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Good Supervision: Lessons from the Field

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ABSTRACT: Keeping banks safe and sound hinges on good supervision. The bank failures of March 2023 precipitated questions about the effectiveness of supervision. This paper reflects on lessons learned from this banking turmoil and reviews global progress in delivering effective supervision over the past ten years. It finds progress in areas like risk monitoring, stress testing, and business model analysis. Yet, progress has also been hampered by deficiencies in supervisory approaches, techniques, tools, and (use of) corrective and sanctioning powers, as well as by unclear mandates, inadequate powers, and lack of independence and resources. Overcoming these deficiencies requires supervisors to improve their own performance and other policy makers to contribute to ensuring vigilant, independent and accountable supervision.

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WORKING PAPERS

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AE	Advanced Economies
AI	Artificial Intelligence
BCBS	Basel Committee on Banking Supervision
BCP	Basel Core Principles for Effective Supervision
D-SIB	Domestic Systemically Important Bank
EMDE	Emerging Market and Developing Economies
EU	European Union
FSAP	Financial Sector Assessment Program
GDP	Gross Domestic Product
GFC	Global Financial Crisis
G-SIB	Global Systemically Important Banks
ICAAP	Internal Capital Adequacy Assessment Process
IMF	International Monetary Fund
LCR	Liquidity Coverage Ratio
ML	Machine Learning
MNC	Materially non-compliant
NC	Non-compliant
RWA	Risk-weighted asset
SNB	Swiss National Bank
SVB	Silicon Valley Bank

Executive Summary

The bank turbulence in the Spring of 2023 precipitated questions, hearings, and action plans directed at supervisory authorities. Doubts were raised by some as to whether the international reform agenda following the Global Financial Crisis (GFC) had been appropriately targeted and calibrated, and effectively implemented. The last time questions were raised regarding deficiencies in prudential regulation and supervision of banks, after the GFC, the International Monetary Fund (IMF) had emphasized that strengthening regulation, while necessary, would be insufficient, and that reinvigorating supervision was just as important. The 2010 Staff Position Note on "The Making of Good Supervision: Learning to Say 'No'" emphasized the importance of the will and ability to act as central to good supervision, and hence, to safeguarding the soundness of banks and stability of the system.

This paper takes the recent banking turbulence as a timely opportunity to review the case for good supervision which was spotlighted by the events in March. It reviews progress made in delivering effective supervision, seeks to consider practical examples of supervision in action, and examines whether the test of good supervision has evolved in the intervening period.

Effective supervision has long required a combination of skills—judgment, analysis, and a good sense of temporal and jurisdictional context. The number and depth of structural transformations underway—nonbank financial intermediation, digitalization, and climate change—have significantly raised the bar in terms of desired skill sets. And they underscore the importance of enhancing supervisory focus on corporate governance and business models in assessing whether risk management and risk buffers are fit-for-purpose, and of using Pillar 2 supervisory review powers and all available corrective tools to ensure this is so.

The paper argues that the will and the ability to act remain central to effective supervision and they are sustained by the same fundamental attributes as before. Key among these are: strong operational independence and accountability; clarity regarding the primacy of supervisors' safety and soundness mandate, should their work programs be tasked with serving other goals; adequate and timely resources, including access to qualified and experienced supervisory staff; and legal protection for supervisors in the pursuit of duty. Impediments to the will and ability to act often stem from a lack of key prerequisites for good supervision, including sound macroeconomic policies and legislative foundations for effective supervision, among others.

This means that while some of the necessary action to meet heightened expectations of supervisors will need to be their own—such as enhancing their internal processes for review and escalation of action—other authorities, including the legislature, will also need to step up. Attention paid by other responsible authorities to supervisory resources, independence, and legal powers will pay dividends.

Introduction

After the GFC, when the world's attention was focused on strengthening banking regulation, the IMF argued that anchoring financial stability required, in parallel, achieving the task of ensuring better resourced, and more independent, intrusive, and conclusive supervision.[1] The IMF's call for *good* supervision recognized that institutional resilience and financial stability reflects not only strong, fit-for-purpose regulation, but equally, strengthened risk management and governance by banks and its intensive supervisory oversight.

The March 2023 banking turmoil has again shown the world that when supervision fails, poor risk management practices will fester, and problems will eventually ensue. This is despite authorities and banks having worked hard on implementing far-reaching, complex enhancements to strengthen resilience from the capital adequacy, liquidity, recovery, and resolution perspectives. Recent events provide an opportunity to reflect on the role of supervision more broadly, combining lessons from these bank failures with insights drawn from the last decade of Financial Sector Assessment Program (FSAP) reviews across the IMF membership.

