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Under pressure: taking stock of
supervisory resources

Rodrigo Coelho and Rebecca Guerra

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Under pressure: taking stock of supervisory resources¹

Highlights

- *Effective banking supervision relies on several factors, including authorities having relevant powers, operational independence, legal protection and the willingness to take timely actions. However, even if all these conditions are met, supervision will not be effective without adequate resources.*
- *The resources needed for banking supervision depend on factors such as financial system size, banks' business models, and the supervisor's mandate, perimeter and approach. The actual resources available for supervision, meanwhile, are limited by budgetary constraints and the availability of skilled professionals. Hence, actual resources often fall short of optimal levels.*
- *Jurisdictions with smaller banking systems as well as those where supervisory authorities are financially independent tend to have more resources. Conversely, banking supervisors overseeing major financial centres appear to be relatively more stretched than their counterparts elsewhere.*

1. Introduction

The 2023 banking turmoil triggered a debate about the adequacy of the various components of the current prudential framework for maintaining financial stability. At this stage, views differ regarding the extent to which changes to the regulatory framework are necessary to tackle the deficiencies highlighted by recent bank failures. In contrast, there appears to be a growing consensus on the imperative to enhance the effectiveness of banking supervision.²

Attaining this goal will not come easy. In certain jurisdictions, this will require adjustments to the legal framework to endow banking supervisors with the necessary powers and tools.³ In other cases, supervisors have long possessed such powers and tools, but a cultural shift might be needed to promote supervisory intervention aimed at tackling identified weaknesses at an early stage.⁴

While necessary, such adjustments may not be sufficient to make banking supervision effective if other conditions are not met. Supervisory effectiveness hinges on multiple factors, including the adequacy of supervisory skillsets, technology and processes.⁵ This implies, among other things, that an effective

¹ Rodrigo Coelho (rodrigo.coelho@bis.org) and Rebecca Guerra (rebecca.guerra@bis.org), Bank for International Settlements. The authors are grateful to Sarah Bell, Blaise Gadanecz, Markus Grimpe, Fabiana Melo and Antonio Pancorbo for their helpful comments. The authors are grateful to Anna Henzmann for administrative support.

² See, for example Adrian et al (2023) and BCBS (2023).

³ For example, according to FINMA (2023), one of the lessons learned from the Credit Suisse crisis is that the current supervisory framework limits FINMA's ability to address issues related to governance. As a result, additional powers and tools, such as powers to impose fines and a senior managers regime, are needed in order to give FINMA more options to deal with banks' weaknesses in a more effective way.

⁴ According to Federal Reserve Board (2023b), the 2023 bank failures in the United States highlighted the need for authorities to develop a culture that empowers supervisors to act in the face of uncertainty. In particular, the report suggests that the supervisory culture should shift towards more willingness to form judgments that challenge bankers and to take steps with a precautionary perspective.

⁵ For a discussion on the essential elements of an effective supervisory framework and the recent progress made in implementing such elements, see, for example, Adrian et al (2023).

framework is predicated on authorities having a financial budget that matches their responsibilities, enabling them to make regular investments to ensure that banking supervision remains fit for purpose.⁶

Importantly, while technology can certainly help increase its productivity, banking supervision is inherently labour-intensive. Regular on-site inspections, for example, are an essential element of banking supervision that allows authorities to verify the adequacy of banks' policies, procedures and controls. Similarly, interactions with board members and senior management provide invaluable insights into the bank's risk management culture and corporate governance.

The resources needed for banking supervision depend on several factors, such as the size of the financial system and the complexity and riskiness of the activities performed by financial institutions. The institutional arrangement for supervision as well as the supervisor's mandate, perimeter and approach⁷ also play a crucial role. These factors, among others, inform the optimal level of resources required for supervisors to effectively discharge their responsibilities. In practice, however, budget availability is often a constraint, directly determining the actual allocation of resources.⁸

This paper provides an overview of the resources available for banking supervision across selected jurisdictions. Its ambition is not to discuss the optimal level of supervisory resources. This would be a challenging task, as determination of such a level is jurisdiction-specific and involves multiple considerations. Yet, and despite the analysis being subject to various comparability caveats, the paper aims to assist authorities in their efforts to evaluate the adequacy of their supervisory resources.

