THE BANKING SECTOR'S ASSETS IN ROMANIA. DEVELOPMENTS OVER THE PAST DECADE AND MID-RUN PROSPECTS

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Abstract

The total assets of the banking sector in Romania increased significantly over the past decade, from RON 364.1 billion at the end of 2014 to RON 881.7 billion at the end of 2024, according to the statistics of the National Bank of Romania (NBR). This evolution was supported by several factors, including Romania's economic convergence towards the EU average. However, Romania continues to be a country with a very low banking assets-to-GDP ratio, below 50%. In this paper, we employ standard econometric tools and utilise quarterly data from NBR, Eurostat, and the Shillerdata platform to assess the evolution of the banking sector's assets in Romania over the past decade. The main result of our analysis shows that the increase in banking assets was more dependent on the financing needs of the Government than on the evolution of the nominal GDP in Romania. This, in turn, represents a risk factor for the evolution of economic activity, for the macroeconomic stability and for the monetary policy transmission at the moment of the outbreak of the following shocks.

Keywords: Banking sector, Romania, ordinary least squares

JEL Classification: C21, G21, O52

1. Introduction

The total assets of the banking sector in Romania increased by more than 2.4 times between the end of 2014 and the end of 2024, reaching RON 881.7 billion, according to the NBR statistics (NBR, 2025). It can be noticed that there is an increase in the total assets in the Romanian banking sector after the outbreak of the coronavirus pandemic. This indicator climbed for the fourth year in a row in 2024 by a double-digit average annual pace, in acceleration to 12.3%.

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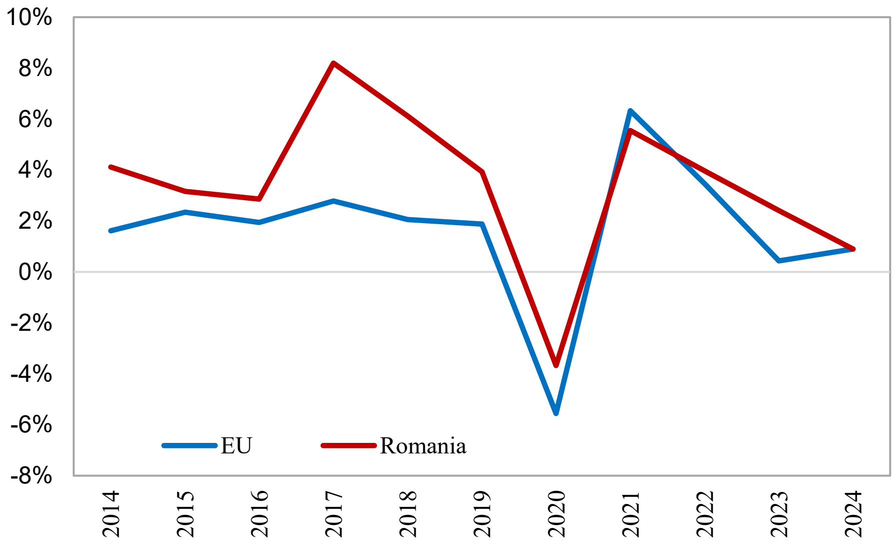
This evolution was supported by the several factors, including the EU economic convergence process of Romania – the national economy grew by an average annual pace of 3.3% during 2014-2024, more than double compared to the evolution of the economy of the European Union (1.6%), according to the statistics and estimates of Eurostat (2024, 2025), as can be noticed in Figure 1.

Figure 1

The annual rate of GDP - Romania vs. EU



Source: representation of the author based on Eurostat data (2024, 2025)

Furthermore, the deterioration of the public finances in Romania determined the increase in the financing needs of the Government. In this context, the exposure of the financial sector to the debt securities issued by the General government grew to a record high level of EUR 68.6bn at the end of 2024.

In this paper standard econometric tools are applied and the databases of the National Bank of Romania, Eurostat, and Shillerdata are used in order the assess the relation between the evolution of the annual rate of the assets of the banking sector in Romania and the developments of several macroeconomic and financial indicators during 2014-2024.

According to the results of the econometric estimates, the annual pace of the assets of the banking sector in Romania was more dependent on the evolution of the budget deficit-to-GDP ratio than on the annual dynamic of the nominal GDP in the past decade.

In this context, the annual growth pace of the total assets of the banking sector in Romania is expected to decelerate in the mid-run, given the prospects for the fiscal consolidation and for the slowing down of the annual pace of nominal GDP.

