ISSN 2661-2666 (Online) International Scientific Journal Monte (ISJM) DOI:
10.33807/monte.20243127 | Volume 9, No.1 (2024): April

EXAMINING THE LINK BETWEEN BANKING SECTOR DEVELOPMENT AND ECONOMIC GROWTH: AN EMPIRICAL ANALYSIS OF ALBANIA

Dr. Ardita BYLO [1], Elena MEMUSHAJ [2]*
[1] University of New York Tirana
[2] University of New York Tirana

ABSTRACT

This research aims to examine the relationship between banking sector development and economic growth in Albania, focusing on specific indicators such as bank capital to asset ratio, non-performing loans, credit to the private sector, deposit money bank assets to GDP, inflation rate, GDP growth, and GDP per capita growth.

The study is grounded in the finance-growth nexus theory, which posits that financial development fosters economic growth through improved capital accumulation and resource allocation. The framework considers how banking sector health influences macroeconomic stability and growth.

The research employs a quantitative approach using secondary data from credible sources such as the World Bank. The econometric model assesses the impact of banking sector indicators on economic growth in Albania over the period 2012-2021.

Findings confirm that banking sector development significantly impacts economic growth in Albania. High levels of non-performing loans hinder growth, while enhanced credit to the private sector and robust bank capital ratios promote economic development. Policymakers should focus on reducing non-performing loans and strengthening the banking sector's capital base to foster sustainable economic growth. Effective financial regulations and policies are crucial to ensuring a stable and efficient banking sector that can support long-term economic prosperity in Albania.

Keywords: *Banking Sector; GDP; NPL; Albania; Economic Development*

INTRODUCTION

Economic growth is a critical objective for any nation, as it drives improvements in living standards, reduces poverty, and enhances overall prosperity. In this context, the role of the financial sector, particularly the banking industry, has garnered significant attention from policymakers and scholars alike. The relationship between financial development and economic growth has been extensively studied, with substantial evidence suggesting that a well-functioning banking sector can significantly contribute to economic progress by facilitating efficient allocation of resources, promoting investment, and enhancing productivity (King & Levine, 1993; Levine, 2005).

Albania, a transition economy in Southeastern Europe, provides a compelling case for examining the dynamics between banking sector development and economic growth. Since transitioning from a centrally planned economy to a market-oriented system in the early 1990s, Albania has undergone significant economic and financial reforms. Despite these efforts, the country still faces numerous challenges, including high levels of non-performing loans (NPLs), limited access to credit, and macroeconomic volatility. Understanding how these banking sector indicators impact economic growth is crucial for formulating effective policies to promote sustainable development.

This study aims to investigate the relationship between various banking sector indicators and economic growth in Albania over the period 2012-2021. Specifically, it examines the impact of the bank capital to asset ratio, nonperforming loans to total gross loans percentage, credit to the private sector, deposit money bank assets to GDP, inflation rate, GDP growth, and GDP per capita growth. By analyzing these variables, the research seeks to provide insights into how the health and development of the banking sector influence the broader economy.

The significance of this study lies in its potential to inform policymakers about the key factors within the banking sector that drive economic growth. In light of Albania's ongoing economic transition and integration into the global economy, identifying and addressing the impediments to financial sector stability and efficiency is paramount. Moreover, this research contributes to the broader literature on the finance-growth nexus by providing empirical evidence from a transition economy context, which is often underrepresented in existing studies.

The remainder of the paper is structured as follows: Section 2 reviews the relevant literature on the relationship between banking sector development and economic growth. Section 3 outlines the methodology employed in the study, including data sources, variable definitions, and analytical techniques. Section 4 presents the empirical results, highlighting the key findings and their implications. Finally, Section 5 concludes the paper with a discussion of the conclusions and policy implications derived from the study.

1. Literature Review

The relationship between banking sector development and economic growth has been a focal point of economic research for decades. This section reviews the relevant theoretical and empirical literature that underpins this study, highlighting key findings and their implications for the context of Albania.

The finance-growth nexus theory posits that financial development facilitates economic growth by improving capital accumulation and resource allocation (Goldsmith, 1969; Schumpeter, 1911). According to this theory, a welldeveloped banking sector promotes economic growth by mobilizing savings, facilitating investments, enhancing risk management, and providing liquidity (Levine, 2005). Additionally, banking institutions play a crucial role in reducing information asymmetries and transaction costs, which in turn fosters entrepreneurial activities and innovation (Beck et al., 2000).