The remainder of this paper is organised as follows. Section 2 looks at the human and financial resources available for banking supervision across selected jurisdictions. The findings reveal considerable diversity. The analysis that follows investigates some of the factors that may have a bearing on this heterogeneity, including cross-jurisdictional differences in financial depth, funding mechanisms for banking supervision, and institutional arrangements. Section 3 concludes.

2. Supervisory resources

The analysis in this section draws on the responses to a survey conducted with selected authorities and is supplemented with publicly available information.⁹ The collected data focus on human and financial

⁶ Drawing on lessons learned from the 2023 banking turmoil, Carstens (2023) argues that budgets for banking supervision must rise to cope with authorities' increasing responsibilities. Similarly, BCBS (2023) highlights as one of the key lessons from the banking turmoil the need to ensure that supervisory authorities have the appropriate quantity and quality of resources to properly discharge their responsibilities.

⁷ For example, the extent to which and how the principle of proportionality and the risk-based approach are applied may also have a bearing in determining the supervisory resources needed.

⁸ The availability of skilled workers is often another relevant constraint in some jurisdictions.

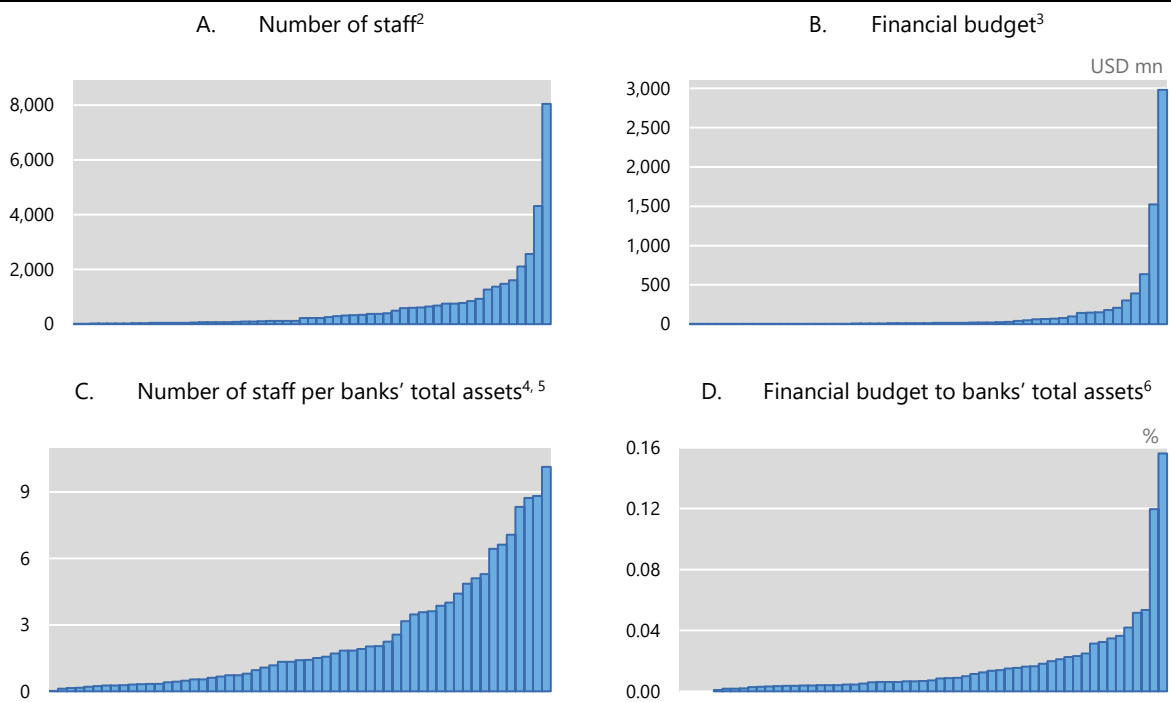
⁹ This paper covers 57 jurisdictions. Surveyed authorities include the National Bank of Angola, Financial Services Regulatory Commission of Antigua and Barbuda, Central Bank of Argentina, Central Bank of Armenia, Central Bank of Bahrain, Bank of Botswana, Central Bank of Brazil, National Bank of Cambodia, Cayman Islands Monetary Authority, Financial Market Commission of Chile, Financial Superintendency of Colombia, Czech National Bank, Superintendency of Banks of the Dominican Republic, Dubai Financial Services Authority, Superintendency of Banks of Ecuador, Superintendency of Banks of Guatemala, Bank of Guyana, National Banking and Insurance Commission of Honduras, Reserve Bank of India, Banking Control Commission of Lebanon, Reserve Bank of Malawi, Central Bank of Malaysia, National Banking and Securities Commission of Mexico, National Bank of Moldova, Bank Al-Maghrib, Bank of Namibia, State Bank of Pakistan, Superintendency of Banks of Panama, Superintendency of Banking, Insurance and Private Pension Fund Administrators of Peru, Bangko Sentral ng Pilipinas, Qatar Financial Centre Regulatory Authority, National Bank of Serbia, Bank of Thailand, Central Bank of Tunisia, Turks and Caicos Islands Financial Services Commission and Central Bank of Uruguay.

