

THE GOVERNMENT DEFICIT MANAGEMENT IN GREECE, BULGARIA AND ROMANIA

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Abstract: This paper studies the factors which lead to budget imbalance and the impact of public deficit, public debt and gross fixed capital formation on economic growth for three Eastern Europe countries, using a data set from 1997 until 2020. A special focus is set on both the relationship between growth and the public deficit and on the fiscal behavior Greece, Bulgaria and Romania adopted to face the challenges brought about by the crisis started in 2009 and the pandemics from 2020. The outcome reveals a positive strong correlation between the deficit and economic growth only in the case of Bulgaria, while for the other two countries, whose deficit was much higher during the whole period of time, the impact is not that significant. Nevertheless, the government consolidated gross debt and the gross fixed capital formation proved to be relevant factors of influence for economic growth in all three cases.

JEL classification: C52, H62, H63, O23

Key words: government deficit; national budget; public expenditures; public revenues; public policies; public debt; financial crisis; COVID-19 pandemics

1. INTRODUCTION

The deficit recorded by the public budgets is a topic very much addressed during the last decades by the worldwide economies. Most countries emphasize that their economic development is disrupted by certain factors that trigger this negative outcome. Therefore, the evolution of government deficits is uncertain for all states because there are many factors that could turn an economic growth into a recession. It is important for each country to use the most effective methods to increase its economy and to adapt to any situation that puts the financial situation of the state in difficulty.

In the theory of public finances, it is stated that the allocation of resources is optimal when consumer requirements are met at a maximum level, through both the private and the public sectors. According to Văcărel (2006), the concept of budgetary constraint derives from the limited nature of resources. He shows that “given a certain level of resources, there is a serious problem with allocating them efficiently for the production of the two sectors”.

The emergence of the public deficit is due to the fact that the state either does not fully collect resources or does not distribute them correctly by sectors of activity.

The most effective methods of increasing revenues would be to reduce tax evasion, an economic phenomenon that is increasingly present in most countries, and to attract a significant number of foreign investors (Dincă *et al.*, 2017). Increasing incomes by rising tax and duty quotas would mean higher costs for the population.

Thus, the population could become unable to pay, a factor that contributes to the occurrence of tax evasion.

The increase of public revenues may also depend on the demographics of a state, so that the growing number of the active population also brings about a higher number of fiscal revenues resulting from taxes, fees and contributions. Economic factors also lead to greater public financial resources since economic growth also means an expansion of the tax base. Investments in education, health and culture are also an important parameter because the population will benefit from these services, which require the payment of certain taxes to the budget.

In order to reduce the deficit, not only public revenues and their management are important, but also expenditures and the measures which are acceptable to adopt to reduce their level. The action of spending public money should be divided rationally so that the focus is on investment expenditure, both in infrastructure and in labor development. This division by category of expenditure means, in fact, a distribution of the state's financial resources by certain sectors of activity. In order for government spending to be as efficient as possible, public services must improve their quality while considering the least expensive option to be chosen.

A major method of stabilizing a state's economy is to use the financial policy. The main purpose of using this policy is to establish the financial resources necessary for the functioning and development of the state, and, at the same time, for fulfilling the state functions. However, the goal of financial policy is not to balance the budget. Fiscal policy along with budgetary policy are components of financial policy and aim to balance supply and demand. The financial policy aims to implement the proposed objectives by achieving public expenditures, to establish the uses of public expenditures and the methods by which they are achieved, but also to make these expenditures as efficient as possible. With regard to public revenues, financial policy pursues issues such as the size and sources of public revenues, the instruments used to collect and distribute state financial resources, but also the need to use external or, preferable, internal loans to reach a financial balance.

If in the case of fiscal policy the emphasis is on public revenues and how they are set up, in the case of budgetary policy the main instrument used is public spending. Reducing the level of public expenditures is a budgetary strategy that can have favorable effects on the public financial balance. The budgetary policy is the policy through which the economic relations in monetary form are materialized, which arise in the process of distribution of the gross domestic product (GDP) in connection with the accomplishment of the functions and tasks of the state. Through budgetary policy, a significant segment of GDP is included in macroeconomic planning (Zai, 2014).

The budgetary strategy is necessary to know the economic reality of the state and to establish the efficiency of public spending. These expenditures must ensure economic growth by reducing poverty and raising living standards, by investing in infrastructure and human capital, and by stimulating activities in the economic sector.

