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# Stylized Facts on the Quality of Banking Regulation in Latin America and the Caribbean

Carolina Celis, Arturo Galindo, and Liliana Rojas-Suarez

## Abstract

This paper presents findings from a comprehensive survey of 18 central banks and banking supervisor authorities in Latin America and the Caribbean, including major economies like Argentina, Brazil, Chile, Colombia, and Mexico. The survey aimed to assess the adoption of the Basel III standards across the region and revealed significant diversity in regulatory capital frameworks. Notably, while 75 percent of respondent countries have adopted Basel III for some financial intermediaries, 44 percent still maintain hybrid systems allowing for Basel I or II standards. These results highlight the region's varied approach to financial regulation, pointing to both progress in adopting international standards and the persistence of legacy regulatory regimes. The detailed findings and constructed indexes provide valuable insights into the state of financial regulation in the region, reflecting a landscape of both convergence and divergence in banking supervision practices.

**KEYWORDS**
Financial Regulation, Banking Supervision, Basel III Adoption

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E58, G21, G28

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## Stylized Facts on the Quality of Banking Regulation in Latin America and the Caribbean

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# 1. Introduction

The Latin America and the Caribbean (LAC) region is one of the slowest-growing regions in the emerging and developing world. According to the IMF's World Economic Outlook (2023), between 2024 and 2028, LAC is expected to grow on average by 2.1 percent, less than half of the growth expected in Emerging and Developing Asia, almost two percentage points lower than expected growth in the Middle East and Central Asian countries, and nearly one and a half percentage points lower than Sub-Saharan Africa. Such a meager performance is associated with the region's low productivity levels (see Galindo and Izquierdo, 2024, for a discussion) and its shallow financial markets. region's average ratio of credit to GDP of 45 percent is far from that of advanced economies (see Galindo and Powell, forthcoming).

Ensuring the stability of financial systems and their capacity to intermediate savings towards the private sector is critical to achieving higher growth rates. Productivity-boosting reforms are essential, but equally important is avoiding financial crises, which have historically impacted the region. The strength of financial systems is closely associated with the quality of their regulation and supervision.

Since its inception in 1988, LAC has generally followed the Basel Committee on Banking Supervision (BCBS)'s recommendations in the Basel Accords and Core Principles for Banking Supervision. National supervisors often adapted the accord's specifics to suit their circumstances, including specific regulations created in response to past crises that exceeded Basel recommendations. Most countries in the region adopted Basel I, though with variations in risk weights and capital requirements, often setting minimum capital levels above the recommended 8 percent of risk-weighted assets (see IDB, 2005).

In 2004, the Basel II framework was introduced, aligning regulatory capital more closely with risk and advancing recommendations for risk measurement and control. Its reception in the region was mixed. Basel II offered three approaches to compute risk weights used to calculate the ratio of capital to risk-weighted assets: the standardized approach and two approaches based on banks' internal ratings (IRB approaches).[1] However, the lack of rated claims in the region meant that Standardized Approach I did little to link capital requirements with risk. Moreover, the IRB approaches allowed banks too much autonomy in developing internal models, conflicting with the region's culture

1 In the Standardized approach, the risk weights are defined in Basel II (or, in some cases, by the local supervisors). In the IRB approaches, the risk weights are determined by internal models used by banks. There are two versions of the IRB: the Foundations-IRB, where some of the parameters for defining risk weights are provided by banks and others by the supervisors; and the Advanced-IRB, where most of the parameters are determined by banks. Under the IRB, the supervisor needs to approve the models used by banks.

of close bank monitoring post-1980s and 1990s crises. Consequently, most countries opted for the standardized approach or retained Basel I rules.[2,3]

The global financial crisis led to the Basel III framework in 2010, which aimed to improve the quality and quantity of regulatory capital, introduce additional buffers, establish liquidity requirements, and enhance the supervision of systemically important banks. The reforms, finalized in 2017, aimed to restore confidence in reported capital ratios and establish a more resilient banking system. While many countries in Latin America and the Caribbean are adopting key elements of Basel III, there is regional heterogeneity in implementation, and challenges remain in the diverse paths taken by different countries.

To assess the region's route in implementing Basel III we conducted a survey among Central Banks and Banking Supervisory authorities in Latin American and Caribbean countries inquiring about several dimensions regarding capital and liquidity regulations. The survey also covers key aspects regarding supervisory agencies' independence and topics related to the rules governing how assets are classified in the balance sheets of financial intermediaries, a key issue arising from the failure of Silicon Valley Bank in the United States in early 2023 (Rojas-Suárez, 2023). To allow historical comparisons, the survey included previously asked questions in World Bank surveys (see Anginer et al., 2019).

This report summarizes key insights gleaned from the comprehensive survey on banking regulation and supervision and unveils a significant degree of heterogeneity across countries. Some countries are already in a strong position with robust regulatory frameworks and supervisory practices, but the region as a whole is likewise promisingly moving towards a better regulatory framework. The rest of this technical note proceeds as follows. Section 2 briefly discusses the contents and structure of the survey; Section 3 presents some key findings, and Section 4 concludes the discussion with key takeaways and future directions. Importantly, the survey data have been made publicly accessible and can be found at this link, fostering transparency and facilitating further research in this pivotal area of financial regulation.

## 2. The state of financial regulation in Latin America and the Caribbean: The survey

The survey, presented in the Annex, is composed of nine sections. The first section broadly describes how regulation and supervision vary across different types of financial intermediaries.

2 Basel II encompassed more than just capital requirements for credit risk, including additional Pillar 1 requirements on operational risk and rules on collateral and securitization, along with Pillar 2 (on supervision) and Pillar 3 (on transparency and market discipline) recommendations. However, Pillar 3 did not receive extensive attention in the region.

3 Rojas-Suárez (2001) identifies a number of problems about the effectiveness of Basel II for strengthening banks in emerging economies.

Section 2 addresses several topics regarding banking concentration, including ownership concentration, concentration of liabilities, and different dimensions of asset concentration. Section 3 delves into capital requirements and addresses what regulatory standard is used for computing capital requirements (Basel I, Basel II or Basel III); variations of those standards against the Basel Committee's recommendation; what type of approach is used for computation of risk weights under Basel II or III; how capital, tier 1, and tier 2 capital measures are defined; what capital buffers are in place; whether there is a leverage ratio in place and how it is defined; and what risks are covered by capital requirements.

In Section 4, the survey focuses on liquidity requirements. It explores whether the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR) are in place or if the country uses alternative liquidity measures. Section 5 explores how financial assets are classified in the books of financial intermediaries (whether they are registered at fair value or amortized cost), and whether this classification is regulated or not. It also explores restrictions on declaring and reclassifying financial assets between trading and held-to-maturity books. Section 6 inquiries about other prudential and macroprudential dimensions of regulation, including whether loan-to-value ratios or debt-to-income restrictions are in place, whether forward-looking criteria are incorporated into credit risk measurement, and whether counter-cyclical provisions exist.

Section 7 explores key issues regarding supervision. It asks about some institutional characteristics of the supervisory agency, including to whom it is accountable, the serving term of the supervisor, the entity with the capacity to remove the supervisor, the autonomy of the supervisor to carry out its work, the legal liability of the supervisor, the legal support received by a supervisor, how the supervisor carries out its work, if there are differences in how supervisory practices affect different intermediaries, and if there are limits to the supervisor's work. The section also surveys areas of governance of financial intermediaries and differences across different types of intermediaries.

Section 8 covers how stress tests are conducted. The survey asks about the periodicity of stress tests, who conducts them, their purpose, and their level of transparency and disclosure. Finally, Section 9 includes open-ended questions discussing if the failure of Silicon Valley Bank and other banks in the USA and Europe in early 2023 raised concerns for supervisors and regulators in Latin America and the Caribbean.

