
Slovakia	2,25	-4,4	-6,65	11,2	6,7	-4,5	1,51	2,0	0,49	-1,94	0,19	2,13
Finland	0,35	-2,9	-3,25	8,2	7,8	-0,4	1,47	0,4	-1,07	-0,95	0,95	1,89
Sweden	1,95	-2,8	-4,75	7,6	8,3	0,7	1,26	0,7	-0,56	4,45	5,71	1,26

Legend: LTA: long-term average
Source: own processing and calculation

2019, when the average unemployment rate in the EU was 6.7%. The year 2020 disrupted this trend, and during the last year of our study, the unemployment rate in the EU increased by an average of +0.4%. This positive trend ended in 2020 when 23 member countries showed an increase in the unemployment rate ranging from 0.2% (Belgium) to 2.4% (Estonia). Comparing the long-term unemployment values and the 2020 levels, we found that in 2020, the unemployment rate increased in three countries (Luxembourg, Austria, Sweden). In the remaining 24 EU member states, the comparison resulted in negative values, indicating that the unemployment rate in 2020 was lower than the long-term average (2009–2019). This trend is also confirmed by the average difference across the EU, where the unemployment rate in 2020 decreased by -2.3% compared to the long-term average.

Over the twelve analyzed years, the absolute value of HICP in member countries ranged from <-1.7%; 5.8%>. During 2009–2019, the highest average HICP values were recorded by Romania (2.8%), Hungary (2.53%), and Estonia (2.35%). The long-term lowest average annual HICP rate was found in Ireland at 0.21%. Over the long term, HICP had positive values in all EU member states,

Tab. III: Allocation of Points

Indicator/ COUNTRY	GDP growth rate		Unemployment rate		HICP		Balance of payments balance		Point Index	Ranking
	2020 - *LTA*	Points	2020 - *LTA*	Points	2020 - *LTA*	Points	2020 - LTA	Points		
EU (27)	-6,95	-7	-2,3	5	-0,64	2	0,32	1	1	/
Belgium	-6,99	-7	-1,9	4	-1,23	3	0,37	-1	-1	15-16
Bulgaria	-5,98	-6	-3,8	8	-0,04	1	-0,44	-1	2	11–12
Czechia	-7,65	-8	-2,6	6	1,75	-4	4,10	5	-1	15–16
Denmark	-3,32	-4	-1,0	2	-0,75	2	0,92	1	1	13–14
Germany	-5,87	-6	-1,2	3	-0,92	2	-0,19	-1	-2	17–20
Estonia	-4,99	-5	-2,0	5	-2,95	6	-1,70	-2	4	6–7
Ireland	0,65	1	-5,2	11	-0,71	2	-1,69	-2	12	1–2
Greece	-6,72	-7	-4,2	9	-2,10	5	-2,37	-3	4	6-7
Spain	-11,42	-11	-4,8	10	-1,39	3	0,36	1	3	8–10
France	-8,93	-9	-1,4	3	-0,66	2	-1,09	-2	-6	25
Croatia	-8,47	-9	-5,3	11	-1,26	3	-0,26	-2	3	8–10
Italy	-8,66	-9	-1,3	3	-1,27	3	3,17	4	1	13–14
Cyprus	-6,60	-7	-3,1	7	-1,88	4	-5,77	-6	-2	17–20
Latvia	-4,59	-5	-4,0	8	-1,49	3	2,97	3	9	3–4
Lithuania	-2,03	-3	-2,4	5	-0,89	2	7,08	8	12	1–2
Luxembourg	-3,88	-4	1,3	-3	-1,57	4	-1,31	-2	-5	23–24
Hungary	-6,64	-7	-3,4	7	0,87	-2	-2,83	-3	-5	23–24
Malta	-13,60	-11	-1,0	3	-0,80	2	-4,92	-5	-11	27
Netherlands	-4,80	-5	-1,6	4	-0,34	1	-1,80	-2	-2	17–20
Austria	-7,75	-8	0,2	-1	-0,35	1	-0,13	-1	-9	26
Poland	-6,07	-7	-4,3	9	2,03	-5	5,31	6	3	8–10
Portugal	-8,90	-9	-4,6	10	-1,12	3	1,00	2	6	5
Romania	-6,23	-7	-1,1	3	-0,50	2	-1,81	-2	-4	22
Slovenia	-5,27	-6	-2,6	6	-1,58	4	4,32	5	9	3–4
Slovakia	-6,65	-7	-4,5	9	0,49	-1	2,13	-3	-2	17–20
Finland	-3,25	-4	-0,4	1	-1,07	3	1,89	2	2	11–12
Sweden	-4,75	-5	0,7	-2	-0,56	2	1,26	2	-3	21

