

**ACTA MARISIENSIS, SERIA OECONOMICA** Online: ISSN 2668-3989, ISSN L 2668-3148 Print:ISSN 2668-3148, ISSN L 2668-3148

# THE ROLE OF THE BANKING SYSTEM IN NATIONAL **ECONOMY: EMPIRICAL EVIDENCE FROM ROMANIA**

# Emilia Herman<sup>1\*</sup>, Nicoleta-Cornelia Alexa<sup>1</sup>

<sup>1</sup>George Emil Palade University of Medicine, Pharmacy, Science, and Technology of Targu-Mures, Gh. Marinescu no.38, Romania, Targu-Mures, 540141, România

**Rezumat:** Scopul acestui articol este de a investiga rolul sistemului bancar în economia României în perioada 2008-2023, concentrându-se pe interconexiunile dintre depozitele bancare, creditele bancare și ratele dobânzilor. În plus, acest articol analizează intermedierea financiară realizată de sistemul bancar (măsurată prin creditul intern acordat sectorului privat de către bănci, ca procent din PIB) în economia României și contribuția acesteia la creșterea și dezvoltarea economică.

Cuvinte cheie: intermediere financiară, credit bancar, depozit bancar, rata dobânzii, creștere economică

Abstract: The aim of this paper is to investigate the role of banking system in Romanian economy, in 2008-2023 period, focusing on the interlinkages between bank deposit, bank credit and interest rates. Additionally, this paper analyzes the financial intermediation of banking system (measured by domestic credit to private sector by banks as % of GDP) in Romanian economy and its contribution to economic growth and development.

Keywords: financial intermediation, bank credit, bank deposit, interest rate, economic growth

JEL Classification: E4, E5.

© 2024 Published by ACTA MARISIENSIS, SERIA OECONOMICA, Publisher University Press Târgu Mureş, issued on behalf of University of Medicine, Pharmacy, Sciences and Technology "George Emil Palade" from Târgu Mures, Romania

<sup>\*</sup> Corresponding author: Emilia Herman

e-mail: emilia.herman@umfst.ro

#### **1. INTRODUCTION. A BRIEF LITERATURE REVIEW**

It is widely recognized that the banking system plays an essential role in national economy, serving as one of the main pillars of economic growth and development (Sharipova and Asadova, 2023). An efficient banking system facilitates the allocation of financial resources between savers and those in need of financing, ensuring the function of financial intermediation. Moreover, through various mechanism and specific instruments, the banking system contributes to maintaining financial stability and implementing macroeconomic policies, including monetary policy (Herman, 2011).

To investigate the role of banking system in national economy, we focus on the its financial intermediation function. The banks collect savings from individuals and businesses (deposits) and channel them into economic activities by granting loans. Thus, these loans can stimulate investment and consumption based on credits and, in turn, economic growth. According to Prochniak and Wasiak (2017), the financial system impacts economic growth mainly through two fundamental channels: the accumulation of capital and enhancements in the productivity of production factors. Empirical studies (Puatwoe and Piabuo, 2017; Fetai, 2018; Liu and Zhang. 2020) have highlighted the positive influence of banking sector development on economic growth. Moreover, financial development appears to positively impact economic growth when it is driven by enterprise credit rather than consumer credit (Beck et al., 2012). However, other studies emphasize that beyond a certain threshold of financial deepening (measured by credit relative to GDP) there is a negative link between financial deepening and economic growth (Rousseau and Wachtel, 2017; Prochniak and Wasiak, 2017). Bezemer et al. (2023) pointed out that "The source of debt problems and financial instability is not increases in credit per se, nor even the rise in credit relative to GDP, but the type of credit that is extended and the revenues it generates" (p.438). When the proportion of productive credit declines relative to speculative or unproductive then the macroinstability may increase. Furthermore, the bank credit to other financial corporations and mortgage credit fails to generate sufficient income streams to sustain debt growth (Bezemer et al. 2023; Bezemer, 2014). Using the Nonperforming Loans (NPLs)/total loans ratio as an indicator of financial stability, Kartal et al. (2023) found a negative relationship between NPLs and economic growth. This suggests that a decrease in NPLs is associated with an increase in economic growth, and vice versa.

