

## INFLUENCE OF FINANCIAL-BANKING STABILITY ON ECONOMIC DEVELOPMENT

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### **Abstract**

*From an economic point of view, the countries of Central and Eastern Europe show a similar level of prevention, perception but also response to more or less anticipated situations, which have characterized these last decades. It is true that some of these are also part of the Schengen Area (Hungary, respectively Slovakia) not only of the European Union (Romania, respectively Bulgaria). However, the manifestation of socio-political phenomena, fueled by the crisis, the pandemic, demonstrated that all these countries are equally affected, and the decisions taken led, on the one hand, to mitigating and even limiting the negative effects, and on the other hand, to an economic growth, starting from 2021, which is around the European Union average. Thus, the study proposes, based on multivariate regression, to analyze both the influence of macroeconomic indicators on the economic environment, as well as the influence of financial stability on sustainable development at country and regional level. The reference period includes the years: 2001 - 2021, with an annual data frequency.*

**Keywords:** *economic development; macroeconomic indicators; financial stability; multivariate regression.*

**JEL Classification:** C33, E44, E60.

### **1. INTRODUCTION**

The dynamics of events, from the last decade, seem to leave their mark more and more seriously on the way in which the governments of the member states, of the European Union, manage and, at the same time, counteract the negative effects

of the pandemic, socio-economic conflicts, political and even military, on the business environment. The latter, as is known, is highly dependent on investments that support not only reforms in key sectors, such as banking, but also provide stability, necessary for harmonious development, based on the strategies carefully developed, with a long-term vision.

The current geopolitical context requires more carefully elaborated analyses, which concretely support the economic environment. It is characterized by significant fluctuations both at the level of macroeconomic indicators and in terms of the way of relating, action, regarding the decisions that need to be taken. Decisions, which should be assumed, prudent and take into account the economic power of each region or even country. Thus, the analysis is carried out on 4 central and European states (Romania, Bulgaria, Hungary, Slovakia), significantly affected by the events of the last two decades.

The banking system has always represented a standard, a pillar on which the state/government can rely. That's why we want to support and encourage him to offer credits in those sectors, based on realistic plans drawn up, which can really develop and create possibilities for expansion at the national, regional and, why not, international level. On the other hand, the financial crises have seriously left their mark on this system, which has repositioned itself, on the one hand, out of the desire to save itself, and on the other hand, to further support the state's efforts, embodied in projects in the field of infrastructure, research-innovation, sustainable growth, and development.

The objective of the research is represented by the analysis of the most important indicators, with pronounced impact on the economic environment and implicitly of its development, in a financial context that presents fluctuations, at least interpretatively. At the same time, it is desired to find the best/current, viable measures to counteract the negative effects, in order to ensure the premises of growth and then sustainable development at the level of the region.

Although the analysis, in terms of the evolution of the most important indicators (for example, such as stock markets) does not show variations, as abrupt as during the last world crisis (2008 - 2012), it is recommended that any measure and decision that must be adopted to wear, at least a few characteristics, namely: prudence, a much more responsible assumption in terms of decisions, on the part of the truly responsible factors and, last but not least, flexibility to allow adaptation to any event unforeseen.

Also in this sense, we consider that the study is up to date, in the current political-economic environment and can represent a real support both for the academic environment and for the foundation of important decisions, at the state level with direct implications on the sustainable development at the community level.

## 2. THE SCIENTIFIC CONTEXT

Economic development, as defined or rather understood by the financial environment, encompasses a set of measures that ultimately aim at harmonizing the policies instituted by the government, the purpose of which is the fruition of growth opportunities, with notable results, in - an environment characterized by various disturbances, among the most unforeseen with a significant impact on the banking system.

Moreover, banking competition plays a particularly important role in terms of the efficient functioning of financial markets and therefore its regulation is one of the key objectives of financial policy at the state level.

The studies in the field captured the evolution but also the impact of the policies and measures instituted over time intervals, characterized by significant fluctuations of the most important indicators, whose response and result highlight an important aspect, namely that of its dependence in relation to economic development. This is materialized, on the one hand, due to the need for liquidity in the market, and on the other hand, a stable financial system ensures linear but also constant growth, with benefits for investments and investors with direct implications and on the incomes of the population.

Thus, Albulescu (2008) emphasizes the "construction" of an aggregate financial stability index, which would represent one of the most used methods for evaluating the level and dynamics of the stability of the financial sector. In other words, the "construction" of such an aggregate financial instability index (ISF), would represents, along with the early warning systems and stress tests, one of the quantitative methods by which the stability of the financial system of a state and even a region is measured. Early warning systems allow making predictions about the probability of a financial crisis (and especially a currency crisis) but do not offer the possibility to include in the calculations all the risks to which the system is exposed, nor do they provide information about the capacity its response to internal or external shocks. Techniques such as "stress testing" allow the identification of potential shocks and estimate the resistance of the financial system, but they do not allow for comparisons between the level of stability in different periods or between the degree of stability of the financial systems of two or more countries. Aggregated indices of financial stability instead allow for comparisons between different periods and systems and allow observing the evolution of the level of stability.

The results show a positive trend of the aggregate index in the period 1998-2006, with an emphasis on the period 2001-2004. At the same time, its advantages consist in the simplicity of the calculations, in the accessibility of the data and in an adequate level of transparency. These indices give analysts the possibility of making some comparisons in terms of instability between several financial systems and allow them to observe the dynamics of financial stability. On the other hand, the disadvantages or rather the deficiencies of the method are also

important. It is difficult to accurately predict the onset of a crisis or measure the system's ability to withstand potential shocks.

In the sense of the above, it is also noted that after Romania's accession to the European Union in 2007, the capital account was completely liberalized and the level of financial intermediation improved, showing a favorable evolution. By maintaining this trend, the Romanian financial system will be able to be prepared from the point of view of financial stability to join the euro zone. The method used in the present study also allows the integration of forecasts in the performed calculations.

Other authors, Abusharbeh *et al.* (2017) have studied whether or not the development of the banking industry can support the economic development of a country. The results showed that bank loans are positively related to economic growth, which proves that the development of the banking sector contributes to improving the productive capacity of the economy.

Jayakumar *et al.* (2018) analyzed the interaction between banking competition, banking stability and economic growth, using a vector error correction model (VECM). The results of the study demonstrated that banking competition and banking stability have a long-term influence on economic growth in Europe. Bitar and Tarazi (2019) investigate the effect of banking competition and financial stability on the economy by examining panel data from 38 European countries over the period 2001-2017. Basically, it looks at how bank stability (i.e., non-performing loans and bank Z-score) and banking competition affect economic growth.

Using a fixed-effect estimator to control for cross-sectional heterogeneity and a system GMM estimator to control for endogeneity and the dynamic growth relationship, this study finds strong evidence that banking stability is crucial for economic growth, especially during times of crisis. Economic growth declines during the global financial crisis as well as during a period of local banking crisis. Moreover, a solid financial stability can neutralize the negative effects of the crisis on economic development.

The results of the study support the idea that decreased competition in the banking sector increases economic growth. Also in this sense, the empirical results of this study also show that market power in the banking sector can support economic growth and increase financial stability. In all this dimension, analyzed, an important role is played by decision-makers and regulatory authorities, whose activity refers to banking competition and the financial stability of banks, helping them, at the same time, to develop appropriate regulations.

Boot *et al.* (2020) empirically investigate the negative effects of the spread of the SARS COV2 virus on the business environment. It has seriously left its mark, in the sense of the drastic reduction of economic activity worldwide and with it the emergence of new risks in terms of financial stability. The lack of cash liquidity on the market can lead to a new banking crisis, not only at the European

level but also worldwide, therefore it is very important that the monetary policy measures counteract these apparently hypothetical situations, in order not to further endanger the activity firms/companies with state or private capital.

At the same time, alongside these monetary policy measures, other practices are required, much more pressing and carefully directed to support the financial-banking system, in the sense of increasing confidence in it, especially in those countries whose economy can become sensitive to market fluctuations, from the European level. In the sense of what has been presented, reference is also made to the fact that, unlike the crisis of 2008 - 2012, with acceptance for the period 2010 - 2011, the current configuration does not, however, present an equally high risk that would really create anxiety and measures immediate countermeasures to it.