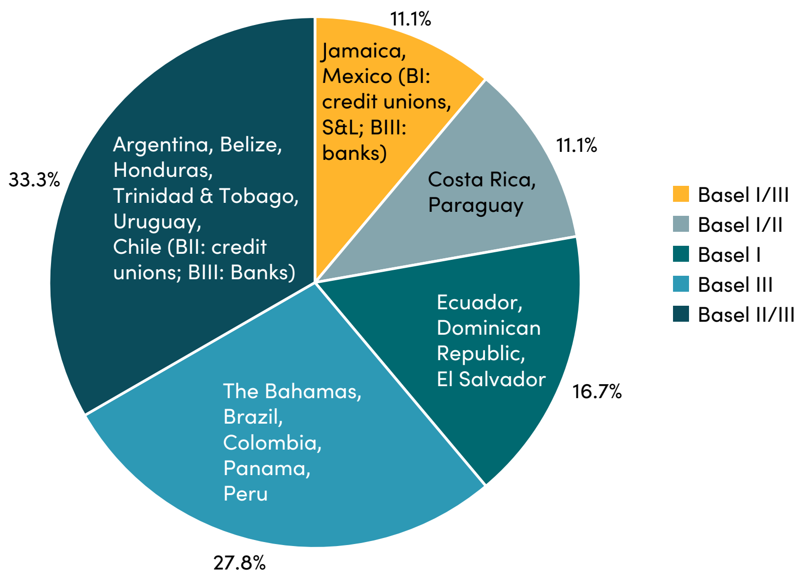
The survey was sent to 24 central banks in the region, and where appropriate, they were channeled to the supervisory agency. We obtained answers from 18 of them: Argentina, Bahamas, Belize, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Honduras, Jamaica, Mexico, Panama, Paraguay, Peru, Trinidad & Tobago, and Uruguay.

In the following section, we summarize some results from the survey.

## 3. Survey results

While the complete survey results can be found in the Excel file accompanying this technical note, here we report some findings and indexes constructed using the survey results of interest. A notable finding is that the region faces differences regarding the frameworks that govern regulatory capital (Figure 1). While many countries have already adopted Basel III at least partially, hybrid regimes coexist. About 72 percent of countries replying to the survey require usage of Basel III standards for at least some financial intermediaries, while 28 percent have a system with elements of Basel I and/or Basel II standards.

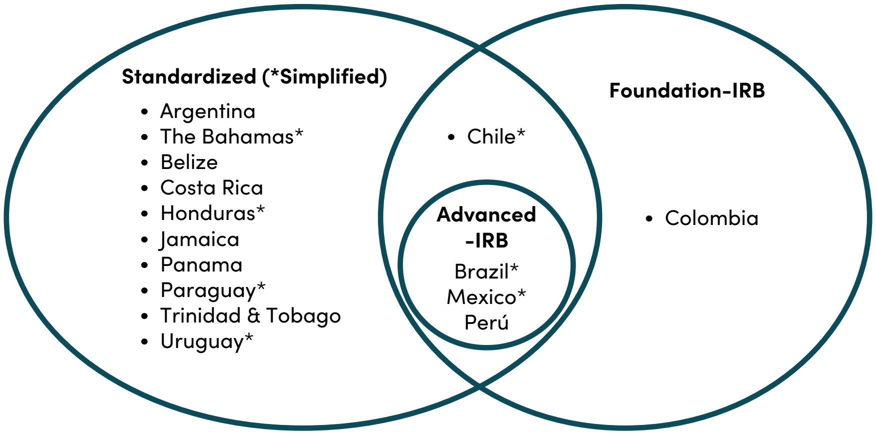
**FIGURE 1. Regulatory framework for capital requirements**




*Source:* Survey of Central Banks (Question 3.1).

In countries where Basel II or Basel III is implemented, the standardized approach, either full or simplified, is the preferred methodology (Figure 2). The advanced-IRB methodology is offered and used only in Brazil and Mexico. These countries and Chile and Colombia also allow the foundations-IRB methodology.

**FIGURE 2. Methodology for calculating credit risk**




*Source:* Survey of Central Banks (Question 3.3).

One of the key discussions regarding capital requirements in Basel III refers to the quality of capital, particularly of Tier 1 capital. The quality of capital is determined by the assets that are allowed to be included in the computation of regulatory capital and those that should be discounted. As seen in Question 3.10 in the survey, most countries follow a tight definition of Tier 1 regarding the assets that are allowed to be included in such category. Larger differences appear, however, in the type of assets that need to be discounted for the computation of Tier 1. Table 1 summarizes some key differences across countries.

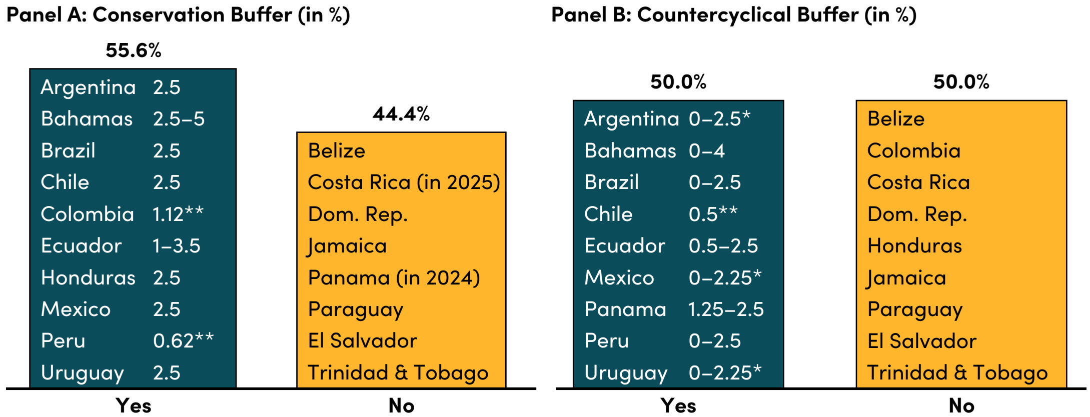
## TABLE 1. Deductions from Tier 1

| Countries | Deducted from Tier 1? | | | | |
|---|---|---|---|---|---|
| | Goodwill | Deferred Tax Assets | Intangibles | Investment in the Capital of Certain Financial Entities | Unrealized Losses on Mark-to-Market Exposures |
| ***Argentina*** | Yes | Yes | Yes | Yes | Yes |
| ***Bahamas*** | Yes | Yes | Yes | Yes | Yes |
| ***Belize*** | Yes | Yes | Yes | Yes | Yes |
| ***Brazil*** | Yes | Yes | Yes | Yes | Yes |
| ***Chile*** | Yes | Yes | Yes | Yes | Yes |
| ***Colombia*** | Yes | Yes | Yes | Yes | X |
| ***Costa Rica*** | Yes | Yes | Yes | Yes | X |
| ***Dom. Rep.*** | X | X | X | Yes | X |
| ***Ecuador*** | Yes | X | X | X | X |
| ***Honduras*** | Yes | X | X | X | X |
| ***Jamaica*** | Yes | X* | Yes | Yes | Yes |
| ***Mexico*** | Yes | Yes | Yes | Yes | Yes |
| ***Panama*** | Yes | Yes | Yes | Yes | X |
| ***Paraguay*** | Yes | X | Yes | Yes | X |
| ***Peru*** | Yes | Yes | Yes | Yes | Yes |
| ***El Salvador*** | X | X | X | X | X |
| ***Trinidad & Tobago*** | Yes | X | Yes | X | X |
| ***Uruguay*** | Yes | Yes | Yes | Yes | Yes |

*Source:* Survey of Central Banks (Question 3.13).