resources (ie the number of staff and the budget, respectively) dedicated to banking supervision across selected jurisdictions. With caveats,¹⁰ these data encompass resources allocated to microprudential supervision, covering both on-site and off-site activities, as well as functions that support such activities.¹¹ Resources for prudential regulation, macroprudential supervision, licensing and resolution are outside the scope of this exercise.

The allocation of human and financial resources for banking supervision shows notable differences among the surveyed jurisdictions (Graphs 1.A and 1.B). Presumably, among other factors, these variations can be partially attributed to differences in the size of the banking systems in these jurisdictions. Yet, even when relative metrics are considered (ie scaled by banks' domestic assets), a substantial degree of heterogeneity remains across surveyed authorities (Graphs 1.C and 1.D).

Human and financial resources allocated to supervision¹

Graph 1



¹ In jurisdictions where two or more authorities share banking supervision responsibilities, numbers represent the sum of resources across authorities. ² Number of staff in banking supervision. ³ Annual financial budget for 2022 when available. ⁴ Scaled by banks' total assets (USD billion, end-2022 exchange rates). ⁵ Banks' total assets on a domestic consolidation basis when available. ⁶ Ratio of annual financial budget to banks' total assets.

Source: FSI analysis.

Public information was collected for the following jurisdictions: Andorra (Govern d' Andorra (2022), AFA (2022)), Australia (APRA (2022)), British Virgin Islands (FSC (2022)), Canada (OSFI (2022)), China (CBIRC (2023), China Banking News (2018)), Denmark (DFSA (2023), European Banking Union (ECB (2022), Dahlgren et al (2023)), Iceland (Central Bank of Iceland (2023)), Indonesia (OJK (2023)), Japan (FSA (2023)), Korea (Bank of Korea (2023), FSS (2023)), Liechtenstein (FMA (2023)), New Zealand (RBNZ (2022)), Norway (Finanstilsynet (2023)), South Africa (SARB (2022)), Sweden (Ekonomistyrningsverket (2021), Finansinspektionen (2023)), Switzerland (FINMA (2022a, 2022b)), Türkiye (BRSA (2021)), United Kingdom (BoE (2023)), United States (FED (2023a, 2023c), FDIC (2022, 2023), OCC (2023a, 2023b)) and Zambia (Bank of Zambia (2023)).

