# Macroprudential Governance and Financial Stability in Emerging Banking Systems: An Empirical Analysis of Regulatory Instruments and Systemically Important Banks in Georgia

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## Abstract

This study provides a comprehensive analysis of macroprudential governance in the Georgian banking sector, with a particular focus on regulatory instruments, capital adequacy mechanisms, and the management of systemic risk. In the aftermath of global financial crises, macroprudential policy has emerged as a critical framework for enhancing financial stability, especially in small open economies vulnerable to external shocks. Drawing on recent regulatory developments and institutional reforms implemented by the National Bank of Georgia, this paper examines the effectiveness of key policy tools, including countercyclical capital buffers, leverage ratios, liquidity coverage requirements, and currency-induced credit risk adjustments. The analysis further explores the role of Systemically Important Banks (SIBs) and evaluates the impact of additional capital surcharges imposed to mitigate systemic vulnerabilities. Special attention is given to structural challenges such as high dollarization, which necessitate country-specific regulatory responses beyond standard Basel III requirements. By integrating empirical data with a comparative institutional perspective, the study highlights how macroprudential frameworks can be adapted to local economic conditions while maintaining alignment with international financial standards.The findings suggest that Georgia's macroprudential strategy has significantly strengthened banking sector resilience by effectively balancing financial stability objectives with sustainable credit growth. The study contributes to the literature by offering a nuanced understanding of macroprudential governance in emerging markets and provides policy recommendations for enhancing regulatory effectiveness in the face of evolving global financial risks.

## Keywords

Macroprudential Policy; Financial Stability; Banking Sector; Systemically Important Banks (SIBs); Basel III; Capital Buffers; Dollarization; Regulatory Governance; Emerging Markets; Risk Management; Central Banking Policy

## Introduction

The global financial crisis of 2008 marked a fundamental turning point in the theory and practice of financial regulation, revealing critical weaknesses in traditional supervisory frameworks and underscoring the systemic nature of financial instability. In response, policymakers and scholars have

increasingly emphasized the importance of macroprudential policy as a central instrument for safeguarding financial stability and mitigating systemic risk (Hanson et al., 2011; Claessens, 2015). Unlike microprudential regulation, which focuses on the soundness of individual financial institutions, macroprudential governance adopts a system-wide perspective, addressing the interconnectedness of financial markets, procyclical dynamics, and the accumulation of vulnerabilities over time (Galati & Moessner, 2013; Adrian & Shin, 2010).

In recent years, the growing complexity of global financial systems—driven by financial innovation, capital mobility, and digital transformation—has further intensified the need for robust macroprudential frameworks. Emerging economies, in particular, face heightened exposure to external shocks, volatile capital flows, and structural vulnerabilities, such as high levels of dollarization and limited market depth (Reinhart & Rogoff, 2009; IMF, 2023). These challenges necessitate the adoption of adaptive and context-specific regulatory strategies that balance financial stability objectives with sustainable economic growth.

Within this global context, the Georgian banking sector provides a compelling case for examining the design and effectiveness of macroprudential governance in a small, open economy. Over the past decade, Georgia has implemented a series of institutional and regulatory reforms aimed at strengthening financial resilience and aligning domestic practices with international standards, including the Basel III framework (Basel Committee on Banking Supervision, 2011). The National Bank of Georgia (NBG) has played a central role in this process, developing a comprehensive macroprudential policy strategy in 2019 and establishing the Interagency Financial Stability Council (IFSC) to enhance coordination and crisis management capacity (National Bank of Georgia, 2019, 2023).

A distinctive feature of the Georgian financial system is its high degree of dollarization, which introduces significant currency-induced credit risk and amplifies the impact of exchange rate fluctuations on financial stability. To address this challenge, the NBG has implemented targeted macroprudential measures, including dynamic risk-weighting mechanisms, restrictions on foreign currency lending, and strengthened capital requirements. These policies are complemented by a broader regulatory toolkit encompassing countercyclical capital buffers, leverage ratios, liquidity coverage requirements, and stress-testing frameworks, all of which aim to enhance the resilience of the banking sector to both domestic and external shocks.

Despite these advancements, important questions remain regarding the effectiveness, coherence, and adaptability of macroprudential policy in emerging market contexts. Existing literature has predominantly focused on advanced economies, leaving a relative gap in empirical and institutional analyses of smaller financial systems. Moreover, the interaction between different macroprudential instruments, as well as their combined impact on financial stability and credit dynamics, remains insufficiently explored.

Against this backdrop, the present study seeks to provide a comprehensive analysis of macroprudential governance in the Georgian banking sector, with particular emphasis on regulatory instruments, systemic risk management, and the role of systemically important banks. By integrating theoretical insights with institutional and policy analysis, the study aims to contribute to the broader literature on financial regulation and offer practical implications for policymakers in emerging economies.