Another key issue regarding capital requirements deals with the type of risks considered in legislation. All countries include credit risk in their legislation on minimum capital requirements. However, some countries still need to include market and operational risks, as reported in Question 3.9 of the survey. Regulations in El Salvador, Honduras, and Paraguay do not include market risks, and the Dominican Republic does not include operational risks. However, there are greater differences among Latin American and Caribbean countries regarding additional buffers, such as conservation and counter-cyclical buffers, as defined in Basel III. Figure 3 summarizes some of these differences. Over 40 percent of countries still need to implement a conservation buffer, and only half have a counter/cyclical one. Regarding the former, as registered in Question 6.4, it is important to note that some countries that do not have a counter-cyclical capital buffer do have counter-cyclical provisions. Colombia, Costa Rica, Mexico, Panama, Peru, and Uruguay are in this category.

## FIGURE 3. Capital buffers



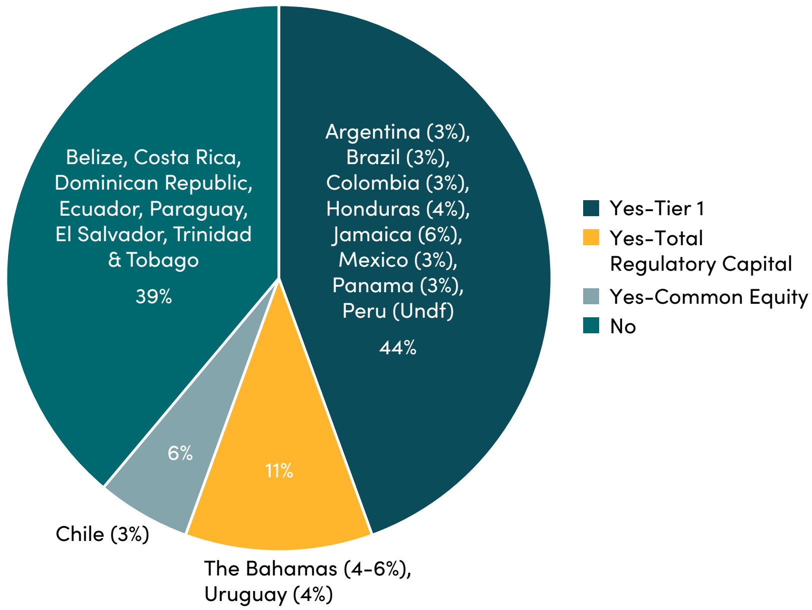

*Notes:* *Data from Fitch Ratings (2022). **Conservation Buffer: Colombia up to 2.5% in 2024; Peru up to 2.5% in 2026. Countercyclical Buffer: Chile up to 2.5% in 2025.
*Source:* Survey of Central Banks (Questions 3.6 and 3.7).

The leverage ratio is a key measure introduced in banking regulation to ensure that banks maintain a minimum level of capital relative to their overall exposures. This requirement was introduced as part of the Basel III regulatory framework. The main purpose of the leverage ratio is to act as a simple, non-risk-based constraint on the amount of leverage a bank can take on. Unlike other capital requirements based on a bank's risk-weighted assets, the leverage ratio does not factor in the risk profile of the bank's assets. Instead, it requires banks to hold a minimum amount of capital as a percentage of their total exposures, which includes on-balance sheet assets, derivative exposures, and certain off-balance sheet exposures. The introduction of the leverage ratio was motivated by the realization during the financial crisis that banks could appear well-capitalized when measured against risk-weighted assets yet still be overly leveraged and vulnerable to shocks. The leverage ratio provides a straightforward backstop to limit leverage and complement the risk-based capital requirements by enforcing a minimum capital standard that does not rely on risk assessments.[4]

Figure 4 plots the main survey results regarding the implementation of the leverage ratio in Latin America and the Caribbean. Sixty-one percent of the surveyed countries have a leverage ratio in place. Most of them define it against either Tier 1 or common equity measures of capital.

4 The specific leverage ratio requirement can vary by jurisdiction, but the minimum leverage ratio is 3 percent under the Basel III framework. Basel III also requires that the leverage ratio is computed based on Tier 1 capital.

### FIGURE 4. Leverage ratio requirement




*Notes:* Trinidad & Tobago is expected to have a required leverage ratio since 2024.
*Source:* Survey of Central Banks (Question 3.8).

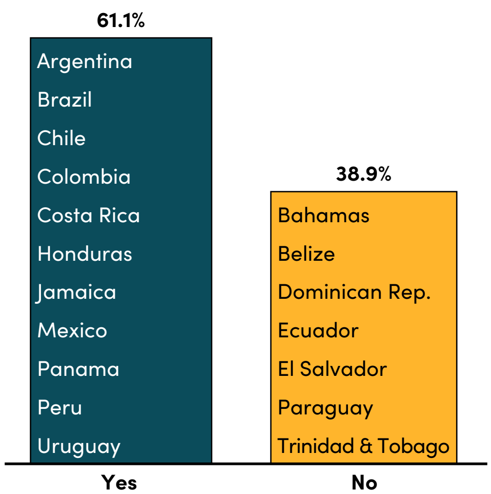
The introduction of liquidity requirements in banking regulation, particularly in Basel III, represents a significant shift towards ensuring that banks maintain adequate liquidity to withstand short-term stress scenarios. These requirements were also developed in response to the global financial crisis of 2007–2008, which highlighted the critical importance of liquidity in maintaining financial stability. Two key liquidity ratios introduced under Basel III are the following:

1. *Liquidity Coverage Ratio (LCR)*: The LCR ensures that banks have sufficient high-quality liquid assets (HQLA) to cover their total net cash outflows over a 30-day stressed period. The idea is to guarantee that banks can meet their short-term obligations without resorting to emergency funding measures. The LCR sets the minimum standard for HQLA relative to a bank's expected cash outflows minus its inflows under a stress scenario. This requirement aims to promote the resilience of banks to liquidity shocks and reduce the risk of systemic stress.
2. *Net Stable Funding Ratio (NSFR)*: The NSFR aims to ensure that banks maintain a stable funding profile concerning the composition of their assets and off-balance sheet activities over a one-year time horizon. The objective is to reduce the likelihood of banks' funding models becoming a source of systemic stress and to encourage banks to adopt more sustainable funding structures. The NSFR requires banks to hold a minimum amount of stable funding based on the liquidity characteristics and residual maturities of their assets and activities to mitigate the risk of future funding crises.

The introduction of these liquidity requirements marked a significant advancement in banking regulation. Prior to the financial crisis, the focus was primarily on capital adequacy, with less emphasis on liquidity risk. The crisis revealed that liquidity shortages could quickly lead to solvency problems, necessitating a more comprehensive regulatory approach with stringent liquidity standards. By implementing the LCR and NSFR, the Basel Committee on Banking Supervision aims to strengthen the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source, thus reducing the risk of spillover from the financial sector to the real economy.

Figure 5 shows how the countries in the region have advanced in adopting LCRs in their regulations. More than 60 percent of the survey respondents have liquidity coverage ratios. In contrast to the LCR, the NSFR is implemented only in a handful of countries: Argentina, Brazil, Chile, Colombia, and Uruguay.[5]

**FIGURE 5. Liquidity coverage ratio (LCR)**




*Source:* Survey of Central Banks (Question 4.1).

The recent failure of Silicon Valley Bank (SVB) and other US banks has raised concerns about specific financial regulation and supervision. Several factors contributed to SVB's collapse, notably the combination of the impact of the Federal Reserve's interest rate hikes with regulatory and supervisory shortfalls that limited how market risks were measured and managed in this and other financial institutions.