Since the primary role of commercial banks is financial intermediation, it can be assumed that if a financial institution cannot attract deposits from clients on the liabilities side, it will also be unable to provide loans to clients on the assets side (Gavurova et al. 2019). Therefore, bank deposits are a key factor in the success of the banking sector. They also play a crucial role in a country's overall savings and are a significant determinant of national savings levels. Bank working capital is primarily determined by the level of bank deposits. As the main source of funds for lending activities, deposits are essential to a bank's operations. Increased savings lead to more investment, which, in turn, drives economic growth (Nasrin, 2023). Both the level and evolution of credit and deposits are influenced by various factors, with the interest rate being the most significant (Herman and Stefanescu, 2009). Generally, deposit and loan interest rates at banks are determined based on the central bank's key interest rate. Moreover, several factors can influence interest rates, including the relationship between the demand for and supply of money, interbank interest rates, the central bank's monetary policy, bank performance, the level and dynamics of inflation, and rank the level of competition in the banking market (Gavurova et al., 2019; Ganic, 2018).

Empirical studies (Borio et al., 2015, Gavurova et al., 2019, Moroşan, 2020) have highlighted that higher interest rates tend to attract more deposits, as savers are incentivized by the higher returns. Moreover, the studies have shown that an increase in interest rates generally leads to an increase in the volume of deposits, as individuals and institutions seek to take advantage of better returns on their savings. Also, empirical research showed that higher interest



#### ACTA MARISIENSIS, SERIA OECONOMICA Online: ISSN 2668-3989, ISSN L 2668-3148 Print:ISSN 2668-3148, ISSN L 2668-3148

rates typically reduce the demand for credit, as borrowing becomes more expensive for consumers and businesses (Borio et al., 2015; Gerlach et al., 2018)

Taking into account the above consideration, the aim of this paper is to investigate the role of banking system in Romanian economy, in 2008-2023 period, focusing on the interlinkages between bank deposit, bank credit and interest rates. Additionally, this paper explores the financial intermediation of banking system in Romanian economy and its contribution to economic growth.

# 2. DEFINING THE RESEARCH PROBLEM

# 2.1. Research objectives

The research objectives focused on: (1) performing a statistical analysis regarding the dynamic and level of bank deposits and credits as well as the interlink between them, in Romania, in 2008-2023 period; (2) exploring the influence of interest rate on bank deposits and credits; (2) analysing the link between financial intermediation (measured by domestic credit to private sector by banks as % of GDP) and economic growth and development.

# 2.2. Data and Methodology

In order to achieve the aim of this study, we analyzed the variables related to financial intermediation function of banking system in national economy, which are described in Table no. 1. The data analysis was performed based on monthly data, from January 2008 to December 2023.

Variables	Minimum	Maximum	Mean	Std. Deviation	
Total deposits <sup>1</sup> of households	69.33	337.96	170.735	72.176	
Total deposits of companies	53.06	214.04	97.660	44.908	
Total credits of households	74.15	174.13	121.582	26.414	
Total credits of companies	76.41	194.64	117.576	25.527	
Term deposits of households* (TDH)	24.68	115.08	63.047	16.309	
Interest rate for TDH (%)	.90	14.08	4.374	3.280	
Term deposits of companies* (TDC)	16.44	76.10	28.990	13.471	
Interest rate for TDC (%)	.47	15.71	4.112	3.424	
Credits of households** (CH)	33.76	152.54	72.677	41.137	
Interest rate for CH (%)	6.15	17.47	10.380	3.634	
Credits of companies** (CC)	33.89	105.71	60.045	19.586	
Interest rate for CC (%)	4.00	19.13	8.304	3.902	

# Table no. 1 – Variables related to financial intermediation function of banking system in national economy

Note: N statistic = 192. Bank deposits and credits (outstanding) are assessed in billion lei; \*Term deposits include only deposits expressed in lei; \*\*These indicators include only credits granted by banks in lei.

Source: Own calculation based on National Bank of Romania (NBR) Database (2024) https://www.bnro.ro/Baza-de-date-interactiva-604.aspx#

To investigate the link between the financial intermediation of the banking system and economic growth, in Romania, during 2008-2023 period, we use *Domestic credit to private sector by banks* (% of GDP) and Annual real GDP growth rate (%). Moreover, GDP per capita (in euro per capita) for EU-27 countries was used to assess the level of economic development in order to explore its link to the financial intermediation of the banking system.