2. OBJECTIVES

The study was conducted based on the budget deficit of three Balcanic countries: Greece, Bulgaria and Romania. Deficit is a macroeconomic indicator which reveals to a large extent the position each country holds in terms of budgetary performance. Not only the level of public debt is influenced by the size of the budgetary

imbalance, but also the economic development and growth. Data from Greece, Bulgaria and Romania were used because these countries have relatively similar economies, even if the fiscal policies are quite different.

The paper aims to identify the factors that lead to the budget deficit. Low budget revenues compared to budget expenditures, non-investments used to stimulate revenue growth, the adoption of fiscal and monetary policies inappropriate to the type of economy and, more recently, the pandemic caused by COVID-19 are the main causes of this negative result.

One of this paper's objectives is to identify the determinant of financial imbalances at budgetary level. The characteristics, the causes, but also the way of managing the budget deficit and the system of public revenues and expenditures are highlighted in section 3. Their size is also important for the calculation of the final financial result.

Section 4 refers to the specific ways the three countries adopted to cover the budget deficit. Thus, it became relevant to analyze the types of fiscal policies applied by each state and their economic situation in general, highlighting which of the state's public services were most affected by the international financial crisis of 2008. Moreover, given the current context given by the coronavirus, the measures that the governments of these three states have taken to mitigate the effects of a new crisis caused by this virus are a center piece of the research. The evolution of budget revenues and expenditures for each country was presented in terms of the final result, public deficit or surplus, for 24 years: 1997-2020. The main objective of this chapter was that of developing a statistical analysis for each country by studying the impact of public deficit, along with that of the public debt and the gross fixed capital formation on economic growth. Even though the emphasis is put on the study of the deficit, the government consolidated gross debt and the gross fixed capital formation are not to be neglected as they both are very important variables that are widely recognised as influencing factors for economic growth.

The government consolidated gross debt, abbreviated GCGD, is one of the most frequently used concepts in the ongoing economic debate. According to Lojsch *et al.* (2011), the analysis of the government debt is the starting point in evaluating the sustainability of each state's public finances, it provides information for investors, for public debt management offices etc. As a consequence, the indicator measuring the government borrowing activity receives a lot of attention in both national and international fiscal frameworks.

Gross fixed capital formation, abbreviated GFCF, consists of resident producers' investments, deducting disposals, in fixed assets during a given period. It also includes certain additions to the value of non-produced assets made by producers or institutional units. The introduction of this control variable completes the regression, in the sense that the impact of fiscal variables on economic growth is also transmitted through gross fixed capital formation (Mesea, 2012).

The last part of the research paper concludes and offers some final remarks describing the three countries' economic situation.

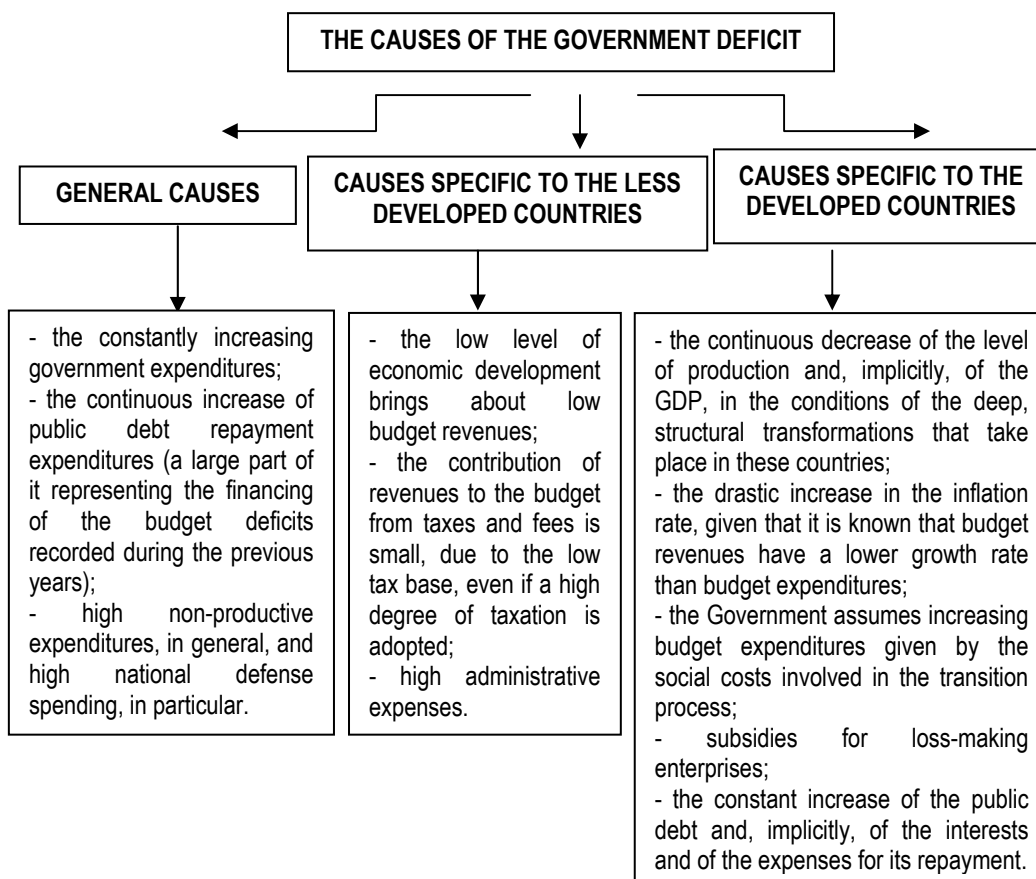
3. CAUSES AND EFFECTS OF THE PUBLIC DEFICIT

