

An Empirical Analysis of the Impact of Financial Leverage on the Performance of Second-Level Banks in Albania

ELTON GUBERAJ^{1,a}, DENISA PIPERO KURTAJ², ANA KAPAJ^{3,b}

¹Department of Finance and Accounting,
Faculty of Economics and Agribusiness, Agricultural University of Tirana,
Rruga Paisi Vodica 1025, Tirana
ALBANIA

²Department of Agri-Business Management,
Agricultural University of Tirana,
Rruga Paisi Vodica 1025, Tirana,
ALBANIA

³Department of Mathematics and Informatics
Faculty of Economy and Agribusiness, Agricultural University of Tirana
Rruga Paisi Vodica 1025, Tirana,
ALBANIA

^aORCID: 0009-0009-9554-5452

^bORCID: 0000-0002-2406-2164

Abstract: - The financial scene in Albania, has seen some significant changes over time, shaped by different market situations and rules that put specific limits on financial choices. In today's world, where globalization and competition are running high, making smart financial moves is crucial for a company's success. Most studies on traditional finance have been mostly focused on analyzing how a company's everyday performance is connected with the amount of debt. These studies try to investigate the complex relationship between financial leverage and the factors that make a company successful. Deferent researchers have been looking into the basic details of financial leverage, focusing on theories like the pecking order, which suggests that companies Fprefer using their own money rather than borrowing from outside. Despite having an assembly of theories, there's no one answer for how a company should balance its money or which financial moves guarantee success. Every business is different, dealing with unique challenges in its way. Understanding how a company acquires its funding and where it originates plays a crucial role for businesses aiming to economize while trying to achieve substantial growth. This highlights how important it is to set up a money plan that looks out for the company's interests. Interestingly, in a market where there's no tax on money moves, the way a company sets up its money doesn't seem to change how much it's worth. Businesses have room to refine how much debt they carry, both in the short and long term, based on big investment decisions and the need for quick cash. The exact effect of leverage depends on several variables, such as the firm's risk appetite, the state of the economy, and the dynamics of the industry. To summarize, the main goal of this empirical investigation is to clarify the relationship between financial leverage and the performance curve of Albania's second-level banks throughout the ten years from 2012 to 2022. This investigation seeks to clarify if financial leverage methods were modified by Albanian banks, especially second-level banks, in response to changing market dynamics and regulatory changes, and how these modifications affected the banks' overall performance.

Key-Words: - Financial leverage, Second-level banks, Risk Diversification, Effective Debt Management, Return on Equity, Return on Assets.

Received: July 11, 2023. Revised: February 13, 2024. Accepted: April 9, 2024. Published: May 2, 2024.

1 Introduction

As second-level banks keep on playing a fundamental job in provincial financial turn of events, evaluating their monetary influence techniques becomes pivotal not just for scholarly research yet in addition for policymakers and monetary foundations, [1], [2]. Subsequently, this exploration tries to add to the more extensive talk on monetary influence and bank execution while offering experiences into the particular elements of second-level banks in Albania. [3], in synopsis, late writing proceeds to support the repetitive negative relationship between monetary influence and bank or firm execution, underscoring the significance of considering the more extensive monetary and administrative setting, [4]. This study means to broaden our comprehension by zeroing in on second-level banks in Albania, a district with particular elements, and investigating the remarkable factors that shape their influence execution elements while coordinating experiences from these essential hypothetical systems. [5]

The perplexing relationship between budgetary use and bank execution has been a noticeable subject of monetary inquiry about, captivating researchers around the globe. Whereas broad inquiry about has investigated the suggestions of use on bank benefit, soundness, and chance, the part of second-level banks remains a progressively important but less-explored range. [6], [7], a comprehensive audit synthesized discovery from various ponders on the effect of monetary use on the execution of money-related teach. The survey fortified the agreement that a considerable extent of these ponders watched a negative affiliation between use and bank execution. Higher use was by and large connected to decreased productivity and increased budgetary chance, adjusting with the pecking arrange hypothesis, which sets that firms favor inner financing over the outside obligation to keep up monetary steadiness, [8].

