# MARKET CONCENTRATION, ASSET ALLOCATION IN BANKING: IMPLICATIONS FOR FINANCIAL STABILITY AND COMPETITIVE DYNAMICS

#### Ada Aliaj, Ikbale Tota, Olta Nexhipi

University "Aleksandër Moisiu"

Abstract. This study examines the relationship between market concentration and asset allocation in the banking sector, with a particular focus on the Albanian banking industry. Using the Herfindahl-Hirschman Index (HHI) as a measure of market concentration, we analyze how banks allocate their assets between traditional lending and investments in government securities. The findings indicate a growing preference for risk-averse investment strategies, particularly among large banks, which raises concerns about the decline in credit intermediation and its implications for profitability, systemic stability, and economic growth. The study also highlights the risks associated with excessive investment in sovereign debt, including interest rate risk, sovereign-bank nexus vulnerabilities, and reduced net interest margins (NIMs). The empirical analysis, based on HHI calculations for the Albanian banking sector, suggests that despite moderate market concentration, a small number of banks hold a dominant share of assets, deposits, and government debt financing, leading to potential systemic risks. The findings underscore the need for balanced asset allocation strategies, enhanced risk management frameworks, and regulatory incentives to promote sustainable lending practices. This research contributes to the ongoing discourse on banking sector competitiveness, financial stability, offering policy recommendations to ensure banks maintain their core function as credit intermediaries while navigating regulatory and market challenges.

**Keywords:** market concentration, Herfindahl-Hirschman index (HHI), asset allocation, banking sector, financial stability, systemic risk, risk management

#### Introduction

The banking sector plays a fundamental role in financial intermediation, facilitating economic growth by channeling funds from savers to borrowers. However, recent trends indicate a structural shift in asset allocation among commercial banks, with an increasing preference for investments in government securities over traditional lending activities. This shift has raised concerns regarding banks' ability to fulfill their primary function of credit provision while also affecting their profitability and systemic stability. A crucial aspect of this discussion is the market concentration within the banking industry, as measured by the Herfindahl-Hirschman Index (HHI). The degree of concentration influences competitive dynamics, financial stability, and banks' operational strategies, including asset allocation and risk management. As large banks gain a dominant share of the market, their investment strategies become critical in determining systemic financial health. Highly concentrated banking markets may encourage risk-averse behavior, leading banks to favor government securities over loans, thereby reducing competitive pressures and limiting credit accessibility. This study explores the intersection of market concentration and asset allocation within the banking sector, particularly focusing on the Albanian banking industry. Using the Herfindahl-Hirschman Index (HHI) as a measure of market concentration, we analyze the implications of shifting asset compositions, evaluating how banks distribute resources between lending and investments. Furthermore, we assess how these decisions influence risk management strategies and systemic stability. The research is structured as follows:

- Section 2 provides a literature review on market concentration, asset allocation, and risk management in banking.
- Section 3 presents a data-driven analysis of market concentration in the Albanian banking industry, focusing on the evolution of asset allocation among major banks. The empirical data presented in the tables throughout this study are based on publicly available information retrieved from the Bank of Albania and the audited financial statements of commercial banks operating in Albania. The indicators and graphs have been computed and organized by the author for this research.
- Section 4 discusses key findings, highlighting the broader implications for financial stability, competition, and policy considerations.
- Section 5 concludes with strategic recommendations for optimizing asset allocation to support sustainable banking operations.

By examining these factors, this research contributes to the broader discourse on how **concentrated banking markets affect financial intermediation and risk management strategies**. The findings offer valuable insights for policymakers, banking executives, and financial analysts seeking to balance market efficiency with systemic stability in an evolving financial landscape.

#### Literature review

#### Market Concentration and the Herfindahl-Hirschman Index (HHI)

The Herfindahl-Hirschman Index (HHI) remains a central tool for assessing market concentration within the banking sector, providing regulators and researchers with insights into competitive dynamics (Bikker, 2004). Beyond its academic relevance, Cetorelli (1999) describes its statutory role in U.S. antitrust banking policy, ensuring post-merger concentration levels do not inhibit market competition. Further studies, including Wheelock and Wilson (2012) and Vives (2016), have reinforced the connection between concentration, competition, and financial stability, pointing out that high market concentration may reduce competitive pressures, thus potentially impacting operational efficiency.