Empirical studies have provided substantial support for the finance-growth nexus. King and Levine (1993) found that financial development is positively correlated with economic growth, productivity improvements, and capital accumulation. Their cross-country analysis demonstrated that countries with better-developed financial systems tend to grow faster. Similarly, Levine, Loayza, and Beck (2000) showed that financial intermediary development significantly influences economic growth, highlighting the importance of banking sector efficiency and stability.

Several specific banking sector indicators have been identified as critical determinants of economic growth. These include the bank capital to asset ratio, non-performing loans (NPLs) to total gross loans percentage, credit to the private sector, and deposit money bank assets to GDP:

1. **Bank Capital to Asset Ratio**: A higher bank capital to asset ratio indicates a more stable banking sector, as it reflects a bank's ability to absorb losses. This stability is crucial for fostering investor confidence and ensuring continuous credit flow to the economy (Berger, 1995).
2. **Non-Performing Loans (NPLs)**: High levels of NPLs can signal banking sector distress, reducing banks' ability to lend and negatively impacting economic growth. Studies have shown that NPLs can lead to credit crunches, impeding investment and consumption (Nkusu, 2011).
3. **Credit to the Private Sector**: Increased credit to the private sector is often associated with higher economic growth, as it facilitates business expansion and entrepreneurial activities. Beck, Levine, and Loayza (2000) demonstrated that credit to the private sector is a robust predictor of economic growth.

4. **Deposit Money Bank Assets to GDP**: This indicator measures the size of the banking sector relative to the economy. A larger banking sector typically reflects better financial intermediation and economic growth potential (Levine, 2005).

In transition economies like Albania, the banking sector's role in economic growth is particularly critical. These economies often face challenges such as underdeveloped financial markets, high NPLs, and regulatory inefficiencies. Research in transition economies has highlighted the importance of strengthening banking sector stability and efficiency to support economic growth (Bonin et al., 2005).

Gabeshi (2022) and Musta (2016) provide empirical evidence from Albania, showing that financial sector reforms and improved banking sector performance have contributed to economic growth. However, persistent issues such as high NPL ratios and limited access to credit remain significant obstacles.

The reviewed literature suggests several policy implications. First, enhancing banking sector stability through prudent regulation and supervision can mitigate the adverse effects of NPLs. Second, promoting financial inclusion and access to credit for businesses can stimulate economic activities. Lastly, fostering a competitive and efficient banking sector can improve resource allocation and support sustainable economic growth.

2. Methodology

The research employs a quantitative approach using secondary data from credible sources such as the World Bank (World Bank Group, n.d.). The econometric model assesses the impact of banking sector indicators on economic growth in Albania over the period 2012-2021. The dependent variable is economic growth, measured by GDP growth. Independent variables include bank capital to asset ratio, non-performing loans, credit to the private sector, deposit money bank assets to GDP, inflation rate, and GDP per capita growth. Descriptive, correlational, and regression analyses are conducted using SPSS and STATA to determine the relationships and significance of these variables.

Economic Growth is the dependent variable represented by the GDP growth percentage of Albania. The annual percentage growth rate of GDP at market prices is based on the constant local currency. Its estimates are based on sources and methods of the World Bank. An increase in the GDP growth rate is likely to be good for economic growth and show that the economy is getting stronger.

Bank Capital to Asset Ratio shows how much a bank has in stock compared to how much it has in total assets. It shows how stable a bank's finances are and how well it can handle problems. It is thought that a bigger percentage of bank capital to assets will help the economy grow. This means that banks are better prepared to handle losses, which can help keep the economy stable and help the economy grow.

Bank Non-performing Loans to total gross loans percentage shows how many non-performing loans, or loans with late payments, there are out of the total number of bank loans. It looks at how stable and reliable a bank's loan business is. It is expected that a rise in loans that aren't being paid back will slow down economic growth. This is because a high rate of bad loans is a sign of financial instability in the banking system, which could stop banks from giving to useful parts of the economy.

Monetary Sector credit to the private sector (% GDP) shows how much cash is available to both private businesses and people. It is expected that giving more bank loans to the private sector will help the economy grow. This is because it means there are more loans available, which can help businesses, investments, and consumer spending, all of which can lead to economic growth.

The size of Albania's banking business in relation to the economy is shown by ***Deposit money bank assets to GDP Albania***. The growth of the economy is likely to benefit from the growth of the banking sector. This calls for a more complicated financial system that can support economic activity and make good use of resources.