On this discourse, later inquiries about has dug into the complicated exchange between monetary use and bank execution. A striking think about, conducted in 2023, centered on the European managing an account segment and scrutinized information traversing a long time from 2010 to 2020. The examination yielded profitable experiences into the different impacts of budgetary use watched over unmistakable European nations and managing an account teach. The discoveries underscored that the relationship between use and execution is exceedingly subordinate to the one

of a kind financial and administrative conditions winning in each nation, [9], [10]. Besides, an

examination carried out by analysts in 2020 inspected the execution of Chinese commercial banks all through the period from 2010 to 2019. The ponder uncovered that, even though budgetary use might support benefits within the brief term, it might subject banks to raised budgetary chance over an amplified period. This underscores the worldly elements and persevering results related to the effect of the use on bank execution, [11]. Within the setting of territorial or second-level banks, more lately have too investigated how these teachers explore the complexities of monetary use in particular geographic and administrative situations. [12], address this hole, the display inquiries about centers on second-level banks in Albania, an energetic advertise with interesting characteristics.

2 Research Methodology

The information utilized for this study is optional information gathered from Opencorporates, a solid hotspot for monetary data on organizations working in Albania. The dataset incorporates key monetary factors like aggregate obligation, capital, resources, benefits, and total compensation for second-level banks working in the Albanian economy. These monetary measurements give fundamental bits of knowledge into the monetary well-being and execution of the chosen banks. [13], the choice of banks for this study was made fastidiously to guarantee variety furthermore, portrayal inside the Albanian banking area. In particular, information from 11 second-level banks was picked for examination, covering the broad period from 2012 to 2022. These chosen banks incorporate both homegrown and worldwide monetary organizations, offering a far-reaching view of the monetary scene in Albania. The decision of these particular banks was driven by the point of directing a strong experimental investigation of the connection between monetary influence pointers and monetary execution measurements over the assigned enough said. By zeroing in on this assorted arrangement of banks, this study looks to give important experiences into how monetary influence techniques have affected the monetary results of different financial establishments in Albania.

This study plans to uncover the importance of monetary influence on the presentation of organizations in Albania. By deciding the focal point of the review, we distinguish the free factor, which is monetary influence. Then again, we will quantify an organization's exhibition through ROA (Return on Resources), ROE (Return on Value), also, net revenue. The information from the chosen

banks will serve as the establishment for the examination in this research, empowering an assessment of the connection between monetary influence markers and monetary execution measurements throughout the predetermined period.

2.1 Hypothesis of the Study

Hypothesis 1 (ROA): There is a significant relationship between the financial leverage indicators and ROA.

Hypothesis 2 (ROE): There is a significant association between the financial leverage indicators and the Return on Equity (ROE).

Hypothesis 3 (NPM - Net Profit Margin): There is a significant correlation between the financial leverage indicators and the Net Profit Margin (NPM).

2.2 Statistical Summary of Studied Variables

Table 1 provides a statistical summary of the variables under study. The mean value of the net profit margin stands at 97.3%. However, the average return on assets is 0.83%, indicating that approximately 8% of second-level banks' total revenue is generated from the utilization of their total assets. The average return on debt is 8.6%, implying that nearly 9% of the bank's revenue is derived from debt usage. The mean debt-to-equity ratio is 90.4%. Simultaneously, the debt ratio has an average of 93.4%, signifying that 93.4% of the assets are financed through total liabilities.

This statistical summary provides an initial glimpse into the financial characteristics of the selected banks and sets the stage for further analysis. The figures reveal key indicators of financial leverage and performance, offering insights into the financial strategies and structures of these banking institutions.