SBV had a high concentration of technology startups as its clients. When interest rates rose during the 2021–2023 inflation surge, these clients faced a cash crunch due to the higher cost of capital and a challenging environment for initial public offerings (IPOs) and private fundraising. In this context, SBV clients began withdrawing their deposits to meet their liquidity needs. SBV invested a

5 See Question 4.2.

significant portion of these deposits in long-term Treasury bonds. However, as interest rates rose, the market value of these long-term bonds decreased. These assets were not marked to market in SBV's accounts and were in their held-to-maturity portfolio, so the devaluation of the bonds led to substantial unrealized losses for SVB. The bank's situation was further exacerbated by withdrawals from the startup companies in need of operational funds, and a series of layoffs in the technology sector also led to a reduction in deposits.

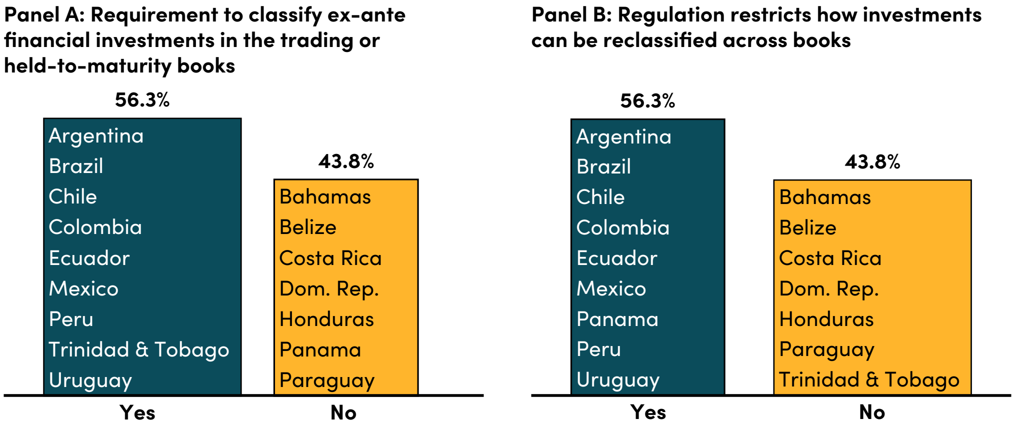
This episode raised several regulatory and supervisory concerns: were SVB exposures to market risks covered by capital requirements? Were there restrictions in place limiting the classification of financial assets in the held-to-maturity and trade books and the movements across them? Were there liquidity requirements to avoid investing short-term deposits in long-term bonds? Were stress tests conducted to see how interest rate shocks could affect the bank? The lack of regulation addressing these concerns, or a combination of some of these dimensions, became problematic when interest rates rose, bond prices fell, and the bank's equity was wiped out.

These aspects were also covered in the survey. As noted above, several Latin American and Caribbean countries have restrictions on liquidity requirements that could limit the mismatch between the duration of assets and liabilities. However, there is still a long way to go before adopting Basel III fully in that dimension. Regarding the coverage of exposures to market risks in capital requirements, the survey showed that most countries include these in capital requirements, with the exceptions of El Salvador, Honduras, and Paraguay.[6]

Another key issue covered by the survey is how financial assets are classified in the held-to-maturity and trading books and if assets can be moved easily between the two books. No country imposes restrictions on how banks should classify their financial investments. In all countries, banks are allowed to do so according to their business models. However, some countries impose procedures to avoid assets being moved arbitrarily across books, triggering losses when doing so. These are reported in panels (a) and (b) of Figure 6. Both panels show that in most countries, banks are required to report ex ante, that is, at the moment when they purchase the asset, how it is going to be classified, either in the held-to-maturity book at an amortized value or in the trading book at market prices (panel (a)). In these countries, banks must also present a case to the supervisor if they wish to move assets between books (panel (b)).

6 See Question 3.9.

**FIGURE 6. Financial investment classification**



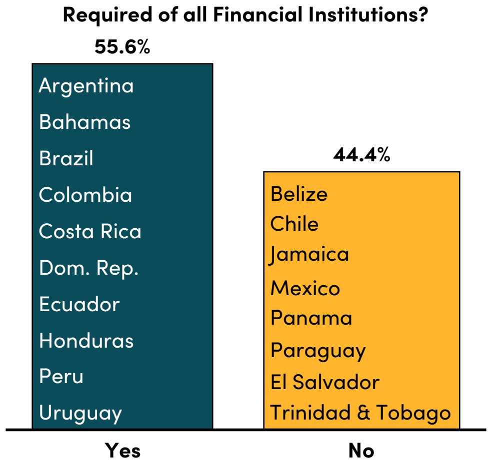

*Source:* Survey of Central Banks (Questions 5.2 and 5.3).

Another key dimension of supervision is stress testing. Stress testing, particularly under Basel II and Basel III frameworks, plays a crucial role in assessing the resilience of financial institutions to adverse economic scenarios. Under Basel II, stress testing was part of the Internal Capital Adequacy Assessment Process (ICAAP), where banks were required to evaluate their capital adequacy under various stress conditions. This aimed to ensure that banks had enough capital to withstand challenging market conditions and maintain stability. In Basel III, the importance of stress testing further increased, with more detailed and rigorous requirements. Basel III expanded the framework established under Basel II, emphasizing the need for banks to have comprehensive stress-testing programs. These programs are designed to address severe shocks and changes in market conditions, ensuring that financial institutions are prepared for highly adverse events. Basel III requires supervisors and banks to consider a range of severe but plausible scenarios to understand better the risks they face and the financial resources they might need to absorb losses should such shocks occur.

Stress testing has become a critical element of risk management for banks and a core tool for banking supervisors and macroprudential authorities to gauge and enhance the resilience of financial institutions against potential financial downturns and systemic risks, thereby contributing to the overall stability of the banking sector and the broader financial system.

Section 8 of the survey covers several dimensions of how stress tests are implemented and disclosed. Figures 7 and 8 report some of the findings. A key issue to highlight regards the coverage of stress tests. In many countries, not all financial institutions are required to conduct them (Figure 7). While stress tests should be applied to the largest and systemically relevant banks, having a wider coverage that includes smaller institutions may be relevant. Failure of smaller institutions could eventually lead to overall bank runs that affect the whole system.

### FIGURE 7. Stress test requirements

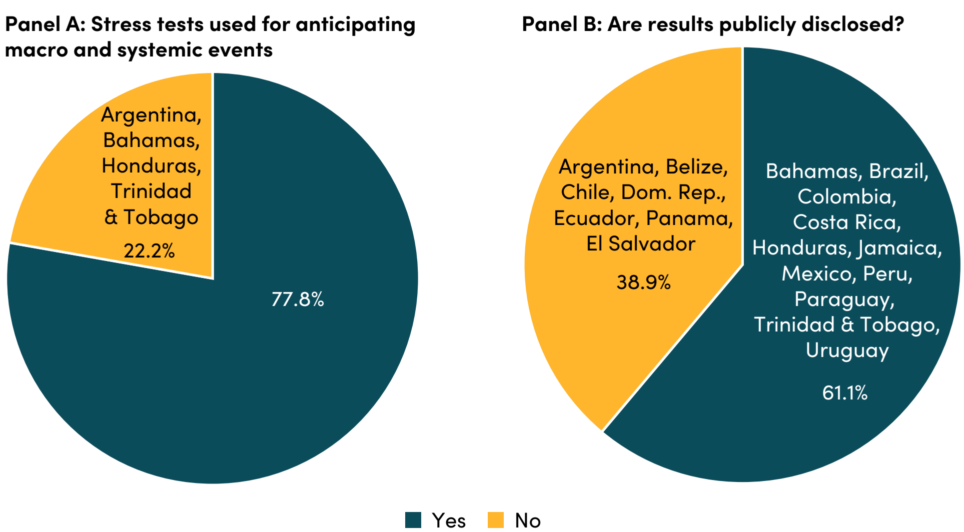



*Source:* Survey of Central Banks (Question 8.3).