Legend: LTA: long-term average
Source: own processing and calculation

ranging from 0.21% (Ireland) to 2.8% (Romania), with an EU-wide average of 1.34%. In 2020, we recorded significantly lower HICP values compared to the long-term average. Only in four EU countries (Czech Republic, Hungary, Poland, Slovakia) was the HICP value higher than the long-term average HICP during 2009-2019. Other EU member states recorded a decrease in HICP values in 2020 compared to the long-term average, ranging from <-0.04%; -2.95%>.

From the first year of our research, the value of the average balance of the current balance of payments increased until 2017, when we see a general year-on-year decline. The "pandemic" year 2020 did not bring a significant change (either a trend reversal or a substantial increase/decrease) and largely mirrored the multi-year mild decline (0.2%–0.4%) of this macroeconomic indicator at the EU level. Individual EU member countries show significant disparities when comparing partial as well as average values. The majority of member countries also recorded a positive current account balance in 2020, while the remaining 10 states had negative values for their current account balance

ranging from -0.4% (Bulgaria) to -10.2% (Cyprus). The long-term average (2009–2019) of the current account balance at the EU level was 0.88%, and in 2020, the current account balance increased to 1.2%. The difference between the current account balance in 2020 and the long-term average of the current account balance for 27 EU member states confirms this trend. The result is the division of EU member states into two nearly equal groups. The first group consists of 13 states that recorded a higher current account balance in 2020 compared to their long-term average. The positive difference ranged from 0.36% to 7.08%. In total, fourteen EU countries had a deficit in their current account balance in 2020 compared to the long-term average, with this negative difference ranging from -0.13% to -4.92%.

In the case of real GDP growth rate, only one country achieved a positive score. Ireland was awarded one point. All other EU member states received negative scores. The subsequent partial scores for the remaining 26 countries ranged from -3 to -11 points. The lowest score (-11) was given based on the difference between long-term averages and the 2020 value to Malta and Spain. Based on these partial scores, it is not surprising that the average score across the EU was -7 points.

A nearly opposite result is reflected in the points awarded to EU countries for unemployment rate. The final unemployment value only increased in Austria, Sweden, and Luxembourg in 2020 compared to the long-term average, so these countries received negative scores ranging from -3 to -1 points. The remaining 24 EU member states received positive scores. The top performers with the highest number of awarded points were Portugal and Spain (+10), but especially Ireland and Croatia, with the maximum possible score of eleven points. The positive trend in the unemployment rate in 2020 and the resulting points awarded meant an average of 5 points across the EU.

The average score achieved by member countries in evaluating the HICP results was a positive +2 points. The highest number of points for final HICP values was awarded to Estonia (+6) and Greece (+5). On the other end, Poland scored -5 points and the Czech Republic -4 points. An interesting observation is that only four countries were awarded negative points, while the vast majority (23) received between +1 and +6 points.

The difference between the absolute values of points awarded based on the final balance of the current account is 14 points, which is the largest among all the variables analyzed. Upon detailed analysis of partial values, we found the highest positive score (+8) was given to Lithuania, while the lowest score was awarded to Cyprus (-6). The average number of points that EU member states received in the area of the current account balance was +1 point.

Discussion

From a global perspective, all EU member countries experienced significant impacts of the COVID-19 pandemic on their economies and production, with varying intensities (e.g., Šindleryová and Turčan, 2024). A logical *and legitimate question arises: why were the economies of some EU countries more severely* affected by COVID-19 than others, particularly regarding GDP growth?

The more pronounced disparities in year-on-year GDP decline among EU countries were caused by a combination of factors. The first factor directly influencing the decline in economic production and GDP was the pandemic measures implemented. A higher level of strictness and a greater extent of measures limited economic development, resulting in a generally higher decline in the GDP growth rate, as measured by changes in real GDP growth. Countries with long-term strict measures included Germany, Italy, Greece, and Austria. All these countries, except Germany, saw a year-on-year decline in their real GDP growth rate significantly higher than the EU average in 2020. According to the severity index, the least strict measures in 2020 were in Denmark, Finland, Bulgaria, Estonia, and Malta. All these mentioned EU countries, except Malta, had the lowest values of year-on-year real GDP growth decline. From this perspective, Denmark, Finland, Bulgaria, and Estonia are top performers as their year-on-year GDP decline was among the lowest of the 27 EU countries.