Table 1. Statistical Summary of the Studied Variables

Variable	Mean	Median	St. Deviation
ROA	0.00831	0.0070	0.03
ROE	0.08623	0.0640	0.265
DE	9.0404	8.3637	7.829
DEB	9.3971	63.874	325.36
NPM	0.97368	1.000	1.866

Source: Author, 2023

Correlation analysis serves as a fundamental tool to gauge the strength and direction of linear relationships between variables, [14], [15]. The correlation coefficient, which ranges between -1 and 1, is employed to measure these relationships. In Table 3, we present the correlation matrix, shedding light on the interplay among the studied variables.

One critical aspect to consider in correlation analysis is the presence of multicollinearity, where independent variables are highly correlated with each other. Multicollinearity issues typically become significant when correlation coefficients exceed 0.80, [16]. In our analysis, we do not observe such high correlations among the variables, suggesting that multicollinearity is not a major concern in this study.

Furthermore, it's essential to contextualize these findings within the broader landscape of financial research to echo the importance of assessing correlations between financial leverage indicators, such as debt-to-equity ratios, and financial performance metrics like return on assets and return on equity. The negative correlation observed between return on assets (ROA) and the debt-to-equity ratio (DE), as well as the debt-to-EBITDA ratio (DEB), is consistent with the findings of these prior studies. This negative correlation suggests that as the reliance on debt financing increases, the return on assets tends to decrease, aligning with the risk-return trade-off theory, [17].

Conversely, the positive correlation between return on equity (ROE) and these leverage indicators aligns with the insights that suggest an optimal mix of debt and equity in a firm's capital structure could enhance return on equity. Therefore, our correlation analysis not only corroborates the existing body of literature but also underscores the importance of assessing these relationships in the specific context of Albanian second-level banks.

Overall, this correlation analysis not only provides valuable insights into the relationships among the variables under examination but also highlights their alignment with established financial theories and empirical findings from prior research (Table 2).

Table 2. Correlation analysis between variables

	ROA	ROE	DE	DEB	NPM
ROA	1.0000	0.7425	-0.008	-0.019	0.0405
ROE		1.0000	0.1867	0.0138	0.0483
DE			1.0000	0.0728	0.0144
DEB				1.0000	0.0514
NPM					1.0000

Source: Author, 2023

3 Methodology

In this paper, we have examined two econometric models, namely the classic linear model and the log-linear model, to determine which of these models better suits our study. Initially, Table 4 presents the first regression model with a linear equation: $y = a + bx + cx + u$, where specifically

ROA=0.00791093+2.62464005DE+1.76081006 DEB. As we can observe, the model is not statistically significant, as none of the variables appear to be significant

However, none of the variables in the model appear to be statistically significant, as evidenced by the p-values exceeding the typical significance level of 0.05.

Additionally, the R-squared value, which measures the proportion of variation in ROA explained by the model, is extremely low at 0.000422, indicating that only 0.0422% of the variation in ROA is accounted for by DE and DEB.

These findings suggest that the linear model may not adequately capture the relationship between the variables, prompting further exploration using alternative models, such as the log-linear model, to potentially yield more meaningful results. It's important to note that the lack of statistical significance in this model may be due to various factors, and further analysis is warranted to better understand the dynamics at play in the context of Albanian second-level banks.

Table 3. The first two-factor linear regression model
 Model 1: Regression Analysis
 Dependent Variable ROA

	Coefficient	St. Error	t-ratio	p-value
Const	0.0079	0.0042	1.844	0.0676
DE	2.6246	0.0003	0.073	0.9415
DEB	1.7608	8.5915	0.205	0.838

Mean dependent var	0.0083	SD dependent var	0.03
Sum squared residual	0.11	SE of regression	0.03
R squared	0.0004	Adjusted R squared	-0.01
F (2,118)	251.96	P-value	0.97
Log-likelihood	251.9	Akaike criterion	-497.9
Schwarz	-489.5	Hannan-Quinn	-494.5
rho	0.13	DW	1.687

Source: Author, 2023

Table 4. Second Linear Two-Factorial Regression model
 Model 2: Regression Analysis
 Dependent Variable ROE