The unfavorable difference between revenue and expenditure can result from several reasons. One of the reasons is that at the state level there are far too many public

expenditures, whether current expenditures, capital expenditures or various financial operations. At the same time, the State Budget collects far too low public revenues due to low social security contributions and tax revenues, resulting from the collection of taxes and duties, and non-fiscal revenues achieved in rather low rates.

In order to reduce the budget deficit, public spending must be covered as much as possible by budget revenues.

Figure no. 1 shows the main causes for the budgetary dezechilibrium.



Source: Adapted after Moșteanu (2008, p. 326)

Figure no. 1 The general and specific causes of the government deficit

The emergence of the government deficit may produce a lot of consequences. First of all, foreign capital will be lower and lower because deficit leads to economic instability. To cover it, the state will use external credit, which brings about the increasing of public debt, and thus, the commissions and interest related to the repayment of loans will also go up.

The budget deficit recorded during a year can be divided into two elements:

1. Structural deficit;
2. Cyclic deficit, calculated as the difference between the total deficit and the structural deficit.

Although there are multiple and various effects, deficits follow one initial effect: they reduce national economies. When the government has a budget deficit, the public economy is negative, which places private economies above national economies. At the same time, deficits create a flow of assets abroad as budget deficits increase the trade deficit (reduction of net exports).

On the one hand, it is believed that the deficit triggers high tax rates that can reduce productivity and discourage private investment. On the other hand, it is assumed that these deficit-related expenditures will complement business investment and boost economic productivity. While the Keynesian school's proposals argue that deficits are sometimes needed to stimulate aggregate demand after a monetary policy has proved ineffective, other economists believe that deficits eliminate private lending and distort the market. However, some economists suggest that borrowing money today requires high taxes in the future, which unfairly punishes future generations of taxpayers to meet the needs of current beneficiaries (Ross, 2021).

4. METHODOLOGY AND ANALYSES

The research is focused on synthesizing the main fiscal and financial decisions taken by Greece, Romania and Bulgaria to reduce the government deficit during the last years. Moreover, using basic statistical and econometric methods of analysis, a regression between the public deficit, the government debt and the gross fixed capital formation, on the one hand, and GDP, on the other hand, was developed. The purpose was that of showing whether there are significant differences between the three Balkan countries concerning the potential influence of the government deficit/surplus and associated data on the economic performance of each country. For rigorous results, the period of time chosen for the correlation analysis covers 24 years, between 1997 and 2020, however subject to data availability.

Data was retrieved from the European Commission's statistics database by considering the general government level, thus covering the total economy. The government deficit/surplus is the difference between the revenue and the expenditure, while the government debt is defined as the total consolidated gross debt at face value at the end of the year in the following categories of liabilities: currency and deposits, debt securities and loans. GDP provides an overall picture of the economic situation and is widely used for economic analysis and forecasting, policy design and policy making being associated to the economic performance and growth of a country/region.