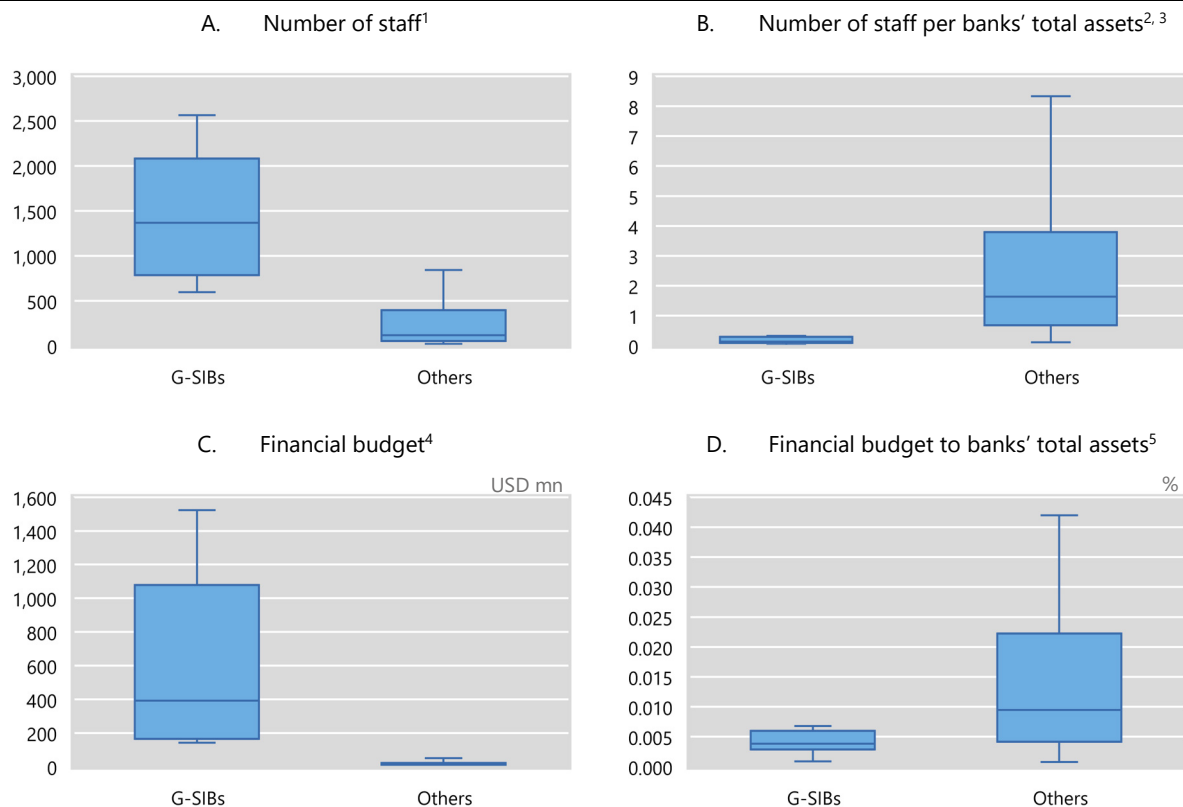
¹⁰ For example, for certain jurisdictions, figures may be overstated due to the inclusion of resources allocated to activities that are beyond the scope of the present analysis. In other cases, numbers might be underestimated, as they may not encompass the resources of supporting functions that may be part of units sitting outside the core organisational structure of supervision.

¹¹ This may include, for example, staff working in information technology, legal and communication units.

Supervisory authorities of the largest financial systems often operate with fewer resources in relative terms than their counterparts in other jurisdictions (Graph 2). On one hand, this may be justified on the basis of potential economies of scale associated with the larger structures in such jurisdictions. In other words, while it is expected for required resources to increase with the size of the banking system, the relationship between these variables is unlikely to be linear. On the other hand, large financial centres are often home to banks performing more complex activities, for which presumably additional, specialised supervisory resources are required.