	Coefficient	St. Error	t-ratio	p-value
Const	0.028	0.037	0.78	0.436
DE	0.006	0.003	2.059	0.0417
DEB	1.336	7.412	0.001	0.998

Mean depend. var	0.086	SD depend. var	0.265
SS residual	8.191	SE of regression	0.263
R squared	0.034	Adjusted R sq	0.018
F (2,118)	2.13	P-value	0.123
Log-likelihood	-8.78	Akaike criterion	23.56
Schwarz	31.95	Hannan-Quinn	26.97
rho	0.212	DW	1.516

Source: Author, 2023

Within Table 4, we present the outcomes of the regression analysis, where ROE (Return on Equity) serves as the dependent variable. The model specification is articulated as follows:

$$ROE = 0.0288906 + 0.00634188DE + 1.33649007DEB \tag{1}$$

Employing a significance level of $\alpha = 0.01$, we observe that the variable DE attains statistical significance. This finding substantiates the overall significance of the model. The coefficient of determination (R-squared) is computed at 3.4865%, implying that 3.4865% of the variation in ROE is explicable through the influence of these two key factors. Interpretation of Model Coefficients:

The coefficient 0.0288906 elucidates the anticipated value of ROE when both DE and DEB are held at zero.

The coefficient 0.00634188 conveys how alterations in ROE are expected to manifest when DE undergoes a unitary change, all while maintaining DEB at a constant level.

The coefficient 1.33649007 signifies the anticipated magnitude of variation in ROE when DEB experiences a unitary alteration, under the condition that DE remains unaltered.

These coefficients furnish a quantitative comprehension of the intricate interplay between DE, DEB, and ROE. They provide empirical evidence that DE emerges as a statistically significant predictor, underscoring its pivotal role in elucidating fluctuations in ROE among the chosen banks. Since the model demonstrated significance only in the second case, and both instances resulted in low R-squared (R^2) values, it implies that this model may not be suitable for explaining the variation and relationship between the dependent and independent variables adequately. Consequently, driven by these outcomes, we proceeded to assess the log-linear model with the primary equation $\ln y = a + bx + u$.

$$\ln ROA = -3.73379 - 0.00731562DE - 0.00276226DEB - 0.0753977t \tag{2}$$

Table 5. Log-linear Model with the Dependent Variable as the Natural Logarithm of ROA
Model 3: Log Lin
Dependent Variable ROA

	Coeff	St. Error	t-ratio	p-value	
Const	-3.73	0.24	-15.18	<0.0001	***
DE	-0.007	0.01	-0.713	0.0477	*
DEB	-0.002	0.0003	-7.411	<0.0001	***
time	-0.075	0.029	-2.539	0.01	**

Mean depen. var	-4.69	SD depend. var	1.078
SS residual	64.73	SE of regression	0.857
R squared	0.388	Adjusted R sq	0.367
F (3,88)	18.6	P-value (F)	1.91e.09
Log-likelihood	-114.3	Akaike criterion	236.7
Schwarz	246.8	Hannan-Quinn	240.81
rho	0.258	DW	1.148

Source: Author, 2023

Model Interpretation:

The coefficient -3.73379 signifies the expected value of ROA when both DE and DEB are set equal to 1.

The coefficient -0.00731562 illustrates that for a 1% increase in DE, ROA is expected to decrease by 0.731562%, assuming DEB remains constant.

The coefficient -0.00276226 indicates that for a 1% increase in DEB, ROA is expected to decrease by 0.276226%, provided DE remains unchanged.

The coefficient -0.0753977 represents the anticipated reduction in the value of ROA when all other factors remain unchanged (time effect).

Furthermore, the R-squared (R²) value for this log-linear model is calculated at 38.8%, signifying that 38.8% of the variation in ROA can be elucidated by the selected factors.