The statistical data were collected from the National Bank of Romania (NBR) Database (2024), Eurostat Database (2024) and World Development Indicators (2024).

Descriptive statistics (minimum, maximum, mean, and standard deviation), as well as correlation and regression analysis, were used to investigate the role of banking system in Romanian economy. IBM SPSS Statistics 26.0 was utilized for data processing and analysis.

# **3. PRESENTING THE RESEARCH FINDINGS**

#### 3.1. Analysis of deposits and credits in the Romanian banking system

Data from Table no. 1 and Figure no. 1 show that the *Total household deposits* (outstanding) have exhibited a consistent upward trend from 2008 to 2023. Compared to January 2008, the volume of household deposits in December 2023 was 4.87 times higher (337.96 billion lei versus 69.33 billion lei). The steady increase in household deposits may suggest improved financial stability for Romanian households. *Total company deposits* have also increased over time (from 53.06 billion lei to 214.04 billion lei) but at a slower pace compared to household deposits. Fluctuations, especially during economic crises (e.g., the global financial crisis of 2008-2009 and the COVID-19 pandemic in 2020), likely reflect changes in corporate liquidity needs and investment activity. The growth in deposits for both households and companies signals improving financial health and confidence in the banking system. This is a positive sign for overall economic stability. High deposit levels give banks more resources to lend, which could support investment and consumption if demand for credit increases.

#### Figure no.1 – The evolution of Total deposits of households and companies, during January 2008- December 2023 period (billion lei)



Source: Based on data provided by National Bank of Romania (NBR) Database (2024) <u>https://www.bnro.ro/Baza-</u> <u>de-date-interactiva-604.aspx#</u>

GEORGE EMIL PALADE"



#### ACTA MARISIENSIS, SERIA OECONOMICA Online: ISSN 2668-3989, ISSN L 2668-3148 Print:ISSN 2668-3148, ISSN L 2668-3148

Data from Table no. 1 and Figure no. 2 illustrates that *Total credits of companies* levels (outstanding), from 2008 to 2014, were relatively stable, with only minor fluctuations. After 2014, a gradual decline is observed, with corporate credit stabilizing at lower levels in the following years. In recent years (post-2020), corporate credit began to show signs of slight growth. Regarding Total household credit (outstanding) data show that it increased gradually from 2008 to 2023, showing resilience and consistent growth over time. The increase became more pronounced after 2015, suggesting increased borrowing by households for housing, consumption, or other purposes. The increasing household credit indicates that domestic consumption is likely a significant driver of economic growth. However, the stagnant corporate credit suggests limited investment-led growth, which may impact long-term economic sustainability.

Figure no.2 – The evolution of Total credits of households and companies, during January 2008- December 2023 period (billion lei)



Source: Based on data provided by National Bank of Romania (NBR) Database (2024) https://www.bnro.ro/Bazade-date-interactiva-604.aspx#

The value of Pearson correlation coefficient (r=0.984, see Figure no.3) indicates an extremely strong positive correlation between household credit and deposit, in Romania, in analyzed period. Thus, it indicates that as household credit increases, household deposits tend to increase almost proportionally. This relationship reflects that banks may rely on household deposits to fund household credit, showing a strong deposit-loan intermediation cycle. Also, a strong positive correlation was identified between company deposits and credit (r=0.870, see Figure no.3). This shows that as companies borrow more, they also tend to increase their bank deposits. This relationship suggests that banks may use company deposits as a key funding source to provide credit to businesses, highlighting emphasizing the critical role of corporate liquidity in supporting the lending market.



Figure no.3 – The positive link between bank deposits and credits, both for households and companies, during January 2008- December 2023 period (billion lei)

Source: Own calculation based on data provided by National Bank of Romania (NBR) Database (2024) https://www.bnro.ro/Baza-de-date-interactiva-604.aspx#

# 3.2. Analysis of influence of interest rate on levels and evolution of deposits and credits in the Romanian banking system

Regarding the relationship between *credit interest rate* and *bank credits of companies* in Romania, during 2008-2023 period, the results of the correlation and regression analysis (model 1, Table no. 2 and Figure no. 4) show the following aspects. The correlation coefficient (r=-0.419) indicates a moderate negative relationship between the credit interest rate and the volume of company credits. The unstandardized coefficient (B = -2.101) show that every 1-unit increase in the credit interest rate, the volume of company credits decreases by 2.101 units. Standardized coefficient (Beta = -0.419) indicates a moderately strong negative effect of the credit interest rate on company credit volume. R-Square value (0.175) highlights that approximately 17.5% of the variance in company credit volume is explained by changes in the credit interest rate. Other factors not included in the model may also influence credit levels such as GDP growth, inflation, or company profitability.