Danisman and Tarazi (2020) analyze how financial inclusion affects the stability of the banking system at European level. The financial crisis, 2008 - 2012, was the triggering element, which demanded/imposed on the decision makers concrete measures to stabilize the banking system and at the same time promote financial inclusion, so that its effects do not repeat themselves.

The results suggest that advances in financial inclusion through multiple account holdings and digital payments have a stabilizing effect on the banking industry. Moreover, an aspect worth mentioning refers to the young people of society, who must be encouraged, educated in this sense, with increased attention to the rural environment and those areas / regions where information "reaches harder".

Bach Phan *et al.* (2021) investigate the impact of economic policy uncertainty on financial stability, for a reference period between 1996 - 2016, on a sample of 23 countries.

The essence of the examination of this hypothesis comes from the key role played by the financial system, which if functioning well facilitates the flow of funds and ensures the productive allocation of resources. At the same time, the flow of information should not be neglected, which is essential for the functioning of a financial system, since saving and investment decisions are made after participants have evaluated all their existing options. Furthermore, the factors that disrupt the flow of information and generate financial instability, including rising interest rates, deteriorating financial sector balance sheets, deteriorating non-financial balance sheets, and increasing uncertainty, are both internal and external in nature. The hypothesis of the study refers to the increase of uncertainty as a source of financial instability.

This uncertainty increases information asymmetry because the characteristics of borrowers become opaque. In other words, it becomes increasingly difficult for lenders to distinguish credit risks during uncertain times (when the EPU is high), leading to a decrease in lending, investment and, consequently, a contraction in activity economic. The results of the analysis confirm that uncertainty disrupts the



flow of information, aggravates the problems of adverse selection and moral hazard, which in turn reduces liquidity in the financial system.

Hartwell and Djalilov (2021) state that financial institutions have embraced the idea of corporate social responsibility (CSR) over the past decade, especially in the banking sector, even as they have faced various challenges in the current uncertain economic environment. The study is based on a sample of 319 banks from 21 CEE countries, over a period of analysis between 2002 - 2014 and starts from a natural "question": Has this responsibility helped banks in their effort to become more stable through diversification or did it waste resources that could be used elsewhere?

The results of the analysis find that there is a heterogeneous effect of CSR on the stability of banks, but at the same time it can also represent a destabilizing effect for weaker banks and, at the same time, an additional commitment for companies that have reached a certain level of stability.

Elnahass *et al.* (2021) show that it is of paramount importance to examine the impact of the COVID 19 pandemic, on banking stability, at a global level in order to assess/capture possible recovery signals. The sample includes 1,090 banks from 116 countries, and the data has a quarterly frequency for the years 2019 - 2020. The outbreak has forced major international institutions and banks to reduce their growth forecasts.

Due to the unprecedented nature of this crisis, the impact on economic developments, in terms of financial stability, are quite difficult to quantify, but action must be taken to limit its effects, while providing real support to investors to support the continuation of reforms. For many economies, this aspect will mainly depend on the ability to restart, at optimal capacity, economic activities, while continuing to limit the risks to the health of the population, which involves, among other things, substantial expenditures on the part of the state. The results provide strong evidence that, for the banking sector, globally, the pandemic, mentioned above, had a negative impact on financial performance and stability, an aspect highlighted by the evolution of the indicators that characterize this phenomenon.

Other authors, Khan (2022), analyzed the contribution of banking competition on macroeconomic stability and their role on financial stability. The results demonstrated that a high level of banking competition promotes macroeconomic stability.

Baziki, Nieto and Turk-Ariss (2023) assess the sovereign-bank risk nexus by examining the effects of the composition of sovereign portfolios on banks' risk profile over a reference period between 2009 - 2018. The study shows that banks are riskier when their portfolio includes a higher proportion of securities that are issued by "sovereigns" with higher risk or when they are themselves domiciled in a country with high sovereign credit risk.

In the analysis, the risk profile is noted to be higher for banks that received government capital injections than for banks that did not receive capital support following the global economic crisis. On the other hand, banks that have received government capital injections are less risky when their portfolio includes a higher proportion of government-issued, higher-risk securities. These results reinforce the idea that the regulation of these assumptions, through arbitrage measures, at these banks are particularly important.

As can be seen, the strategies considered for a sustainable economic development must take into account, have in mind the maintenance of a financial-banking stability that allows, on the one hand, the continuation of the reforms and even their completion, and on the other hand, this system can substantially contribute to widening the platform through which the state can obtain liquidity, for example by issuing government bonds, with a reference period capable of supporting investments and implicitly the business environment, in its complexity.

We admit that the central pillar of sustainable development is represented by economic growth, which in turn is influenced by financial-banking stability. In this sense, the government, through the levers at its disposal, can support, through firm measures, ensuring the balance necessary for the good development of investment activity in key areas, capable, in turn, of encouraging and improving the degree of trust in relation to the population. The latter represents, as a percentage, a significant part of what banking activity means, because the services offered by this system are in a directly proportional relationship with the need for consumption, professional development and entrepreneurial development capable of adding value to an economic environment, which seems to be in a period of socio-political instability that needs to be very well managed at the level of the European state/states.

In this geopolitical context, economic growth is reproduced, analyzed also from the point of view of GDP. At the level of the analyzed states (Romania, Bulgaria, Hungary, Slovakia), the evolution of this indicator, if we consider the year 2019, the one before the outbreak of the COVID 19 pandemic (November 2019 Wuhan, China), respectively the years in which it experienced oscillations/fluctuations among the most diverse / unexpected, the situation is presented according to Figure 1.



Source: World Bank (2023)

**Figure 1. GDP Growth**

According to the data (Figure 1), we can see that the year 2020, in all the analyzed countries, represented a setback in terms of economic activity, a fact that weighed decisively in the evolution of this indicator and in everyday practice, at the European level.

If we consider a comparative analysis with the average of the European Union, we can conclude that they are somewhat similar, with small variations. Thus, the measures instituted at the community level, as policies, strategies, but especially practices, made the economic activity increase, and even in some states, it (economic growth) came close to that before the pandemic.

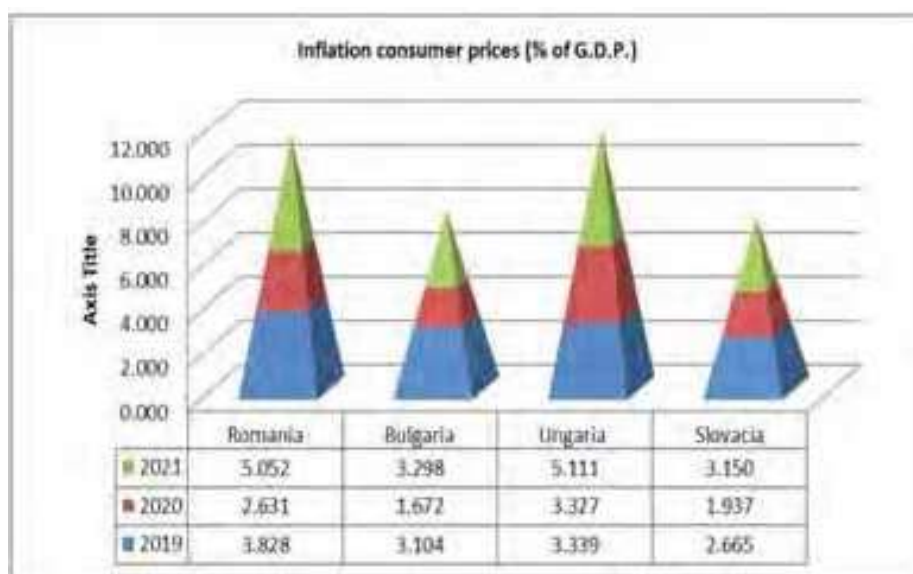
More precisely, the average of the European Union, for the year 2021, indicates a value of 5.39% (World Bank, 2023), and the data regarding the analysis carried out, confirm that economic activity has increased, with values ranging between 3, 01% (Slovakia) and 7.63% (Bulgaria), and the prospects for development in the following semesters or even years are real, maybe not as significant (as percentages). At the same time, the pandemic waves had a very harmful effect, not only on the economic activity but also on the health of the population, so the governments of the European Union states have allocated significant amounts, in the field of emergency medicine, as well as in the of social insurance.