The IMF Staff Position Paper on "The Making of Good Supervision" remains highly pertinent (Box 1). A key message from 2010 was that supervision needed to be assertive and intrusive, i.e., supervisors needed the will and ability to act, and that paper explored these dimensions. Since then, the applicable standards for banking supervision—the Basel Core Principles for Effective Banking Supervision (BCP)—have been updated.[2] The standards brought to the fore the importance of risk management and required supervisors to assess the risk profile of banks in terms not only of the risks they run and the efficacy of their risk management, but also of the risks they pose to the banking and financial system as a whole. In addition, supervisors need to consider how the macroeconomic environment, business trends, and the build-up and concentration of risk inside and outside the banking sector may affect the risk to which individual banks are exposed.

Working within the context of the post-GFC regulatory framework, and the experience of ten years of the revised BCP standards, this paper aims to step back and look at the progress made, weaknesses exposed, and challenges faced by supervisors over the past decade. It seeks to consider whether supervisors have indeed possessed the ability and expressed the will to act based on evidence provided by the IMF's engagement with supervisory authorities in the context of the FSAP and technical assistance. It offers some high-level conclusions on areas where greater effort appears to be needed to ensure effective supervision.

Overall, progress has been made in risk monitoring, stress testing, and business model analysis. Supervisors in advanced, emerging, and developing economies are incorporating forward looking supervisory approaches, in some cases by harnessing data-intensive and technology-driven tools (Suptech). Wider adoption of stress tests as a supervisory tool represents a great advance in risk management and oversight since the GFC, broadening supervisors' views of threats to individual banks and the sector beyond historical data and past experiences.[3] Business model analysis has become integral to supervisory frameworks in many jurisdictions, aiding early identification of vulnerabilities and supporting the supervisory dialogue on the sustainability of banks.

[1] See Viñals and others (2010). The IMF's views were echoed by the Financial Stability Board: https://www.fsb.org/wp-content/uploads/r_101101.pdf, which developed these ideas further through guidance on supervisory interaction with banks on risk culture (https://www.fsb.org/wp-content/uploads/ 140407.pdf) and monitored progress on enhanced supervision (https://www.fsb.org/wp-content/uploads/r_140407.pdf?page_moved=1).

[2] Originally published in 1996, the Basel Core Principles [https://www.bis.org/publ/bcbs230.htm] have been periodically updated. This paper has been written at a time when a consultation on revisions to the 2012 standard is ongoing.

[3] See Adrian and others (2020): https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2020/01/31/Stress-Testing-at-the-IMF-48825.

Yet, the bar for supervisors is higher after the GFC, and ongoing structural transformations—including nonbank financial intermediation, digitalization, and climate change—have made fulfilling supervisory mandates more challenging. Countries are performing better against higher benchmarks on capital and liquidity regulation but progress on supervision has been markedly slower. Despite a strong association between the institutional setting for supervision and bank soundness and stability, FSAP assessments during 2012–23 have found many advanced, emerging and developing economies lacking independent bank supervisors with clear safety and soundness mandates, adequate powers, and legal protection in the conduct of their duty. Deficiencies in supervisory approach, techniques, tools, and especially corrective and sanctioning powers are also widespread.

Areas that need to be systematically addressed to enhance supervisory effectiveness include more consistently requiring banks to go beyond quantitative regulatory thresholds and prudential rules when business and macro-financial risks are elevated. In this regard, the tendency for national authorities to treat Basel III standards as maximum—instead of the minimum standards that they are—reflects an undesirable inhibition of use of supervisory judgement and discretion, which often has its roots in lack of operational independence and lack of clear safety and soundness mandates. A second important concern in some countries is the tendency for supervisors to under-allocate resources and attention to institutions that may not qualify as systemically important on the basis of balance-sheet size alone. This can be problematic if, given unfavorable macrofinancial developments, such banks can have an adverse systemic impact due to business model vulnerabilities, concentration risk, and weaknesses in risk management, with concerns more easily amplified and propagated in a digital world. The recent bank failures in the United States and Switzerland illustrate these concerns.

More generally, a few important factors have hindered the will and ability of supervisors to act. Hesitation to act can stem from perceived or actual vulnerability to influence by government or industry and lack of legal protection. Delays in taking, and escalating, action are also frequently a result of the absence of clear mandates, deficiencies in supervisory capabilities and resources, and poor internal decision-making process. Often, impediments to the will and ability to act stem from lack of key prerequisites for good supervision, including sound macroeconomic policies and legislative foundations for effective supervision, among others.

Consequently, key priorities in promoting the cause of good supervision—that is, enhancing the ability and will of supervisors to act—include a combination of actions: strengthening operational independence; enhancing clarity regarding primacy of the safety and soundness mandate; providing legal protection for supervisors in the pursuit of duty; ensuring availability of trained and experienced supervisors; enhancing supervisory focus on corporate governance and risk management at supervised entities; and promoting the use of Pillar 2 powers to ensure that supervised entities' business activities and risk buffers are fit-for-purpose and not merely meeting minimum regulatory thresholds.

