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THE IMPACT OF BUDGET DEFICITS ON GDP IN EU COUNTRIES FROM 2000 TO 2022

ABSTRACT: The budget deficit is a topic that has a significant impact on economic development and stability. It occurs when government spending exceeds revenue, which usually leads to borrowing to cover the difference. The deficit can have both positive and negative effects, depending on how it is used and the current economic situation.

This study investigates the impact of budget deficits on GDP in EU countries. The research covers the period from 2000 to 2022. The aim of the study is to assess the impact of budget deficits on GDP by reviewing relevant literature and using a statistical model, specifically the GLS model in the STATA software package.

In addition to budget deficits as the independent variable, the study also includes variables such as inflation, healthcare, unemployment, and savings. Based on the conducted research, a significant positive impact of budget deficits on GDP in EU countries was identified. Other potential factors that could have an impact were not included in the model, which may lead to bias due to omitted variables.

Although the research employed advanced techniques for analyzing panel data and addressed challenges such as

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unbalanced panels and the presence of heteroscedasticity and autocorrelation, residual effects may still influence the results. Future studies could include more macroeconomic variables, such as interest rates, trade balances, and the structure of public debt.

Key words: EU, budget deficit, inflation, GDP, GLS model.

INTRODUCTION

The budget represents the financial document of a country, outlining its public revenues and public expenditures. Conceptually, a budget deficit is the difference between a country's revenues and expenditures, where expenditures exceed revenues within a fiscal year, leading the government to borrow to cover the gap. This action increases public debt, which may ultimately lead to a public debt crisis. A proper understanding of the budget deficit is crucial for assessing the overall economic condition of a country and defining appropriate fiscal policies. This phenomenon has become a central issue in the economic policies of many countries, particularly during periods of economic crisis. In the European Union (EU), where member states have diverse economies, the effects of budget deficits on Gross Domestic Product (GDP) are a key topic for both policymakers and researchers.

The period under observation in this research, spanning from 2000 to 2022, encompasses several economic events that significantly impacted budgetary policies and economic conditions in EU member states. During this period, the EU faced the Great Recession of 2008, the Eurozone crisis, and the COVID-19 pandemic, which led to a substantial increase in budget deficits in most EU countries. The global financial crisis demonstrated the critical role of the government during times of crisis. Throughout the observed period, EU member states had varying fiscal structures, i.e., levels of public revenues and expenditures, and implemented different strategies for fiscal adjustments, with the primary goal of consolidating public finances.

The aim of this research is to analyze how budget deficits have impacted GDP in EU countries during the specified period. The primary task is to identify causal relationships and correlations between budget deficits and economic growth, taking into account the economic and institutional characteristics of the observed countries. Additionally, this study will examine other factors that may influence this relationship. It is clear that the issue of the budget deficit and its impact on GDP must be considered by incorporating all aspects of modern society, such as political and economic

factors, to guide appropriate fiscal policies. The results of this research will contribute to a better understanding of the long-term consequences of fiscal policies within the EU, providing guidance for improving future economic strategies.

LITERATURE REVIEW

The emergence of economic integration has led to the budget deficit becoming one of the main problems in public finance. This issue has grown so large that today there is no country without public debt, and almost all countries have a budget deficit (Durkalić & Despotović, 2017). The persistent budget deficit of modern states results from non-productive and military expenditures on the one hand, and difficulties in increasing revenues on the other (Perović & Softić, 2017).

The increase in public expenditure has led most national economies in the EU to experience excessive deficits, forcing them to take drastic measures to recover public finances. A high level of public debt in EU countries can become particularly dangerous if interest rates rise, as the cost of servicing the debt could then become an enormous burden on national economies (Wielechowski, 2011).