Supervisory resources in large financial centres

Graph 2



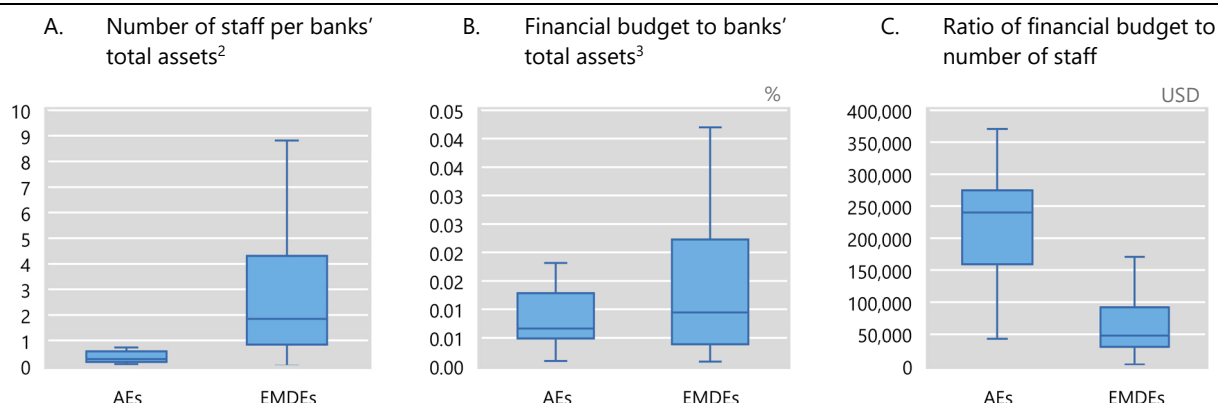
¹ Global systemically important bank (G-SIB) home jurisdictions: CA, CH, CN, EU, GB, JP and US. ² Scaled by banks' total assets (USD billion, end-2022 exchange rates). ³ Banks' total assets on a domestic consolidation basis when available. ⁴ Annual financial budget for 2022 when available. ⁵ Ratio of annual financial budget to banks' total assets.

Source: FSI analysis.

Relatedly, supervisory authorities in emerging market and developing economies (EMDEs) seem to benefit from a significantly larger pool of human resources compared with their counterparts in advanced economies (AEs) (Graph 3.A). The same holds true for financial resources, although the difference is not as stark (Graph 3.B), presumably because of higher labour costs in AEs relative to in EMDEs (Graph 3.C).

Supervisory resources in AEs and EMDEs¹

Graph 3



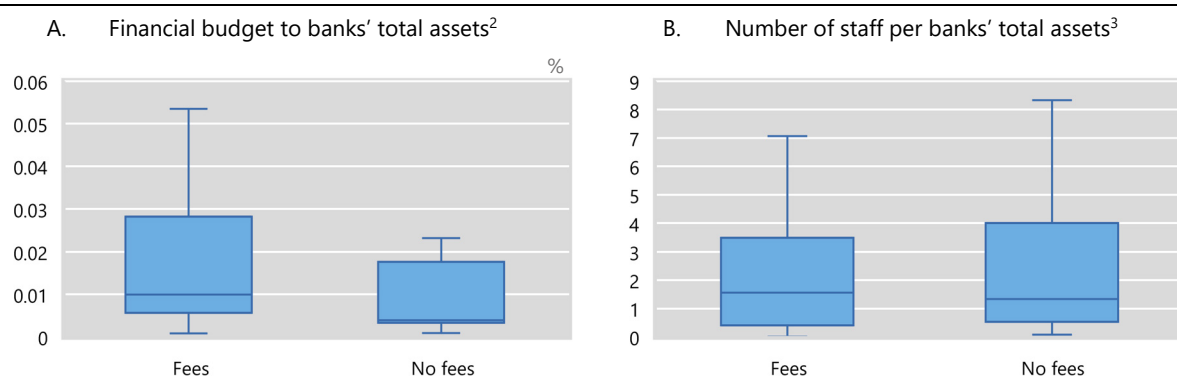
¹ AEs: AD, AU, CA, CH, DK, EU, GB, IS, JP, KY, LI, NO, NZ, SE, US. EMDEs: AE, AG, AM, AO, AR, BH, BR, BW, CL, CN, CO, CR, CZ, DO, EC, EG, GT, GY, HN, ID, IN, JO, KH, KR, KW, LB, MA, MD, MX, MY, NA, PA, PE, PH, PK, QA, RS, TN, TR, UY, VG, ZA, ZM. ² Number of staff in banking supervision, scaled by banks' total assets (USD billion, end-2022 exchange rates). ³ Ratio of annual financial budget to banks' total assets.