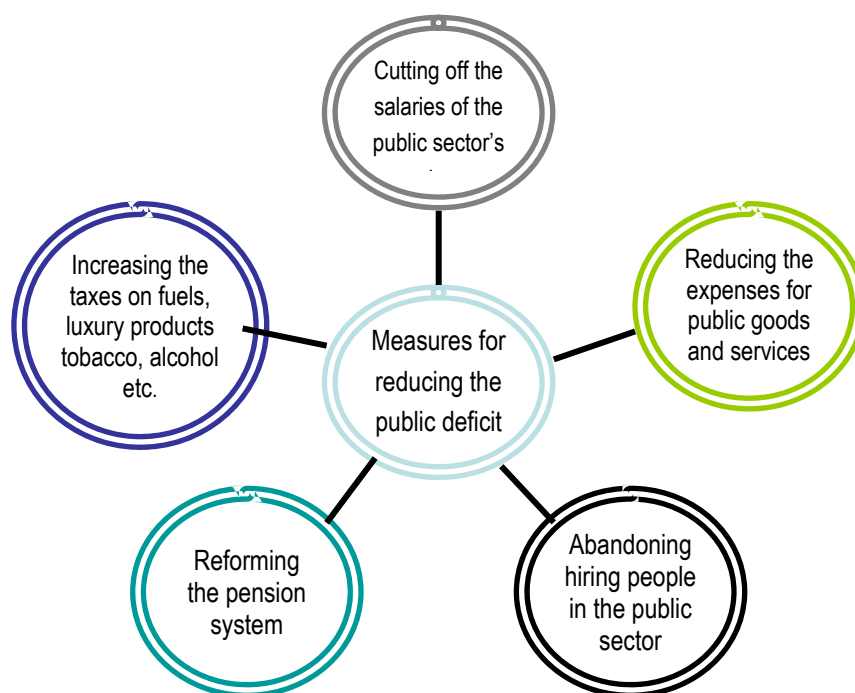
4.1 The Evolution of the Government Deficit in Greece

Greece has been a member of the European Union (EU) since 1995 and is one of the countries that has switched to the Union's single currency, the euro. The adoption of euro brought about an economic disadvantage for Greece, namely, it had to adopt existing financial policies at EU level, thus abandoning national financial policies. The Greek state could not stabilize the budget deficit because it could not implement an appropriate policy, which before the convergence to the euro area manage to keep the financial balance. However, there were also certain benefits such as the reduced currency risk and the reduced trading costs between EU Member States.

Greece's government deficit exceeds the EU's limit, established by the Maastricht convergence criteria, of 3% of its GDP. The state is in top three in terms of its public debt. At the time of joining the euro area, Greece did not meet the conditions

for the adoption of the single currency, but various measures were taken to hide this and to show that there were sufficient revenues in the budget to cover expenses. The Greek state has also increased public spending far beyond the economy's ability to produce.

2009 was the beginning of Greece's financial decline, two of the important factors that led to this being tax evasion and fraud. The increase in the budget deficit produced an increase in public debt, which, two years after the outbreak of the financial crisis, had by far exceeded 100% of GDP. The emergence of the financial crisis also brought into question the possibility of Greece returning to the old currency and its own economic and monetary principles, and leaving the euro area. However, the change in currency and fiscal policies would, once again, have led to new economic instability, declining living standards and the effects of a new crisis would have been even worse.



Source: author's own processing

Figure no. 2 The measures taken for reducing the public deficit in Greece

Although Figure no. 2 reflects some of the primary decisions taken by the Greek Government, most of the measures highlighted were adopted by a great number of other countries as well, Romania and Bulgaria being such examples. Nevertheless, these measures alone did not solve the crisis in none of the countries. That is why the Greek government, for instance, had to resort to international financial aid, with the support of the International Monetary Fund (IMF), the European Central Bank and the EU. At the same time, the emergence of the financial crisis in Greece has shown that the Economic and Monetary Union has certain shortcomings and that the adoption of a single currency may cause financial imbalances, which affect the entire population.