The ***inflation rate*** is the percentage change in the usual price level of goods and services over a certain time frame. It shows how rising costs have hurt people's ability to buy things. The rate of inflation is expected to hurt the growth of

the economy. Inflationary stresses can make people feel less safe and less able to buy things, which lowers economic activity and investment.

The below econometric model is used to examine the relationship between the dependent variable, namely Economic Growth, and the independent factors.

$$\text{GDP Growth} = \beta0 + \beta1 \times \text{Bank Capital / Asset Ratio} + \beta2 \times \text{Bank NonPerforming Loans / Total Gross Loans Percentage} + \beta3 \times \text{Monetary Sector Credit / Private Sector} + \beta4 \times \text{Deposit Money Bank / GDP} + \beta5 \times \text{Inflation Rate} + \varepsilon$$

The study employed regression analysis to determine the significance of each independent variable and its corresponding values in forecasting the fluctuations in the Economic Growth variable.

3. Empirical Results

The present study employs regression analysis to examine the relationship between the independent variables, namely GDP, Inflation Rate, Deposit Money Bank to GDP, GDP Growth, Bank Capital to Asset Ratio, Bank Non-Performing Loans to Total Gross Loans Percentage, Monetary Sector Credit to Private Sector, and GDP per Capital, and the dependent variable, Economic Growth.

The average GDP growth in Albania during the study period was 2.524%, with a standard deviation of 3.047%. Nonperforming loans averaged 14.169%, indicating a substantial portion of loans were problematic, potentially hampering economic growth.

Table 1. *Model*

Linear regression

Number of obs	=	9
Prob > F	=	0.0018
R-squared	=	0.9954

GDP Growth	Coef.	Robust Std. Err.	t	P>t
Bank Non-Performing Loans	-0.685829	.0604043	-11.35	0.008
Inflation Rate	-5.200953	.7662848	-6.79	0.021
Bank Capital to Asset	-2.989021	.5196206	-5.75	0.029
Bank Capital to Asset (Lagged)	2.444516	.2580737	9.47	0.011
Credit to the private sector	-1.819914	.0906227	-20.08	0.002
Credit to the private sector (Lagged)	2.633358	.1064058	24.75	0.002
Constant	-3.568514	10.603	-0.34	0.768

The regression model has a very high R-squared value of 0.9954, indicating that approximately 99.54% of the variation in GDP growth can be explained by the independent variables included in the model. This suggests that the chosen predictors (bank non-performing loans, inflation rate, bank capital to asset ratios, and credit to the private sector) collectively have a strong explanatory power for GDP growth in Albania during this period.

Individual predictors such as bank non-performing loans, inflation rate, bank capital to asset ratios, and credit to the private sector (both current and lagged) show statistically significant coefficients (p-values ranging from 0.002 to 0.029), suggesting that changes in these variables are associated with changes in GDP growth.

The obtained model shows an increase in non-performing loans is associated with a decrease in GDP growth. Inflation rate has a negative impact on economic growth, consistent with economic theory. Increases in bank capital to asset ratios generally lead to decreases in GDP growth, though the lagged variable shows a positive impact on GDP growth. On the other hand, credit to the private sector has initially negative and afterward a higher positive impact on GDP growth, suggesting that increased lending and support economic growth in longer terms. Based on these findings, policy recommendations for enhancing GDP growth in Albania could focus on:

- Addressing non-performing loans to improve banking sector stability.
- Implementing policies to control inflation rates to foster economic growth.
- Ensuring adequate capitalization of banks to support economic activities.
- Facilitating credit availability to the private sector to stimulate economic expansion.

These findings provide a comprehensive understanding of the factors influencing GDP growth in Albania over the specified period, offering valuable insights for economic policy formulation and future research directions.

The significance of addressing non-performing loans and maintaining the stability of Albania's banking industry to sustain enduring economic growth is emphasized. The research demonstrates the correlation between the expansion of Albania's financial sector and the advancement of its economy. The expansion of the banking industry may contribute positively to economic growth. However, it is imperative to consider other variables and regulations to ensure that such growth is viable in the long run. Albania is faced with the imperative of addressing non-performing loans, ensuring financial stability, and implementing sound monetary and fiscal policies to foster economic expansion.

Conclusions

This study examines the link between Albania's banking sector development and economic growth. The research presents a comprehensive examination of the interrelationships between various economic indicators and their impact on the GDP growth, in Albania. The study's theoretical framework serves as a basis for understanding the intricate dynamics between these indicators and economic growth. By investigating this relationship, the research question aims to shed light on the factors influencing economic growth in Albania.