Therefore, Romania would continue to present a low level of the banking assets/GDP ratio in the coming years, after being in 98th place in the world in 2021, according to the statistics of the International Monetary Fund (IMF, 2024).

The remainder of the paper is structured as follows: Section 2 provides a brief review of the literature on the relationship between the banking sector's assets and macroeconomic indicators; the methodology is described in Section 3; the results of the econometric estimates are presented in Section 4; and the conclusions are drawn in Section 5.

2. Related literature

The relationship between the development of the banking sector and macroeconomic indicators has been intensively studied in recent decades, especially after the outbreak of the Great Financial Crisis in 2007-2008.

Berger et al. (2020) and Popov (2017) presented the main contributions to the literature on the relation between the banking sector and the real economy in recent decades.

On the one hand, the banking sector plays an important role in financing the real economic activity, especially in Europe and emerging and developing countries.

For instance, Hamdaoui and Cancelo (2024) evidenced a positive relation between the strength of the banking sector and the dynamics of the real economy in France, Spain, and Romania during 2000 – 2020.

Analysing the banking sector in Ukraine, Redkva (2018) found a direct correlation between the dynamics of the GDP and the evolution of the net banking assets.

However, Hasan et al. (2009) proved a weakening relation between financial development and economic growth across developed countries.

On the other hand, the banking sector is an important channel for the transmission of the monetary policy.

In this respect, Mermelas and Tagkalakis (2024) analysed the impact of the monetary policy shocks across the member countries of the Eurozone, showing a greater impact in the countries with a lower banking assets/GDP ratio.

Furthermore, Peek and Rosengren (2013) underlined the importance of bank lending in countries with lower access of banks and companies to the financial markets.

Last, but not least, the outbreak of the Great Financial Crisis and the recent exogenous shocks (coronavirus pandemic, and the geo-political tensions) brought to the forefront the issues related to financial stability.

In this respect, Cantu and Chui (2020) pointed out the vulnerabilities determined by the high weight of foreigners in the local currency bond markets, the development of non-bank financial corporations, and the exposure of the private sector to debt in foreign currency.

Furthermore, Dunz et al. (2024) emphasized that the upward trend of the exposure of the domestic banks to the government debt (up by over 35% on average in the emerging and developing countries from 2012 to 2023) may determine severe consequences in terms of macroeconomic, financial, and banking stability, for the countries with increasing vulnerabilities in public finance.

3. Methodology

In this paper, standard econometric tools are applied in order to assess the relation between the evolution of the banking sector's assets in Romania and several macro-financial indicators.

On the one hand, we considered domestic variables, including the evolution of nominal GDP and the dynamics of the budget deficit-to-GDP ratio.

On the other hand, we added a barometer of the international macro-financial climate, namely the dynamic of the S&P 500 index in USA, the largest economy in the world, with a nominal GDP close to

USD 30tn at the end of 2024, according to the estimates of the Bureau of Economic Analysis (BEA, 2025).

We estimated the following OLS (Ordinary Least Squares) regression using the econometric software E-Views:

$$ASSETS = C(1) + C(2) * GDP + C(3) * BugetDeficitGDP + C(4) * SP500 \quad (1)$$

Where:

$ASSETS =$ the annual pace of the total assets in the banking sector (in Romania);

$GDP =$ the annual pace of the nominal GDP (in Romania);

$BudgetDeficitGDP =$ budget deficit-to-GDP ratio (in Romania);

$SP500 =$ the annual pace for the S&P 500 (in the USA);

$C(1) =$ the intercept;

$C(2), C(3), C(4) =$ the estimated coefficients for the independent variables.

We worked with quarterly observations for the period from 4Q 2014 to 3Q 2024, as the data for the evolution of the budget deficit-to-GDP ratio in 4Q 2024 had not yet been released by Eurostat.

The statistics on the evolution of the annual pace of total assets in the Romanian banking sector were obtained from the NBR's database (2025).

On the other hand, Eurostat (2025) was the database used for the annual pace of the nominal GDP and the budget deficit-to-GDP ratio in Romania.

Lastly, but not least, the annual pace for the S&P 500 index was calculated using the statistics available on Shillerdata (2025).

4. Interpretation of the results

The results of the OLS estimated regression are presented in Table 1.

First, all the estimated coefficients are statistically significant at the 10% level, as shown in Table 1.

Furthermore, the measure of the strength of the relation between the annual pace of the banking assets and the independent variables (R-squared) is good, with a level close to 60%.