The existence of a small and temporary budget deficit may result from cyclical economic fluctuations or a temporary increase in government spending, and as such, does not pose a threat to the economy. However, if the budget deficit is continuous, it can lead the state into significant instability if it is not financed in a timely and appropriate manner. If a country's budget deficit accumulates over a longer period, it leads to an increase in public debt as a direct consequence (Stanulović, 2017). Although government spending can be beneficial for economic growth, it often costs much more than it brings in terms of benefits when the budget falls into deficit due to additional spending. Initially, growth may occur due to government spending, but afterward, many macroeconomic variables are disrupted by this activity (Ullah & Wakeel, 2013).

Given that not all EU countries have the same fiscal framework to ensure the sustainability and stabilization of public finances, Prohl & Schneider (2006) found in their study that in some EU countries, the relationship between budget deficits and public debt relative to GDP is cointegrated over time, while in other member states, this is not the case. The research results of Vdovichen et al. (2022) indicate that the relationship between key fiscal indicators in 23 EU member states, including the tax burden, the share of public expenditures, and deficits as a percentage of GDP, negatively correlates with economic growth indicators. According to a study

by Dornean & Sandu (2013), it was found that an increase in EU expenditures depends only on the unemployment rate in EU countries and their deficits. Similar results were obtained by Kurečić & Kokotović (2016), who, through regression analysis, found that there is a statistically significant correlation between the ratio of public debt to GDP and the unemployment rate.

Sinicakova et al. (2017) criticized the Maastricht criteria in their paper, concluding that the existence of twin deficits in EU countries and the contagion effect on public finances, which is present not only during crisis periods, are caused by overly liberal Maastricht criteria, which have led some countries to have public debt ratios exceeding 98.13% of GDP. The Maastricht Treaty's 3% budget deficit threshold is used as a reference point for simulating debt changes. Kregždè (2013) analyzed this issue and found that this rule is insufficient to ensure a stable or unchanged debt level because when the budget deficit remains at 3%, the debt tends to increase over time for countries with low initial debt, while it decreases for countries with high initial debt, assuming GDP growth of 5%. The GDP growth rate has the opposite effect, meaning that countries with a high GDP growth rate are in a more favorable position, as GDP growth reduces their debt.

To prevent this phenomenon, it is necessary to develop and implement debt policies by integrating instruments such as defining public debt thresholds for short, medium, and long-term periods, assessing public debt risks, and establishing indicators of a country's financial and long-term security. Coordinating public authorities' activities in the process of formulating and implementing debt policies is also essential (Chugunov et al., 2019). Policymakers should strive to maintain public debt and budget deficits at sustainable levels to support the economy. In doing so, they can preserve government revenues and repay current and future public debt. Additionally, they should ensure higher institutional quality, such as better regulation and the rule of law. Better control of corruption would enable more effective and transparent fiscal policies in the long term (Cahyadin et al., 2023). Independent fiscal institutions also have a positive impact on public budget deficits in the EU, especially during systemic and banking crises, as noted by Capraru et al. (2020). Institutional quality is crucial for fiscal policy and significantly affects the fiscal deficit when the institutional framework provides appropriate regulation to rein in fiscal policy (Arif & Arif, 2023). The empirical findings of this study show that increased corruption in government institutions leads to a significant increase in budget deficits, while political stability, reduced bureaucracy, democratic accountability, and the rule of law lead to a decrease in budget deficits.

Rault & Afonso (2009) argued that a budget deficit leads to a current account deficit in their study, based on the fact that a budget deficit raises domestic interest rates, which in turn attracts foreign capital and causes an appreciation of the domestic currency, leading to an increase in the current account deficit. This effect is more pronounced the more open the economy is. Rašković (2023) also found that increasing budget deficits significantly worsen the current account.

In his research, Tanaka (2022, 2023, 2024) emphasizes that a budget deficit is necessary to achieve full employment at constant prices. If the actual budget deficit exceeds the value necessary and sufficient for full employment at constant prices, inflation occurs. Conversely, if the actual budget deficit is smaller than the value needed to achieve full employment at constant prices, a recession occurs.