Source: FSI analysis.

Surveyed authorities that collect levies and fees from banks have, on average, greater financial resources compared with their counterparts who do not (Graph 4.A). This is likely because such fees are often determined based on estimates of what these authorities need to effectively carry out their responsibilities.¹² Consequently, the financial support available to such supervisors tends to grow in line with the expansion of their responsibilities.¹³ In contrast, authorities relying exclusively on funding from the government will likely face fiscal constraints. As for central banks, the availability of resources hinges on their degree of independence. Financially dependent central banks tend to face fiscal constraints comparable to government-funded authorities, whereas independent central banks have more flexibility.

Supervisory resources by funding mechanism¹

Graph 4



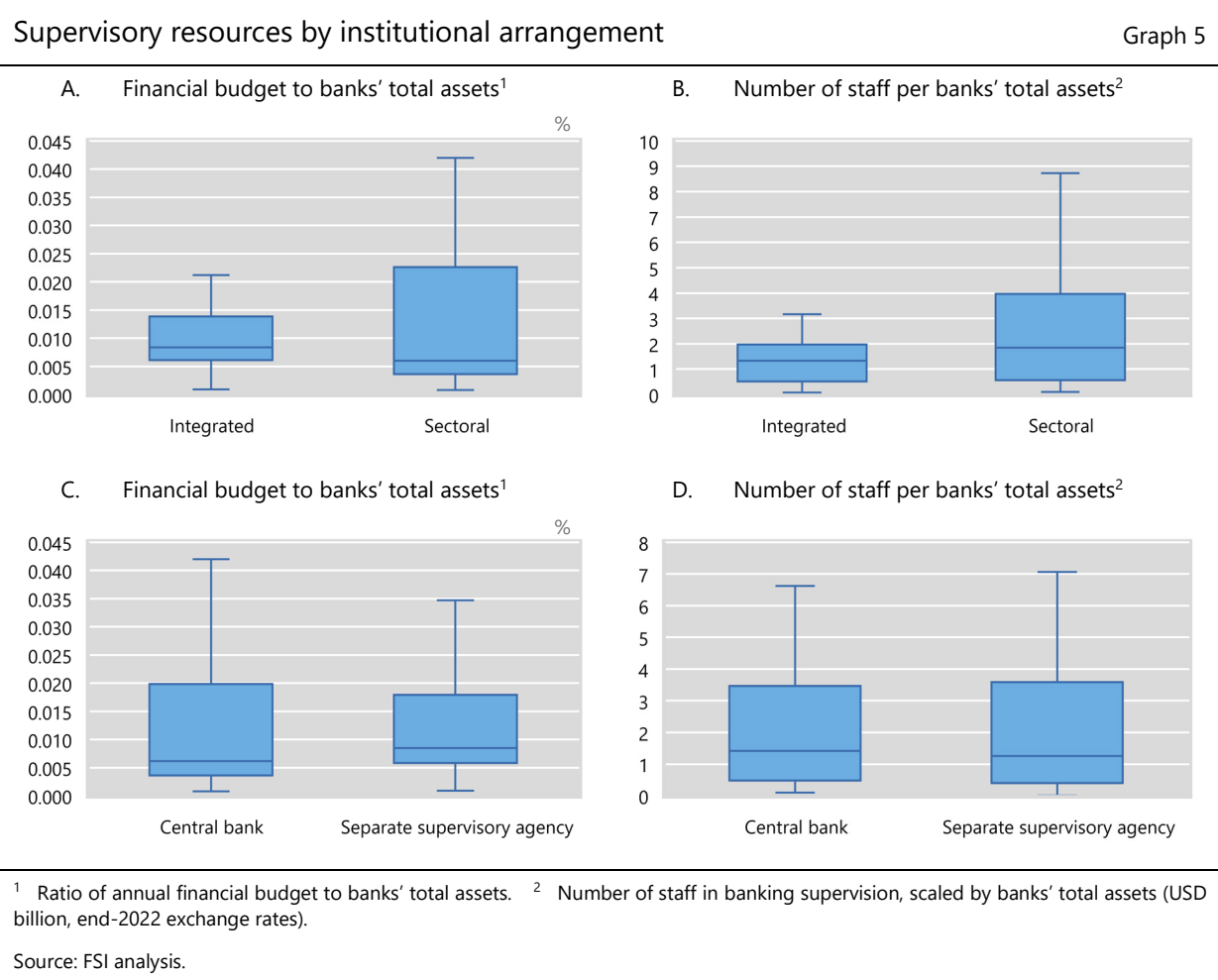
¹ Fees: jurisdictions that are at least partly funded by fees and levies from banks. ² Ratio of annual financial budget to banks' total assets. ³ Number of staff in banking supervision, scaled by banks' total assets (USD billion, end-2022 exchange rates).