Specifically, the study addresses the following research objectives: (i) to examine the structure and evolution of macroprudential policy in Georgia; (ii) to evaluate the effectiveness of key regulatory

instruments in enhancing financial stability; and (iii) to assess the role of country-specific factors, such as dollarization, in shaping regulatory design and outcomes. Through this analysis, the paper seeks to advance understanding of how macroprudential frameworks can be optimized to address the complex and evolving challenges of modern financial systems.

## Literature Review

Macroprudential policy has emerged as a central pillar of financial regulation in the aftermath of global financial crises, particularly following the 2008 financial collapse, which exposed the limitations of traditional microprudential supervision. Unlike microprudential approaches that focus on the stability of individual institutions, macroprudential policy aims to safeguard the financial system as a whole by addressing systemic risk, procyclicality, and interconnectedness within the banking sector (Galati & Moessner, 2011; Claessens, 2015). The primary objective of macroprudential frameworks is to enhance financial stability by mitigating the accumulation of risks that can lead to widespread economic disruptions.

The concept of financial stability itself remains multifaceted and subject to varying interpretations across the literature. Generally, it is defined as a condition in which the financial system operates efficiently and is resilient to shocks, without generating adverse spillover effects on the real economy. Within this context, macroprudential policy plays a crucial role in monitoring and controlling systemic vulnerabilities arising from credit booms, excessive leverage, and interconnected financial networks. Research indicates that systemic risk evolves through both time dimensions (cyclical build-up of financial imbalances) and cross-sectional dimensions (risk concentration across institutions), requiring a comprehensive regulatory approach.

A significant body of literature has examined the effectiveness of macroprudential instruments in achieving financial stability. Tools such as countercyclical capital buffers (CCyB), loan-to-value (LTV) ratios, reserve requirements, and leverage ratios are widely recognized as essential components of the macroprudential toolkit. Empirical evidence suggests that these instruments are effective in reducing bank risk-taking and moderating credit cycles, particularly when implemented in a timely and coordinated manner. For instance, studies demonstrate that tightening macroprudential measures can significantly decrease the probability of banking crises by curbing excessive lending and improving capital resilience.

However, despite growing consensus on the importance of macroprudential policy, the literature highlights several challenges and limitations. First, there is no universally accepted definition or measurement framework for financial stability, which complicates the evaluation of policy effectiveness. Second, empirical findings remain mixed, with some studies indicating that the impact of macroprudential tools varies depending on country-specific institutional contexts, economic structures, and levels of financial development. This suggests that a “one-size-fits-all” approach to macroprudential regulation is insufficient, particularly in emerging markets.

Another important strand of research focuses on the interaction between macroprudential and monetary policies. Scholars argue that these two policy domains are inherently interconnected, as both influence credit growth, liquidity conditions, and financial stability outcomes. Evidence indicates that a coordinated policy mix—combining interest rate adjustments with macroprudential instruments—can enhance overall economic stability and reduce systemic risk more effectively than either policy alone. This perspective underscores the importance of institutional coordination among central banks, regulatory authorities, and financial stability councils.

In recent years, attention has increasingly shifted toward the role of macroprudential policy in emerging and developing economies. These economies often face unique structural challenges, such as high levels of dollarization, exposure to external shocks, and less developed financial markets. Empirical studies suggest that macroprudential tools can play a critical role in enhancing banking sector resilience in such contexts, although their effectiveness depends on careful calibration and alignment with domestic conditions. Furthermore, central banks in emerging markets are increasingly adopting hybrid regulatory frameworks that integrate international standards, such as Basel III, with country-specific measures to address local vulnerabilities.

Despite significant advancements in the field, several research gaps remain. First, much of the existing literature focuses on advanced economies, leaving emerging markets relatively underexplored. Second, many studies analyze individual macroprudential instruments in isolation, rather than examining their combined or systemic effects. Third, there is a need for more data-driven and empirically robust models that capture the dynamic interactions between macroeconomic variables, regulatory policies, and financial stability outcomes.

In light of these gaps, the present study contributes to the literature by providing a comprehensive analysis of macroprudential governance in the Georgian banking sector. By integrating theoretical insights with empirical data and institutional analysis, the study offers a nuanced understanding of how macroprudential frameworks can be effectively designed and implemented in small, open economies. This approach not only enriches the academic discourse but also provides practical implications for policymakers seeking to enhance financial stability in an increasingly complex and interconnected global financial system.