Source: Own calculation based on data provided by National Bank of Romania (NBR) Database (2024) <u>https://www.bnro.ro/Baza-de-date-interactiva-604.aspx#</u>

GEORGE EMIL PALADE"



#### ACTA MARISIENSIS, SERIA OECONOMICA Online: ISSN 2668-3989, ISSN L 2668-3148 Print:ISSN 2668-3148, ISSN L 2668-3148

Models			Unstandardized Coefficients		Standardized Coefficients						
		Variables	В	Std. Error	Beta (β)	t	Sig.				
Model 1 <sup>1</sup>	Credit Interest	(Constant)	77.491	3.033		25.548	.000				
	rate ⇒ Credits of companies	Credit Interest rate	-2.101	0.331	-0.419	-6.352	.000				
Model $2^2$ Credit InteractionModel $2^2$ rate $\Rightarrow$ Credit Interactionof householdrate $\Rightarrow$ Credit Interaction	Credit Interest	(Constant)	150.29	6.778		22.171	.000				
	rate ⇒ Credits of households	Credit Interest	-7.477	0.617	-0.661	-	.000				
Model 3 <sup>3</sup> Deposit Interest rate ⇒ Bank Deposits of companies	(Constant)	31.090	1.513		20.548	.000					
	Interest rate ⇒ Bank Deposits of companies	Deposit Interest rate	-0.511	0.283	-0.130	-1.804	.073				
Model 4 <sup>4</sup>	Deposit Interest rate ⇒ Bank Deposits	(Constant)	74.905	1.652		45.355	.000				
		Deposit	-2.711	0.302	-0.545	-8.966	.000				
	of households	Interest rate									

# Table no. 2 – Results of regression analysis: the influence of interest rate on bank denosits and credits

Note: <sup>1</sup>Model 1: Dependent variable: Credits of companies;  $R^2 = 0.175$ , adjusted  $R^2 = 0.171$ ; Std. error of the estimate = 17.83478; F (1, 190) = 40,346 p < 0.001; Model 2: Dependent variable: Credits of households;  $R^2$  = 0.436, adjusted  $R^2 = 0.433$ ; Std. error of the estimate = 30.96606; F (1, 190) = 147.077, p < 0.001; Model 3: Dependent variable: Bank Deposits of companies;  $R^2 = 0.017$ , adjusted  $R^2 = 0.012$ ; Std. error of the estimate = 13.39257; F (1, 190) = 3.253, p =0.073; Model 4: Dependent variable: Bank Deposits of households; R<sup>2</sup> = 0.297, adjusted  $R^2 = 0.294$ ; Std. error of the estimate = 13.70683; F (1, 190) = 80.394, p = 0.000.

Source: Own calculation based on data provided by National Bank of Romania (NBR) Database https://www.bnro.ro/Baza-de-date-interactiva-604.aspx#

Results of correlation analysis regarding the relationship between credit interest rate and credits of households show the existence of a strong negative correlation (r = -0.661) between the two variables. As the interest rate increases, the volume of credit to the population decreases, in 2008-2023 period. The model 2 is statistically significant (F (1, 190) =  $1\overline{47.077p} < 0.001$ ) and about 43.6% of the variation in credit volume is explained by the interest rate (R-Square = 0.436). This shows that interest rates are an important factor but not the sole determinant of credit volume of households. Thus, higher interest rates significantly reduce the volume of credit to the population, as reflected by the strong negative correlation (r = -0.661) and the regression negative coefficients. The unstandardized coefficient (B = -7.477) show that for every 1-unit increase in the interest rate, the credit volume decreases by 7.477 units. The standardized coefficient (Beta = -0.419) indicates a strong negative effect of the interest rate on credit volume (model 2, Table no.2 and Figure no.5).