METODOLOGY

In this research, the results from previous empirical studies and theoretical frameworks were utilized. During the data collection process, the "desk research" method was applied, utilizing two secondary data sources: the annual report of the World Bank and Eurostat. The research was conducted using econometric methodology in the STATA software package, which provides the maximum amount of data from observations per unit of analysis over a defined time period. In this study, two types of variables were used: one as the dependent variable, which in our study is GDP, and the other as independent variables, which in our study are the deficits, inflation, healthcare, unemployment, and savings.

Each time series in the model has the same length (2000-2022), ensuring that each comparative unit of observation has the same number of time series observations. In our case, the number of units of observation exceeds the number of time periods, $N > T$ (27 countries > 22 years). Given that the units of observation are countries, this is a macro panel. The panel data model in this research is as follows:

$$GDP = \alpha + (\text{deficit}_{it} + \text{inflation}_{it} + \text{healthcare}_{it} + \text{unemployment}_{it} + \text{savings}_{it}) + \text{uit}$$

The model we start with is defined as follows: index i denotes the unit of observation (in our case, countries), while index t denotes the time point.

ANALYSIS RESULTS

In the first part of the analysis, descriptive statistics were calculated for the variables used in our model, which provided the following key data essential for our analysis.

Table 1. - Descriptive Statistics

Variables	Obs	Mean	Std. De.	Min	Max	p1	p99	Skew.	Kurt.
BDP	621	2.533	3.908	-14.839	24.475	-8.974	11.107	-.344	7.124
inflation	616	2.962	3.804	-10.118	43.181	-1.939	16.494	4.365	37.961
deficit	621	-2.58	3.567	-32.1	6.9	-12.6	5	-1.292	10.497
healthcare	543	.09	.356	-1.508	2.498	-.886	1.132	1.132	10.18
unemployment	594	-.173	1.78	-14.5	16.392	-4.239	6.602	1.423	25.464
savings	589	.169	1.6	-6.305	13.727	-4.997	3.857	.649	12.998

Source: Authors

Based on the obtained data, we can conclude that there are 621 observations available for the GDP variable, making this sample robust and the analysis reliable. The average annual GDP growth during the observed period for this group of countries is 2.533%. The relatively high standard deviation (3.908) indicates significant variability in GDP growth among the observed countries, meaning some countries experienced notably lower or higher growth than the average. The lowest recorded GDP growth was -14.839%, suggesting that one or more countries experienced a significant economic downturn. The maximum GDP growth during the observed period was 24.475%, indicating exceptional economic growth in certain periods for specific countries. The value of p1 (1st percentile) is -8.974%, indicating that 1% of the lowest recorded values are below this value, reflecting extreme negative values occurring in a small number of cases. The value of p99 (99th percentile) is 11.107%, meaning that 1% of the highest recorded GDP values are above this value, indicating very high growth in some cases. The skewness of -0.344 suggests that GDP values are slightly skewed to the left, indicating lower values are more frequent than very high values. The kurtosis of 7.124 indicates the presence of several extreme values deviating from the average.

The inflation variable in our model has 616 observations. The average value of 2.962% indicates moderate price growth on average. The standard deviation (3.804) is relatively high, indicating significant variation in inflation between different countries. The minimum inflation value of -10.118% suggests deflation in some cases. The maximum inflation value of 43.181% indicates extreme inflation in some countries during the observed

period. The value of p1 (1st percentile) at -1.939% suggests that 1% of the lowest inflation values are below this level, indicating deflation in extreme cases. The value of p99 (99th percentile) at 16.494 shows that 1% of the highest inflation values are above this amount, indicating a small number of cases with very high inflation. The skewness of 4.365 suggests that extremely high inflation values are much more frequent than extremely low values. The kurtosis of 37.961 is very high, indicating the presence of numerous extreme values, indicating that inflation was significantly higher than average in some cases.