The second potentially significant factor determining economic activity in EU countries during 2020 is their economic structure and foreign direct investment (Lacko *et al*., 2023). The economic structure of EU member countries is highly diversified (e.g., Fernández-Portillo *et al*., 2020; Komarova *et al*., 2021) and has a substantial impact on the real GDP growth rate and significantly affects the balance between exports and imports. The measures taken, the closure of businesses, and restrictions on transportation and international trade also impacted the level of imports and exports from EU countries. The effects of COVID-19 measures on international trade were not uniform across EU countries. One possible explanation is the structure of the national economy and its orientation towards the export or import of specific types of goods and services. The year 2020 brought a shift and change in the product structure of international trade, resulting in a significant decline in trade in specific goods and services while increasing the share of other sectors in international trade. For open and globalized economies in the EU, this meant increased risk of stagnation and recession in 2020 if they were focused on the production of oil products, automobiles, or equipment for mining and transport, or aircraft and aerospace components (OECD, 2021).

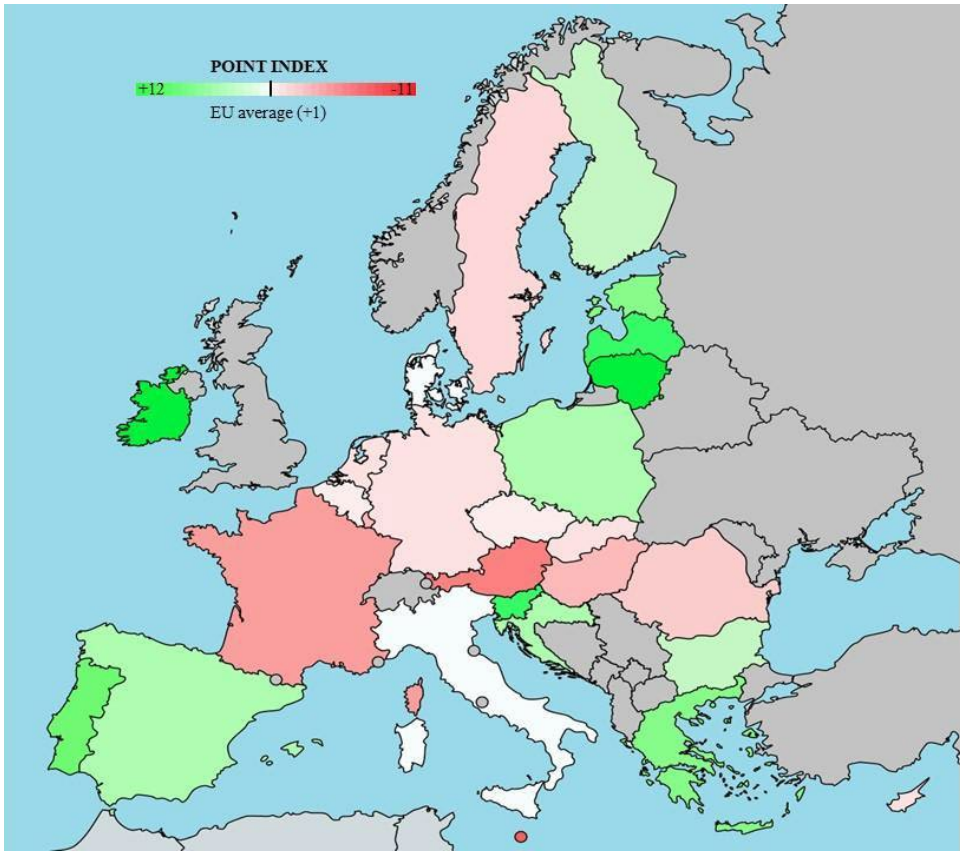

Fig. 1: Point Index in EU Countries
Source: own processing

It is evident that the highest year-on-year decline was observed in EU countries with a significant share of tourism in GDP. This group includes Mediterranean countries such as Croatia, Greece, Malta, Cyprus, Italy, and Spain, with Portugal also added. Additionally, these countries experienced a marked year-on-year decline in the real GDP growth rate in 2020. The significant direct dependence between a country's economic structure and the impact of the COVID-19 pandemic confirmed that EU countries with the highest share of tourism in their GDP experienced the most significant year-on-year decline in real GDP growth.