Source: Own calculation based on data provided by National Bank of Romania (NBR) Database (2024) <u>https://www.bnro.ro/Baza-de-date-interactiva-604.aspx#</u>

Examining the relationship between deposit interest rate and bank deposits of companies in Romania, in 2008-2023 period, results of correlation analysis (r = -0.130) show that there is a weak negative correlation between the deposit interest rate and bank deposits of companies. A higher deposit interest rate is associated with a slight decline in company deposits. The regression model 3 (Table no. 2 and Figure no.6) is not statistically significant at the 0.05 level (F (1, 190) = 3.253, p=0.073). This means that the deposit interest rate does not significantly explain the variation in bank deposits of companies when assessed as part of the regression model. The value of standardized coefficient (Beta = -0.130) reflects a weak negative effect of deposit interest rates. Only 1.7% of the variance in bank deposits of companies is explained by changes in the deposit interest rate (R-Square =0.017). This indicates that other factors (such as economic activity, company cash flow, or banking policies) play a much more significant role in determining company deposits.

Figure no. 6 – Relationship between Interest rate and bank deposits of companies, during January 2008- December 2023 period (billion lei)



Source: Own calculation based on data provided by National Bank of Romania (NBR) Database (2024) <u>https://www.bnro.ro/Baza-de-date-interactiva-604.aspx#</u>

There is a moderate to strong negative correlation between deposit interest rates and bank deposits of households (r = -0.545, Figure no.7). As the deposit interest rate increases, household



#### ACTA MARISIENSIS, SERIA OECONOMICA Online: ISSN 2668-3989, ISSN L 2668-3148 Print:ISSN 2668-3148, ISSN L 2668-3148

deposits tend to decrease during analyzed period, in Romania. According to regression analysis results in Table no.2 (Model 4), the model is statistically significant overall (F-statistic = 80.394, p = 0.000). This standardized coefficient (Beta = -0.545) confirms a moderate to strong negative effect of deposit interest rates on household deposits. Additionally, only 29.7% of the variation in household deposits is explained by changes in deposit interest rates (R-Square =0.297), indicating that other factors, such as household income, inflation, or economic confidence, could also influence deposit behavior.





Source: Own calculation based on data provided by National Bank of Romania (NBR) Database (2024) https://www.bnro.ro/Baza-de-date-interactiva-604.aspx#

#### 3.3. Analysis of the role of financial intermediation of banking system in economic growth in Romanian economy

Real GDP growth, as indicator which reflects the evolution of national economy (economic growth) fluctuated significantly, from a high of 9.3% in 2008 to a low of -5.5% in 2009 due to the global financial crisis (Figure no. 8). The economic growth remained sluggish or modest until 2016, after which Romania experienced resurgence, peaking at 8.2% in 2017. It then slowed and turned negative in 2020 due to the pandemic (-3.7%). The volatility in GDP growth reflects the impacts of global and regional crises, such as the 2008 financial crisis and the COVID-19 pandemic.

Also, the volatility in GDP growth can be associated to performance of banking system. The percentage of nonperforming loans (NPLs) (% of total gross loans) increased from 2.75% in 2008 to a peak of 21.87% in 2013, indicating a significant deterioration in loan quality during and after the global financial crisis. The spike in NPLs from 2008 to 2013 reflects the adverse effects of the global financial crisis on Romania's banking sector and borrowers. After 2013, NPLs began to decline steadily, reaching 2.65% by 2023. The decline in NPLs after 2013 coincides with reduced private-sector credit as a percentage of GDP. Credit to the private sector

as a percentage of GDP declined gradually from 35.91% in 2008 to 24.92% in 2023 (Figure no.8). Limited access to credit may constrain private investment and economic growth. Statistical data show that despite declining domestic credit to the private sector, GDP growth improved significantly post-2013 (except for 2020).



Figure no. 8 – Economic growth and financial intermediation of Romanian banking system

Source: Based on data provided by Eurostat Database (2024) and World Development Indicators (2024).

The correlation coefficient of -0.303 suggests a weak negative correlation between domestic credit to private sector by banks (% of GDP) and economic growth (Real GDP growth rate-%). These results could suggest that higher domestic credit to the private sector might be associated with slightly lower GDP growth, but this relationship is not statistically significant robust (Sig. 2-tailed=0.255). Moreover, this result could reflect inefficiencies in how credit is allocated or the possibility that excessive credit may not always translate into productive economic activities.