They had a significant contribution with implications on the level of accumulated public debt as well as regarding the degree/level of affordability of the economy. Surprising or not, this last aspect was not seriously taken into



account, because the evolution of the pandemic waves and the way they "presented" required allocations, much more than those predicted, to limit the effects of this virus, SARS-COV2.

The dynamics of the economy's evolution is influenced, in these last years, by another indicator with a pronounced impact, which can fuel certain imbalances related, rather, to purchasing power, income and is represented by inflation. A scourge that grinds, slowly but surely, any economy, no matter how strong it may seem to be, which in recent years has presented values that require a much more careful analysis, in the next period. These data are reproduced in Figure 2.



Source: World Bank (2023)

**Figure 2. Inflation consumer prices (% of GDP)**

The data show (Figure 2), in the last 3 years of the analysis, "average" values that are still worrying and require decisions that need to be studied much better, so that the level of this indicator shows a stable or even decreasing trend. The economic reality of the year 2022, also fuelled by the armed conflict on the eastern border of the European Union and with it the limitation of gas and energy imports, made the evolution of macroeconomic indicators and especially of inflation to grow constantly.

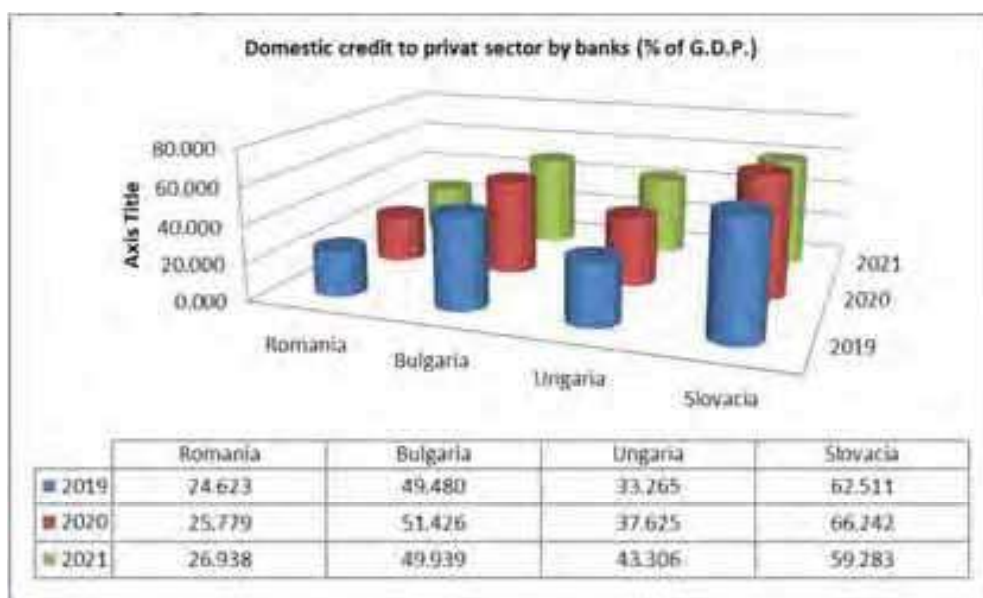
If at the beginning of the year, mentioned above, at the level of the analyzed countries, its value did not reach 10% of GDP, the end of the fourth quarter indicated a value, at least at the level of Romania, of over 15%. Also, in the sense of what was presented, at the level of the European Union, its value, as an average, for example for the month of December 2022, was approx. 10.6% of G.D.P.

The events, at least from the last decade, highlighted the importance of the state's actions to support the private sector, since it tends to a value of 75-80% of the total. These refer to those policies ready to offer a certain flexibility to

continuously develop and allocate important sums for promotion, research, professionalization of highly qualified personnel, which after all represent the most valuable resource that can be exploited, but also remunerated, to the same extent, able to bring added value in an uncertain economic environment.

It can also be viewed from the perspective of loans granted to the private sector by banks, which, as I stated, represent one of the pillars of economic growth, and whose stability provides security to the market, regardless of its more or less significant fluctuations and which fall within certain reasonable limits. We believe that these limits should not be imposed by policies in the field, but economic practice itself defines them, thus establishing certain thresholds that are more related to the level of development, affordability, and degree of self-sustainability of one's own economy.

Specifically, referring to the analyzed countries, the data are presented, according to Figure 3.



Source: World Bank (2023)

**Figure 3. Domestic credit to private sector by banks (% of GDP)**

From the perspective of the data presented, it can be observed, if we consider even the last year - as the analysis carried out - that Romania has the lowest percentage, in relation to Slovakia, a country that is part of both the European Union and the Schengen Area (2009).

This detail could be interpreted in the sense that the economy of our country, even if it stands as growth at a percentage worth mentioning (this is based more on consumption), still has many things to put in place in order to rise at a higher level, close to that of Slovakia (the highest among the analyzed countries), to then

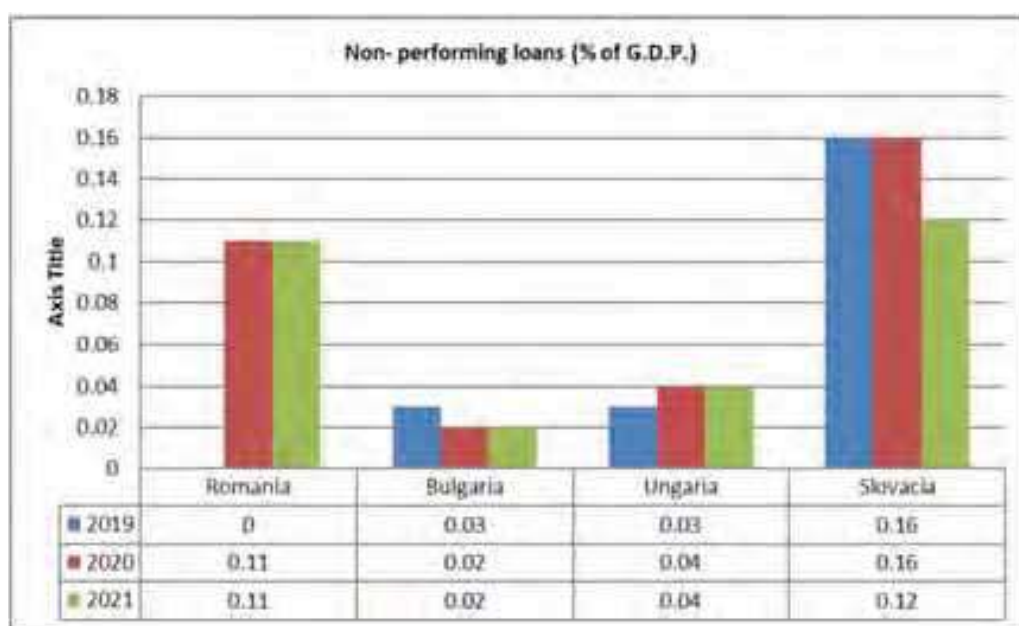
reach a level of approx. 90%, the average of the European Union year 2021 (World Bank, 2023).

This indicator speaks about the stability and at the same time trust, regarding the private sector in the whole economy, as a contribution and security both for the population, as remuneration and for ensuring the minimum criteria, from which a state can "benefit", in order to develop.

An equally important indicator, but whose effect on the economic environment, can cause various interpretations and even disputes as ideas/opinions, is represented by non-performing loans, because they are either directed to those less important sectors of the state, of the economic environment (even to cover budgetary, social expenses), or their effect as a forecast and amortization period do not present notable results that confirm the forecasts.

It is true that the last few years have led to significant changes in monetary policy, which has led to anxiety and even insecurity regarding how investors manage their funds, capable of supporting the economy. Thus, it is considered, as a forecast, based on a classification in terms of the country rating, the possibility of the fruition of any advantage capable of providing security and a certain profit, whether it is reinvested or not.