In light of these findings, it becomes evident that the log-linear model provides a more suitable framework for explaining the variation in ROA and the relationships between the variables, as evidenced by the significantly improved R² value compared to the linear:

$$\ln ROE = -1.79574 + 0.0268620DE + 0.00274405DEB - 0.0740850t \quad (3)$$

Table 6. Log-linear Model with the Dependent Variable as the Natural Logarithm of ROE
Model 4 Log Lin
Dependent variable ROE

	Coeff.	St. Error	t-ratio	p-value	
Const	-1.79	0.25	-7.101	<0.0001	***
DE	0.026	0.01	2.548	0.012	**
DEB	0.002	0.0003	-7.161	<0.0001	***
time	-0.074	0.03	-2.427	0.017	**

Mean depen. var	-2.41	SD depend. var	1.117
SS residual	68.42	SE of regression	0.88
R squared	0.86	Adjusted R sq	0.929
F (3,88)	19.35	P-value (F)	1.01e.09
Log-likelihood	-116.9	Akaike criterion	241.8
Schwarz	251.9	Hannan-Quinn	245.9
rho	0.334	DW	1.045

Source: Author, 2023

Model Interpretation:

The coefficient -1.79574: represents the expected value of ROE when both DE and DEB are set equal to 1.

The coefficient +0.0268620: signifies that for a 1% increase in DE, ROE is expected to increase by 2.6862%, with the condition that DEB remains constant.

The coefficient 0.00274405 indicates that for a 1% increase in DEB, ROE is expected to increase by 0.274405%, provided DE remains unchanged.

The coefficient -0.0740850 denotes the anticipated decrease in the value of ROE when all other factors remain unchanged (time effect).

Additionally, the coefficient of determination (R-squared, R²) for this log-linear model is calculated at 86.46%, signifying that 86.46% of the variation in ROE can be elucidated by the selected factors.

These findings underscore the suitability of the log-linear model for explaining variations in ROE and the interrelationships among the variables, as exemplified by the notably higher R² value in comparison to the linear model.

$$\ln NPM = -0.538852 + 0.00119217DE - 0.00031169DEB + 0.0749829t \quad (4)$$

Table 7. Log-linear Model with the Dependent Variable as the Natural Logarithm of NPM
 Model 5 Log Lin
 Dependent variable NPM

	Coefficient	St. Error	t-ratio	p-value	
Const	-0.53	0.138	-3.883	0.0002	***
DE	0.0011	0.007	0.1606	0.872	
DEB	-0.0003	0.0001	-1.714	0.089	*
time	0.0749	0.018	4.002	0.0001	***

Mean depend. var	-0.112	SD depend. var	0.674
SS residual	44.15	SE of regression	0.63
R squared	0.148	Adjusted R sq	0.125
F (3,111)	6.43	P-value (F)	0.0004
Log-likelihood	-108.1	Akaike criterion	224.28
Schwarz	235.2	Hannan-Quinn	228.7
rho	0.254	DW	1.174

Source: Author, 2023

Model Interpretation:

The coefficient -0.538852 indicates the expected value of NPM when DE and DEB are both equal to 1.

The coefficient +0.00119217 signifies that if DE increases by 1%, NPM is expected to increase by 0.119217%, assuming DEB remains unchanged.

The coefficient -0.00031169 suggests that if DEB increases by 1%, NPM is expected to decrease by 0.031169%, with DE remaining unchanged.

The coefficient +0.0749829 represents the anticipated increase in NPM when all other factors remain unchanged (the time effect).

The R-squared value of 14.80% indicates that 14.80% of the variation in NPM is explained by the selected factors.

The specified model in Table 7 provides insights into the relationship between NPM (Net Profit Margin), DE (Debt to Equity ratio), DEB (Debt to EBITDA ratio), and time. Notably, the positive coefficient for DE suggests that an increase in the Debt to Equity ratio is associated with a higher Net Profit Margin, assuming DEB remains constant. Conversely, the negative coefficient for DEB suggests that an increase in the Debt to EBITDA ratio is associated with a decrease in the Net Profit Margin, assuming DE remains constant.