The deficit variable in this model has 621 observations. The average value of -2.58% indicates that most countries had a budget deficit during the observed period. The standard deviation (3.567) indicates significant differences in budget deficits among countries. The minimum value of -32.1% suggests that the lowest deficit was at this amount, representing a serious fiscal deficit in some countries. The maximum deficit is 6.9%, indicating that some countries even had a budget surplus. The value of p1 at -12.6% suggests that 1% of the lowest deficit values are below this percentage, indicating extreme fiscal deficits. The value of p99 at 5% shows that 1% of the highest deficit values are above this percentage, indicating countries with smaller deficits or even surpluses. The skewness is negative (-1.292), suggesting that extreme deficits are more common than positive fiscal results. The kurtosis of 10.497 is high, indicating the presence of several extreme values, indicating that some deficits are significantly larger than average values.

The healthcare variable in the model has 543 observations. The average value of 0.09% indicates a low but positive growth rate. The standard deviation (0.356) is relatively low, suggesting less variability in healthcare spending among the observed countries. The minimum value of -1.508% indicates the lowest level of healthcare investment, suggesting a reduction in spending in some countries. The maximum value of 2.498% indicates the highest level of investment, with some countries significantly increasing their healthcare spending. The p1 value of -0.886 shows that 1% of the lowest healthcare investment values are below this percentage, indicating countries that have significantly reduced their investments. The p99 value of 1.132 shows that 1% of the highest investment values are above this amount, indicating high growth rates in some countries. The positive skewness (1.132) indicates that extremely high healthcare investments are somewhat more common than extremely low investments. The high kurtosis (10.18) indicates the presence of several extreme values, indicating that some investments are significantly higher than average.

The unemployment variable in the model has 594 observations. The average value of -0.173% indicates a slightly negative unemployment rate, which may suggest a reduction in unemployment on average. The standard deviation of 1.78 indicates significant variation in unemployment rates between different countries. The minimum value of -14.5% shows that the lowest recorded unemployment rate was at this amount, indicating a significant reduction in unemployment in some countries. The highest recorded unemployment rate is 16.392%, indicating high unemployment in some countries. The p1 value of -4.239 shows that 1% of the lowest unemployment values are below this amount, indicating countries with significantly reduced unemployment. The p99 value of 6.602 shows that 1% of the highest unemployment values are above this amount, indicating high unemployment rates in some cases. Positive skewness (1.423) suggests that extremely high unemployment rates are more common than extremely low ones. The high kurtosis of 25.464 indicates the presence of extreme values in unemployment rates, indicating that some countries experienced very high unemployment.

The savings variable in the model has 589 observations. The average savings rate of 0.169% indicates a slightly positive trend in savings. The standard deviation of 1.6 indicates significant variations in savings between different countries. The lowest recorded savings rate of -6.305% indicates negative savings in some cases (where consumption exceeds savings). The highest recorded savings rate is 13.727%, indicating very high savings rates in some countries. The p1 value of -4.997% shows that 1% of the lowest savings values are below this amount. The p99 value of 3.857 shows that 1% of the highest savings values are above this amount, indicating high savings rates in a small number of cases. Positive skewness of 0.649 suggests that extremely high savings rates are somewhat more common than extremely low ones. The high kurtosis of 12.998 indicates the presence of several extreme values, indicating that some countries had very high or low savings rates compared to the average.

The descriptive statistics for the variables used show significant variations between countries and periods, with the presence of extreme values that can significantly affect the analysis and interpretation of the results. These data provide insight into the basic characteristics of the distribution of each variable and enable further analysis of the causes and consequences of these macroeconomic indicators.

The next step is to test the stationarity of the time series variables using the Fisher test (Dickey-Fuller tests), specifically the first-generation unit root test. If the calculated value is greater than the critical value (0.05), we fail to reject the null hypothesis, meaning that all panels contain a unit

root. In our case, this is characteristic of the variables healthcare, savings, and unemployment, while GDP, inflation, and the deficit are stationary variables.