Source: FSI analysis.

¹² For example, in setting its fees, the United States Office of the Comptroller of the Currency (OCC) may take into account the nature and scope of the activities of a bank, the amount and type of assets that the entity holds, the financial and managerial condition of the entity, and any other factor the Comptroller of the Currency determines is appropriate (OCC 2023c).

¹³ That said, political considerations may play a role in limiting the amount of fees and levies collected by supervisory authorities.

Differences in institutional arrangements appear to have limited influence on resource availability across jurisdictions. Specifically, integrated supervisors exhibit comparable staffing and budgetary availability to authorities following a sectoral model (Graphs 5.A and 5.B).¹⁴ As well, separate supervisory agencies and central banks with supervisory responsibilities tend to possess similar levels of human and financial resources (Graphs 5.C and 5.D).



3. Conclusion

As history has demonstrated time and again, financial crises give rise to tremendous costs to societies, wreaking havoc on economies and financial systems. While banks bear the primary responsibility for managing their own risks, banking supervisors play a crucial role in safeguarding the stability of the

¹⁴ According to Calvo et al (2018), an integrated model is one where (i) the central bank or the separate supervisory agency is the primary authority for microprudential supervision for banking, insurance and securities business; and (ii) the same authority is also the supervisor of the conduct of business, either with primary or shared responsibilities for banking, insurance and securities firms and markets. In contrast, under the sectoral model, there are separate supervisory authorities for banking, insurance and securities business. In general, each authority has a microprudential role and responsibility for the conduct of business in the sector they supervise. Other supervisory models include the twin peaks model and the two-agency model. A few surveyed jurisdictions follow one of these two models. However, due to the relatively small sample size, meaningful comparisons cannot be drawn.

financial system. It is, therefore, imperative not only from a financial stability perspective but also from a broader economic standpoint for public authorities to ensure that banking supervisors have adequate resources to properly fulfil their responsibilities.

The minimum level of resources for supervisory authorities to fulfil their responsibilities is jurisdiction-specific and depends on a myriad of elements. This includes, among others, the size of the financial system, the complexity of the activities conducted by financial institutions within the jurisdiction and the risks such institutions are exposed to. The supervisory mandate, approach and perimeter are other relevant considerations. The actual level of resources available for banking supervision, meanwhile, is constrained by budgetary restrictions and the availability of skilled professionals and often falls short of the optimal level.

The allocation of resources for banking supervision varies substantially across surveyed jurisdictions. At one end of the spectrum, jurisdictions with smaller financial systems as well as those enjoying budgetary independence seem to benefit from a relatively larger pool of resources. At the other end, authorities responsible for overseeing major financial centres appear to face more significant constraints. While such differences should be interpreted with caution in the light of the variety of factors determining the level of resources needed in each jurisdiction, the present analysis suggests that supervisors in such jurisdictions might be comparatively more stretched than their counterparts elsewhere.

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