#### **Asset Allocation and Risk Management**

Building upon Markowitz (1952) and Adam (2008), banks continuously optimize their asset and liability structures within risk-adjusted frameworks, considering regulatory limits and economic conditions. Recent works by Farhi and Tirole (2018) emphasize that dynamic market conditions necessitate strategic adjustments in capital allocation to support complex financial operations. Research shows that banks' asset strategies directly impact financial stability as more diversified or complex portfolios demand specialized risk management. According to Tu (2024), banks with greater market share allocate proportionally more resources to risk management frameworks, recognizing that robust financial oversight not only underpins profitable investment strategies but also fortifies regulatory compliance. Empirical analysis demonstrates that banks with dedicated, independent risk management units—as opposed to segmented, ad-hoc structures—consistently operate more efficiently and effectively. In fact, institutions that optimally share common resources across departments, including risk, credit, and investment, attain higher overall efficiency scores—highlighting that stronger risk oversight correlates with better performance among market-leading banks. Moreover, market leaders tend to centralize decision-making within specialized divisions, aligning strategies with complex asset management needs. The allocation of financial resources becomes a strategic priority as banks scale, focusing on advanced financial modeling and crisis management capabilities (Hoskisson, 1993; Guo, 2024).

#### **Liquidity Provision and Systemic Stability**

As highlighted by Wagner (2007) and Acharya et al. (2011), liquidity management plays a vital role during systemic crises, with banks strategically retaining liquidity to profit from fire sales. Larger banks with significant market share often structure their financial resources to support such liquidity strategies, building dedicated treasury teams and stress-testing units that prepare for crisis scenarios. Allen et al. (2008) demonstrate how, during the COVID-19 crisis, banks with robust internal liquidity management frameworks outperformed their peers by responding faster to market disruptions. According to Baron (2023), large banks—especially those among the top five by asset size—regularly acquire distressed competitors during crises, relying on their substantial liquid asset holdings and capital issuance capacity to act ahead of regulators. Further, models show that financially robust firms, even absent operational synergies, are more capable of acquiring distressed peers because they control liquid assets—underscoring that prepositioned liquidity and crisis-capable capital structures enable swift, strategic execution. Almeida (2011).

#### Market Share and Strategic Allocation in Banking

Market share influences not only competitive dynamics but also the strategic allocation of financial resources within banks. Larger banks with extensive market shares benefit from economies of scale that allow for expanded investments in risk and compliance teams. Koutsomanoli-Filippaki (2009) finds that larger banks dedicate higher proportions of their budgets to compliance teams and innovation units. These resources are essential for managing increasingly sophisticated product lines and satisfying more stringent regulatory requirements tied to their dominant market positions. Moreover, Correa (2022) highlights that institutions with dominant market share tend to evolve into complex organizational structures, which demand refined strategic practices such as cross-departmental coordination, leadership development, and integrated global financial management. Research shows that increased bank complexity—measured by diverse business lines and geographic presence—can lower liquidity and idiosyncratic risk, but only when supported by strong governance frameworks.

#### **Synthesis and Implications**

The expanded literature underscores the interplay between market share, financial resource allocation, and systemic stability. Larger banks not only face heightened expectations in risk and liquidity management but also must strategically allocate financial resources to sustain competitive advantages and regulatory compliance. The allocation of financial resources, particularly in risk, compliance, and treasury functions, becomes an essential response to the demands of operating at scale in a concentrated market. As financial systems evolve, regulators and scholars increasingly emphasize the need for frameworks that address the organizational challenges posed by market concentration. Future research and policy should further investigate how financial management strategies can be optimized to support both institutional objectives and broader systemic stability, particularly in an era of technological disruption and regulatory tightening.

#### **Data Analysis**

To assess the concentration of the banking market in Albania, we have relied on the **Herfindahl-Hirschman Index (HHI)**. We have analyzed this index for **deposits**, **assets**, and **loans** over 10 years. For the entire banking industry, the HHI for total assets has fluctuated between **0.14–0.16**, for deposits between **0.14–0.15**, and for loans between **0.12–0.13**. Based on these indicators, we can say that the banking market in Albania does **not exhibit a high concentration**. However, what stands out is that in a market with **12 competing banks**, only **4 of them hold 70% of the total market assets**, **70% of the total deposits** in the banking system, and **65% of the total loans** in the banking system. Furthermore, even in the analysis of the **budget deficit structure**, these same four banks finance **74% of the government's debt monetization**, which indicates a **high dependency of the government** and a concentration of **sovereign risk**. In other words, if any of these banks were to refuse to finance the government, this would create a **significant impact** and **high moral hazard**, leading to a **systemic risk** that could extend to the control over government behavior and the institutions dependent on it. This compels us to **re-evaluate and weigh**, under Albania's specific conditions, the **determinant of financial support** that the government might provide to banks, an element which all the big three **rating agencies** agree should be taken into consideration.