**Macroprudential Governance and Regulatory Instruments in the Georgian Banking Sector (Q1-Level Rewrite)**

The increasing frequency and severity of global financial crises have elevated macroprudential policy to a central position within contemporary financial regulation frameworks. In contrast to traditional microprudential approaches, which focus on the stability of individual financial institutions, macroprudential policy aims to mitigate systemic risk and ensure the resilience of the financial system as a whole (Galati & Moessner, 2013; Claessens, 2015). This paradigm shift reflects a growing recognition that financial instability often arises from interconnected risks, excessive leverage, and procyclical dynamics that cannot be effectively addressed through institution-level supervision alone (Hanson et al., 2011; Adrian & Shin, 2010).

In alignment with these global developments, the National Bank of Georgia (NBG) has undertaken significant institutional and regulatory reforms to strengthen macroprudential governance. The adoption of the *Macroprudential Policy Strategy for Georgia* in 2019 marked a critical milestone in formalizing the country's approach to systemic risk management (National Bank of Georgia, 2019). This framework was further reinforced by the establishment of the Interagency Financial Stability Council (IFSC) in 2020, which serves as a coordinating body responsible for crisis management, inter-institutional cooperation, and the development of comprehensive financial stability mechanisms (National Bank of Georgia, 2023). Such institutional arrangements are consistent with international best practices, which emphasize the importance of coordinated governance structures in enhancing policy effectiveness (Goodhart, 2011).

The NBG employs a multifaceted macroprudential toolkit designed to ensure capital adequacy, control systemic risk, and enhance the resilience of the banking sector. Among the most significant instruments are capital buffers and regulatory ratios, which play a crucial role in mitigating

procyclicality and strengthening banks' loss-absorbing capacity (Basel Committee on Banking Supervision, 2011). The countercyclical capital buffer (CCyB), for instance, is widely recognized as a key tool for addressing excessive credit growth during economic expansions (Drehmann et al., 2010). In the Georgian context, the NBG increased the CCyB from 0% to 1% as of March 15, 2024, reflecting a proactive stance toward managing credit cycle risks (National Bank of Georgia, 2024).

Similarly, the leverage ratio—set at a minimum of 5% since 2018—serves as a non-risk-based measure aimed at limiting excessive indebtedness and reducing the vulnerability of banks to balance-sheet shocks (Adrian & Shin, 2010). Complementing this, the capital conservation buffer ensures that banks maintain sufficient capital reserves during periods of financial stress, thereby enhancing their capacity to absorb losses and sustain lending activities (Basel Committee on Banking Supervision, 2011). By early 2024, Georgian banks had successfully restored these buffers, demonstrating the effectiveness of regulatory oversight in promoting financial resilience (National Bank of Georgia, 2024).

A distinctive feature of the Georgian banking sector is the high level of dollarization, which introduces significant currency-induced credit risk (CICR). To address this structural vulnerability, the NBG has implemented a dynamic risk-weighting mechanism that adjusts capital requirements based on the degree of dollarization. Specifically, when dollarization remains below 40%, a baseline risk weight of 40% is applied; however, for each percentage point increase beyond this threshold, the risk weight rises by 3 percentage points, capped at 100%. This approach reflects a targeted macroprudential intervention tailored to country-specific conditions, aligning with the broader literature emphasizing the need for context-sensitive policy design in emerging economies (IMF, 2018; Claessens, 2015).

In addition to capital-based measures, the NBG has introduced a range of regulatory instruments aimed at strengthening credit discipline and risk management practices. These include stress-testing frameworks, which generate net stress-test buffers to assess banks' resilience under adverse economic scenarios (Schinasi, 2004). Furthermore, the transition to International Financial Reporting Standards (IFRS) in 2023 has enhanced transparency, comparability, and the overall quality of financial reporting within the banking sector, thereby supporting more effective regulatory supervision (IFRS Foundation, 2023).

Loan eligibility criteria and credit restrictions also play a critical role in mitigating systemic risk. The requirement to incorporate a 3-percentage-point interest rate shock in borrower assessments ensures that lending decisions account for potential future volatility in interest rates, reducing the likelihood of borrower default under stress conditions (Kashyap et al., 2011). Additionally, the imposition of maximum maturity limits across different loan categories and the restriction that unverified income loans must not exceed 25% of regulatory capital contribute to prudent credit allocation and enhanced risk control.

Foreign currency exposure and liquidity risks are addressed through targeted regulatory measures, including restrictions on foreign currency lending and the implementation of liquidity coverage ratios (LCR). The prohibition of small-scale foreign currency loans to individuals and the progressive increase in thresholds for unhedged borrowing reflect efforts to reduce exchange rate vulnerability and financial fragility (Reinhart & Rogoff, 2009). Meanwhile, the LCR requirements—set at 75% for domestic currency deposits and 100% for foreign currency deposits—ensure that banks maintain sufficient high-quality liquid assets to withstand short-term liquidity shocks (Basel Committee on Banking Supervision, 2011).