An overarching purpose of this paper is to take the opportunity afforded by the recent banking turmoil and the ongoing revision of the BCP to discuss the state of play regarding supervisory effectiveness and ways in which it could be fruitfully enhanced. A combination of robust, capable, and intrusive supervision, and strong and comprehensive regulation, is essential to promote banking soundness and financial stability. Good regulation and good supervision depend upon each other, and each articulates the precepts that the other seeks to achieve. We do not aim to downplay the value and significance of regulation, albeit since regulation attracts far more attention and commentary than supervision, this paper tries to redress that balance.

The rest of this paper is organized as follows. Section 2 discusses the recent banking turmoil; section 3 provides an overview of findings on supervisory practice drawn from BCP assessments since 2012; section 4 offers a discussion of strengths, weaknesses and challenges faced by supervisors; section 5 discusses how the supervisory agenda could be supported and advanced; section 6 concludes.

Box 1. The Making of Good Supervision

What Is Good Supervision

In "The Making of Good Supervision: Learning to Say 'No'" staff drew on findings from the GFC to distill the key components of an effective supervisory framework. Staff noted that their insights were already embedded in international supervisory standards. In fact, the 2012 revision of the BCP supported the view of supervision articulated in that paper, as does the ongoing work on the revision of the BCP in 2023. The concepts are robust and evergreen. The challenge is to operationalize the concepts and to maintain the focus and energy that is required to ensure consistent implementation.

These insights are particularly useful in the light of the experience since the revision of the BCP in 2012 and the current focus on supervisory issues: "good supervision is: skeptical but proactive, it is comprehensive, it is adaptive, and it is conclusive". Staff articulated these precepts more fully, explaining that effective supervision took an active stance, based on sound and complete knowledge of the institution, challenging and probing both the systems and the risk decisions that it uncovered. First, to understand the risks and business models and challenge a bank's courses of action, where necessary, the supervisor must, like the banks, adapt to an ever-evolving environment. And second, supervision is only effective if it is capable and willing to move from making findings and notifications of issues, onto ensuring that supervisory concerns have been resolved satisfactorily and conclusively in timely fashion. These 2010 insights now look particularly premonitory in saying that "an institution can never have enough capital or liquidity if there are material flaws in its risk management practices. As the rule book becomes more detailed and complex, the supervisory approaches and skills required to implement the rules will become more challenging."

Bringing about Good Supervision—it is not all about supervisors

Good supervision can only be achieved if the foundations underlying the supervisor's ability and will to act are in place. Staff noted that the ability to act was based on, and could be undermined by the lack of, several key factors, such as: legal authority; adequate resources; clear strategy; robust internal organization; and effective working relationships with other authorities. The will to act was founded on, and could be confounded by the absence of, other key factors, such as: clarity of mandate; operational independence; accountability; skilled staff (also a requisite for ability to act); healthy relationship with industry; and effective partnership with bank boards.

Good supervision requires a number of essential supporting preconditions. In the BCP, the concepts of will and ability to act are captured under the first two, foundational, principles. Principle 1, on Responsibilities, Objectives and Powers; and Principle 2, on Independence, Accountability, Resourcing, and Legal Protection for Supervisors. The text of the BCP recognizes that while supervisors should be challenged on their will and ability to act, they work within a wider context. The preconditions include the existence and state of development of macroeconomic policies, financial stability policy frameworks, public infrastructures, market discipline, options to resolve problem banks in an orderly manner, and mechanisms for systemic protection. Most of all, supervisory authorities cannot write their own laws and mandates, frequently have constrained influence over their resource envelope, do not design the framework within which they are held accountable, or to which they can turn for legal protection. Therefore, some of the recommendations and conclusions—then and now—are to be implemented by authorities other than supervisors.

The March 2023 Bank Failures

Measured by the number of major institutional failures and (perceived) threat to global banking stability, March 2023 was notable for being the most unstable period in banking since the GFC. This paper takes these banking stress events as a touch point to discuss the role of supervision—whether it has changed since the GFC, whether new challenges have emerged, and whether supervisors have been equal to such challenges. Despite the failure of some banks in the United States (U.S.) and the government-supported merger of a global systemically important bank (G-SIB) in Europe, the turbulence was short-lived and did not evolve into a national or global systemic event. The paper is not an in-depth investigation into the events of the turmoil and the institutions who were involved. This permits a reflection of broader considerations affecting supervisory authorities on a global basis.