Stress tests can be used for several purposes. They could be used to identify weaknesses in specific banks that would allow designing an action plan to overcome problems. Also, stress tests can also be used as a macroprudential tool to understand how macroeconomic risks may affect financial stability. As shown in Panel (a) of Figure 8, stress tests play a dual role in most countries of the region.

In addition, if their results are disclosed to the public, stress tests can enhance transparency and market discipline. There are notable discrepancies in the region in this matter. Panel (b) of Figure 8 shows that, in nearly 40 percent of the surveyed countries, the results of stress tests are not disclosed. Of those countries where results are disclosed, except for Costa Rica, the names of distressed intermediaries are not revealed.

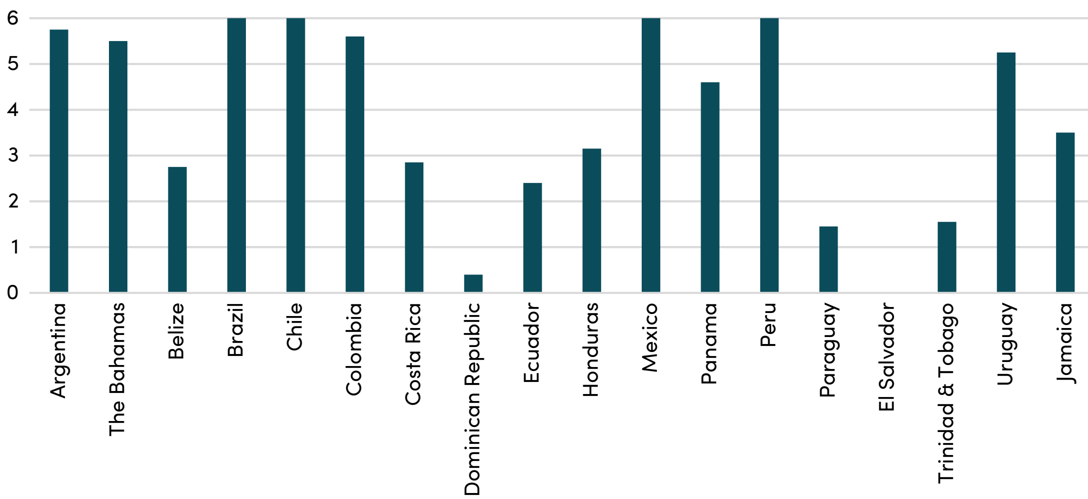
### FIGURE 8. Use and disclosure of stress tests




*Source:* Survey of Central Banks (Questions 8.6 and 8.7).

To allow comparisons among countries in the region, Figures 9–12 use the survey information to build indexes measuring different dimensions of financial regulation. The dimensions covered in the capital requirements, liquidity requirements, financial classification, and stress tests indexes are described in the notes to each of the graphs. Notably, the countries that score the best in all indexes repeat themselves. Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Uruguay appear repeatedly in the top percentiles of each index. This is confirmed in Figure 13, which aggregates all measures.

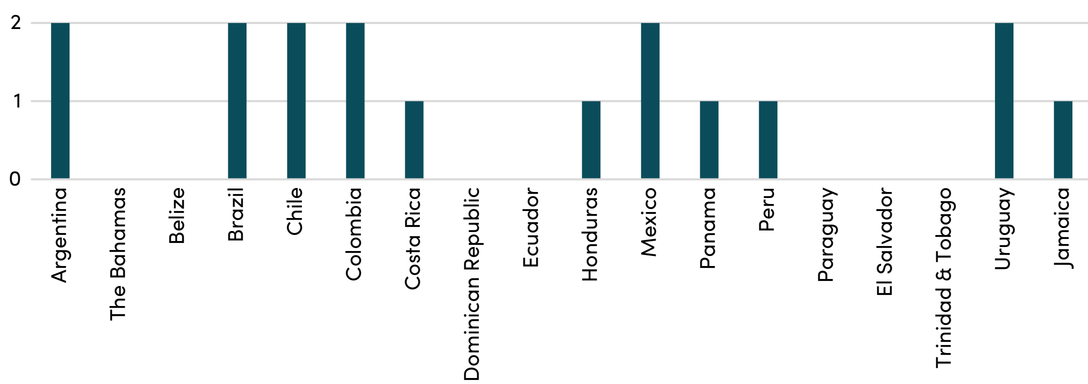
**FIGURE 9. Capital requirements index**




*Note:* This index ranges between 0 and 6 and considers the capital adequacy regulatory framework in force in each country (1 point if the country is in Basel III, 0.75 if in a hybrid framework that includes Basel III, and 0.5 if only in Basel II), the items deducted from Tier 1 regulatory capital (0.4 for each of 5 possible items deducted), whether there is a conservation buffer (1 point) and countercyclical buffer or provisions (1 point), and requirements on the leverage ratio (1 point). The index considers Questions 3.1, 3.6, 3.7, 3.8, 3.13, and 6.4.

*Source:* Survey of Central Banks.

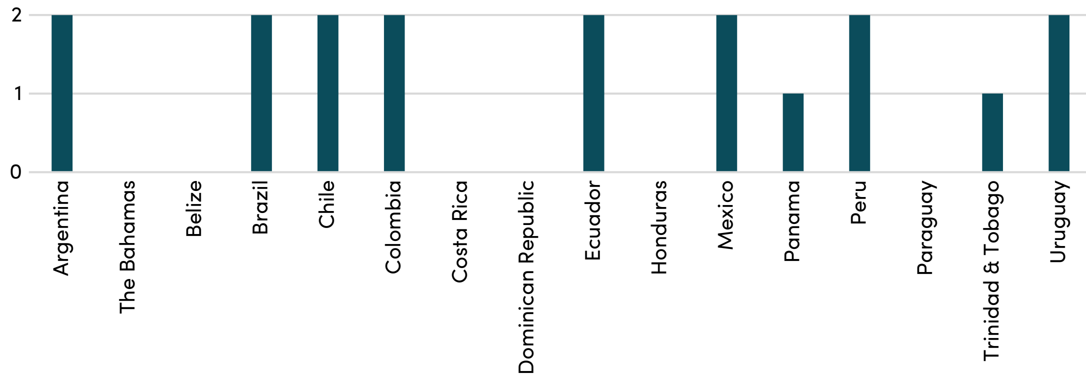
**FIGURE 10. Liquidity requirements index**




*Note:* This index, ranging from 0 to 2, considers incorporating Basel III's liquidity standards within the country's regulatory framework. It specifically examines the implementation of the Liquidity Coverage Ratio (1 point) and the Net Stable Funding Ratio (1 point). The index is based on responses to Questions 4.1 and 4.2.

*Source:* Survey of Central Banks.