Regarding the countries under analysis, we note (in the last 3 years, 2019 - 2021), an oscillating evolution, a fact fueled by the existing imbalances, but whose effect must be immediately limited in order not to consider a recession, during the period immediately following. In Figure 4 the data on the mentioned credits are presented.



Source: European Commission (2023)

**Figure 4. Non-performing loans (% of GDP)**

These data can be analyzed both from a purely economic point of view, and especially from a socio-political point of view, considering the turmoil or rather the restlessness fueled, on the one hand, by the need for oil, gas and energy products that Europe seems to be dependent (to a greater or lesser extent), and on the other hand, on the evolution of the military operation in Ukraine, which has recently given rise to concern because an involvement of China would aggravate, rather than calm, "the waters" in terms of national and community safety and security.

In order to develop a country, with beneficial implications at the regional level, it needs economic and military stability. Unforeseeable situations can seriously affect the smooth running of things, which are based on strategies anchored in a less predictable reality, but whose results can give rise to optimistic forecasts for the following semesters, which must really be put to fruition.

### **3. METHODOLOGY AND DATA USED**

The methodological framework aims to use the multivariate regression analysis method to capture both the evolution of the analyzed macroeconomic indicators and the influence of financial-banking stability on economic development. In this sense, the data used have an annual frequency, for a reference period of 2001 - 2021.

Regarding the chosen sample, we relied on the economic analysis of four, among those whose economy is representative of Central and Eastern Europe. Thus, according to the method of prevention but also response to the disturbances of the last decades, Romania, Bulgaria, Hungary, and Slovakia, respectively, distinguished themselves. In the analysis of the mentioned model, data were used regarding the evolution of a number of 11 macroeconomic indicators, with pronounced impact. The data source is made from the websites of financial institutions at the European and global level, as follows: Eurostat, OECD, World Bank, insse.

They comprise a number of 220 observations. As dependent variable we used GDP growth, and as independent variables we used monetary sector credit to private sector (% of GDP), domestic credit to private sector by BANKS (% of GDP), inflation consumer prices (%), revenue excluding grants ( % of GDP), expenses (% of GDP), unemployment (%), foreign direct investment, net outflows (% of GDP), current account balance, long term interest rate (%), exchange rate.

In the first part of the analysis, we wanted to capture the evolution, for each country, of the mentioned indicators, in order to then make an interpretation at the level of a group of states, analyzed in order to have as complex a vision as possible, on how the events in the last decades have had on economic development.

Thus, in Table 1 the mentioned indicators are presented, subject to analysis.

**Table 1. The variables used in the study**

| Symbol                              | Name                                       | Measurement Unit |
|-------------------------------------|--|------------------|
| <b><i>DEPENDENT VARIABLE</i></b>    |  |                  |
| <b>gdp</b>                          | GDP_growth                                 | %                |
| <b><i>INDEPENDENT VARIABLES</i></b> |  |                  |
| <b>monetary_credit</b>              | Monetary sector credit to private sector   | % of GDP         |
| <b>domestic_credit</b>              | Domestic credit to private sector by BANKS | % of GDP         |
| <b>inflation</b>                    | Inflation consumer prices                  | %                |
| <b>rev_grants</b>                   | Revenue excluding grants                   | % of GDP         |
| <b>expense</b>                      | Expense                                    | % of GDP         |
| <b>unemployment</b>                 | Unemployment                               | %                |
| <b>fdi</b>                          | Foreign direct investment, net outflows    | % of GDP         |
| <b>c_balance</b>                    | Current account balance                    | %                |
| <b>l_interest</b>                   | Long term interest rate                    | %                |
| <b>e_rate</b>                       | Exchange rate                              | %                |

Source: author's own processing

To analyze the influence of banking stability on economic development we will use the following regression:

$$y = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \varepsilon \quad (1)$$

And the form of this type of regression used in this research is:

$$gdp = \beta_0 + \beta_1 monetary\_credit + \beta_2 domesti\_credit + \beta_3 inflation + \beta_4 rev\_grants + \beta_5 expense + \beta_6 unemployment + \beta_7 fdi + \beta_8 c\_balance + \beta_9 l\_interest + \beta_{10} e\_rate + \varepsilon \quad (2)$$

where,

- $\beta_0$  = the constant of the model
- $\beta_1$  = the regression coefficient of the monetary\_credit variable
- $\beta_2$  = the regression coefficient of the domestic\_credit variable
- $\beta_3$  = the regression coefficient of the inflation variable
- $\beta_4$  = the regression coefficient of the rev\_grants variable
- $\beta_5$  = the regression coefficient of the expense variable
- $\beta_6$  = the regression coefficient of the unemployment i variable
- $\beta_7$  = the regression coefficient of the fdi variable



- $\beta_8$  = the regression coefficient of the *c\_balance* variable
- $\beta_9$  = the regression coefficient of the *l\_interest* variable
- $\beta_{10}$  = the regression coefficient of the *e\_rate* independent variable
- $\varepsilon$  = model error

Within Table 2 descriptive statistics are made for the country, Romania, which includes a number of 21 observations for all the variables included in the model. It is observed that during the period, the economy of this country presents an average value of G.D.P. of 3.803% which varies by +/- 4.234.

The monetary\_credit variable registered an average value of 26.982% which varies by +/- 8.935.

**Table 2. Descriptive Statistics for Romania country**

| Variable               | Obs. | Mean   | Std. Dev. | Min.  | Max.  |
|------------------------|------|--------|-----------|-------|-------|
| <i>gdp</i>             | 21   | 3.803  | 4.234     | -5.52 | 10.43 |
| <i>monetary_credit</i> | 21   | 26.982 | 8.935     | 8.65  | 38.29 |
| <i>domestic_credit</i> | 21   | 26.98  | 8.935     | 8.65  | 38.29 |
| <i>inflation</i>       | 21   | 7.315  | 8.245     | -1.54 | 34.48 |
| <i>rev_grants</i>      | 21   | 30.496 | 1.033     | 28.58 | 32.85 |
| <i>expense</i>         | 21   | 32.592 | 1.66      | 30.73 | 38.04 |
| <i>unemployment</i>    | 21   | 6.382  | 1.114     | 3.91  | 8.11  |
| <i>fdi</i>             | 21   | .244   | .272      | -.12  | .77   |
| <i>c_balance</i>       | 21   | -5.492 | 3.56      | -13.7 | -.28  |
| <i>l_interest</i>      | 21   | 5.653  | 1.667     | 3.32  | 9.69  |
| <i>e_rate</i>          | 21   | 3.41   | .564      | 2.44  | 4.24  |

Source: author's own processing

Within Table 3 descriptive statistics for the country, Hungary, which includes a number of 21 observations for all the variables included in the model, are made. It is observed that during the period, the economy of this country presents an average value of GDP of 2.452% which varies by + / - 3.323%. The monetary credit variable recorded an average value of 43.261% which varies by +/- 9.996%.

On the other hand, the FDI variable has values between -42.29 - 107.19% in the analyzed period. It can be observed through the prism of these values that the flow of investments recorded periods less conducive to the realization of investments.