Another potential factor to consider regarding changes in real GDP is the quality of governance and the quality of processes in public administration and its relationship with the private sector and civil society (WGI). For example, Demertzis and Raposo (2018), Sapir (2020) and Mihaliková, Koreňová (2021) see significant potential in linking multilevel governance quality with economic indicators, as their research revealed a direct dependency between the two areas. The highest average governance quality was achieved by primarily Nordic EU countries – Finland, Denmark, and Sweden, along with Luxembourg and the Netherlands. In evaluating the overall WGI index for 2019, we identified the lowest values with Romania, Bulgaria, Greece, Croatia, and Italy. Similarly, as noted in scientific works on this topic (Demertzis, Raposo, 2018; Sapir, 2020), we found a linear dependency – a moderate level of direct correlation – between the average WGI values and the year-on-year change in real GDP growth in EU countries in 2020. This finding is further reinforced by the fact that countries achieving the highest WGI values in 2019 generally had the best year-on-year real GDP growth change values (with the smallest decline in real GDP growth among the 27 EU countries in 2020). The same applies when looking at countries with the lowest WGI values in 2019 and their changes in real GDP growth. In this case, a linear dependency is also evident, where a decrease in WGI level corresponds to a decrease in year-on-year real GDP growth in 2020.

Ireland and Lithuania achieved the highest point indices (+12), indicating their relatively successful response to economic challenges. Ireland, as the only country in the EU, experienced GDP growth in 2020 (+0.65%), which can be attributed to its economic structure oriented towards the technology and pharmaceutical sectors. These sectors were less affected by the pandemic, allowing Ireland to maintain growth. Lithuania achieved positive results due to its strong export balance and ability to diversify its trade activities.

Slovenia and Latvia, with a point index of +9, are also among the better-performing countries. Their relatively good performance can be attributed to effective economic measures and less stringent lockdowns. Portugal, Estonia, Greece, Spain, Croatia, and Poland achieved point indices ranging from +3 to +6. These countries faced mixed results depending on specific economic structures and reliance on sectors such as tourism, which was significantly affected by the pandemic.

Malta (-11), Austria (-9) and France (-6) recorded the lowest point indices, reflecting significant declines in economic activity and high negative impacts of the pandemic on their economies. Malta, with the lowest point index (-11), was most severely affected due to its dependence on tourism, which was devastated by the pandemic. Similarly, Austria and France faced substantial economic issues, partly due to strict pandemic measures.

Economic differences among countries are the result of a combination of factors. The economic structure of individual countries plays a key role; countries dependent on tourism (e.g., Greece, Croatia, Malta) experienced the largest GDP declines, while countries with strong technology and export sectors (e.g., Ireland, Lithuania) demonstrated greater resilience. Quality of governance and government responses are another important factor, with countries implementing effective government measures (e.g., Denmark, Finland) showing better results. Geopolitical factors and the ability of countries to diversify their economies also influenced their performance during the pandemic.

Overall, these results indicate that a combination of geopolitical, economic, and political factors is crucial for understanding why some countries managed the pandemic better than others. Based on these findings, it is essential to continue comparative analyses and link them with existing studies to improve future policies and economic strategies in the EU. The findings represent just one piece of a larger research mosaic, which should also include analyses of public government responses, the use of public financial stabilization measures, additional socioeconomic or political determinants, and the international environment.

Conclusion

The analysis of the impact of the COVID-19 pandemic on macroeconomic indicators in EU member states has revealed extensive geographical disparities and differing developmental trends. While countries with diversified economic structures, such as Ireland and Lithuania, managed to handle economic challenges more effectively and maintain stable economic growth, countries dependent on vulnerable sectors, such as tourism (e.g., France, Malta, Austria), faced deep economic downturns. These findings highlight the need to strengthen the economic resilience of the EU through the diversification of economic activities, improvement in the quality of public governance, and development of policies that can respond flexibly to global crises. The impact of the pandemic on individual countries was thus influenced not only by their economic structure but also by political decisions and the quality of public governance. Future research should consider further analysis of factors such as political stability, healthcare capacities, and vaccination rates, which may contribute to a deeper understanding of disparities and assist in shaping more effective economic policies.

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