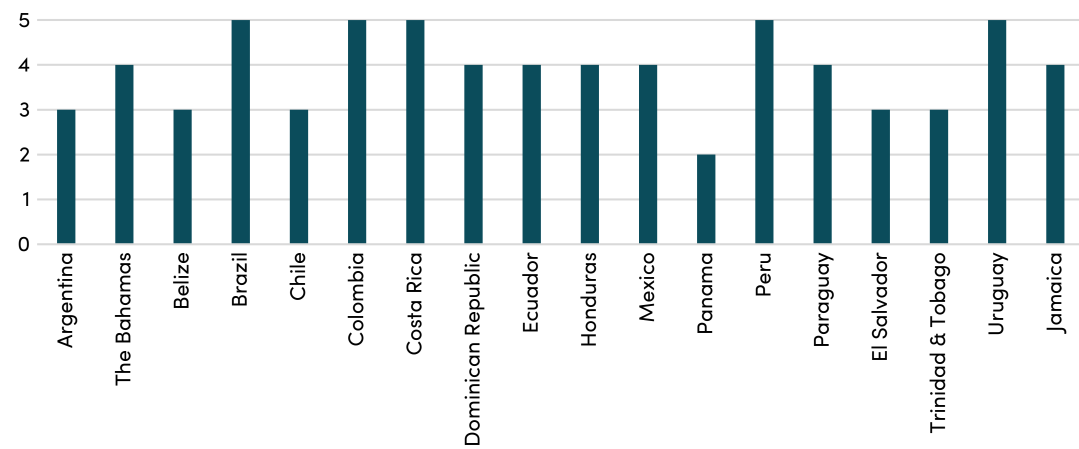
**FIGURE 11. Financial classification index**




*Note:* This index, ranging from 0 to 2, evaluates whether financial intermediaries are required to classify ex ante financial investments in the trading or held-to-maturity books (1 point for an affirmative response), and examines whether regulations impose restrictions on how investments can be reclassified across books (1 point for an affirmative response). The index is based on responses to Questions 5.2 and 5.3. This index is unavailable for El Salvador and Jamaica since questions for the Financial Investment Classification Index do not apply to these countries.

*Source:* Survey of Central Banks.

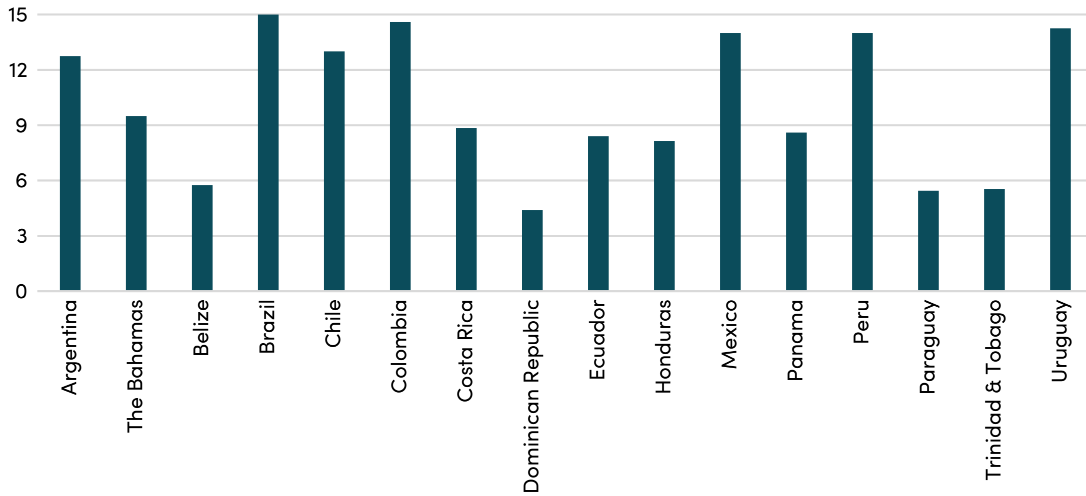
**FIGURE 12. Stress test index**




*Note:* This index ranges from 0 to 5. It considers whether stress tests are conducted regularly (1 point), and if all financial intermediaries are required to perform stress tests (1 point). It also evaluates whether stress tests are used for anticipating macroeconomic and systemic events (1 point) as well as for supervisory purposes (1 point), along with whether the test results are publicly disclosed (1 point). The index considers Questions 8.1, 8.3, 8.6.a, 8.6.b, and 8.7.

*Source:* Survey of Central Banks.

**FIGURE 13. Overall index**



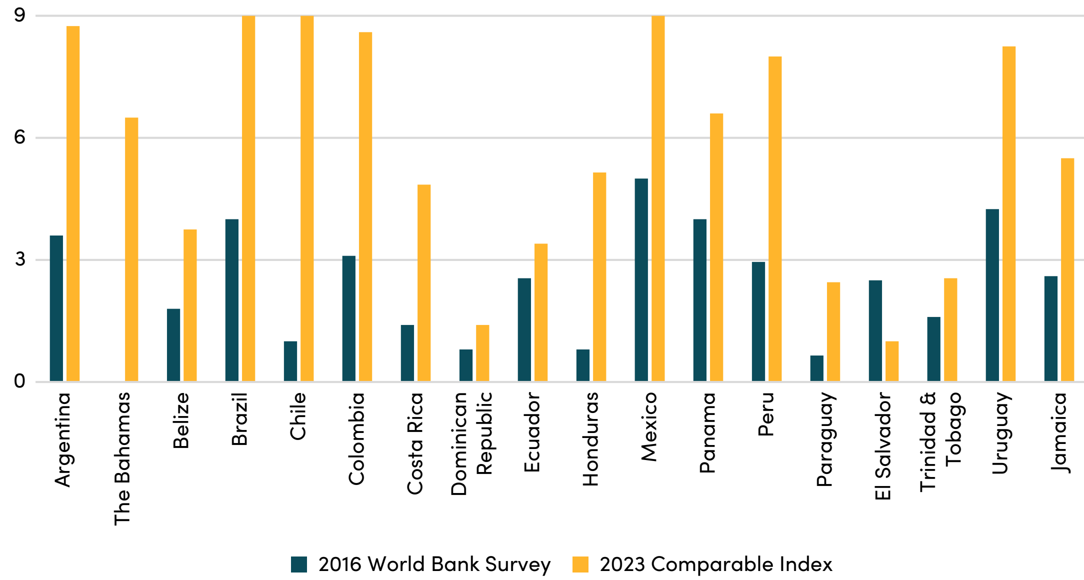

*Note:* This index ranges between 0 and 15 and is derived from the cumulative scores of the Capital Requirements Index (0–6 points), Liquidity Requirements Index (0–2 points), Financial Investment Classification Index (0–2 points), and Stress Test Index (0–5 points). This index is unavailable for El Salvador and Jamaica since questions for the Financial Investment Classification Index do not apply to these countries.

*Source:* Survey of Central Banks.

To compare how regulations have evolved, we build a similar index as that reported in Figure 13, using 2016 data from a World Bank Survey reported by Anginer et al. (2019). The index is not identical since some of the questions in the IDB survey differ from those of the World Bank. However, we rebuilt the index only for those questions that were identical across surveys (2023 Comparable Index). This is reported in Figure 14.

Notably, with few exceptions, this exercise suggests that the region has improved its financial regulation significantly throughout the last decade.

**FIGURE 14. Overall index: Comparison**




*Note:* This index ranges between 0 and 9, and it reflects the cumulative score obtained from specific questions within the previously introduced sub-indices. These questions are analogous to those employed in the World Bank's 2016 survey (Anginer et al., 2019). Specifically, this index assesses the capital adequacy regulatory framework in force in each country (1 point if the country is in Basel III, 0.75 if in a hybrid framework that includes Basel III, and 0.5 if only in Basel II), the items deducted from Tier 1 regulatory capital (0.4 for each of 5 possible items deducted), whether there is a conservation (1 point) and countercyclical buffer or provisions (1 point), and requirements on the leverage ratio (1 point). It also examines how Basel III's liquidity standards have been implemented in the country's regulatory framework, particularly the Liquidity Coverage Ratio (1 point) and the Net Stable Funding Ratio (1 point). Finally, the index considers whether stress tests are conducted regularly (1 point). The index is based on responses to Questions 3.1, 3.6, 3.7, 3.8, 3.13, 4.1, 4.2, 6.4, and 8.1.

*Source:* Survey of Central Banks.

# 4. Conclusions

A comprehensive analysis of banking regulation and supervision in Latin America and the Caribbean (LAC), focusing on adopting and implementing Basel III standards, notes considerable regional heterogeneity. We highlight significant variations in regulatory frameworks across the LAC region. This heterogeneity reflects the diverse economic, political, and financial landscapes of the countries within the region. While some countries have made substantial progress in aligning with Basel III standards, others are lagging, potentially due to lower levels of economic development, regulatory capacity, and institutional maturity.