Additionally, we analyze the link between financial intermediation and economic development (GDP per capita) among EU countries, in 2023. Results of correlation analysis (r=0.446) indicates a moderate, statistically significant positive relationship between GDP per capita (in euros) and domestic credit to the private sector (as % of GDP) in EU countries (Figure no. 9). This suggests that, in general, higher domestic credit to the private sector is moderately associated with higher GDP per capita across the EU countries in the sample. Thus, countries with greater domestic credit to the private sector (as % of GDP) such as Denmark, Sweden, France and Finland, tend to have higher GDP per capita. Moreover, financial development contributes to economic prosperity, likely by facilitating investment, entrepreneurship, and consumption. In terms of financial intermediation, Romania ranks the last position among EU-27 countries, with domestic credit to the private sector accounting for 23% of GDP, which is 3.49 times lower than average of EU-27, by 78.55%.

MINISTERUL EDUCAȚIEI NAȚIONALE ROMÂNIA UNIVERSITATEA DE MEDICINĂ, FARMACIE, ȘTIINȚE ȘI TEHNOLOGIE "GEORGE EMIL PALADE" DIN TÂRGU MUREȘ

> ACTA MARISIENSIS, SERIA OECONOMICA Online:ISSN 2668-3989, ISSN L 2668-3148 Print:ISSN 2668-3148, ISSN L 2668-3148

Figure no. 9 – Relationship between financial intermediation (domestic credit to the private sector, % of GDP) and economic development (GDP per capita), in EU countries, in 2023



Source: Own calculation based on data provided by Eurostat Database (2024) and World Development Indicators (2024).

#### 4. CONCLUSIONS

This paper investigates the role of banking system in Romanian economy, in 2008-2023 period, focusing on the interlinkages between bank deposit, bank credit and interest rates, on the one hand, and the interplay between the financial intermediation of Romanian banking system economy and economic growth, on the other hand.

Our findings indicate that the volume of deposits and credits (outstanding) for both households and companies increased significantly during 2008-2023 period, in Romania. This trend can reflect improved financial health and growing confidence in the banking system, which can be interpreted as a positive indicator of overall economic stability. This observation is further supported by the gradual decrease in nonperforming loans (NPLs) (% of total gross loans) after 2013. Also, the results show that household credit increases at a faster rate than corporate credit and constitutes a higher proportion of total credit compared to corporate credit. Moreover, the results indicate that the level of deposits exceeds that of credits. These findings highlight the need for strategic policies to stimulate corporate credit growth to support investment while ensuring household debt remains sustainable, which is essential for balanced economic growth.

The weak negative, but statistically insignificant, correlation identified between domestic credit to the private sector by banks (% of GDP) and economic growth (real GDP growth rate, %) in Romania during the analyzed period - characterized by an annual increase in real GDP (%) alongside a decrease in financial intermediation - underscores the need not only to increase the volume of credit but, more importantly, to enhance the efficiency of credit allocation to better support economic growth. Taking into account the key role of the productive and innovative investment in economy (Herman and Szabo, 2014; Herman and Suciu, 2019), to achieve a higher multiplier effect on GDP growth, special attention should be given to encouraging credit flows into productive and innovative sectors.

*Limitations and Future Research:* Our empirical analysis, which aimed to assess the role of the banking system in the national economy, considered only a limited number of variables. Therefore, further research should incorporate additional variables to provide a more comprehensive analysis of the banking system's role in the national economy, such as, bank financial health indicators, inflation rate, and various instruments of monetary policy.

#### **Bibliography:**

Beck, T., Buyukkarabacak, B., Rioja, F.K. & Valev, N.T. (2012), Who gets the credit? And does it matter? Household vs. firm lending across countries. *The BE Journal of Macroeconomics*, Vol. 12 No. 1, pp. 1-46.

Bezemer, D., Ryan-Collins, J., van Lerven, F., & Zhang, L. (2023). Credit policy and the 'debt shift'in advanced economies. *Socio-Economic Review*, 21(1), pp.437-478.

Bezemer, D. (2014) 'Schumpeter Might Be Right Again: The Functional Differentiation of Credit'. *Journal of Evolutionary Economics*, 24, pp. 935–950.