Between 1997 and 2020, Greece had only four years of budgetary surplus: 2016-2019. As expected, the worst financial years were between 2008 and 2013, when

the deficit stood constantly above 9% of GDP, with a maximum level recorded in 2009: 15.15% of GDP. 2014 and 2015 brought some corrections to the imbalance of the previous years, the deficit being limited to a share of 3.6% - 5.9% of GDP so that in the following four years, until the COVID-19 pandemics, Greece had an increasing surplus from 0.2% in 2016 to 1.1% in 2019. However, 2020 and the crisis which hit the health system and eventually the whole economic system brought a contraction of almost 10% of the national GDP, while the budgetary surplus changed into a 9.7% deficit. According to Table no. 1, it seems that the government deficit and surplus did not have a major impact on economic growth as the confidence level is below 95% ($\alpha = 0.1083 > 0.05$). The other two variables had a relatively important influence on the Greece's economic growth indicator, the overall significance given by the statistical measure R-Squared being of about 86%.

Table no. 1 Summary output for the regression model in Greece

Variable	Coefficients	Standard Error	t Stat	P-value
Intercept	44677.32381	14045.9	3.18081	0.004697
Government deficit (-) / surplus (+) (GD/S)	-0.57673	0.34311	-1.68087	0.108339
Government consolidated gross debt (GCGD)	0.26262	0.03669	7.15821	6.21×10^{-7}
Gross fixed capital formation (GFCF)	8.03791	1.19868	6.70565	1.59×10^{-6}
F test: 41.21486		R Square 0.86077		

Source: author's own data processing

The Fisher test, which is 41.21, was established from the ratio between the square average of the regression and the square average of the residuals. The two alternatives for the Fisher-test were analysed for the overall fit of the model:

H_0 : all coefficients are 0; H_1 : not all coefficients are equal to 0.

According to the theoretical value of the F-test, for a 5% significance level, $F(0.05; 3; 20)$ is 3.10, a value lower than 41.21. Since the null alternative is rejected, at least one parameter is different from 0 and the model is valid.

As the deficit/surplus seems to be insignificant for the GDP evolution, the model is rebuilt by using only the two relevant variables. In this new case, R square became 0.8411, while F test increased to the value of 55.58. The two-tailed inverse of the Student-t Distribution for a 5% level of significance and 21 degrees of freedom is 2.08, a value lower than any $|tStat|$ obtained in the new model.

The new equation became:

$$GDP = 38148.04 + 0.28 GCGD + 9.14 GFCF$$

The GCGD and the GFCF have a direct positive effect of GDP evolution. The high value of the free term shows that the influence of the other factors which were not included in the model is pretty significant. Although the model is well built, it can be developed and improved by adding other variables as well.

In the regression model, the assumption was that the error terms are independent, so uncorrelated as they are normally distributed $N(0, \sigma^2)$. Still, sometimes, in economic analysis the autocorrelation of errors may appear. The hypotheses tested in the Durbin-Watson (DW) analysis are:

H_0 : there is no correlation among the residuals;

H_1 : the residuals are autocorrelated.

The DW statistic refers to the residuals of the model and is defined as:

$$DW = \frac{\sum_{i=2}^{24} (e_i - e_{i-1})^2}{\sum_{i=1}^{24} e_i^2}$$

where: e_i is the residual for time period “i”.

The DW result for the model is 1.3977 and the decision rule is: if $DW > dU$, do not reject H_0 ; if $DW < dL$, reject H_0 and if $dL \leq DW \leq dU$, the test is inconclusive.

The critical upper (dU) and lower (dL) bound can be found in the DW table. For a significance level of 0.05, a number of 2 independent parameters and a sample size of 24 observations, the DW statistics regarding dL and dU is 1.19 and, respectively, 1.55. Since our test statistic of 1.3977 does not lie outside of this range, the null hypothesis can not be rejected, so there is no correlation among the residuals.

In the current context, the pandemic caused by the appearance of coronavirus two years ago is a factor that could strongly continue to negatively influence the economy. The Greek government's decision to suspend some trade operations affected the state's economy by increasing the number of unemployed, which meant a decrease in the contributions they paid to the state and a decrease in income from taxes. The suspension of the activities of certain companies meant the suspension of the individual employment contracts of many employees, to whom the state offered a payment called compensation for special causes, which is not taxed. This compensation meant an extra expense for the government to provide families affected by this technical unemployment with an income to cover basic needs. Greece is a country that relies heavily on tourism. The emergence of travel bans and the maintenance of social distance has led for several months to the lack of tourists both in the country and abroad. If these measures are reintroduced and health spending continues to increase, Greece's budget deficit will not be able to be reduced.