**Table 3. Descriptive Statistics for Hungary country**

| Variable               | Obs. | Mean    | Std. Dev. | Min.   | Max.   |
|------------------------|------|---------|-----------|--------|--------|
| <i>gdp</i>             | 21   | 2.452   | 3.323     | -6.6   | 7.12   |
| <i>monetary credit</i> | 21   | 43.361  | 9.996     | 32.39  | 60.19  |
| <i>domestic credit</i> | 21   | 43.307  | 10.009    | 32.34  | 60.16  |
| <i>inflation</i>       | 21   | 4.035   | 2.429     | -.23   | 9.12   |
| <i>rev grants</i>      | 21   | 38.027  | 1.947     | 34.76  | 40.61  |
| <i>expense</i>         | 21   | 43.069  | 1.839     | 39.03  | 46.93  |
| <i>unemployment</i>    | 21   | 6.932   | 2.533     | 3.42   | 11.17  |
| <i>fdi</i>             | 21   | 14.631  | 32.432    | -42.29 | 107.19 |
| <i>c balance</i>       | 21   | -2.46   | 4.576     | -9.88  | 4.55   |
| <i>l interest</i>      | 21   | 5.8     | 2.283     | 2.23   | 9.12   |
| <i>e rate</i>          | 21   | 239.866 | 42.109    | 172.11 | 308    |

Source: author's own processing

**Table 4. Descriptive Statistics for Bulgaria country**

| Variable               | Obs. | Mean   | Std. Dev. | Min.   | Max.  |
|------------------------|------|--------|-----------|--------|-------|
| <i>gdp</i>             | 21   | 3.293  | 3.278     | -3.96  | 7.63  |
| <i>monetary credit</i> | 21   | 50.031 | 16.119    | 14.34  | 68.96 |
| <i>domestic credit</i> | 21   | 49.93  | 16.138    | 14.33  | 68.86 |
| <i>inflation</i>       | 21   | 3.742  | 3.296     | -1.42  | 12.35 |
| <i>rev grants</i>      | 21   | 33.264 | 1.825     | 29.15  | 36.19 |
| <i>expense</i>         | 21   | 32.636 | 1.944     | 29.65  | 38    |
| <i>unemployment</i>    | 21   | 9.667  | 4.251     | 4.23   | 19.92 |
| <i>fdi</i>             | 21   | .9     | .594      | .07    | 2.19  |
| <i>c balance</i>       | 21   | -4.5   | 8.148     | -25.74 | 3.36  |
| <i>l interest</i>      | 21   | 3.722  | 2.129     | .19    | 7.22  |
| <i>e rate</i>          | 21   | 1.632  | .213      | 1.34   | 2.18  |

Source: author's own processing

Within Table 4 descriptive statistics are made for the country, Bulgaria, which includes a number of 21 observations for all the variables included in the model. It is observed that during the period the economy of this country has an average GDP value of 3.293% which varies by +/- 3.278%.

The inflation variable recorded an average value of 3.742%, which varies by +/- 3.296%.

Within Table 5 descriptive statistics are made for the country, Slovakia, which includes a number of 21 observations for all the variables included in the model. It is observed that during the period the economy of this country presents an average value of GDP of 3.565% which varies by +/- 3.605%

The domestic credit variable registered an average value of 46.367%, which varies by +/- 11.425%.

**Table 5. Descriptive Statistics for Slovakia country**

| Variable               | Obs. | Mean   | Std. Dev. | Min.  | Max.  |
|------------------------|------|--------|-----------|-------|-------|
| <i>gdp</i>             | 21   | 3.565  | 3.605     | -5.46 | 10.83 |
| <i>monetary credit</i> | 21   | 46.346 | 11.388    | 31.03 | 66.25 |
| <i>domestic credit</i> | 21   | 46.367 | 11.425    | 31.03 | 66.24 |
| <i>inflation</i>       | 21   | 3.012  | 2.473     | -.52  | 8.55  |
| <i>rev grants</i>      | 21   | 35.482 | 2.052     | 32.43 | 40.63 |
| <i>expense</i>         | 21   | 39.291 | 2.524     | 34.82 | 44.14 |
| <i>unemployment</i>    | 21   | 12.343 | 4.209     | 5.76  | 19.38 |
| <i>fdi</i>             | 21   | 1.166  | 1.233     | -1.3  | 4.53  |
| <i>c balance</i>       | 21   | -3.326 | 3.014     | -8.16 | 1.82  |
| <i>l interest</i>      | 21   | 3.254  | 2.342     | -.08  | 8.04  |
| <i>e rate</i>          | 21   | .932   | .244      | .71   | 1.61  |

Source: author's own processing

Table 6 contains the correlation matrix for the Romania country.

We can observe only one positive relationship between the variable G.D.P. and the FDI variable, respectively 0.230.

**Table 6. Matrix of correlations for Romania country**

| Variables           | (1)    | (2)    | (3)    | (4)    | (5)    | (6)    | (7)    | (8)    | (9)    | (10)   | (11)  |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| (1) gdp             | 1.000  |        |        |        |        |        |        |        |        |        |       |
| (2) monetary_credit | -0.348 | 1.000  |        |        |        |        |        |        |        |        |       |
| (3) domestic_credit | -0.348 | 1.000  | 1.000  |        |        |        |        |        |        |        |       |
| (4) inflation       | 0.191  | -0.734 | -0.734 | 1.000  |        |        |        |        |        |        |       |
| (5) rev_grants      | 0.325  | -0.021 | -0.021 | -0.092 | 1.000  |        |        |        |        |        |       |
| (6) expense         | -0.675 | 0.372  | 0.372  | -0.305 | -0.220 | 1.000  |        |        |        |        |       |
| (7) unemployment    | -0.008 | -0.122 | -0.122 | 0.353  | 0.327  | -0.427 | 1.000  |        |        |        |       |
| (8) fdi             | 0.230  | 0.014  | 0.014  | -0.414 | 0.230  | 0.032  | -0.555 | 1.000  |        |        |       |
| (9) c_balance       | -0.428 | 0.021  | 0.021  | -0.188 | -0.225 | 0.160  | -0.041 | -0.060 | 1.000  |        |       |
| (10) l_interest     | -0.166 | 0.347  | 0.347  | 0.203  | -0.178 | -0.036 | 0.422  | -0.491 | -0.475 | 1.000  |       |
| (11) e_rate         | -0.212 | -0.084 | -0.084 | -0.401 | -0.262 | 0.360  | -0.597 | 0.467  | 0.600  | -0.786 | 1.000 |

Source: author's own processing

Table 7 contains the correlation matrix for the Hungary country.

We can observe a single positive relationship between the variable GDP and the variable e\_rate, respectively 0.246.

**Table 7. Matrix of correlations for Hungary country**

| Variables           | (1)    | (2)    | (3)    | (4)    | (5)    | (6)    | (7)    | (8)    | (9)    | (10)   | (11)  |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| (1) gdp             | 1.000  |        |        |        |        |        |        |        |        |        |       |
| (2) monetary_credit | -0.533 | 1.000  |        |        |        |        |        |        |        |        |       |
| (3) domestic_credit | -0.530 | 1.000  | 1.000  |        |        |        |        |        |        |        |       |
| (4) inflation       | -0.066 | 0.255  | 0.256  | 1.000  |        |        |        |        |        |        |       |
| (5) rev_grants      | -0.341 | 0.138  | 0.139  | -0.474 | 1.000  |        |        |        |        |        |       |
| (6) expense         | -0.512 | 0.564  | 0.563  | -0.269 | 0.461  | 1.000  |        |        |        |        |       |
| (7) unemployment    | -0.474 | 0.815  | 0.816  | 0.066  | 0.207  | 0.695  | 1.000  |        |        |        |       |
| (8) fdi             | -0.353 | -0.014 | -0.019 | 0.041  | -0.013 | 0.026  | -0.270 | 1.000  |        |        |       |
| (9) c_balance       | -0.235 | -0.047 | -0.048 | -0.670 | 0.809  | 0.362  | 0.174  | -0.102 | 1.000  |        |       |
| (10) l_interest     | -0.275 | 0.620  | 0.622  | 0.597  | -0.289 | 0.288  | 0.680  | -0.279 | -0.472 | 1.000  |       |
| (11) e_rate         | 0.246  | -0.752 | -0.754 | -0.290 | 0.163  | -0.341 | -0.696 | 0.176  | 0.381  | -0.787 | 1.000 |

Source: author's own processing

Table 8 contains the correlation matrix for the Bulgaria country. We can observe a close connection between the variable G.D.P. and the variable rev\_grants, respectively 0.483.

Table no 9 contains the correlation matrix for the Slovakia country. We can see that there are several negative relationships between the dependent variable and the independent variables entered into the model.

Thus, between GDP and the variables monetary\_credit, domestic\_credit, rev\_grants, express, FDI and c\_balance, respectively -0.490, -0.489, -0.394, -0.562, -0.191 and -0.544.