Borio, C., Gambacorta, L., & Hofmann, B. (2015). The influence of monetary policy on bank profitability. BIS Working Papers No. 514 <u>https://www.bis.org/publ/work514.pdf</u>

**Eurostat Database** (2024). Annual national accounts. Available at: <u>https://ec.europa.eu/eurostat/databrowser/explore/all/economy?lang=en&subtheme=na10.nama10.nama\_10\_aux&di</u> <u>splay=list&sort=category&extractionId=nama\_10\_pc</u> [Accessed on October 2024].

Fetai, B.T. (2018), Does financial development accelerate economic growth?. Journal of Financial Economic Policy, Vol. 10 No. 3, pp. 426-435.

Ganic, M. (2018), An Empirical Analysis of Factors Affecting Bank Interest Margins: Evidence from the South East European Countries. *Comparative Economic Research*, Vol. 21, No. 2, pp.81-98.

Gavurova, B., Kocisova, K., Rozsa, Z., & Halaskova, M. (2019). What Affects the Interest Rate on Deposit From Households?. *Montenegrin Journal of Economics*, 15(2), pp.41-57.

Gerlach, J. R., Mora, N., & Uysal, P. (2018). Bank funding costs in a rising interest rate environment. *Journal of Banking & Finance*, 87, 164-186.

**Herman, E., & Stefanescu, D.** (2009). An analysis of domestic credit granted for types of institutional sectors. In Pelinescu, E. (Eds.) The impact of credit policies on the Romanian economy. PIM Publishing House, Iasi (pp.134-161)

Herman, E. (2011). Macroeconomie: evoluții și tendințe ale economiei românești. Editura Universității" Petru Maior".

Herman, E., & Szabo, Z. K. (2014). Considerations on Romania's entrepreneurial profile: Barriers to productive entrepreneurship. *Procedia Economics and Finance*, 15, pp.1740-1750.

Herman, E., & Suciu, M. C. (2019). Towards a smart, inclusive and sustainable development. Investment in human capital and innovation. An empirical analysis. In *Proceedings of the International Conference on Business Excellence* (Vol. 13, No. 1, pp. 792-803).

Kartal, M. T., Kirikkaleli, D., & Ayhan, F. (2023). Nexus between non-performing loans and economic growth in emerging countries: Evidence from Turkey with wavelet coherence approach. *International Journal of Finance & Economics*, 28(2), pp. 1250-1260.

Liu, G. & Zhang, C. (2020), Does financial structure matter for economic growth in China. *China Economic Review*, Vol. 61, 101194.

**Moroşan, G.** (2020). Banking Deposits of Population. Characteristics in Romania. In C. Nastase (vol. ed.), Lumen Proceedings: Vol. 13. 16th Economic International Conference NCOE 4.0 2020 (pp. 171-181). Iasi, Romania: LUMEN Publishing House. https://doi.org/10.18662/lumproc/ncoe4.0.2020/16

National Bank of Romania (NBR) Database (2024). Available at: <u>https://www.bnro.ro/Baza-de-date-interactiva-604.aspx#</u> [Accessed on October 2024].

**Nasrin, F.** (2023). An Empirical Analysis of Macroeconomic and Bank Specific Factors Ascertaining Bank Deposit: A Study on Bangladesh. *International Journal of Economics and Financial Issues*, *13*(3), pp.46-55

**Prochniak, M., & Wasiak, K.** (2017). The impact of the financial system on economic growth in the context of the global crisis: empirical evidence for the EU and OECD countries. *Empirica*, 44, pp.295-337.

**Puatwoe, J.T. and Piabuo, S.M**. (2017), Financial sector development and economic growth: evidence from Cameroon. *Financial Innovation*, Vol. 3 No. 1, pp. 1-18.

Rousseau, P. and Wachtel, P. (2017) Episodes of Financial Deepening: Credit Booms or Growth Generators?. *Financial Systems and Economic Growth*, 52, pp. 52-75, <u>https://doi.org/10.1017/</u>9781316493281.003

Sharipova, N. D., & Asadova, S. D. (2023). The role of banks in the modern monetary system. *Procedia of Theoretical and Applied Sciences*, 6, 55-62.

**World Development Indicators** (2024) Available at: <u>https://databank.worldbank.org/source/world-</u> <u>development-indicators/Series/FB.AST.NPER.ZS</u> [Accessed on October 2024].