Table 2. - Stationarity of variables according to the Fisher test

Fisher-type unit-root test form		BDP	inflation	deficit	healthcare	savings	unemployment
Based on augmented Dickey-Fuller		p-value	p-value	p-	p-value	0.770	p-
Inverse chi-squared(20)	P	0.0000	0.0000	0.000	0.9947	0.701	0.600
Inverse normal	Z	0.0000	0.0001	0.000	0.9976	0.721	0.873
Inverse logit t(54)	L	0.0000	0.0000	0.000	0.9984	0.778	0.803
Modified inv. chi-	P _m	0.0000	0.0000	0.000	0.9862	0.778	0.623
STATIONARY VARIABLE		YES	NO	NO	NO	NO	NO

Source: Authors

After testing the stationarity of the model variables, correlation testing was conducted using Pearson's coefficient (the coefficient measures the linear relationship between two quantitative variables). One of the assumptions of the model is the absence of linear dependence between the explanatory variables. The primary indicator of correlation is the correlation coefficient, which takes values within the interval between -1 and 1. The relationship between the variables was determined by applying the correlation test to variables of the same level of differencing in the STATA program.

Table 3. - Results of the correlation test of variables

Variable	(1)	(2)	(3)	(4)	(5)	(6)
(1) BDP	1.000					
(2) inflation	0.342	1.000				
(3) deficit	0.435	0.151	1.000			
(4) healthcare	-0.457	-0.038	-0.149	1.000		
(5) unemployment	-0.300	-0.044	-0.222	0.164	1.000	
(6) savings	0.585	0.142	0.146	-0.483	-0.162	1.000

Source: Authors

Based on the obtained data, we concluded that all variables have a certain level of correlation, but none exceed a coefficient of 0.7, which would indicate a strong or very strong correlation. This, in turn, is not good for the model we will use. Following this, regression of the model variables was performed to obtain results regarding the significance level of individual independent variables on the dependent variable, as well as information on the coefficient of determination (R-squared), which represents the square of the multiple correlations. The coefficient of determination explains the

percentage of variation in the dependent variable explained by the independent variables.

Table 4. - Results of the regressed model

BDP	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
deficit	.307	.032	9.50	0	.243	.37	***
inflation	.276	.035	7.86	0	.207	.345	***
healthcare	-2.101	.359	-5.86	0	-2.805	-1.396	***
unemployment	-.274	.062	-4.40	0	-.397	-.152	***
savings	.962	.081	11.92	0	.803	1.12	***
Constant	2.217	.175	12.68	0	1.874	2.561	***
Mean dependent var		2.153	SD dependent var		3.874		
R-squared		0.562	Number of obs		540		
F-test		136.895	Prob > F		0.000		
Akaike crit. (AIC)		2560.654	Bayesian crit. (BIC)		2586.404		

*** $p < .01$, ** $p < .05$, * $p < .1$

Source: Authors

In this model, the coefficient of determination (R-squared = 0.572) shows that 56.2% of the variation in the dependent variable is explained by the model, which suggests that the model has good predictive ability, but also that there is a significant portion of variation that is not explained by the model. The high value of the F-test (136.895) and the very low p-value (0.000) indicate that the model as a whole is statistically significant, i.e., the independent variables collectively have a significant impact on the dependent variable. After performing the regression and determining the significance of individual model variables, multicollinearity was tested using the VIF command, and the following results were obtained.

Table 5. - Results of the multicollinearity test

	VIF	1/VIF
savings	1.346	.743
healthcare	1.327	.753
deficit	1.091	.916
unemployment	1.079	.927
inflation	1.042	.96
Mean VIF	1.177	.

Source: Authors

The obtained results show that there is a small or moderate amount of multicollinearity, but it is not problematic for our model. In order to determine whether it is more appropriate to use the fixed effects (FE) model or the random effects (RE) model, the Hausman test was conducted.