The adoption of Basel III standards in LAC faces several challenges, including but not limited to the regulatory framework's complexity, the need for significant infrastructural and institutional development, and the requirement for enhanced technical expertise.[7] These challenges are particularly pronounced in areas such as liquidity requirements, leverage ratios, and the

7 Beck and Rojas-Suárez (2019) discuss the challenges faced by regulators in emerging and developing countries in their efforts to implement Basel III recommendations.

classification of financial assets, which are crucial for ensuring financial stability and containing systemic risks.

There is a broad consensus on the importance of high-quality capital (mainly Tier 1 capital) for banking stability. However, there is considerable dispersion in how countries define and compute capital adequacy, with some countries applying more stringent criteria than others. These disparities could translate into different degrees of banks' resilience to financial shocks and stresses across the region.

Implementing liquidity requirements, such as the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR), is also uneven across the region. While some countries have fully embraced these measures, others have yet to integrate them into their regulatory frameworks. Furthermore, stress testing practices vary significantly, with some countries conducting comprehensive tests across their financial systems while others have more limited regimes. The effectiveness of stress testing as a tool for financial stability could be enhanced through greater harmonization and sharing of best practices.

The effectiveness of regulatory frameworks is intrinsically linked to the quality of supervision. Supervisory authorities need the independence, resources, and expertise needed to enforce regulations effectively and ensure compliance. Enhancing supervisory practices could involve greater international cooperation, information sharing, and capacity-building initiatives. Though we did not detail findings in this dimension in the report, information is available in the survey.

Basel III is certainly not perfect and there are a number of reservations regarding the strict application of some of its recommendations in emerging markets (Beck and Rojas-Suárez (2019). Nevertheless, it is widely acknowledged that the new Accord represents an improvement over Basel II and previous regulatory frameworks. To foster financial stability and resilience in the LAC region, it is imperative to continue the efforts towards Basel III compliance, focusing on capital adequacy, liquidity, and leverage, among other key areas. Policymakers and regulators should also consider the evolving financial landscape, including the impact of technological innovations and the changing nature of financial risks. Strengthening regional cooperation and dialogue can facilitate the sharing of best practices, enhance regulatory harmonization, and contribute to more stable and integrated financial systems. Addressing identified challenges and leveraging the opportunities for cooperation and harmonization, through surveys such as the one discussed here, can significantly contribute to the region's economic growth and development.

# Annex: Survey on banking and prudential policies and practices

**Survey on Banking and Prudential Policies and Practices** | **Select country**

**General notes:**
*Recent developments in financial markets in the United States and Europe have raised concerns about the strength of financial systems in emerging markets and Latin America and the Caribbean. This survey combines some questions previously asked in the World Bank's regulatory and supervisory survey (https://www.worldbank.org/en/research/brief/BRSS) with additional questions to assess critical elements of regulation and supervision.*

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**Contact information**

Name ______ Email ______

**1. Application of regulation and supervision**

**1.1** **Do prudential regulatory requirements (such as capital requirements, provisioning, liquidity requirements, etc.) and supervision differ between deposit-taking financial institutions? For example, are there differences between some regulations for banks and cooperatives?**

Please select Yes or No

**1.1.a** **Please explain:**

**2. Concentration**

**2.1** **Is there a maximum percentage of bank equity that a single owner can own? What is that** — Please select Yes or No

**2.1.a** **If so, what is that percentage currently?** ______ %

**2.2** **Are there limits to a bank's lending (or other asset exposure) to a single borrower or group of interconnected counterparties?** — Please select Yes or No

**2.2.a** **If so, what is the limit? Please provided with percentage and basis.** ______ e.g "X% of bank's regulatory capital"

**2.3** **Are there limits to banks for (please select all that apply):**

| | |
|---|---|
| a. Product concentration | Please select Yes or No |
| b. Portfolio concentration | Please select Yes or No |
| c. Economic sector concentration | Please select Yes or No |
| d. Geographic concentration | Please select Yes or No |
| e. Liability side concentration | Please select Yes or No |
| f. Other (please specify) | |

**3. Capital Requirements**

**3.1** **Which regulatory capital adequacy regimes are currently in place, and for which financial institutions does it apply? For each regime, please specify for which financial**

- a. Basel I
- b. Basel II
- c. Basel III

**3.2** **If in Basel I, are risk weights equal or different than those recommended by the Basel Committee? Which ones?**

**3.3** **If in Basel II or Basel III, what alternatives are offered to financial institutions for calculating capital requirements for credit risk? (Please select all options that apply).**

| | | Please indicate which financial institutions can use it. |
|---|---|---|
| a. Simplified standardized approach | Please select Yes or No | |
| b. Standardized approach | Please select Yes or No | |
| c. Foundation internal ratings-based approach (F-IRB) | Please select Yes or No | |
| d. Advanced internal ratings-based approach (A-IRB) | Please select Yes or No | |
| e. Other (please explain) | | |

**3.4** **What assets can count as Tier 1 capital?**

**3.5** **What assets can count as Tier 2 capital?**

**3.6** **Do you have in place a conservation buffer?** — Please select Yes or No

**3.6.a** **If yes, how much is it?** ______ % of risk-weighted assets

3.7 Do you have in place a counter-cyclical buffer? Please select Yes or No

3.7.a If yes, how much is it? ____ % of risk-weighted assets

3.8 Is there a required leverage ratio? Please select Yes or No

3.8.a If yes, how much is it?

3.8.b If yes, what concept of capital is used to calculate it? Please select

If other, please explain

3.9 Which risks are covered by the current regulatory minimum capital requirement? Please select all applicable risks.

| | |
|---|---|
| a. Credit risk | Please select Yes or No |
| b. Market risk | Please select Yes or No |
| c. Operational risk | Please select Yes or No |
| d. Other risks (please explain) | |

3.10 Which of the following items are allowed as part of Tier 1 capital and in what percentages?

| | | If yes, what is the percentage allowed? | If the response is No, please explain its treatment. In case the instrument does not exist in your country, please |
|---|---|---|---|
| a. Hybrid debt capital instruments | Please select Yes or No | | |
| b. Asset revaluation gains (or revaluation reserves) | Please select Yes or No | | |
| c. Subordinated debt | Please select Yes or No | | |

3.11 Which of the following items are allowed as part of Tier 2 capital and in what percentages?

| | | If yes, what is the percentage allowed? | If the response is No, please explain its treatment. In case the instrument does not exist in your country, please |
|---|---|---|---|
| a. Hybrid debt capital instruments | Please select Yes or No | | |
| b. Asset revaluation gains (or revaluation reserves) | Please select Yes or No | | |
| c. Subordinated debt | Please select Yes or No | | |
| d. General provisions | Please select Yes or No | | |
| e. Provisions or loan-loss reserves held against future, presently unidentified losses | Please select Yes or No | | |
| f. Difference between total eligible provisions and total expected loss | Please select Yes or No | | |

3.12 What fraction of asset revaluation gains is allowed as part of capital?

3.13 Are the following items deducted from Tier 1 regulatory capital?

| | | If the response is No, please explain its treatment |
|---|---|---|
| a. Goodwill | Please select Yes or No | |
| b. Deferred tax assets | Please select Yes or No | |
| c. Intangibles | Please select Yes or No | |
| d. Investment in the capital of certain banking, financial and insurance entities which are outside the scope of consolidation | Please select Yes or No | |
| e. Unrealized losses on mark-to-market exposures (faired valued) | Please select Yes or No | |

3.14 In the computation of Risk-Weighted Assets, what risk weights are applied to banks' exposures? Please explain.

| | |
|---|---|
| a. Cash | |
| b. Exposure to Own Government in Local Currency | |
| c. Exposure to Own Government in Foreign Currency | |
| d. Exposure to Foreign Governments and Central Banks | |
| e. Exposure to Domestic Depositary Institutions | |
| f. Exposure to Foreign Banks | |
| g. Corporate Exposures | |
| h. Retail Exposures | |
| i. Residential Mortgage Exposures | |
| j. Commercial Real Estate Exposures | |
| k. Past Due Exposures | |
| l. Exposure to OTC Derivatives | |
| m. Exposure to Collateralized Transactions | |
| n. Securitization Exposures | |
| o. Equity Exposures | |

4. Liquidity Requirements

4.1 Is Basel III "liquidity coverage ratio (LCR)" in place in your country? Please select Yes or No

4.1.a If yes, what is the minimum required liquidity coverage ratio?