4.2 The Evolution of the Government Deficit in Bulgaria

The global economic crisis that started in 2008-2009 posed a serious challenge for the Bulgarian economy, which was reflected in the worsening of macroeconomic indicators. The main priority of the state has been to maintain fiscal stability, achieved through the implementation of an austerity policy. The country has managed to achieve the goal in a relatively short time, being among the EU member states with the lowest budget deficit and the lowest public debt as a share of GDP.

An important factor that has contributed to this performance is the high confidence that international institutions have, which has led to an increase in its credit rating. However, the state has failed to reap the full benefits of the adopted policy. The fiscal stability that Bulgaria has sought to maintain by adopting strict budgetary discipline has brought slow economic growth, accompanied by low living standards, high unemployment, restricted consumption and difficulties for real-world companies.

A detailed analysis of the adopted policy revealed some of its disadvantages. The results showed that this toughness of fiscal measures put additional pressure on an already fragile economic growth. The Bulgarian government has been forced to take further steps to achieve an economic recovery through active state support, which hopefully would lead to increased consumption and production activities.

The 2008 budget recession has had a major impact on Bulgaria's budget balance. The budget surplus of 1.6% of GDP in 2008 turned into a budget deficit of 4% of GDP in the following year. This deterioration was mainly due to the dynamics of budget revenues, which fell by more than 8% annually. The unfavorable international

economic environment, the difficult times that Bulgarian companies were going through, the declining purchasing power of the population and the low volume of consumption also led to a drastic decrease in the volume of imports, which, in turn, led to reduced tax revenues. This decline in tax revenues continued during the other years of the crisis, as the economic downturn affected large companies and corporations in Bulgaria, and thus corporate tax revenues were lower and lower.

However, as compared to other EU Member States, including Greece and Romania, Bulgaria's budget deficit was relatively limited. During the 24 years of analysis it has never exceeded 5.4% because it took preventive measures against increasing the budget deficit and thus decided to adopt a fiscal consolidation policy. The adoption of this type of fiscal policy made it possible for the state budget to change the deficit into a surplus in just two years after the severe deficit of 5.4% recorded in 2014. The favourable balance of the budget continued until 2020 when the pandemics changed this situation into a 3.4% deficit.

Table no. 2 Summary output for the regression model in Bulgaria

Variable	Coefficients	Standard Error	t Stat	P-value
Intercept	-2297.795	5577.915	-0.41195	0.684761
Government deficit (-) / surplus (+) (GD/S)	4.26847	2.01292	2.12054	0.046657
Government consolidated gross debt (GCGD)	1.34090	0.54907	2.44214	0.024014
Gross fixed capital formation (GFCF)	18.21829	2.42583	7.51013	3.05 x 10 ⁻⁷
F test: 24.66133		R Square 0.7872		

Source: author's own data processing

The econometric procedure developed for Bulgaria shows all three independent variables have an impact on the GDP growth rate. The evolution of the budgetary result (deficit/surplus) seems to produce a direct and in the same direction influence on economic growth, a normal finding since a decline in the deficit or a cut in the surplus brings about a decrease in economic growth. Such a result comes in line with the Keynesian or Ricardian hypothesis, and against the neoclassical one. As in the case of Greece, the model seems to be a relevant one regarding the study of the response variable since both the analysis of F-test and t Student statistics reject the null hypothesis. The F-test value is higher than the critical value of 3.10 for a significance level α of 0.05, 3 treatment degrees of freedom and 20 error degrees of freedom.

The equation is:

$$\text{GDP} = -2297.8 + 4.27 \text{ GD/S} + 1.34 \text{ GCGD} + 18.22 \text{ GFCF}$$

The DW test was repeated also in the case of Bulgaria to detect the presence of autocorrelation in the residuals of the regression. The result for the model is 1.197, a value between the lower critical value of 1.10 and the upper critical value of 1.66, which proves that the errors are not autocorrelated.

Bulgaria has tried to keep its economy under control during the international financial crisis by adopting an austerity program in order to achieve financial stability. Unfortunately, many of these measures have led to very slow economic growth and even to negative effects such as rising unemployment, declining living standards and consumption. For this reason, Bulgaria had to change this policy in order to increase production activities and stimulate consumption. Although this type of fiscal discipline did not have the expected effects because, as a general rule, it is preferable to be used

by highly developed states, it has made Bulgaria recognized for its economic stability, with no significant public debt or budget deficit not even during the pandemics.