**Table 8. Matrix of correlations for Bulgaria country**

| Variables           | (1)    | (2)    | (3)    | (4)    | (5)    | (6)    | (7)    | (8)    | (9)    | (10)   | (11)  |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| (1) gdp             | 1.000  |        |        |        |        |        |        |        |        |        |       |
| (2) monetary_credit | -0.476 | 1.000  |        |        |        |        |        |        |        |        |       |
| (3) domestic_credit | -0.477 | 1.000  | 1.000  |        |        |        |        |        |        |        |       |
| (4) inflation       | 0.544  | -0.215 | -0.215 | 1.000  |        |        |        |        |        |        |       |
| (5) rev_grants      | 0.483  | -0.263 | -0.263 | 0.398  | 1.000  |        |        |        |        |        |       |
| (6) expense         | -0.495 | 0.139  | 0.140  | -0.476 | 0.222  | 1.000  |        |        |        |        |       |
| (7) unemployment    | 0.102  | -0.568 | -0.568 | 0.084  | -0.361 | -0.195 | 1.000  |        |        |        |       |
| (8) fdi             | 0.089  | 0.564  | 0.564  | 0.209  | 0.281  | 0.115  | -0.584 | 1.000  |        |        |       |
| (9) c_balance       | -0.449 | -0.003 | -0.002 | -0.807 | -0.466 | 0.255  | 0.080  | -0.366 | 1.000  |        |       |
| (10) l_interest     | 0.046  | -0.050 | -0.052 | 0.375  | -0.369 | -0.368 | 0.552  | -0.146 | -0.437 | 1.000  |       |
| (11) e_rate         | 0.158  | -0.813 | -0.812 | -0.074 | 0.103  | 0.023  | 0.473  | -0.559 | 0.348  | -0.220 | 1.000 |

Source: author's own processing

**Table 9. Matrix of correlations for Slovakia country**

| Variables           | (1)    | (2)    | (3)    | (4)    | (5)    | (6)   | (7)    | (8)    | (9)    | (10)  | (11)  |
|---------------------|--------|--------|--------|--------|--------|-------|--------|--------|--------|-------|-------|
| (1) gdp             | 1.000  |        |        |        |        |       |        |        |        |       |       |
| (2) monetary_credit | -0.490 | 1.000  |        |        |        |       |        |        |        |       |       |
| (3) domestic_credit | -0.489 | 1.000  | 1.000  |        |        |       |        |        |        |       |       |
| (4) inflation       | 0.253  | -0.597 | -0.595 | 1.000  |        |       |        |        |        |       |       |
| (5) rev_grants      | -0.394 | 0.583  | 0.581  | -0.523 | 1.000  |       |        |        |        |       |       |
| (6) expense         | -0.562 | 0.004  | 0.004  | -0.115 | 0.450  | 1.000 |        |        |        |       |       |
| (7) unemployment    | 0.258  | -0.882 | -0.883 | 0.531  | -0.316 | 0.319 | 1.000  |        |        |       |       |
| (8) fdi             | -0.191 | 0.242  | 0.240  | -0.454 | 0.202  | 0.083 | -0.230 | 1.000  |        |       |       |
| (9) c_balance       | -0.544 | 0.588  | 0.586  | -0.372 | 0.571  | 0.282 | -0.347 | -0.035 | 1.000  |       |       |
| (10) l_interest     | 0.247  | -0.904 | -0.905 | 0.617  | -0.588 | 0.157 | 0.851  | -0.300 | -0.458 | 1.000 |       |
| (11) e_rate         | 0.196  | -0.515 | -0.514 | 0.545  | -0.009 | 0.489 | 0.616  | -0.274 | -0.327 | 0.532 | 1.000 |

Source: author's own processing

Table 10 contains the multiple regression equation for the 4 countries individually.

**Table 10. Linear regression**

| VARIABLES       | (Romania)<br>gdp    | (Hungary)<br>gdp     | (Bulgaria)<br>gdp   | (Slovakia)<br>gdp    |
|-----------------|---------------------|----------------------|---------------------|----------------------|
| monetary_credit | -90.71<br>(117.7)   | -41.72***<br>(11.76) | 11.58<br>(16.40)    | -3.111<br>(4.290)    |
| domestic_credit | 90.87<br>(117.8)    | 41.61***<br>(11.77)  | -11.68<br>(16.35)   | 2.967<br>(4.346)     |
| inflation       | 0.157<br>(0.261)    | 0.189<br>(0.389)     | -0.110<br>(0.342)   | -0.793*<br>(0.379)   |
| rev_grants      | 0.273<br>(1.266)    | -0.782<br>(0.521)    | 0.652<br>(0.612)    | -0.0405<br>(0.517)   |
| expense         | -1.889**<br>(0.603) | 0.413<br>(0.474)     | -0.937**<br>(0.387) | -1.452***<br>(0.452) |
| unemployment    | -0.705<br>(1.342)   | 0.154<br>(0.643)     | 0.241<br>(0.234)    | 0.233<br>(0.393)     |
| fdi             | -0.790<br>(4.178)   | -0.0107<br>(0.0208)  | 1.848<br>(1.254)    | -0.159<br>(0.506)    |
| c_balance       | -0.733<br>(0.430)   | -0.234<br>(0.325)    | -0.0532<br>(0.154)  | 0.0268<br>(0.281)    |
| l_interest      | -1.403<br>(1.257)   | -1.642**<br>(0.627)  | -0.525<br>(0.550)   | -0.410<br>(0.784)    |
| e_rate          | 0.965<br>(4.755)    | -0.0131<br>(0.0274)  | -4.240<br>(5.956)   | 10.70**<br>(4.305)   |
| Constant        | 56.98<br>(45.57)    | 31.85<br>(21.58)     | 21.27<br>(24.38)    | 59.80**<br>(19.05)   |
| Observations    | 21                  | 21                   | 21                  | 21                   |
| R-squared       | 0.764               | 0.835                | 0.780               | 0.805                |

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: author's own processing



It is observed that for the Romania country, there is only one statistically significant variable at the 90% threshold, namely expenses.

In the case of the equation for the second country, it is observed that 3 (three) variables are statistically significant, namely monetary\_credit, domestic\_credit and l\_interest.

In the case of the equation for the Bulgaria country it is observed that the expenditure variable is statistically significant with a probability of 90%.

And in the case of the last regression related to Slovenia, it is observed that 3 (three) variables are statistically significant: inflation, expenses and e\_rate.

This model also aimed at the analysis of these indicators from the perspective of the group of countries, namely Romania, Hungary, Bulgaria and Slovakia.

In Table 11 we presented the descriptive statistics of the variables analyzed in this study.

The results demonstrate that the highest standard deviation is recorded by the exchange rate variable (105.66%), which suggests that exchange rates influence economic growth.

Among the variables that recorded the lowest values are GDP growth, FDI, inflation, current balance, interest rate, an aspect that demonstrates the impact of the events of recent years (the global economic crisis, the crisis generated by the COVID-19 pandemic, etc.) on stability banks and the economy of any country.

**Table 11. Descriptive Statistics**

|                        | N  | Minimum<br>Statistic | Maximum<br>Statistic | Mean<br>Statistic | Std. Deviation<br>Statistic | Skewness  |            | Kurtosis<br>Statistic | Std. Error |
|------------------------|----|----------------------|----------------------|-------------------|-----------------------------|-----------|------------|-----------------------|------------|
|                        |    |                      |                      |                   |                             | Statistic | Std. Error |                       |            |
| <i>GDP_growth</i>      | 84 | -6.598               | 10.832               | 3.27899           | 3.600484                    | -0.731    | 0.263      | 0.649                 | 0.520      |
| <i>Mon_credit</i>      | 84 | 8.653                | 68.959               | 41.68040          | 14.686789                   | -0.018    | 0.263      | -0.616                | 0.520      |
| <i>Dom_credit</i>      | 84 | 8.653                | 68.860               | 41.64587          | 14.686508                   | -0.017    | 0.263      | -0.620                | 0.520      |
| <i>Infl</i>            | 84 | -1.545               | 34.477               | 4.52651           | 4.965527                    | 3.375     | 0.263      | 16.927                | 0.520      |
| <i>Revenue</i>         | 84 | 28.583               | 40.627               | 34.31731          | 3.284470                    | 0.206     | 0.263      | -0.892                | 0.520      |
| <i>Expense</i>         | 84 | 29.646               | 46.932               | 36.89608          | 4.928913                    | 0.284     | 0.263      | -1.385                | 0.520      |
| <i>Unemp</i>           | 84 | 3.420                | 19.920               | 8.83119           | 4.024427                    | 1.065     | 0.263      | 0.487                 | 0.520      |
| <i>FDI</i>             | 84 | -42.286              | 107.190              | 4.23511           | 17.043724                   | 3.538     | 0.263      | 18.263                | 0.520      |
| <i>Current_balance</i> | 84 | -25.740              | 4.552                | -3.94495          | 5.256006                    | -1.451    | 0.263      | 3.769                 | 0.520      |
| <i>Interest_rate</i>   | 84 | -0.080               | 9.694                | 4.60728           | 2.374339                    | -0.199    | 0.263      | -0.603                | 0.520      |
| <i>Ech_rate</i>        | 84 | 0.709                | 307.997              | 61.45976          | 105.667350                  | 1.310     | 0.263      | -0.089                | 0.520      |

Source: author's own processing

In Table 12 we presented the results of the correlation matrix, and we can see that there is a positive correlation between the variables current balance, interest rate and exchange rate.