2014 **Indicator** 2012 2013 2015 2016 2017 2018 2019 2020 2021 HHI (assets) 0.15 0.14 0.14 0.15 0.15 0.15 0.16 0.15 0.15 0.14 HHI (deposits) 0.15 0.14 0.14 0.15 0.14 0.15 0.15 0.15 0.15 0.15  $0.1\overline{3}$  $0.1\overline{2}$ HHI (loans) 0.12 0.12 0.12 0.12 0.13 0.13 0.12 0.12

Table 1. HHI Indicator

Source: Bank of Albania

#### Government Support and Structural Constraints in the Albanian Banking Sector

The capacity of the Albanian government to provide effective financial support to the banking sector is constrained by structural limitations, raising significant concerns regarding the credibility and scope of such interventions. Empirical observations indicate that government support is disproportionately concentrated on a small subset of banks, particularly the four largest institutions, which collectively finance approximately **74% of the government's debt requirements**. This concentration suggests a high degree of **sovereign risk dependency** (Demirgüç-Kunt and Huizinga, 2010) and raises the question of whether other banks operating outside this dominant group can reasonably expect any form of government assistance in times of financial distress (Laeven and Valencia, 2018). Furthermore, even within this dominant group, the Albanian government faces inherent fiscal limitations. The state's persistent **budget deficits** and elevated **public debt levels** reduce its ability to mobilize sufficient resources for direct intervention, making any substantial support contingent upon external financial institutions, such as the **International Monetary Fund (IMF)** (Honohan and Klingebiel, 2003; IMF, 2021). The constraints on government support can be summarized as follows:

- 1. **Fiscal Constraints**: Albania's public finances are insufficiently robust to absorb the fiscal burden of large-scale bank rescues, particularly in a context of prolonged budgetary imbalance.
- 2. **Selective Intervention Risk**: There is a significant risk that government support could be biased towards banks with greater exposure to public debt, thereby creating preferential treatment and undermining competitive neutrality within the banking sector (Gropp et al., 2011).
- 3. **Moral Hazard**: Banks heavily engaged in sovereign financing may operate under the expectation of preferential treatment in crises, thereby increasing moral hazard and potentially encouraging riskier behavior (Acharya et al., 2014).

4. **Systemic Risk Concentration**: The concentration of sovereign financing within a few banks amplifies systemic risk. Should any of these institutions face solvency challenges, the government's inability to provide comprehensive support could trigger widespread instability (Farhi and Tirole, 2012).

Given these structural challenges, the criteria for determining public support in the Albanian banking sector may become politicized, with strategic government considerations overriding principles of systemic importance and financial stability. This highlights the need for strengthened regulatory frameworks and proactive risk mitigation to ensure that support mechanisms, when necessary, are transparent, equitable, and designed to safeguard the resilience of the entire banking system.

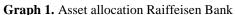
#### Analysis of asset allocation

Commercial banks play a fundamental role in financial intermediation by **mobilizing deposits and allocating credit** to various economic sectors. The efficiency and strategic positioning of a bank are reflected in the composition of its assets, which typically include **loans, investments, and liquid reserves**. Understanding the evolution of asset composition provides insight into a bank's risk appetite, business strategy, and response to regulatory and market conditions. An analysis of **Raiffeisen Bank** over the past decade reveals a significant shift in asset allocation. As illustrated in **Graph 1**, the bank has progressively increased the share of loans in its total assets, while the proportion of investments has declined. This shift indicates a **strategic realignment towards core banking activities**, emphasizing credit expansion as a primary driver of revenue generation. During the period **2009–2012**, Raiffeisen Bank's asset portfolio was more heavily weighted towards investments, reflecting a **conservative approach** possibly influenced by post-financial crisis uncertainties and heightened risk aversion in global markets (Claessens and Kose, 2013). However, in the past decade, the bank has **reversed this trend**, aligning itself with a more traditional commercial banking model focused on lending. This transformation suggests that Raiffeisen Bank has:

- 1. Adapted to market conditions: A stronger lending portfolio indicates confidence in economic growth, borrower creditworthiness, and stable interest rate environments (Brei and Schclarek, 2018).
- 2. **Responded to regulatory frameworks**: Basel III capital requirements encourage banks to optimize risk-weighted assets, leading to a more **efficient allocation of capital between loans and investments** (BIS, 2019).
- 3. **Enhanced profitability strategies**: Loans typically provide higher returns than investments in sovereign bonds or other low-yield securities, making lending a more attractive revenue source (Gambacorta and Shin, 2018).
- 4. **Strengthened its competitive position**: A focus on lending aligns Raiffeisen Bank with industry trends, particularly in emerging economies where credit demand from businesses and consumers continues to grow (Beck. 2020).