4.3 The Evolution of the Government Deficit in Romania

The financial crisis initially hit Western Europe, at a time when Romania, like other peripheral countries in the EU, continued to experience relatively strong economic growth. The global financial crisis hit Romania in late 2008 and immediately had a negative impact on the state's economy. This crisis has led to declining exports, limited access to external financing, which has created difficulties in terms of private external debt, the depreciation of the national currency and the withdrawal of foreign investors from Eastern European countries.

Before the crisis began, Romania experienced robust economic growth for 8 consecutive years, but, as the financial crisis began to spread throughout the economy, things changed abruptly. In a first stage, the most affected economic activities were manufacturing, the financial sector and real estate. Manufacturing went from a growth of about 5% in the first quarters of 2008 to a rate of -7.7% in the fourth quarter, while growth rates in financial activities fell in the same period by about 4 %. The rest of the business sectors were also affected, but managed to maintain positive growth rates. The negative impact of the international financial crisis continued in the following year, the Romanian GDP recording significant annual decreases.

Romania had not been able to adopt the same measures as the rest of the EU countries to reduce the adverse effects of the crisis, because of the particularities of the Romanian economy, especially the large current account deficit. The emphasis was put on improving the perception of foreign investors through various measures, such as increasing the attractiveness of European funds and creating new jobs in promising sectors such as infrastructure, agriculture, food industry, which were seen as sectors capable of becoming an engine for economic growth.

Financial agreements with various international institutions, such as the European Commission, the European Investment Bank, and the IMF, were also important because they could offset significant declines in private capital flows. The IMF, along with the EU and the World Bank, have pledged to support the authorities' efforts to combat the effects of the international crisis and provide stability by offering assistance and approving a financial support package to cover three main areas, namely fiscal consolidation, banking reform and inflation reduction starting with March 2009.

Fiscal reforms included measures to improve budgeting, streamline salaries, pensions and public enterprises to ensure a low level of budget deficit. Expenditure has been reduced, but, at the same time, public investment has been increased to ensure a long-term improvement in competitiveness. The measures were also aimed at protecting low-wage public employees and low-income retirees to ensure that these reforms do not severely affect these vulnerable groups.

Out of the three countries analysed in this article, Romania is the only one which, through the whole period 1997-2020, met only deficit and never surplus. Surprisingly to some extent, the most severe value was the one of 2020, 9.25% of GDP, while the deficit in 2009 was of 9.06%.

Table no. 3 Summary output for the regression model in Romania

Variable	Coefficients	Standard Error	t Stat	P-value
Intercept	26525.406	6951.557	3.81575	0.001082

Government deficit (-) / surplus (+) (GD/S)	0.93057	1.16466	0.79901	0.43367
Government consolidated gross debt (GCGD)	1.40607	0.18707	7.51630	3.01 x 10 ⁻⁷
Gross fixed capital formation (GFCF)	9.05938	1.85194	4.89183	8.82 x 10 ⁻⁵
F test: 88.50903		R Square 0.92995		

Source: author's own data processing

For the regression model in Romania, R Square statistical indicator is the highest, the three predictor variables explaining to a great extent the dependent variable. However, P-value of the government deficit exceeds far too much the desired value of 0.05 which means that the null hypothesis is accepted and the difference between a pair of group is not statistically significant. T Stat test also strengthens this idea as the reached value of 0.799 is lower than the theoretical one available for this model and found in the distribution table as 2.08. After excluding the variable represented by the deficit, the equation became:

$$GDP = 27298.82 + 1.36 GCGD + 8.39 GFCF$$

As for the other two countries presented in the analysis, GCGD and GFCF have a direct positive effect of GDP evolution. Although R Square is almost 93%, the high value of the intercept shows that the impact of the other factors which were not included in the model is quite significant.

The DW result for the model is 0.8762 and the decision is that the null hypothesis can be rejected because DW is below the lower theoretical value of 1.19. In this case, the correlation of the errors might be a problem for the model and probably adding some lags of the dependent and/or independent variables might solve the autocorrelation.