**Table 12. Correlation matrix**

|                 |     | GDP (%) | Mon_credit | Dom_credit | Infl    | Revenue | Expense | Unemp   | FDI    | Current | Interest_rate | Ech_rate |
|-----------------|-----|---------|------------|------------|---------|---------|---------|---------|--------|---------|---------------|----------|
| GDP             | PC  | 1       | -.384**    | -.383**    | .213    | -.118   | -.315** | .045    | -.199  | -.381** | -.049         | -.109    |
|                 | Sig |         | .000       | .000       | .052    | .285    | .003    | .687    | .070   | .000    | .659          | .325     |
|                 | N   | 84      | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |
| Mon_credit      | PC  | -.384** | 1          | 1.000**    | -.444** | .352**  | .240*   | -.012   | .038   | .134    | -.242*        | .011     |
|                 | Sig | .000    |            | .000       | .000    | .001    | .028    | .917    | .729   | .224    | .027          | .924     |
|                 | N   | 84      | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |
| Dom_credit      | PC  | -.383** | 1.000**    | 1          | -.443** | .351**  | .240*   | -.012   | .037   | .134    | -.242*        | .010     |
|                 | Sig | .000    | .000       |            | .000    | .001    | .028    | .914    | .741   | .223    | .026          | .931     |
|                 | N   | 84      | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |
| Infl            | PC  | .213    | -.444**    | -.443**    | 1       | -.257*  | -.248*  | -.026   | -.023  | -.399** | .360**        | -.068    |
|                 | Sig | .052    | .000       | .000       |         | .018    | .023    | .818    | .835   | .000    | .001          | .540     |
|                 | N   | 84      | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |
| Revenue         | PC  | -.118   | .352**     | .351**     | -.257*  | 1       | .794**  | .030    | .243*  | .228*   | -.188         | .648**   |
|                 | Sig | .285    | .001       | .001       | .018    |         | .000    | .783    | .026   | .037    | .087          | .000     |
|                 | N   | 84      | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |
| Expense         | PC  | -.315** | .240*      | .240*      | -.248*  | .794**  | 1       | .098    | .271*  | .287**  | .084          | .698**   |
|                 | Sig | .003    | .028       | .028       | .023    | .000    |         | .375    | .013   | .008    | .447          | .000     |
|                 | N   | 84      | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |
| Unemp           | PC  | .045    | -.012      | -.012      | -.026   | .030    | .098    | 1       | -.175  | .035    | .183          | -.315**  |
|                 | Sig | .687    | .917       | .914       | .818    | .783    | .375    |         | .112   | .754    | .095          | .004     |
|                 | N   | 84      | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |
| FDI             | PC  | -.199   | .038       | .037       | -.023   | .243*   | .271*   | -.175   | 1      | .015    | -.035         | .379**   |
|                 | Sig | .070    | .729       | .741       | .835    | .026    | .013    | .112    |        | .892    | .753          | .000     |
|                 | N   | 84      | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |
| Current_balance | PC  | -.381** | .134       | .134       | -.399** | .228*   | .287**  | .035    | .015   | 1       | -.362**       | .192     |
|                 | Sig | .000    | .224       | .223       | .000    | .037    | .008    | .754    | .892   |         | .001          | .080     |
|                 | N   | 84      | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |
| Interest_rate   | PC  | -.049   | -.0242*    | -.242*     | .360**  | -.188   | .084    | .183    | -.035  | -.362** | 1             | .216*    |
|                 | Sig | .659    | .027       | .026       | .001    | .087    | .447    | .095    | .753   | .001    |               | .048     |
|                 | N   | 84      | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |
| Ech_rate        | PC  | -.109   | 0.11       | .010       | -.068   | .648**  | .698**  | -.315** | .379** | .192    | .216*         | 1        |
|                 | Sig | .325    | .924       | .931       | .540    | .000    | .000    | .004    | .000   | .080    | .048          |          |
|                 | N   | 8       | 84         | 84         | 84      | 84      | 84      | 84      | 84     | 84      | 84            | 84       |

\*\* . Correlation is significant at the 0.01 level (2-tailed);

\* . Correlation is significant at the 0.05 level (2-tailed)

Source: author's own processing

According to the data presented in Table 13, among the analyzed variables, the statistically significant ones are constant (GDP), expenses, FDI, current account balance, long-term interest rate, exchange rate.

**Table 13. Regression results**

| <b>Variable</b>           | <b>Coefficient</b> | <b>Std. Error</b> | <b>t-Statistic</b>        | <b>Prob.</b> |
|---------------------------|--------------------|-------------------|---------------------------|--------------|
| <i>C</i>                  | 14.14733**         | 5.570414          | 2.539727                  | 0.0132       |
| <i>Mon_credit</i>         | -5.184100          | 3.644922          | -1.422280                 | 0.1592       |
| <i>Dom_credit</i>         | 5.096961           | 3.646358          | 1.397822                  | 0.1664       |
| <i>Infl</i>               | -0.053347          | 0.076390          | -0.698344                 | 0.4872       |
| <i>Revenue</i>            | 0.228226           | 0.210327          | 1.085103                  | 0.2814       |
| <i>Expense</i>            | -0.461252***       | 0.136992          | -3.367004                 | 0.0012       |
| <i>Unemp</i>              | 0.294910***        | 0.108839          | 2.709598                  | 0.0084       |
| <i>FDI</i>                | -0.041073**        | 0.020365          | -2.016863                 | 0.0474       |
| <i>Current_balance</i>    | -0.334144***       | 0.072675          | -4.597790                 | 0.0000       |
| <i>Interest_rate</i>      | -0.557502***       | 0.206828          | -2.695489                 | 0.0087       |
| <i>Ech_rate</i>           | 0.019320***        | 0.006753          | 2.860978                  | 0.0055       |
| <i>R-squared</i>          | 0.493881           |                   | <i>Mean dependent var</i> | 3.278992     |
| <i>Adjusted R-squared</i> | 0.424550           |                   | <i>S.D. dependent var</i> | 3.600484     |
| <i>F-statistic</i>        | 7.123498           |                   | <i>Durbin-Watson stat</i> | 2.247596     |
| <i>Prob (F-statistic)</i> | 0.000000           |                   |                           |              |

\*\* . Correlation is significant at the 0.05 level;

\*\*\* . Correlation is significant at the 0.01 level

Source: author's own processing

The results of the regression analysis demonstrate that banking stability influences the economic growth of the analyzed countries in a proportion of 49.38%. Thus, according to the p-value, the variables expenses, unemployment, current balance, interest rate and exchange rate, are statistically significant at a confidence level of 99%, which proves that they are the main factors of banking stability and economic growth in within the analyzed countries.

Also, constant and FDI are statistically significant at the 95% confidence level.

In other words, economic development is also dependent on the evolution of these tools and mechanisms that can represent, through their behavior, a beneficial factor, but also a disruptive factor that must be reduced in intensity and effect. By streamlining the practices aimed at limiting any unwanted effects, the aim is to raise the awareness, both of the decision-making and/or political factors, as well as of the multinational companies, of the importance of cooperation and relationships in the financial field and of the policies aimed at financing activities

with a real impact. By this, it is desired that the economic development remains at an acceptable and at the same time stable standard in order not to endanger the production and service activity, because this is the key to improving the performances and at the same time increasing the quality, which in turn can make a difference regarding one economy or another, from the European Union.