The reallocation of assets towards lending suggests that Raiffeisen Bank is prioritizing its **intermediation role**, reinforcing its commitment to credit expansion as a driver of **economic development**.







**Graph 2.** Asset allocation BKT Bank

In comparison to Raiffeisen Bank, BKT (Graph 2) exhibits a higher proportion of investments relative to total assets compared to the proportion of loans to total assets. In 2013, the share of investments in total assets stood at 43%, while loans accounted for 33%. Between 2013 and 2018, there was a decline in both the share of loans and investments relative to total assets. The bank's investments were primarily allocated to treasury bonds and government-issued securities, effectively financing public debt while pursuing risk-free holdings (RF). However, this investment strategy, favoring securities over lending, negatively impacts the bank's profitability, as interest income from loans significantly exceeds that from bonds and treasury securities. This policy also affects shareholders, whose goal of wealth maximization is undermined due to the bank's strategic direction. Consequently, the bank's net interest margin declines, leading to a reduction in

deposit interest rates. Notably, BKT has substantially lowered deposit interest rates compared to its competitors, reflecting its dominant market position. Depositors are directly impacted, as the declining interest rates result in reduced purchasing power upon deposit maturity. These trends indicate inefficient asset management and a deviation from the primary function of a commercial bank.

Over the past decade, the asset composition of Alpha Bank (Graph 3) has undergone significant changes, reflecting both internal strategic adjustments and external macroeconomic conditions. While the proportion of investments relative to total assets has not surpassed that of loans, it has increased considerably, indicating a shift in the bank's risk appetite and portfolio management approach. In 2013, loans accounted for 42% of total assets, while investments comprised 18%. By 2018, these figures had shifted to 46% and 13%, respectively, and in 2021, they stood at 45% and 28%. A key factor contributing to this shift is the bank's persistently high level of non-performing loans (NPLs). Alpha Bank has recorded the highest NPL ratio among its peers, reflecting challenges in loan recovery, borrower defaults, and the overall credit quality of its portfolio. The period from 2013 to 2018 was particularly challenging, with the bank reporting financial losses, likely exacerbated by provisioning for bad loans, write-offs, and deteriorating asset quality. The elevated NPL ratio may have prompted the bank to adopt a more conservative lending strategy, tightening credit standards and reducing exposure to high-risk borrowers. Additionally, Alpha Bank's asset composition shift aligns with broader industry trends, where banks facing asset quality deterioration often seek refuge in investment securities to mitigate risk and stabilize earnings. However, this shift raises concerns about the bank's long-term profitability and ability to fulfill its primary function as a lending institution. While investments in government bonds provide risk-free returns, they typically yield lower interest income compared to loans, potentially constraining net interest margins and shareholder returns. Furthermore, the impact of regulatory changes cannot be overlooked. Post-crisis banking regulations have necessitated stricter capital adequacy requirements and loan classification standards, pressuring banks like Alpha to reassess their credit portfolios. The increasing preference for investments over loans may also be a strategic response to Basel III liquidity requirements, which encourage banks to maintain high-quality liquid assets. Looking ahead, Alpha Bank's ability to rebalance its asset composition will be critical to its financial health and competitive position. While investments in low-risk securities provide short-term stability, the bank must find a sustainable approach to improving credit quality, reducing NPLs, and gradually expanding its lending portfolio. A renewed focus on risk-adjusted lending practices, alongside effective loan recovery strategies, could enable Alpha Bank to restore profitability while maintaining financial stability.