Supervisory approach can have long term consequences

The U.S. authorities have already published initial reports on the bank failures.[4] These reports conclude that the management and board of directors of the failed banks pursued risky business strategies compounded, problematically, by weak liquidity and inadequate risk management. The reports note that the supervisors had in fact identified several of the relevant vulnerabilities but had not been quick enough to escalate their supervisory actions, nor to insist or require the banks to respond more prudently while there was still time to do so. The Board's report also identified recent regulatory changes that reduced standards as impeding effective supervision. Despite identifying the issues, supervisors failed to be assertive, timely, and conclusive in their response. In at least one case, the reports identify resource challenges as having adversely impacted the timeliness and quality of examinations, slowing identification and reporting of weaknesses. Even where questionable risk decisions, and fundamental weaknesses in risk management were pointed out, these were largely left to the institution's discretion to resolve. When recommendations and feedback were ignored by the banks, the matter was not consistently and vigorously pursued by the supervisors, including importantly, through an escalation process. The supervisor should have insisted upon timely remediation of deficiencies.[5] While well managed banks are likely to be responsive to supervisory requirements, failure to meet supervisory expectations in a reasonable time may suggest that the bank lacks the means or ability to manage its risks, and closer supervisory oversight and a greater degree of coerciveness are called for.

No equivalent reports have been published by the Swiss supervisory authorities so far, but in its most recent Financial Stability Report, the Swiss National Bank (SNB) has commented on the business risks, profile, and reputation of Credit Suisse. These remarks echo the findings in the United States in that they portray a bank where business judgments and management of risks were increasingly questionable. Although Credit Suisse itself had already recognized the need for, and had embarked upon, reform efforts, a longstanding trail of reputational damage rendered the bank vulnerable to loss of market confidence. When a trigger event occurred, the bank's strong capital and liquidity reserves were insufficient to keep it afloat. As the SNB points out in its description of events, "The crisis at Credit Suisse has shown that meeting capital requirements is necessary

[4] These include the reviews from the Board of Governors of the Federal Reserve System on its supervision and regulation of Silicon Valley Bank (https://www.federalreserve.gov/publications/files/svb-review-20230428.pdf); the Federal Deposit Insurance Corporation's report on its supervision of Signature Bank (https://www.fdic.gov/news/press-releases/2023/pr23033a.pdf); and US Government Accountability Office's preliminary review of federal agency actions related to the March 2023 bank failures (https://www.gao.gov/assets/gao-23-106736.pdf).

[5] Available tools to address concerns differ from country to country. For example, the FRB review noted a few actions that could have been taken by supervisors: "Given the severity of issues, supervisors could have recommended an enforcement action that required compensating controls while the firm remediated the supervisory findings. Compensating controls could have included measures to constrain risk appetite, require additional reporting to the board of directors, or mandate the engagement of a third party to conduct an independent review."

but not sufficient to ensure market confidence."[6] Another way to express this point is to state that capital regulation or indeed regulation in general cannot be the only answer. Other parts of the picture are just as essential: banks must manage their own risks and supervisors need to intervene when necessary.

In both countries, the events of March 2023 reflect longer standing and broader challenges in banking supervision that had been highlighted in FSAP assessments.[7]

The 2020 US FSAP[8] had noted that regulatory tailoring, which lowered the applicability of regulatory requirements for all but the largest banks, would further increase the importance of high-quality banking supervision. The reduced frequency of supervisory stress tests and less stringent capital and liquidity requirements for banks like Silicon Valley Bank (SVB) increased the onus on supervision to sharpen its tools and procedures to ensure that such banks remained appropriately governed, controlled, and financially resilient to risks in light of digital transformation and a maturing credit cycle. Against this background, the FSAP anticipated challenges to maintaining supervisory intensity for a number of reasons. First, for several topics, the Federal banking authorities' expectations for banks were articulated in guidance rather than regulations, e.g., governance and risk management standards, including model risk management and expectations around various types of banking lending activities (commercial real estate lending, leveraged loans, and student loans). Given the jurisdiction's legal framework, this seems to have made some banks question the enforceability of supervisory guidance. Second, the number of onsite examinations had declined considerably for both large and small banks and there were many cases where banks took excessive time to address the concerns of supervisors, which represented an unnecessary risk to financial stability. This underscored the importance of further, follow-up supervisory action to ensure effective and prompt resolution of matters requiring attention, notably by introducing more explicit rules and processes to escalate supervisory actions in the absence of timely and appropriate responses from banks. Third, the last full assessment of the United States against the BCP, in 2015,[9] had urged that further steps be taken to assure the independence of the Federal Reserve's supervisory role particularly by reviewing the practice of commercial banks appointing officers on the boards of the Federal Reserves' district banks. This last issue was also highlighted in the recent SVB episode.