Table 6. - Cluster-Robust Hausman Test

(based on 100 bootstrap repetitions)
b1: obtained from xtreg BDP deficit inflation healthcare unemployment savings,fe
b2: obtained from xtreg BDP deficit inflation healthcare unemployment savings,re
Test: Ho: difference in coefficients not systematic
$\chi^2(5) = (b1-b2)' * [V_bootstrapped(b1-b2)]^{-1} * (b1-b2)$
= 3.10
Prob> χ^2 = 0.6846

Source: Authors

Using this test, we confirmed that, in our case, it is more appropriate to use the random effects (RE) model. After selecting the model, we tested it for the presence of heteroscedasticity.

Table 7. - White's test of heteroscedasticity

White's test for Ho: homoscedasticity against Ha: unrestricted heteroscedasticity			
$\chi^2(20)$	=	85.55	
Prob > χ^2	=	0.0000	
Source	Chi2	df	p
Heteroskedasticity	85.55	20	0.000
Skewness	8.100	5	0.151
Kurtosis	5.800	1	0.016
Total	99.45	26	0.000

Source: Authors

After testing the model for the presence of heteroscedasticity, the model was then tested for the presence of autocorrelation using the Wooldridge test, which produced the following results:

Tabela 8. - Wooldridge test for autocorrelation

H0: no first-order autocorrelation
$F(1, 26) = 15.577$
Prob > F = 0.0005

Source: Authors

Taking into account the fact that our model data are unbalanced, and that heteroscedasticity and autocorrelation are present, we used the GLS model,

specifically Prais-Winsten regression (Panel-Corrected Standard Errors - PCSEs, which support unbalanced panels and correct for heteroscedasticity and autocorrelation), using the following command `xtpcse` in STATA, and obtained the following results:

Table 9 - Prais-Winsten regressed model, corrected standard errors for correlated panels (PCSE)

BDP	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
inflation	.227	.066	3.43	.001	.097	.357	***
deficit	.342	.055	6.25	0	.235	.449	***
healthcare	-2.581	.451	-5.72	0	-3.465	-1.697	***
unemployment	-.199	.058	-3.46	.001	-.312	-.087	***
savings	.87	.079	11.00	0	.715	1.025	***
Constant	2.464	.389	6.34	0	1.702	3.226	***
Mean dependent var		2.153	SD dependent var		3.874		
R-squared		0.601	Number of obs		540		
Chi-square		336.619	Prob > chi2		0.000		

*** $p < .01$, ** $p < .05$, * $p < .1$

Source: Authors

INTERPRETATION OF RESULTS

Inflation has a positive and statistically significant impact on GDP. A coefficient of 0.227 suggests that an increase in inflation by 1 unit (percentage point) leads to an average increase in GDP of 0.227 units, holding all other factors constant. The p-value is less than 0.01, indicating high statistical significance ($p < 0.01$), which means there is a very low probability that this effect is due to chance.

Deficit also has a positive and statistically significant impact on GDP. A coefficient of 0.342 means that an increase in the deficit by 1 unit (e.g., percentage of GDP) leads to a 0.342-unit increase in GDP. The results suggest that there is a positive relationship between the deficit and economic growth, which might indicate that budget deficits stimulate the economy, possibly through increased investment in public projects or consumption.

Health expenditure has a negative and statistically significant impact on GDP. A coefficient of -2.581 suggests that an increase in health expenditure by 1 unit leads to a decrease in GDP by 2.581 units. This result may seem counterintuitive but could indicate that excessive health spending in some countries diverts resources from other productive sectors, potentially limiting economic growth. Additionally, this result may depend on the structure of economies and how health expenditure is utilized (e.g., high healthcare costs might burden the economy).

Unemployment has a negative and statistically significant impact on GDP, which is expected. A coefficient of -0.199 means that an increase in unemployment by 1% reduces GDP by 0.199 units. This result aligns with economic theory, as higher unemployment reduces production and aggregate consumption, leading to a decrease in GDP.