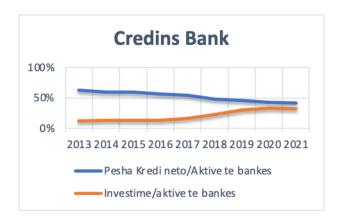


**Graph 3.** Asset allocation Alpha Bank

Graph 4. Asset allocation Pro Credit Bank

ProCredit Bank (Graph 4) has maintained a stable loan-to-total-assets ratio, reflecting its commitment to responsible lending and financial sustainability. Unlike many banks increasing investments in government securities, ProCredit prioritizes loan issuance, ensuring its core function as a commercial lender remains intact. Its asset allocation strategy balances risk and returns, favoring high-quality, low-risk securities primarily as a liquidity buffer under Basel III requirements. Effective asset-liability management and strong risk-adjusted lending practices have helped maintain low non-performing loan (NPL) ratios, setting ProCredit apart from competitors. By limiting exposure to domestic government securities, the bank reduces sovereign risk and enhances financial resilience. This approach supports a higher net interest margin (NIM) and sustainable revenue generation while effectively managing liquidity risks. Moving forward, ProCredit Bank's strategic balance between lending and liquidity management will be key to maintaining profitability, stability, and regulatory compliance, reinforcing its position as a well-managed financial institution focused on long-term value creation.

Over the past decade, Credins Bank (Graph 5) has significantly shifted its asset composition in response to economic conditions, regulatory pressures, and risk management priorities. In 2013, net loans comprised 63% of total assets, while investments stood at 12%. By 2021, this balance shifted, with loans dropping to 42% and investments rising to 32%, reflecting a strategic realignment with operational and financial implications. The decline in lending stems from stricter credit risk policies and macroeconomic uncertainties, leading to a preference for lower-risk assets such as government securities. This shift aligns with Basel III liquidity requirements and a broader risk-averse strategy. While increasing investments enhances liquidity and reduces credit risk, it also lowers net interest margins (NIM), potentially impacting profitability. A continued focus on investments over lending could weaken the bank's commercial role, limiting credit access and slowing economic growth. Over-reliance on investment securities exposes the bank to interest rate risk and may reduce its competitive standing. Banks that maintain strong lending portfolios while managing risk may capture a larger market share, further challenging Credins Bank's profitability. To balance risk and growth, the bank should strengthen credit risk management, diversify lending, and enhance loan recovery mechanisms. Exploring fintech collaborations and digital banking could improve efficiency and expand the customer base. While the investment shift has provided short-term stability, prioritizing sustainable lending practices is crucial for long-term profitability and market competitiveness.





Graph 5. Asset allocation Credins Bank

Graph 6. Asset allocation Intesa San Paolo Bank

Intesa San Paolo Bank (Graph 6) has undergone a notable shift in its asset composition strategy between 2013 and 2021, reflecting broader trends in the banking sector, regulatory changes, and evolving risk management priorities. Initially, in 2013, the bank maintained a relatively balanced asset distribution, with loans accounting for 37% of total assets and investments comprising 33%. However, this equilibrium changed over time, with the share of loans steadily declining and investments increasing, reaching 27% and 38% in 2021, respectively. This strategic realignment raises important questions about the bank's long-term financial sustainability, its ability to generate profit, and its fundamental role as a commercial lender.

#### **Factors Driving the Shift in Asset Composition**

Several internal and external factors have likely contributed to this structural transformation in Intesa San Paolo's balance sheet. First, increasing regulatory pressures, particularly those associated with Basel III, have encouraged banks to maintain high-quality liquid assets (HQLA), such as government bonds, to meet liquidity coverage ratio (LCR) requirements. As a result, many banks—including Intesa San Paolo—have allocated a greater proportion of their assets to investments in sovereign debt rather than expanding their lending portfolios. Second, credit risk concerns, particularly regarding non-performing loans (NPLs), may have influenced the bank's cautious approach toward loan issuance. In the aftermath of economic downturns and financial instability, banks with a high exposure to delinquent borrowers often respond by tightening credit standards and reducing loan disbursements. If Intesa San Paolo has faced elevated levels of NPLs, the bank has likely chosen to limit its lending activities to safeguard its financial health. Additionally, the macroeconomic environment and interest rate dynamics play a crucial role in shaping asset allocation strategies. Periods of low interest rates tend to compress banks' net interest margins (NIMs), making lending less profitable compared to risk-free or low-risk investment alternatives, such as government bonds. Given this, the bank's growing preference for investments over loans suggests an attempt to stabilize earnings and ensure compliance with risk-adjusted return expectations.