In the case of Switzerland, the 2019 FSAP[10] called for improvements relative to identified gaps in banking regulation and supervision, building upon the earlier assessment against the BCP in 2014,[11] which had assessed the supervisory authority as being under-resourced relative to its tasks. It urged authorities to reduce the reliance on external auditors for conducting supervisory tasks, emphasizing conflicts of interest and objectivity risks. In addition, the FSAP highlighted that the Swiss approach to corporate governance and risk

[6] See https://www.snb.ch/n/mmr/reference/stabrep_2023/source/stabrep_2023.n.pdf.

[7] Further information on the IMF's Financial Sector Assessment Program, including its history, coverage and joint assessments with the World Bank, is available at: (FSAP) (imf.org). For the 2019 FSAP for Switzerland, the relevant reports can be found here: Switzerland: Financial System Stability Assessment (imf.org) and here: Switzerland: Financial Sector Assessment Program; Technical Note-Selected Issues on Banking Supervision (imf.org). For the 2020 US FSAP, the relevant reports can be found here: United States: Financial System Stability Assessment (imf.org) and here: United States: Financial Sector Assessment Program-Technical Note-Banking Supervision and Regulation (imf.org).

[8] US tailoring is particularly complex given the reliance on thresholds: "the approach is subject to cliff or threshold effects, with banks having to meet more (or less) stringent prudential requirements and bear higher (or lower) compliance costs when they move, even temporarily, to another category. Conversely, a banking organization that would manage to keep the cross-jurisdictional activity, short-term wholesale funding, nonbank assets and off-balance sheet exposures indicators below their respective thresholds could grow up to US$700 billion in assets without having to (i) meet prudential requirements fully consistent with all Basel standards and to (ii) hold additional capital reflecting their systemic importance, as no D-SIBs have been identified by the FBAs." See https://www.imf.org/en/Publications/CR/Issues/2020/08/07/United-States-Financial-Sector-Assessment-Program-Technical-Note-Banking-Supervision-and-49657 for a full description of the tailoring in the US.

[9] See https://www.imf.org/external/pubs/ft/scr/2015/cr1589.pdf.

[10] See https://www.imf.org/en/Publications/CR/Issues/2019/06/26/Switzerland-Financial-Sector-Assessment-Program-Technical-Note-Selected-Issues-on-Banking-47046.

[11] See https://www.imf.org/external/pubs/ft/scr/2014/cr14264.pdf.

management weaknesses in G-SIBs was not conducive to early remediation of issues. One issue highlighted was the lack of legal power for the supervisor to restrict capital distributions to bank shareholders when some capital thresholds were not met and when governance weaknesses were not addressed. In addition, the FSAP noted that the strength of Switzerland's high capital requirements was tempered by the use of the internal models that served to aggressively deflate balance-sheet risks that the capital was providing protection against—in combination, the Swiss G-SIBs risk-weighted measure of total assets deflated their asset exposures by around 70 percent, which was at the higher end for G-SIBs.[12] External auditors were in many cases responsible for validating the models.

Liquidity Risk Management in the spotlight

Loss of market confidence leading to bank runs was a common factor in the March bank failures, although the nature and scale of liquidity management challenges varied significantly. For example, SVB experienced an outflow of $42 billion deposits in one day and anticipated another $100 billion on the day of its closure, representing nearly 85 percent of its total deposits. In early October 2022 and in mid-March 2023, Credit Suisse experienced two episodes with considerable and exceptionally rapid deposit outflows.

The two cases unfolded differently. The liquidity reserves determined by the liquidity coverage ratio (LCR) and additional liquidity requirements set by the supervisor supported the Swiss bank for an extended period, but eventually the Swiss authorities considered it wise to release a public announcement that Credit Suisse had full access to central bank liquidity if needed; provision of which acted as a pathway into the managed sale to UBS shortly thereafter. By contrast, the high volume and speed of technology-enhanced deposit outflows from SVB would have required a vast reserve of high quality liquid assets not commensurate with a viable business model of a typical commercial bank.[13] That said, key risk management failures at SVB included a highly concentrated funding structure comprising very large (uninsured) deposits, and failure to set up ex ante access to the central bank discount window.[14] The failure of supervisors to set a suitable timescale for remedying these deficiencies in risk management turned out to be especially important given that the bank's high stock of apparently liquid assets masked an underbelly of significant concentration, credit, market, and interest rate risks against an unfavorable turn in the macroeconomic environment.

The conclusion is that while illiquidity marked the end of each institution, these outcomes in fact reflected a culmination of several deficiencies in risk management and business strategy that supervisors did not adequately identify, curtail, or help remediate over a much longer time horizon. Attention will necessarily be given to liquidity regulations, but it should be borne in mind that no balanced liquidity regulation can be expected to assist in mustering an effective defense against a majority of deposits liquidated in a matter of hours. Such a loss of confidence, acting through the liquidity channel, can undermine almost any bank, however well run and solvent.