Table 1

The results of the OLS estimated regression (1)

Dependent Variable: ASSETS
Method: Least Squares
Date: 03/05/25 Time: 11:11
Sample(adjusted): 2014:4 2024:3
Included observations: 40 after adjusting endpoints
ASSETS = C(1)+C(2)*NOMINALGDP+C(3)*BUDGETDEFGDP+C(4)
*SP500

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	2.144811	1.151775	1.862178	0.0708
C(2)	0.205237	0.078652	2.609440	0.0131
C(3)	0.870807	0.139742	6.231532	0.0000
C(4)	0.058913	0.033570	1.754936	0.0878

R-squared	0.589517	Mean dependent var	8.900277
Adjusted R-squared	0.555310	S.D. dependent var	4.214010
S.E. of regression	2.810117	Akaike info criterion	4.998969
Sum squared resid	284.2833	Schwarz criterion	5.167857
Log likelihood	-95.97938	Durbin-Watson stat	1.312666

Source: econometric estimates in E-Views, 2025

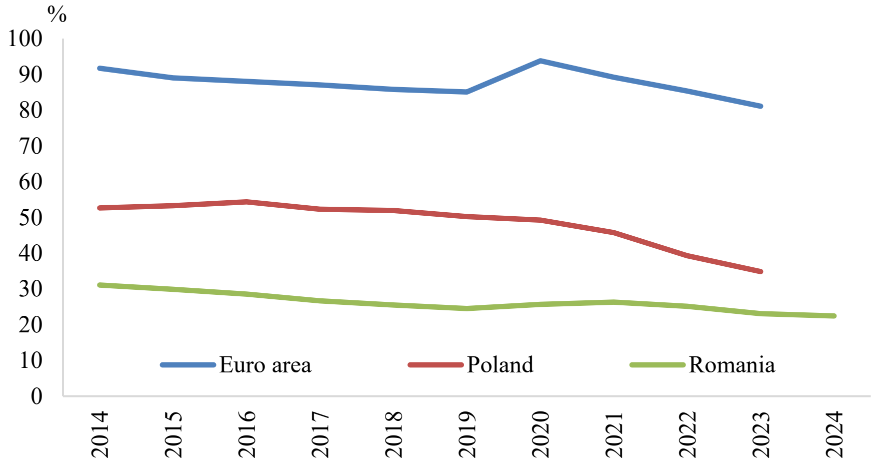
On the one hand, a positive relationship can be observed between the annual pace of total assets in the domestic banking sector and the annual dynamics of nominal GDP in Romania from 2014 to 2024, with an estimated coefficient of 0.21. In other words, an increase of the nominal GDP by 1pp determined the advance of the assets in the banking sector by 0.21pp in Romania in the past decade.

The low level of this coefficient is explained by the downward trend for the non-government loans/GDP ratio since the outbreak of the Great Financial Crisis, as reflected in Figure 2. According to the World Bank (2025) database and to our estimates, the non-government loans/GDP ratio in Romania declined to below 23% in 2024, the lowest level since 2005.

This, in turn, was determined by the fact that the nominal GDP generally increased at a stronger pace than the non-government loans starting in 2010, given the consequences of the financial crisis.

Figure 2

The non-government loans-to-GDP ratio

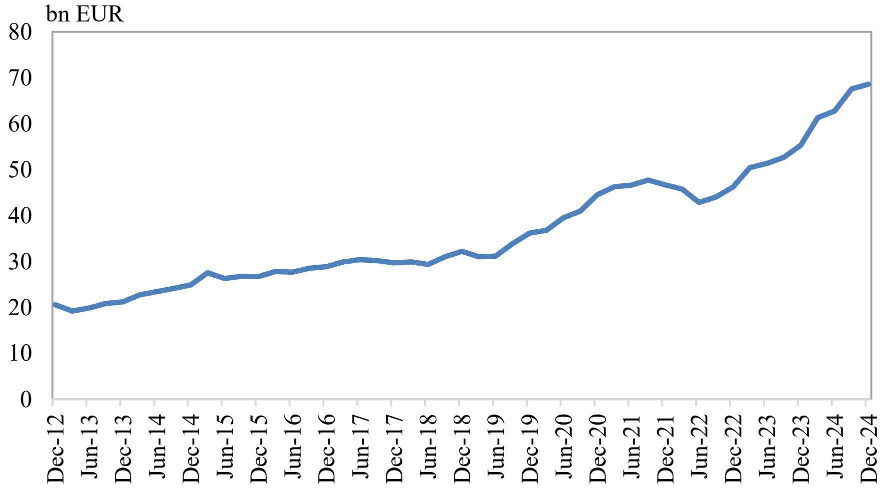


Source: representation of the author based on World Bank (2025) database for the period 2014-2023 and on the author's estimate for 2024