#### **Consequences of a Declining Loan Share**

The steady decline in Intesa San Paolo's loan-to-assets ratio has significant implications for both the bank itself and the broader economy. The shift in Intesa San Paolo Bank's asset composition over the past decade

signals a strategic move toward risk aversion and regulatory compliance. However, this shift also raises concerns about the bank's diminishing role as a commercial lender, its profitability outlook, and its growing exposure to sovereign risk. While investments in government securities provide stability, an over-reliance on them may limit the bank's growth potential. To maintain its relevance in the banking sector and contribute meaningfully to economic development, Intesa San Paolo must recalibrate its asset allocation strategy, striking a balance between prudent investment management and responsible credit expansion.

The analysis indicates that banks with a higher proportion of investments—particularly those heavily allocated to government-issued securities—fail to fulfill their primary function of financial intermediation. The shift away from traditional lending activities toward passive investment strategies raises concerns about both the long-term sustainability of bank profitability and the broader economic implications of reduced credit availability. Institutions such as Raiffeisen, BKT, Intesa San Paolo, and, to a lesser extent, Alpha, have directed nearly all their investment portfolios toward treasury bonds and government-issued securities. While these instruments provide a stable and low-risk source of returns, their over-reliance reflects a fundamental shift in banks' operational strategies, moving away from credit creation and towards liquidity preservation.

## **Macroeconomic and Banking Sector Implications**

The substantial allocation of approximately 40% of total bank assets into government securities indicates a growing interdependence between the banking sector and public debt markets. This phenomenon, often referred to as the "sovereign-bank nexus," creates a scenario where banks become highly sensitive to the fiscal health of the domestic economy. In periods of economic stability, government securities offer secure, predictable returns. However, in times of fiscal distress, banks holding large volumes of government bonds may experience capital erosion due to rising sovereign risk, downgrades in credit ratings, and declining bond market valuations. From a macroeconomic perspective, banks play a crucial role in financial intermediation by directing surplus funds toward productive investments, such as business expansion, infrastructure development, and consumer lending. When banks prioritize government securities over traditional lending, economic growth potential is constrained. Limited access to credit can stifle entrepreneurial activity, slow job creation, and reduce household consumption—all of which are vital components of economic development.

### **Bank Profitability and Interest Margin Compression**

While government securities provide liquidity and regulatory compliance benefits, they yield significantly lower returns compared to traditional lending. A bank's net interest margin (NIM)—the difference between the interest earned on loans and the interest paid on deposits—is a key indicator of profitability. Banks that maintain a high proportion of investments in low-yielding government bonds risk experiencing margin compression, leading to lower earnings potential. Over time, this can impact their ability to reinvest in operational growth, technology upgrades, and competitive lending products.

Moreover, shareholder expectations regarding return on equity (ROE) are adversely affected by this conservative investment approach. Investors in banking institutions typically anticipate higher returns derived from active credit expansion. When banks increasingly allocate assets toward lower-yield investments, their profitability weakens, potentially leading to lower stock valuations and diminished investor confidence.

#### **Regulatory Considerations and Capital Adequacy**

Regulatory frameworks, particularly Basel III guidelines, emphasize capital adequacy and liquidity coverage ratios (LCR). While holding government bonds supports compliance with these regulations, excessive allocation to such assets may limit banks' ability to engage in risk-based lending. Additionally, regulatory stress testing scenarios often assess the resilience of banks under adverse macroeconomic conditions, including sovereign debt crises. A banking system overly reliant on domestic government bonds may exhibit systemic vulnerabilities, particularly if the sovereign experiences fiscal deterioration or rising borrowing costs.

#### Strategic Recommendations for Sustainable Asset Allocation

To ensure long-term financial stability and enhanced economic contribution, banks should seek a more balanced approach to asset allocation. Several strategic measures can be adopted:

- 1. **Diversification of Investment Portfolios:** Rather than concentrating investments solely on domestic government bonds, banks should explore diversified fixed-income instruments, including high-grade corporate bonds, supranational securities, and green bonds that align with sustainable finance initiatives.
- 2. **Enhancing Credit Risk Management:** Strengthening risk assessment frameworks can enable banks to extend credit to businesses and individuals with strong repayment capabilities, mitigating the perceived risk associated with lending.
- 3. **Innovative Lending Models:** Banks can leverage financial technology (fintech) solutions, such as datadriven credit scoring and digital lending platforms, to enhance loan origination processes and reach underserved market segments.