There were many deep-rooted reasons for these bank failures. There were red flags in business model resilience, risk management, governance, and in the supervision of these key risk factors. Addressing the core factors requires greater focus on business models that exhibit excessive concentration to a single sector on both funding and credit sides; that are extremely vulnerable to a change in the macroeconomic environment and monetary policy stance; or that exhibit a poor risk culture and management. Above all, supervisors need to be alert to factors that can develop into business vulnerability and be ready to insist upon remediation of weaknesses.

[12] The combined Swiss G-SIBs' RWA density was roughly 30 percent, which was at the lower end of the range for G-SIBs.

[13] That technology can help accelerate deposit outflows is not new. The FDIC's analysis of the run on Continental Illinois in 1984 implicated telephone deposits as running faster than physical deposits. In the failure of Northern Rock, internet deposits ran notably faster; see for e.g., https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.23.1.101.

[14] Federal Reserve Board - Agencies update guidance on liquidity risks and contingency planning.

How Countries Fare Against Supervisory Standards

It is worth considering whether progress has been made in terms of good supervision since the BCP were last revised in 2012. The IMF, often in partnership with the World Bank, has unique insight into this, as it assesses compliance with banking supervision standards under the FSAP.

In recent work, we distilled key lessons learned from assessments of national financial sector oversight frameworks and compliance with the BCP (Dordevic and others, 2021).[15] We have updated parts of the analysis of the 2021 paper, now covering 60 BCP assessments, completed between 2012 and June 2023, and the conclusions remain.[16] On implementation of the major Basel regulatory reforms, particularly capital and liquidity regulation, the high-level findings are that jurisdictions have made steady progress. By contrast, progress in strengthening banking supervision has been markedly slower. Despite identifying a strong association between the institutional setting for supervision and bank soundness and stability, many countries still lack independent bank supervisors with a clear financial soundness mandate and appropriate set of powers (Figure 1). Moreover, deficiencies noted in supervisory approach, techniques, tools, and especially corrective and sanctioning powers appear significantly more common than in capital and liquidity regulation (Figure 2).

When examining the two principles that establish the institutional setting for banking supervision, CP1 (on responsibilities, objectives, and powers) and CP2 (on independence, accountability, resourcing, and legal protection for supervisors), we found that CP2 is the least well met principle overall, and lack of operational independence the most common challenge faced by supervisors (Figure 2).[17] This observation is significant in terms of financial stability outcomes given that the accompanying econometric analysis found that the better a jurisdiction met CP1 and CP2, the less fragile its banks tended to be.

The importance of a sound institutional setting for effective banking supervision is widely accepted and reflected in a higher bar in the 2012 update of the BCP. However, many countries did not equip supervisors with the necessary powers and conditions for their work, with the deficiency gap growing larger across-the-board and more notably for emerging and developing economies (Figure 3). Insufficient independence of supervisors (deficient appointment and dismissal reflecting government influence in key decisions) is the most common weakness; followed by lack of resources (insufficient and inexperienced staff, compensation, and specialized skills impeding effectiveness), and absence of an unambiguous mandate for financial stability. Not all supervisors are equipped with a full and graduated set of powers suitable for targeted action in a range of circumstances. Missing powers have included lack of authority to revoke licenses, sanction individuals, or raise prudential standards for individual banks. Nearly a fifth of jurisdictions either did not have legal protections in place or had significant deficiencies in the protection that is provided to supervisory staff.

In terms of supervisory approaches and techniques, BCP assessments over the decade under review have yielded a range of insights into supervisory developments (Figure 4). If techniques and tools showed increasing sophistication across the board, the review uncovered some warning signs too. Insufficient or low-quality data was a concern in nearly two thirds of the assessments. About a third of the jurisdictions assessed had meaningful weaknesses in their framework for corrective actions. This combines with delayed action, which was

[15] Strengthening Bank Regulation and Supervision: National Progress and Gaps (https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2021/03/15/Strengthening-Bank-Regulation-and-Supervision-National-Progress-and-Gaps-50012)

[16] The textual analysis and data work was not refreshed. The overall grades were notably consistent with previous assessments.