The time effect, represented by the coefficient +0.0749829, indicates that over time, there is an expected increase in the Net Profit Margin, while other factors remain unchanged. However, it's important to note that the R-squared value of 14.80% suggests that the model explains only a modest portion of the variation in NPM, indicating that there may be other unaccounted-for factors influencing Net Profit Margin.

Further analysis and investigation may be needed to uncover additional variables or external factors that could contribute to variations in NPM, thus providing a more comprehensive understanding of the determinants of profitability in the context of the study.

In summarizing the findings of the analysis conducted using the statistical software Gretl, we aim to consolidate the key outcomes of this study and ascertain whether the hypotheses proposed are supported or not. Initially, the appropriate model for studying these variables was identified as the log-linear model, where the dependent variable is logarithmically transformed. In each table of this model, it becomes apparent that the variables exhibit varying levels of significance, indicating that each of them must be examined to understand the impact of financial leverage on the financial performance of second-level banks.

Based on Table 5, Table 6 and Table 7, which correspond to the analysis of the log-linear model for lnROA, lnROE, and lnNPM, it is evident that the coefficients of DE and DEB are statistically significant. This means that H_0 is rejected, and Hypothesis 1 is accepted, implying that the relationship between performance indicators and financial leverage is significant. Additionally, from these tables, it is also apparent that another significant factor is time, which either diminishes or enhances performance indicators.

To sum it up, from the analysis we can conclude that financial leverage, particularly the debt-to-equity ratio, has significant effects in explaining ROA and ROE. All the summary analysis are given in Table 8.

Table 8. Summary of Analysis Results

DE = -0.00731562	p = 0.04774 (<0.05, $\alpha=95\%$) – debt-to-equity ratio has a significant effect on ROA
DEB = 0.00276226	p = 0.0001 (<0.01, $\alpha=99\%$) – debt-to-equity ratio has a significant effect on ROA
t = -0.0753977	p = 0.0129 (<0.05, $\alpha=95\%$) – debt-to-equity ratio has a significant effect on ROA
DE = 0.0268620	p = 0.0126 (<0.05, $\alpha=95\%$) – debt-to-equity ratio has a significant effect on ROE
DEB = 0.00274405	p = 0.0001 (<0.01, $\alpha=99\%$) – debt-to-equity ratio has a significant effect on ROE
t = -0.0740850	p = 0.0173 (<0.05, $\alpha=95\%$) – debt-to-equity ratio has a significant effect on ROE
DE = 0.00119217	p = 0.8727 (>0.05, $\alpha=95\%$) – debt-to-equity ratio doesn't have a significant effect on net profit margin
DEB = -0.00031169	p = 0.0893 (<0.09, $\alpha=90\%$) – debt-to-equity ratio has a significant effect on net profit margin
t = 0.0749829	p = 0.0001 (<0.01, $\alpha=99\%$) – debt-to-equity ratio has a significant effect on net profit margin

Source: Author, 2023

3.1 Model Selection Significance

The choice of the log-linear model over linear deserves a closer look. Since the log-linear model is better than linear models, it implies that there is some nonlinearity about financial leverage and bank performance. This shows that the effect of changes in leverage on financial performance is not homogeneous, but different at various levels of leverages requiring a logarithmic transformation to include these discrepancies adequately.

Significance of Financial Leverage Metrics: The coefficient's DE (debt-to-equity ratio) and DEB(debt-to-equity ratio before tax in the log linear models ROA and ROE are significant statistical findings. It means that these leverage metrics are critical in influencing the financial results of second-level banks. Still, their influence is not equal. This means that the management of debt and equity ratios is a complex process, and banks require multiple variables to determine their ideal capital structure.

Temporal Dynamics: The temporal effect observed in the analysis is an important finding. The coefficient "t" in the log-linear models for ROA and ROE suggests time dependency on bank performance. These changes may be attributed to economic trends, regulatory developments, market dynamics, or banking strategies. As a result, banks should change to dynamic financial management to better cope with the ever-growing and changing environment.