4.1.b If yes, what was the actual liquidity coverage ratio of the banking system by the end of 2022? And currently? (Please provide the most recent figure). End of 2022: Currently:

4.1.c If yes, what was the actual ratio of "high-quality liquidity assets" (HQLA, i.e., assets that can be easily and immediately converted into cash at little or no loss of value) to total assets for the banking system by the end of 2022? And currently? (Please provide the most recent figure). End of 2022: Currently:

4.2 Is Basel III "net stable funding ratio in place in your country (NSFR)"? Please select Yes or No

4.2.a If yes, what is the minimum required net stable funding ratio?

4.2.b If yes, what was the actual net stable ratio of the banking system by the end of 2022? And currently? (Please provide the most recent figure). End of 2022: Currently:

4.3 If not in Basel III, what are the liquidity requirements in your jurisdiction? Please explain the indicators used and the assets that qualify as liquid assets.

## 5. Financial investment classification

5.1 Does regulation explicitly limit how investments are valued (fair value or at amortized cost) in the balance sheets of financial intermediaries? Please select Yes or No

5.1.a If yes, what type of regulations are in place?

5.2 Are financial intermediaries required to classify ex-ante financial investments in the trading or held-to-maturity books? Please explain.

5.3 Does regulation restrict how investments can be reclassified across books? Please explain.

## 6. Other prudential requirements

6.1 Are there maximum Loan-to-Value (LTV) ratios for mortgage loans? Please select Yes or No

6.1.a If yes: what is this limit?

6.2 Are there maximum Debt-to-Income (DTI) ratios for mortgage loans (i.e., total monthly obligations divided by borrower(s)gross monthly income)? Please select Yes or No

6.2.a If yes: what is this limit?

6.3 Is the level of risk of loans defined exclusively by arrears, or are forward-looking criteria considered? Please explain.

6.4 Do you have counter-cyclical provisions in place? Please select Yes or No

6.4.a If yes, how are they determined? Please explain.

## 7. On supervision

7.1 To whom is the banking supervisory agency legally responsible or accountable? (please indicate all the options that apply)

a. The head of the Government (e.g., President, Prime Minister) Please select Yes or No
b. The Finance Minister or other cabinet-level official Please select Yes or No
c. A legislative body, such as Parliament or Congress Please select Yes or No
d. Other, please explain

7.2 Does the head of the banking supervisory agency have a fixed term? Please select Yes or No

7.2.a If yes, how long is the term? years

7.3 Can the head of the banking supervisory agency be removed by (please mark all the options that apply):

a. The decision of the head of Government (e.g., President, Prime Minister) Please select Yes or No
b. The decision of the finance minister or other cabinet-level authority Please select Yes or No
c. The decision of a legislative body, such as Parliament or Congress Please select Yes or No
d. Other, please explain

7.4 Does the banking supervisory agency need to obtain approval or no objection from the government to (please mark all the options that apply):

a. Issue binding secondary regulations for the banking sector Please select Yes or No
b. Determine its budget Please select Yes or No
c. Obtain funding Please select Yes or No
d. Hire and fire senior staff Please select Yes or No
e. Define salaries and benefits structure of staff Please select Yes or No
f. Define its organizational structure Please select Yes or No

7.5 Can an individual banking supervisory staff be held personally liable for damages to a bank caused by their actions or omissions committed in the good faith exercise of their duties? Please select Yes or No

7.6 When banking individual supervisory staff are prosecuted, what kind of support is provided to the prosecuted staff member(s) by the banking supervisory agency?

a. Legal counsel Please select Yes or No
b. Legal advice Please select Yes or No
c. Reimbursement of costs Please select Yes or No
d. Reimbursement of monetary penalties Please select Yes or No
e. Access to officials and records in the banking supervisory agency Please select Yes or No

7.7 **Can the supervisory agency be held legally liable for damages to a bank caused by its actions?** Please select Yes or No

7.8 **How frequent are onsite inspections?**

7.9 **Are there differences between different types of financial institutions?**

7.10 **Can the bank supervisor (please mark all the options that apply):**

a. **Remove a bank's external auditor?** Please select Yes or No
b. **Prosecute a bank's external auditor for negligence, fraud, or collusion?** Please select Yes or No
c. **Blacklist a bank's external auditor from performing future bank audits?** Please select Yes or No

7.11 **Does the banking supervisor have the right to meet with the external auditors and discuss the report without the bank's approval?** Please select Yes or No

7.12 **Are there specific guidelines or requirements that explicitly address the following areas in the governance of banks? For each one that you select, please indicate whether there is a mandatory rule or whether adopting the guideline is voluntary:**

a. **Establishment of an audit committee** Please select
b. **Establishment of a compensation committee** Please select
c. **Requirement for a majority of independent directors on the Board** Please select
d. **Public disclosure of remuneration packages for directors and senior management** Please select
e. **Separation of the roles of CEO and Board Chairperson** Please select
f. **Provisions covering related party transactions** Please select
g. **Existence of independent risk management function within the bank** Please select

7.13 **Do all the above guidelines or requirements apply uniformly to all financial intermediaries (including state-owned financial intermediaries)?**

a. **Establishment of an audit committee** Please select Yes or No
b. **Establishment of a compensation committee** Please select Yes or No
c. **Requirement for a majority of independent directors on the Board** Please select Yes or No
d. **Public disclosure of remuneration packages for directors and senior management** Please select Yes or No
e. **Separation of the roles of CEO and Board Chairperson** Please select Yes or No
f. **Provisions covering related party transactions** Please select Yes or No
g. **Existence of independent risk management function within the bank** Please select Yes or No

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**8. On stress tests**

8.1 **Are stress tests regularly conducted in your jurisdiction?** Please select Yes or No

8.1.1 **Who conducts the stress tests (banking supervisor, central bank)?**

8.2 **At what level are the tests conducted (bank level and/or systemic wide level)?**

8.3 **Are all financial intermediaries required to conduct stress tests?** Please select Yes or No

8.4 **How frequently are stress tests conducted?**

8.5 **What are the main variables assessed in the stress tests?**

8.6 **Are stress tests used primarily for:**

a. **Anticipating macroeconomic and systemic events** Please select Yes or No
b. **Supervisory purposes** Please select Yes or No

8.6.b.1 **If yes to Supervisory purposes, are supervisors required to engage on a one-to-one basis with financial intermediaries to design action plans to overcome identified weaknesses? Please explain**

c. **Other (Please explain).**

8.7 **Are the results of stress tests disclosed to the public?** Please select Yes or No

8.7.1 **If yes, are results reported at the financial intermediary level and disclosing the names of financial intermediaries under stress?** Please select Yes or No

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**9. Other**

9.1 **Has the fall of Silicon Valley Bank and other banks in the USA and Europe raise any concerns about the current regulatory/supervisory framework in your country?**

9.2 **Have the regulators/supervisors taken any additional precautionary measure considering these developments?**

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