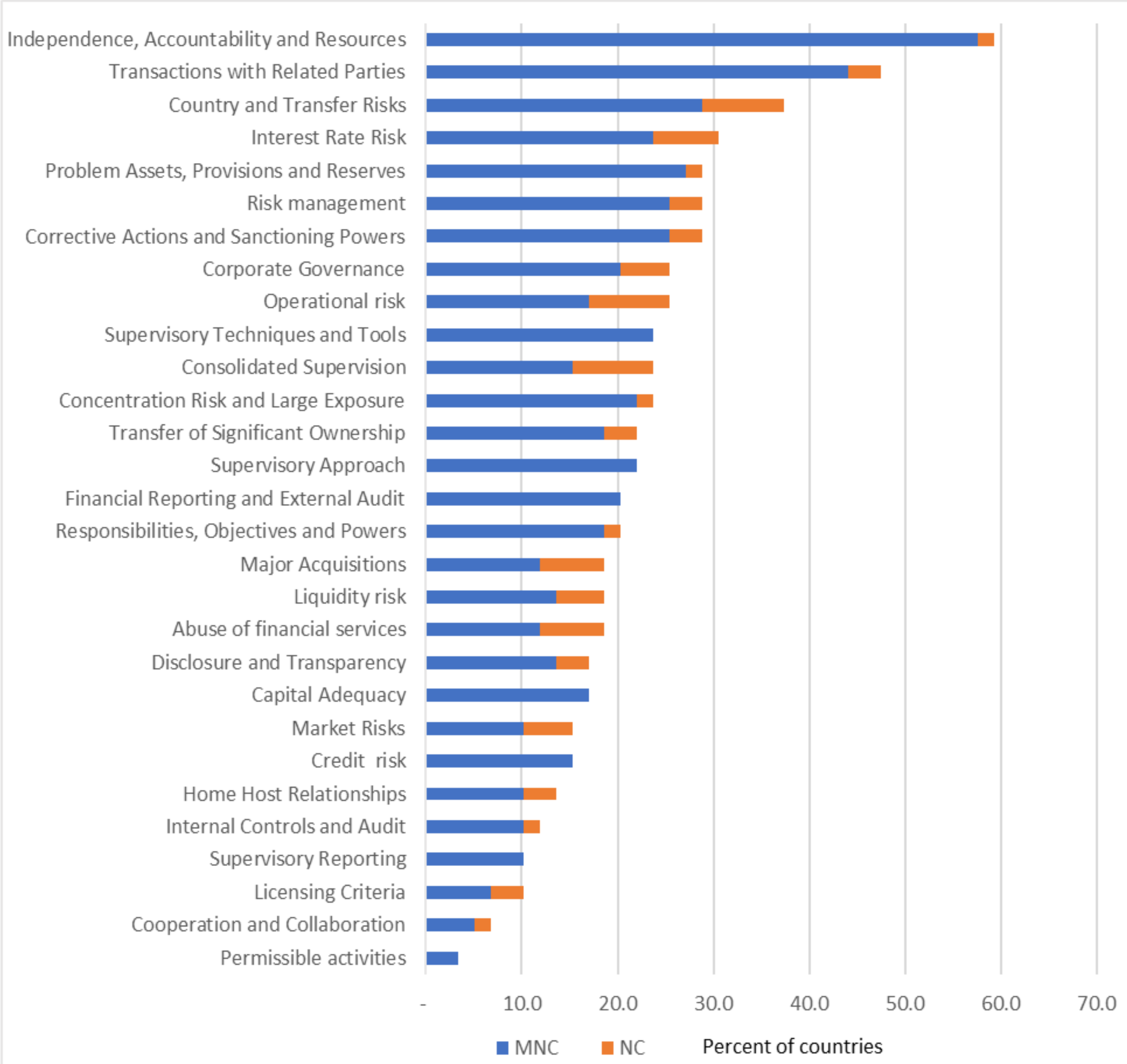
[17] This finding is cross-cutting, applying across IMF members. In the cases of the US and Switzerland, the last full assessments of compliance with BCP found the US largely compliant with respect to CP1 and Switzerland as materially noncompliant with CP2.

identified in a fifth of cases. Causes might be hesitation due to lack of willingness to act, but other reasons might stem from unduly complex or bureaucratic processes, risk of reversal of a supervisory decision by an outside authority, or poorly articulated internal processes.

In contrast, a larger proportion of advanced, emerging, and developing economies have demonstrated compliance with bank capital and liquidity regulations under the 2012 BCP despite these being more demanding than the previous, 2006 standards (Figure 5).[18] Indeed, the implementation of new standards has improved banks' capitalization and increased banks' liquidity buffers globally over the last decade. Nonetheless, some of the gaps in strengthening supervision noted earlier are also affecting capital and liquidity adequacy. For example, the absence of Pillar 2 supervisory powers is contributing to challenges in both areas. On the capital side, the inability to impose bank specific charges contribute to persistent challenges, and liquidity risk management needs greater emphasis in some jurisdictions.