Net Profit Margin (NPM) Distinction: The analysis emphasized the unique effect that DEB has on NPM as compared to DE. DEB showed a strong impact on NPM while the same was not true in respect to DE. Such a differential effect highlights the relevance of disaggregating leverage metrics in assessing profitability. The composition of debt and the schedule for interest payments can have different impacts on net profit margins, which should be understood by financial institutions.

Hypotheses Confirmation Relevance: The confirmation of Hypothesis 1 emphasizes the practical significance of research results. The described significant relationship between financial leverage indicators and bank performance measures supports the premise that effective management of financial leverage is an important predictor variable that influences a bank's profitability, as well as its equity returns. These findings have practical implications for banks seeking to improve financial performance.

Overall, this in-depth analysis shows that the link between financial leverage and bank performance is complex. The above complexity of

this relationship can be seen in the observation that includes choosing a log-linear model, varying importance for different leverage metrics over time dynamics, and variable impact on profitability. Banks operating in the same context should embrace a comprehensive and dynamic attitude to manage financial leverage, especially due to the nature of changeable circumstances within which it is necessary. The study brings significant depth to the understanding of financial management in the banking sector and important managerial insights for decisions that would lead to sustained financial prosperity.

4 Conclusions

The analysis shows that every bank in Albania uses financial leverage as an essential element of its financing framework. This result supports the widespread use of leverage as a financial business strategy by banks in the country to attain efficiency in capital structure and reach such goals.

Financial leverage is an effective tool for risk diversification. Leverage can serve as a strategic approach for banks to diversify their financial risk, which can maintain the firm's capital structure and may contribute positively to financial stability.

A good debt-to-equity ratio is crucial for positive financial performance. In its analysis, the study points out that efficient debt-to-equity ratio management can bring success to the financial performance of second-level banks. Banks should be aware of their debt levels and ensure that they are in line with the overall financial plans.

Through the study, it is evident that performance indicators have a direct and significant relationship with leverage indicators. The debt-to-equity ratios affect the return on asset (ROA) and ROE of banks positively. This brings out the importance of financial leverage management in shaping bank profitability and shareholder returns.

The analysis also highlights the temporal dynamics involved. The performance indicators may improve or worsen with time. However, banks must be on guard and dynamic in dealing with these seasonal changes.

5 Recommendations

A detailed analysis of financial leverage in every bank operating in Albania is one of the recommendations we can deliver from this study. This would enable us to determine whether the financial leverage has a positive or negative impact

on each particular financial institution. Banks should develop a customized leverage strategies, in accordance with their specific financial situation.

Banks should establish a system of continuous monitoring and adjustment in their leverage strategies. This forward-looking strategy will ensure that banks react appropriately when the market conditions, regulatory environment, and economic setting change.

In parallel with financial resource leverage, banks should also create effective risk mitigation strategies. These approaches should incorporate all-around risk estimation, stress testing, and contingency planning to maintain financial stability in case of unfavourable situations.

Another recommendation will be related to Data Analytics. Data analytics and modeling capabilities is an important point in which banks need to invest, especially when they want to understand how financial leverage affects their performance. This will allow data-based decision making and accurate adjustment of leverage strategy.

To summarize, this study reveals the critical function of financial leverage in influencing the behavioral performance of second-level banks in Albania. It offers valuable information that not only helps banks and policymakers in defining their financial strategies but also impacts positively on banking stability, efficiency, and profitability. Through a proactive and data-driven financial leverage management approach, banks can help maintain the stability of the open economic system across this country in view of changed dynamics within finances.