For Romanians, the effects of an economic crisis caused by coronavirus are noticeable, mainly, by the depreciation of the national currency against the euro, which affects bank lending rates; through higher utility bills; reducing purchasing power for real estate or vehicles. Tourism and transport are two other areas that have been significantly affected, both from the perspective of investors and from the perspective of consumers. The spread of the pandemic has caused a change in consumer behavior globally. In some European countries, where the pandemic later spread, such as Romania, news of the spread of COVID-19 led to a massive increase in the purchase of commodities by the population to secure supplies. In Romania, the pandemic highlighted the need for investment in health care, the need to make the education system more flexible, the ability to adapt to critical situations and the need for national investment and government support.

5. CONCLUSIONS

The relationship between the budget deficit and macroeconomic variables (such as growth, trade deficit, inflation, interest rates, consumption, exchange rates) is one of the most debated topics at international level. Most papers found in the specific literature came to the conclusion that the years marked by economic crisis have been also characterized by significant increases in the levels of budget deficits and debt.

Regarding the study of the impact of the budget deficit on the economy based on the analysis of the evolutions of the series of macroeconomic variables, it was noticed that the impact of the crisis on the variables of interest was very visible, in the sense that all the variables changed their behavior even from the first effects of the

crisis. This leads to further investigation of the links between the variables of interest taking into account the existence of other macroeconomic indicators that can be included in the different channels of transmission of the impact of the budget deficit on economic development and the importance of using econometric methods.

Moving on to the econometric tests, the analysis of the impact of budget deficit was performed using the regression method on an annual basis time series from 1997 to 2020. No strong connection was identified between the real growth rate of GDP and the evolution of the deficit in the case of Greece and Romania. In Bulgaria, where the deficit was much more moderate, the conclusion was that an increase by 1% of the budgetary result contributes to an increase by 4.27% of the independent variable. The impact of the other two variables is statistically significant at a 5% confidence level for all the three models developed. For further research, one possibility is to study the impact of the budget deficit on economic development in the light of the analysis of the twin deficit hypothesis (budget deficit and current account deficit).

In contemporary economic conditions, where the need for financial resources exceeds the available existing funds, the main problem is reaching a budgetary balance. Reducing budget deficits, creating or using as many sources of funding as possible, and reducing the level of public debt are the main issues that all states need to focus on.

The global financial crises have affected European states differently, but all have faced declining financial confidence, leading to uncertainty about the state's economic future. The international economic problems have also highlighted the fact that governments should adopt those fiscal policies that do not necessarily have an immediate effect. Fiscal policies must result in long-term efficiency that ensures the gradual and certain development of the economy.

REFERENCES

1. Dincă, G., Dincă, M. S., Andronic, M. L. The Impact of Corruption, Fiscal Evasion and Migration on Economic Development. In: Marinescu, N. (Ed.), *East-West Migration in the European Union*. Cambridge Scholars Publishing, Newcastle, pp. 77-95, 2017, retrieved from <http://www.cambridgescholars.com/east-west-migration-in-the-european-union-2>
2. Eurostat National accounts and Government finance statistics, <https://ec.europa.eu/eurostat/data/database>
3. Lojusch, D. H., Rodriguez-Vives, M., Slavik, M. The Size and Composition of Government Debt in the Euro Area. ECB Occasional Paper, No. 132, European Central Bank, Frankfurt a. M., 2011, retrieved from <https://www.econstor.eu/handle/10419/154585>
4. Mesea, O. E. The impact of budget deficit on the economic development of Romania. MPRA Paper No. 40476, 2012, retrieved from <https://mpra.ub.uni-muenchen.de/40476/>
5. Moșteanu, T. *et al.* *Buget și trezorerie publică / Public budget and treasury*, 3rd edition, Bucharest: Universitară Publishing House, 2008
6. Ross, S. Understanding the Effects of Fiscal Deficit on an Economy. Investopedia, 2021, retrieved from <https://www.investopedia.com/ask/answers/021015/what-effect-fiscal-deficit-economy.asp>
7. Văcărel, I. *Finanțe publice / Public Finances*, Bucharest: Didactică and Pedagogică Publishing House, 2006

8. Zai, P. V. Abordări moderne legate de politica bugetară: politica fiscală și politica de cheltuieli publice / Modern approaches with respect to the budgetary policy: fiscal policy and public spending policy. The Transilvanian Review of Administrative Sciences (TRAS), 1 (34), pp. 113-124, 2014