Savings have a positive and statistically significant impact on GDP. A coefficient of 0.87 suggests that an increase in savings by 1 unit raises GDP by 0.87 units. Higher savings can provide more capital for investment, which stimulates economic growth.

The constant term is statistically significant and suggests that if all independent variables were zero, GDP would, on average, be 2.464 units.

The R-squared value shows that the model explains about 60.1% of the variation in the dependent variable (GDP). This is a solid value, indicating that the independent variables explain GDP movements fairly well. The p-value of the chi-square test is 0.000, meaning the overall model is statistically significant. This implies that the independent variables, taken together, have a significant impact on GDP.

DISCUSSION

Based on the results obtained from the model, the following conclusions can be drawn for EU countries from 2000 to 2022: inflation, deficit, and savings have had a positive impact on GDP, while healthcare and unemployment have had a negative impact on GDP. The statistical significance of all variables indicates that these factors are crucial for explaining GDP trends in the observed countries.

Inflation (increasing inflation can stimulate economic activity through lower real interest rates, which may encourage investment and consumption, but excessive inflation can have negative effects, so discussing the optimal level would be useful) and deficit (in times of crisis, deficit can increase consumption and support the economy — Keynesian approach; however, long-term effects of high deficits may lead to macroeconomic risks such as rising debt and fiscal unsustainability) are likely to stimulate economic activity through increased consumption and aggregate demand, as evidenced by this study. Unemployment has the expected negative effect on GDP, while the negative impact of healthcare expenditure on GDP may indicate specific factors within this sector in the analyzed countries. The positive impact of savings on GDP is likely related to investments in the economy.

These results provide interesting insights into the relationships between macroeconomic variables and economic growth in the sample.

CONCLUSION

This paper provides a detailed understanding of the relationship between budget deficits and GDP in EU countries from 2000 to 2022, and it can serve as a prediction for future trends. Its results have important implications for fiscal and monetary policymakers, as well as researchers studying macroeconomic trends.

The research highlights several key issues and analyses but also emphasizes the need for further investigation to better understand the dynamics and mechanisms behind the impact of budget deficits on GDP. Effective management of fiscal and monetary policy requires a comprehensive approach that takes into account the broader context of socio-economic factors and national priorities.

REZIME

UTICAJ BUDŽETSKIH DEFICITA NA BDP U ZEMLJAMA EU OD 2000. DO 2022. GODINE

Budžetski deficit je tema koja ima značajan uticaj na ekonomski razvoj i stabilnost. Nastaje kada rashodi vlade premašuju prihode, što obično dovodi do zaduživanja kako bi se pokrio razlika. Deficit može imati i pozitivne i negativne efekte, u zavisnosti od toga kako se koristi i od trenutne ekonomske situacije. Ovaj naučni rad istražuje uticaj budžetskih deficita na GDP u zemljama EU. Istraživanje je sprovedeno za period od 2000. do 2022. godine. Cilj studije je da proceni uticaj budžetskih deficita na GDP pregledom relevantne literature i korišćenjem statističkog modela, konkretno GLS modela u softverskom paketu STATA. Pored budžetskih deficita kao nezavisne varijable, korišćene su i varijable inflacije, zdravlja, nezaposlenosti i štednje. Na osnovu sprovedenog istraživanja, utvrđen je značajan pozitivan uticaj budžetskih deficita na GDP u zemljama EU. Ostali potencijalni faktori koji bi mogli imati uticaj nisu uključeni u model, što može dovesti do pristrasnosti usled izostavljenih varijabli. Iako je istraživanje koristilo napredne tehnike za panel podatke i rešavalo izazove poput nebalansiranih panela i prisustva heteroskedastičnosti i autokorelacije, preostali efekti i dalje mogu uticati na rezultate. Buduće studije mogle bi uključiti više makroekonomskih varijabli, kao što su kamatne stope, trgovinski bilans i struktura javnog duga.

Ključne reči: EU, budžetski deficit, inflacija, GDP, GLS model.

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