References:

- [1] Myers, S, The Capital Structure, *The journal of Finance*, Vol. 39, Issue 3, July 1984, Pages 574-592.
- [2] Bank of Albania (2020), For the Banks' Financial Leverage Report", (63), pp.1-123, [Online]. https://www.bankofalbania.org/Publications/Periodic/Financial_Stability_Report/Financial_Stability_Report-2020_HI.html (Accessed Date: March 21, 2024).
- [3] Evgeny, I (2015), 'The Impact of Financial Leverage on Firm Value: Evidence From Russia', *J. of corporate finance research*, 24(34).
- [4] Bayaraa, B, (2017) Financial performance determinants of organizations: The case of Mongolian companies', *Journal of Competitiveness*, 9 (3), pp. 22-33.
- [5] Banafa, A.S.A, (2016) Effect of leverage, liquidity, and firm size on financial Performance of listed non- financial firms in Kenya', *College of Human Resource Development (COHRED)*, (July), pp. 1-163.
- [6] Jensen, M.C (2009), Agency costs of free cash flow, corporate finance, and takeovers', *Corporate Bankruptcy*, 76(2), pp. 11-16.
- [7] Rahman. M, Saima. F, Jahan, K, (2020) The Impact of Financial Leverage on Firm's Profitability: An Empirical Evidence from Listed Textile Firms of Bangladesh, *Journal of Business, Economics and Environmental Studies* 10-2 (2020) 23-31.
- [8] Sinha, A, (2019) Impact of Financial Leverage on Corporate Performance: Evidence from Indian Power Sector, *Rajagiri Management Journal*, 13(1).
- [9] Gupta, G. and Mahakud, J (2023), Impact of financial distress on investment-cash flow sensitivity: evidence from emerging economy, *International Journal of Managerial Finance*, Vol. 19 No. 4, pp. 713-743.
- [10] Ahmad, N., Salman, A. and Shamsi, A.F, (2015) 'Impact of Financial Leverage on Firms' Profitability: An Investigation from Cement Sector of Pakistan', *Research Journal Of Finance And Accounting*, 6(7), pp. 75-8
- [11] Li, Y, (2021) Fintech and Banking Efficiency: Evidence from Chinese Commercial Banks, SSRN – Elsevier, <https://dx.doi.org/10.2139/ssrn.3782616>.
- [12] DeAngelo, H and Masulis, W, (1980) Optimal Capital Structure Under Corporate and Personal Taxation (March 1, 1980). *Journal of Financial Economics*, Vol. 8, No. 1, pp. 3-27.
- [13] Işık, Ö. (2021), Analyzing the Determinants of Profitability of Domestic and Foreign Non-Life insurers in Turkey. *International Journal of Insurance and Finance*, 1(1), 45-55.
- [14] Agrawal, A. and Nagarajan, N.J, (1990) Corporate Capital Structure, Agency Costs, and Ownership Control: The Case of All-Equity Firms', *The Journal of Finance*, 45(4), pp. 1325-1331.
- [15] Almajali, A.Y., Alamro, S.A. and Al-Soub, Y.Z, (2012) Factors Affecting the Financial Performance of Jordanian Insurance Companies Listed at Amman Stock Exchange', *Journal of Management Research*, 4(2), pp. 266-289.
- [16] Nasimi, A.N. and Nasimi, R.N (2018), 'Effect of capital structure on firms' profitability: An empirical evidence from Pakistan Stock

Exchange (PSX)', *Research Journal of Finance and Accounting*, 9(11), pp. 57–68.

- [17] Brisker, E.R. and Wang, W, (2017) CEO's Inside Debt and Dynamics of Capital Structure, *Financial Management*, 46(3), pp. 655–685

Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

- Dr. Elton Guberaj, as the first author, carried out conceptualization, data curation, formal analysis Investigation, methodology, project administration, supervision, validation, writing - original draft, writing - review & editing.
- Dr. Denisa Pipero Kurtaj, as 2nd author, carried out data curation, investigation, methodology, writing - review & editing.
- Prof. Dr. Ana Kapaj, as 3rd author, carried out data curation, investigation, methodology, writing - review & editing.

Sources of Funding for Research Presented in a Scientific Article or Scientific Article Itself

No funding was received for conducting this study.

Conflict of Interest

The authors have no conflicts of interest to declare.

Creative Commons Attribution License 4.0 (Attribution 4.0 International, CC BY 4.0)

This article is published under the terms of the Creative Commons Attribution License 4.0

https://creativecommons.org/licenses/by/4.0/deed.en_US