- 4. **Regulatory Incentives for Lending:** Policymakers and central banks may need to reconsider regulatory incentives that encourage prudent lending while ensuring financial stability. Adjustments to capital requirements and risk-weighted asset assessments can provide banks with greater flexibility in portfolio management.
- 5. **Market-Based Funding Strategies:** Reducing dependency on government securities requires a shift toward diversified funding sources, such as corporate lending, syndicated loans, and structured financial instruments that offer attractive risk-adjusted returns.

#### Conclusion

While banks' increasing investment in government securities provides short-term stability and liquidity benefits, it poses risks related to profitability, economic growth constraints, and systemic exposure to sovereign risk. A banking sector that fails to prioritize its lending function weakens the overall financial intermediation process, leading to economic stagnation and inefficient capital allocation. Going forward, a recalibrated approach that balances risk management with sustainable lending practices will be critical to ensuring that banks remain key drivers of economic progress rather than being passive.

#### References

- 1. Acharya, V. V., Shin, H. S., & Yorulmazer, T. (2011). Crisis resolution and bank liquidity. *The Review of Financial Studies*, 24(6), 2166–2205. https://doi.org/10.1093/rfs/hhq105
- 2. Adam, T. R. (2008). Bank asset and liability management: Strategy, trading, analysis. Wiley.
- 3. Allen, F., Carletti, E., & Gu, X. (2008). The roles of banks in financial systems. *The Oxford handbook of banking*, 3, 39–61. https://doi.org/10.1093/oxfordhb/9780199688500.013.0002
- 4. Almeida, H., Campello, M., & Hackbarth, D. (2011). Liquidity mergers. *Journal of Financial Economics*, 102(3), 526–558. https://doi.org/10.1016/j.jfineco.2011.08.002
- 5. Baron, M., Schularick, M., & Zimmermann, K. (2023). Survival of the biggest: Large banks and financial crises. https://dx.doi.org/10.2139/ssrn.4189014
- 6. Koutsomanoli-Filippaki, A., Margaritis, D., & Staikouras, C. (2009). Efficiency and productivity growth in the banking industry of Central and Eastern Europe. *Journal of Banking & Finance*, 33(3), 557–567. https://doi.org/10.1016/j.jbankfin.2008.09.009
- 7. Bikker, J. A. (2004). Competition and efficiency in a unified European banking market. Edward Elgar Publishing.
- 8. Cetorelli, N. (1999). Competitive analysis in banking: Appraisal of the methodologies. *Economic Perspectives*, 23(1), 2–15.
- 9. Correa, R., & Goldberg, L. S. (2022). Bank complexity, governance, and risk. *Journal of Banking & Finance*, 134, 106013. https://doi.org/10.1016/j.jbankfin.2020.106013
- 10. Farhi, E., & Tirole, J. (2018). Deadly embrace: Sovereign and financial balance sheets doom loops. *The Review of Economic Studies*, 85(3), 1781–1823. https://doi.org/10.1093/restud/rdx059
- 11. Guo, H., & Polak, P. (2024). Finance centralization—research on enterprise intelligence. *Humanities and Social Sciences Communications*, 11(1), 1–9. https://doi.org/10.1057/s41599-024-04098-8
- 12. Hoskisson, R. E., Hill, C. W., & Kim, H. (1993). The multidivisional structure: organizational fossil or source of value? *Journal of Management*, 19(2), 269–298. https://doi.org/10.1016/0149-2063(93)90055-R
- 13. Markowitz, H. (1952). Portfolio selection. The Journal of Finance, 7(1), 77-91. https://doi.org/10.2307/2975974
- 14. Tu, Y., Sheng, B., Tu, C. H., & Chiu, Y. H. (2024). Evaluating Bank Efficiency with Risk Management by Optimal Common Resource and Three-Parallel Two-Stage Dynamic DEA Model. *Computational Economics*, 1–27. https://doi.org/10.1007/s10614-024-10682-6
- 15. Vives, X. (2016). Competition and stability in banking: The role of competition policy and regulation. Princeton University Press.
- 16. Wagner, W. (2007). Aggregate liquidity shortages, idiosyncratic liquidity management, and banking regulation. *Journal of Financial Stability*, 3(1), 18–32. https://doi.org/10.1016/j.jfs.2007.01.001
- 17. Wheelock, D. C., & Wilson, P. W. (2012). Do large banks have lower costs? New estimates of returns to scale for U.S. banks. *Journal of Money, Credit and Banking*, 44(1), 171–199. https://www.jstor.org/stable/41336819
- 18. Acharya, V. V., Drechsler, I., & Schnabl, P. (2014). A pyrrhic victory? Bank bailouts and sovereign credit risk. *Journal of Finance*, 69(6), 2689–2739. https://doi.org/10.1111/jofi.12206
- 19. Demirgüç-Kunt, A., & Huizinga, H. (2010). Bank activity and funding strategies: The impact on risk and returns. *Journal of Financial Economics*, 98(3), 626–650. https://doi.org/10.1016/j.jfineco.2010.06.004
- 20. Farhi, E., & Tirole, J. (2012). Collective moral hazard, maturity mismatch, and systemic bailouts. *American Economic Review*, 102(1), 60–93. https://doi.org/10.1257/aer.102.1.60
- 21. Gropp, R., Gruendl, C., & Guettler, A. (2011). The impact of public guarantees on bank risk-taking: Evidence from a natural experiment. *Review of Finance*, 15(4), 703–737. https://doi.org/10.1093/rof/rft014