Furthermore, there is a positive relation between the annual pace of the total assets in the domestic banking sector and the dynamics of the budget deficit-to-GDP ratio, the estimated coefficient for the period 2014-2024 being 0.87. Therefore, a one percentage point (pp) widening of the budget deficit-to-GDP ratio determined a 0.87 percentage point (pp) increase in banking assets during the analysed period.

The holdings by financial corporations of debt securities issued by the general government rose 2.76 times, from EUR 24.9bn in December 2014 to EUR 68.6bn in December 2024 (a record high level), according to the NBR statistics.

Figure 3
Holdings by financial corporations of the government debt



Source: representation of the author based on NBR database (2025)

In other words, the widening trend for the budget deficit-to-GDP ratio, following several years of fiscal consolidation (after the outbreak of the Great Financial Crisis), had a bigger impact for the increase of the assets in the Romanian banking sector than the evolution of the nominal GDP.

This is the main contribution of our article to the existing literature on the relations between the banking sector and the macroeconomic indicators. The results are very important and represent a strong signal for the policymakers in Romania to implement measures in order to avoid the building up of tensions and risks that may lead to a banking crisis determined by the deterioration of public finances. Furthermore, the results are also relevant for the banks in Romania, which should focus more on developing services in order to finance more economic activity, especially the investment plans of companies.

Last, but not least, there is a positive relation between the annual pace of the banking sector's assets and the climate on the US stock market, the estimated coefficient being 0.06. Therefore, a positive climate in the global financial market contributed to the increase in assets in the Romanian banking sector. The advance of the

S&P 500 by 1pp determined the increase of the assets in the Romanian banking sector by 0.06pps during 2014-2024.

We point out that if we exclude the intercept, the estimated coefficients are 0.31 for the annual pace of the nominal GDP, 1.02 for the budget deficit-to-GDP ratio and 0.08 for the annual pace of S&P 500 index. Furthermore, in this alternative, the estimated coefficients are statistically significant at 3%. On the flipside, the R-squared is slightly lower than in the regression with an intercept, at 55%.

The results of the econometric estimates corroborated with the prospects for the slowing down of the annual growth pace of the nominal GDP and for the fiscal consolidation (needed more than ever since the Great Financial Crisis in order to avoid the sovereign rating cut) and the challenges for the international financial markets during Trump 2.0 Administration are factors that express perspectives for the slowing down of the annual pace of the total assets of the banking sector in Romania in the coming years.

Furthermore, we point out that, in the adverse macroeconomic scenario (in this case Romania would be downgraded to “junk” by the international rating agencies), the value of the holdings of Government bonds may significantly decline for a while, with negative impact for the evolution of the total assets, but also for the macroeconomic and financial stability in Romania.

5. Conclusions

This paper assessed the evolution of the banking sector’s assets in Romania during the interval 2014-2024 by implementing standard econometric tools and using the databases of the National Bank of Romania, Eurostat, and Shillerdata platform.

The results of the econometric estimates emphasised the positive relation between the annual pace of the total assets in the Romanian banking sector and the annual pace of nominal GDP, the budget deficit-to-GDP ratio and the annual pace of S&P 500 index in the past decade.

On the other hand, according to these results, the increase of the banking sector’s assets was more dependent on the widening trend for the budget deficit-to-GDP ratio than on the evolution of the nominal GDP in Romania in the past decade. This represents a vulnerability for the future evolution of the real economy, and also a structural risk factor for the financial and macroeconomic stability and for the monetary policy transmission at the moment of the outbreak of the next world/European/regional shocks (endogenous and/or exogenous).

In other words, the significant increase of the banking sector's assets in the recent years is not sustainable. In this context, structural reforms are needed in the banking sector in Romania, including the change of the business models, turning the focus on the corporate/investment banking, increasing the financial inclusion through ambitious campaigns, and hedging the risk of the high-level exposure to the public debt.

Last, but not least, Romania should accelerate the structural reforms, in order to improve the annual pace of the potential growth and to consolidate the public finance, very important aspects in order to diminish the risks related to the sustainability of the public finance and to the middle-income trap.

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