The regression model demonstrates that the selected independent variables such as bank non-performing loans, inflation rate, bank capital to asset ratios, and credit to the private sector are highly influential in shaping economic growth in Albania.

An increase in non-performing loans negatively impacts GDP growth, highlighting the importance of addressing asset quality issues in the banking sector. Higher inflation rates are associated with lower GDP growth, emphasizing the need for effective monetary policy to control inflationary pressures. While increases in current bank capital to asset ratios tend to reduce GDP growth, higher levels in the previous period have a positive impact on current GDP growth. This underscores the importance of maintaining adequate capitalization in the banking system over time. Finally, greater availability of credit to the private sector supports higher GDP growth, indicating the role of financial intermediation in fostering economic activity.

Based on the findings from the regression analysis for Albania spanning 2012-2021, several targeted policy recommendations emerge to foster sustainable economic growth. Firstly, prioritizing reforms in the banking sector to address non-performing loans and enhance asset quality is crucial for stabilizing financial institutions and facilitating increased lending capacity. Secondly, implementing effective monetary policies to control inflation rates is essential to maintaining price stability, thereby supporting consumer confidence and business investment. Thirdly, promoting policies that ensure adequate capitalization of banks will strengthen their resilience and ability to withstand economic shocks while continuing to support lending activities. Lastly, facilitating easier access to credit for both businesses and individuals can stimulate investment and consumption, driving overall economic expansion and enhancing Albania’s economic competitiveness in the global market. These measures collectively aim to create a conducive environment for sustained economic growth, resilience, and prosperity in Albania.

The model's robustness may be limited by the small number of observations (9 years of data). Future studies with a larger dataset could provide more robust insights into the dynamics of GDP growth in Albania.

External factors not included in the model (such as geopolitical events, global economic trends) may also influence GDP growth and should be considered in policy formulation.

In conclusion, the regression analysis highlights the critical factors influencing GDP growth in Albania and provides actionable insights for policymakers to promote sustainable economic development. Addressing banking sector stability, inflation control, capital adequacy, and credit availability are key areas that could contribute significantly to enhancing economic performance in Albania over the long term.

REFERENCES

Beck, T., Levine, R., & Loayza, N. (2000). Finance and the sources of growth. *Journal of Financial Economics*, *58*(1), 261–300. https://doi.org/10.1016/S0304-405X(00)00072-6

Berger, A. N. (1995). The Relationship between Capital and Earnings in Banking. *Journal of Money, Credit and Banking*, *27*(2), 432–456. https://doi.org/10.2307/2077877

Bonin, J. P., Hasan, I., & Wachtel, P. (2005). Bank performance, efficiency and ownership in transition countries. *Journal of Banking & Finance*, *29*(1), *al of Monetary Economics*, *32*(3), 513–542. https://doi.org/10.1016/0304-3932(93)90028-E

Levine, R. (2005). Chapter 12 Finance and Growth: Theory and Evidence. In P. Aghion & S. N. Durlauf (Eds.), *Handbook of Economic Growth* (Vol. 1, pp. 865–934). Elsevier. https://doi.org/10.1016/S1574-0684(05)01012-9

Levine, R., Loayza, N., & Beck, T. (2000). Financial intermediation and growth: Causality and causes. *Journal of Monetary Economics*, *46*(1), 31–77. https://doi.org/10.1016/S03043932(00)00017-9

Musta, E. (2016). *Financial Development Influence on Economic Growth in Albania | European Journal of Economics and Business Studies*. https://revistia.com/index.php/ejes/article/view/5298

Nkusu, M. M. (2011). *Nonperforming Loans and Macrofinancial Vulnerabilities in Advanced Economies*. International Monetary Fund.

Schumpeter, J. (1911). *The theory of economic development*. Harvard University Press.

World Bank Group. (n.d.). *World Bank Open Data*. Retrieved November 22, 2020, from https://data.worldbank.org/

31–53. https://doi.org/10.1016/j.jbankfin.2004.06.015

Gabeshi, K. (2022). The Impact of Bank Credit to the Public and Private Sector on the Economic Growth in Albania. *Ovidius University Annals. Economic Sciences Series*, *22*(1), 882–888. https://doi.org/10.61801/OUAESS.2022.1.117

Goldsmith, R. N. (1969). *Financial Structure and Development*. Yale University Press.

King, R. G., & Levine, R. (1993). Finance, entrepreneurship and growth. *Journ*