- 22. Honohan, P., & Klingebiel, D. (2003). The fiscal cost implications of an accommodating approach to banking crises. *Journal of Banking & Finance*, 27(8), 1539–1560. https://doi.org/10.1016/S0378-4266(02)00276-5
- 23. IMF. (2021). *Albania: 2021 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Albania*. International Monetary Fund.
- 24. Laeven, L., & Valencia, F. (2018). Systemic banking crises revisited. IMF Working Paper.

# RINKOS KONCENTRACIJA IR TURTO PASKIRSTYMAS BANKININKYSTĖJE: PASEKMĖS FINANSINIAM STABILUMUI IR KONKURENCINEI DINAMIKAI

#### Santrauka

Šiame tyrime nagrinėjamas ryšys tarp rinkos koncentracijos ir turto alokacijos bankų sektoriuje, ypatingą dėmesį skiriant Albanijos bankų pramonei. Naudojant Herfindahlio-Hirschmano indeksą (HHI) kaip rinkos koncentracijos matą, analizuojama, kaip bankai paskirsto savo turtą tarp tradicinio skolinimo ir investicijų į valstybės vertybinius popierius. Tyrimo rezultatai rodo augančią rizikos vengiančių investavimo strategijų tendenciją, ypač tarp didelių bankų, o tai kelia susirūpinimą dėl kredito tarpininkavimo mažėjimo ir jo poveikio pelningumui, sisteminiam stabilumui bei ekonomikos augimui. Taip pat pabrėžiamos rizikos, susijusios su per didelėmis investicijomis į valstybės skolas – palūkanų normos rizika, bankų ir valstybės sąsajos pažeidžiamumas bei mažėjančios grynosios palūkanų maržos (NIMs). Empirinė analizė, pagrįsta Albanijos bankų sektoriaus HHI skaičiavimais, rodo, kad nepaisant vidutinio rinkos koncentracijos lygio, nedidelis bankų skaičius valdo didžiąją dalį turto, indėlių ir valstybės skolos finansavimo, o tai gali sukelti sistemines rizikas. Tyrimo rezultatai pabrėžia subalansuotų turto paskirstymo strategijų, pažangių rizikos valdymo sistemų ir reguliavimo paskatų svarbą siekiant skatinti tvarų skolinimą. Šis tyrimas prisideda prie nuolatinės diskusijos apie bankų sektoriaus konkurencingumą ir finansinį stabilumą, pateikdamas politikos rekomendacijas, kaip užtikrinti, kad bankai išlaikytų savo pagrindinę kredito tarpininkavimo funkciją, prisitaikydami prie reguliavimo ir rinkos iššūkių.

**Reikšminiai žodžiai:** rinkos koncentracija, Herfindahlio-Hirschmano indeksas (HHI), turto paskirstymas, bankų sektorius, finansinis stabilumas, sisteminė rizika, rizikos valdymas

#### Information about the authors

**dr. Ada Aliaj.** University "Aleksandër Moisiu" – Durrës, Albania, Professor. Research fields: finance, banking, insurance.

E-mail address: aliajada@uamd.edu.al

**dr. Ikbale Tota.** University "Aleksandër Moisiu" – Durrës, Albania, Professor. Research fields: accounting, forensic accounting.

E-mail address: totaikbale@uamd.edu.al

**dr. Olta Nexhipi.** University "Aleksandër Moisiu" – Durrës, Albania, Professor. Research fields: management, project management, and human resources.

E-mail address: nexhipiolta@uamd.edu.al