#### **4. CONCLUSIONS AND PROPOSALS**

In the contemporary context, the core of the activities in the banking system consists in holding financial assets. And modern economies use the following types of such assets, namely stocks, bonds, loans and finally, bank deposits. The crucial importance of this sector for the modern economy is supported, in particular, by its quality as the main provider of credits, and this simple quality makes the mentioned system the key point in terms of the expansion of economic development actions.

The financial crisis demonstrated how important it is, for economic stability, to find those mechanisms but also solutions that support the business environment, so that fluctuations in indicators and social-political events do not affect reforms, plans aimed at growth the quality and competitiveness of companies. We believe that precisely the lack of liquidity determined that domino effect that engulfed the USA, then Europe and other countries worldwide.

Those situations, such as degrading, want to be avoided, no matter how unsettling a given situation may seem, but at the same time it is noted that the political side that can be "translated" also through the armed conflict on the eastern border of the European Union has much more significant implications than expected. This factor, combined with the COVID 19 pandemic, whose effect seems to no longer be at an intensity that poses real problems, manages to create fluctuations in the capital market as well, and the stock indices seem to draw attention, through their behavior, that the economic situation at the European level is not exactly reassuring. Therefore, prudence is the element that characterizes any action, whether it comes from investors or from the state, as a cumulative budget of revenues and expenses.

In other words, the uncertain events both last years and of the present led to the deterioration of the banking sector, especially considering the sensitive macroeconomic situation of the four analyzed countries. One such example can be the collapse of several banks in recent weeks. Also, the economic crisis and the COVID-19 pandemic have demonstrated how important is the financial stability of the banking system, but also of the country's economy. Last but not least, I believe that the citizens of a country contribute significantly to the stability of the banking system, as a result of the way they manage their financial resources and bank deposits in crisis situations (such an example can be the moment when the COVID pandemic broke out -19 and the armed conflict between Russia and

Ukraine, when the inhabitants of the affected or neighbouring countries wanted to liquidate their bank accounts).

From another point of view, in the financial-banking activity one can observe an insecurity argued also by the weak management of the mentioned system in the United States, where two large banks seem to have great problems to resist on the market. This gives shivers because it is also from this consideration, treated superficially, that the economic crisis from 2008 to 2012 broke out, with repercussions that are difficult to manage, which weighed heavily in terms of the level of accumulated public debt.

Even if the state authorities give assurances that the situation is under control, the large banking consortia believe that restricting activities or summarizing only the most important ones can represent an element of safety, in order not to be "touched" even more by a possible recession, unwanted. Even some representative banks, such as that of Switzerland (Credit Suisse), are in a free fall on the American market from the beginning of 2023. However, this can also be a growth factor for the central bank of the mentioned state (Switzerland), by absorbing it and creating a much stronger fund, able to face the new challenges on the interbank market.

The banking financial system in Central and Eastern Europe is also dependent on the variations at the international level, but it relies on the most responsible action that allows the practices that aim to continue the reforms to be carried out in good conditions, having, at the same time, in view of the financial support granted by the European institutions, which must necessarily be fruitful in order to create that environment conducive to sustainable development. It will allow the support of research and development actions/activities, with important allocations in strategic fields, capable of bringing added value.

Regarding the proposals for the efficiency of the economic activity, from the perspective of its financing, an increasing emphasis is placed on the granting, by banks, of loans to those structures/companies that present real chances of development, which can create stable, remunerated jobs accordingly with a vision and significant contribution, not only to the state budget. Moreover, the aim is to reform the entire system, adaptable to the new challenges of the market, which after the last "episodes" presents important fluctuations / variations that can create imbalances that are difficult to manage.

The gross domestic product in the analyzed countries, as shown by the data, is at acceptable levels, which makes them affordable from an investment point of view. Forecasts in the field show a positive evolution for the following quarters of the current year, provided that the allocation of funds targets those branches with a particular impact on the entire economy. In other words, investors must be encouraged through firm policies to continue to pay special attention to those sectors bringing profit, by diversifying them with at least a medium-term and even long-term vision.



The analysis is carried out in dynamics, which in turn present oscillations, among the most diverse with different impact, and which require special attention on the way of managing the resources available or to which a state can have access, in an area/ region with a real development potential.

Thus, according to what was presented, we consider that the topic analyzed is current, having a significant impact both on the population and on the economic development of the analyzed countries.

### References

- 1) Abusharbeh, M. T. (2017). The Impact of Banking Sector Development on Economic Growth: Empirical Analysis from Palestinian Economy. *Journal of Emerging Issues in Economics, Finance and Banking (JEIEFB) An Online International Research Journal* (ISSN: 2306-367X), 6(2). [online] Available at: <https://www.aaup.edu/publication/mohammed.abusharbeh/article/impact-banking-sector-development-economic-growth-empirical-analysis-palestinian-economy> [Accessed 15.03.2023].
- 2) Albulescu, C. (2008). The use of an aggregate index to measure the stability of the financial sector in Romania. *Oeconomica Magazine*. 02.
- 3) Bach Phan, D. H., Iyke, B. N., Sharma, S. S. and Affandi, Y. (2021). Economic policy uncertainty and financial stability–Is there a relation? *Economic Modelling*. 94, pp 1018 - 1029. <https://doi.org/10.1016/j.econmod.2020.02.042>.
- 4) Baziki S. B., Nieto, M. J. and Turk-Ariss, R. (2023). Sovereign portfolio composition and bank risk: The case of European banks. *Journal of Financial Stability*. 65, 101108. DOI: 10.1016/j.jfs.2023.101108.
- 5) Boot, A., Carletti, E., Haselmann, R., Kotz, H. H., Krahnen, J. P., Pelizzon, L., Schaefer, S. and Subrahmanyam, M. (2020). The Coronavirus and financial stability. *SAFE Policy Letter*, No. 78, Leibniz Institute for Financial Research SAFE, Frankfurt A. M.
- 6) Bitar, M. and Tarazi, A. (2019). Creditor rights and bank capital decisions: Conventional vs. Islamic banking. *Journal of Corporate Finance*, 55, pp. 69-104. <https://doi.org/10.1016/j.jcorpfin.2018.11.007>.
- 7) Danisman, G. O. and Tarazi, A. (2019). Financial inclusion and bank stability: evidence from Europe. *The European Journal of Finance*, 26, pp 1842-1855. <https://doi.org/10.1080/1351847X.2020.1782958>.
- 8) Elnahass, M., Trinh, Vu Q. and Teng, L. (2021). Global banking stability in the shadow of Covid-19 outbreak. *Journal of International Financial Markets, Institutions & Money*, 72(2021), 101322. DOI: 10.1016/j.intfin.2021.101322.
- 9) European Commission (2023). [online] Available at: <https://commission.europa.eu/> [Accessed 15.03.2023].
- 10) EUROSTAT (2023). *Database*. [online] Available at: <https://ec.europa.eu/eurostat>. [Accessed 15.03.2023].
- 11) Hartwell, C. and Djalilov, K. (2021) Do social and environmental capabilities improve bank stability? Evidence from transition countries. *Global Environmental Politics and International Organizations: the Eurasian and European Experience*, 34(5), pp 624 - 646.

- 12) INSSE. (2023). *Database*. [online] Available at: <https://insse.ro/cms/> [Accessed 15.03.2023].
- 13) Jayakumar, M., Pradhan, R. P., Dash, S., Maradana, R. P. and Gaurav, K. (2018). Banking competition, banking stability, and economic growth: Are feedback effects at work? *Journal of Economics and Business*, 96, pp. 15-41.
- 14) Khan, H. H. (2022). Bank competition, financial development and macroeconomic stability: Empirical evidence from emerging economies. *Economic Systems*, 46(4), 101022.
- 15) OECD (2023). *Database*. [online] Available at: <https://www.oecd.org/> [Accessed 15.03.2023].
- 16) World Bank (2023). *Database*. [online] Available at: <https://data.worldbank.org> [Accessed 15.03.2023].