Overall, the macroprudential framework implemented by the National Bank of Georgia represents a comprehensive and adaptive approach to financial regulation. By integrating internationally recognized standards such as Basel III with country-specific measures addressing structural challenges like dollarization, the Georgian banking sector has significantly enhanced its resilience to both domestic and external shocks. This case illustrates the broader principle that effective macroprudential governance requires not only adherence to global best practices but also the flexibility to tailor regulatory instruments to national economic conditions and systemic risk profiles (IMF, 2023; World Bank, 2024).

**Table 1.** Additional CET1 Capital Surcharges for Systemically Important Banks (SIBs) in Georgia (2018–2023)

| Bank | Dec 31, 2018 | Dec 31, 2019 | Jan 23, 2023 |
|---|---|---|---|
| TBC Bank | 1.0% | 1.5% | 2.5% |
| Bank of Georgia | 1.0% | 1.5% | 2.5% |
| Liberty Bank | 0.0% | 0.9% | 1.5% |

**Notes:**
CET1 (Common Equity Tier 1) capital surcharges are applied to Systemically Important Banks (SIBs) to enhance loss-absorbing capacity and reduce systemic risk within the banking sector. The phased implementation reflects the National Bank of Georgia's macroprudential strategy aimed at strengthening financial stability in line with Basel III principles. Procedures regarding the acquisition of Liberty Bank by BasisBank are currently ongoing.

**Source:** National Bank of Georgia (2023, 2024); author's compilation.

**Systemically Important Institutions (SIBs)**

Conclusion-Global experience demonstrates the vital importance of macro prudential instruments aimed at preventing excessive lending in the economy. This is especially critical for a small, open economy like Georgia, which is constantly exposed to external shocks. It is essential to continuously improve the macro prudential policy framework by adopting international best practices while tailoring them to the country's specific national characteristics**.**

The Georgian banking sector's resilience is a direct result of the NBG's rigorous macroprudential governance. By integrating Basel III standards with country-specific measures—such as de-dollarization incentives and strict maturity limits—Georgia has created a stable financial environment. Future policy should continue to balance the need for credit availability with the prevention of systemic overheating, ensuring that the framework evolves alongside global financial innovations.

**Systemically Important Institutions (SIBs)**

Systemically Important Banks (SIBs) play a critical role in the stability and functioning of the financial system due to their size, interconnectedness, and potential to generate systemic spillovers in the event of distress. In the Georgian context, the identification and regulation of SIBs represent a central component of the National Bank of Georgia's (NBG) macroprudential framework. By imposing additional capital surcharges and enhanced supervisory requirements, the NBG aims to strengthen the loss-absorbing capacity of these institutions and mitigate the risks associated with

their systemic importance. This approach is consistent with international regulatory standards, particularly those outlined under the Basel III framework, which emphasize the need for differentiated regulation of systemically significant financial institutions to reduce systemic vulnerability and moral hazard.

## Conclusion

The global experience of financial crises has unequivocally demonstrated the critical importance of macroprudential policy as a cornerstone of modern financial regulation. By targeting systemic risk, controlling excessive credit expansion, and enhancing the resilience of financial institutions, macroprudential instruments serve as essential tools for maintaining financial stability. This is particularly relevant for small, open economies such as Georgia, which are inherently more vulnerable to external shocks, capital flow volatility, and exchange rate fluctuations.

The empirical and institutional analysis presented in this study indicates that the resilience of the Georgian banking sector is closely linked to the proactive and adaptive macroprudential governance implemented by the National Bank of Georgia. Through the effective integration of Basel III standards with country-specific regulatory measures—such as de-dollarization policies, dynamic risk-weighting mechanisms, and strict credit maturity limits—the NBG has established a robust and context-sensitive regulatory framework. These measures have not only strengthened capital adequacy and risk management practices but also enhanced the overall stability of the financial system.

Nevertheless, the evolving nature of global financial markets, characterized by rapid technological innovation, increasing financial interconnectedness, and emerging systemic risks, necessitates the continuous refinement of macroprudential policy. Future regulatory strategies should aim to strike a careful balance between promoting sustainable credit growth and preventing the accumulation of systemic vulnerabilities. In particular, greater emphasis should be placed on forward-looking risk assessment, data-driven decision-making, and the integration of emerging risks—such as those associated with financial digitalization and climate change—into the macroprudential policy framework.

In conclusion, the Georgian experience underscores the importance of adopting a flexible, adaptive, and context-specific approach to macroprudential governance. By continuously aligning regulatory practices with international best standards while addressing domestic structural challenges, policymakers can enhance financial stability and support long-term economic resilience in an increasingly uncertain global environment.

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