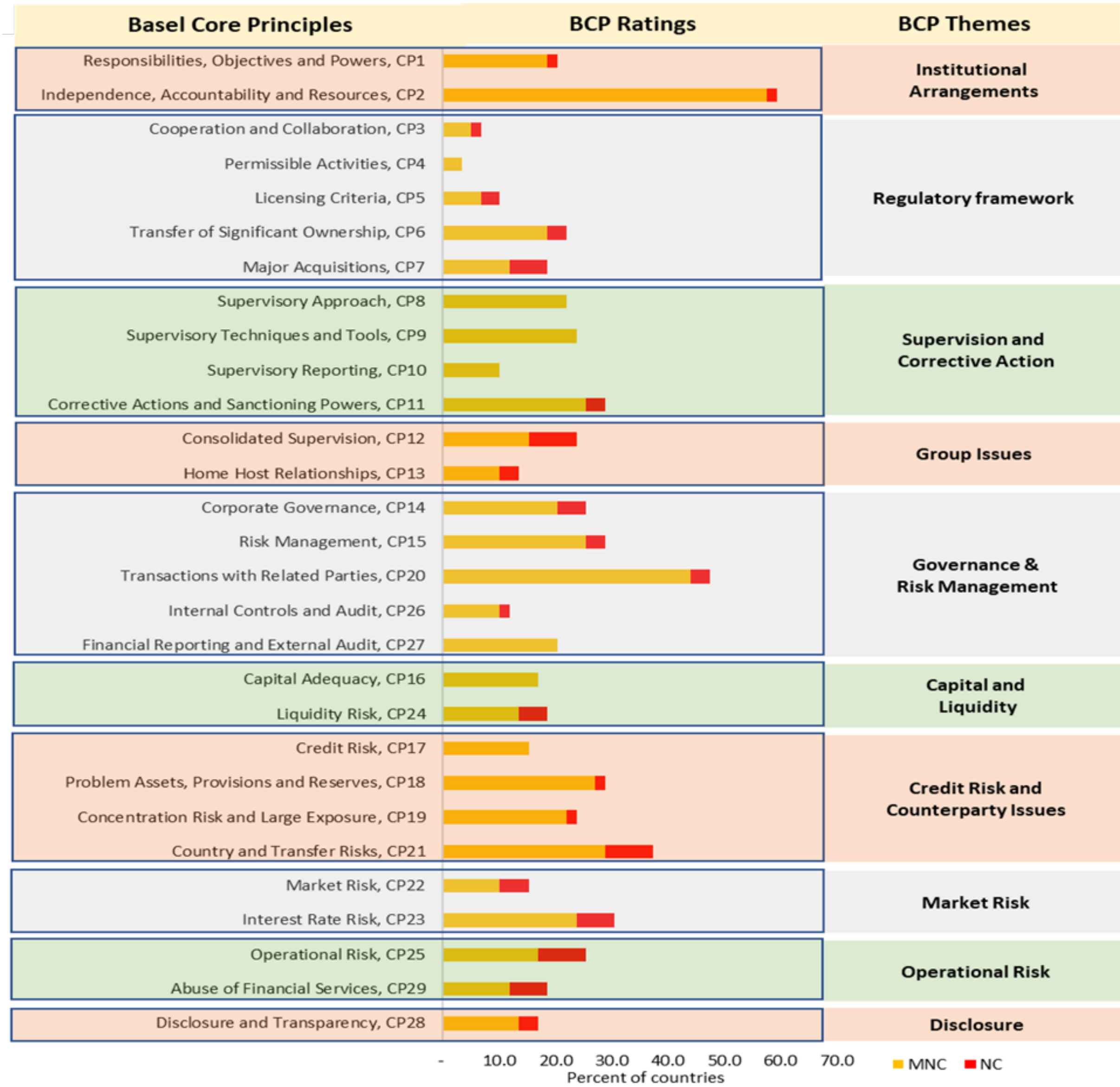
[18] This also reflects proportionality in the assessment of the BCP: they do not require implementation of Basel III to achieve compliance. Only BCBS members and countries that have voluntarily adopted Basel III are assessed against it.

Figure 1. Limitations in Compliance with Individual Basel Core Principles – 2012-2023H1



Sources: Basel Core Principles for Effective Banking Supervision Database; and IMF staff calculations.
Note: MNC/NC= aggregate of materially noncompliant and noncompliant ratings.

Figure 2. Basel Core Principles Thematic Groups – 2012-2023H1

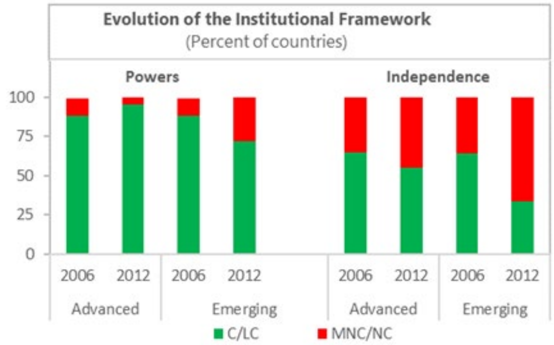


Sources: Basel Core Principles for Effective Banking Supervision Database; and IMF staff calculations.
Note: MNC/NC= aggregate of materially noncompliant and noncompliant ratings.

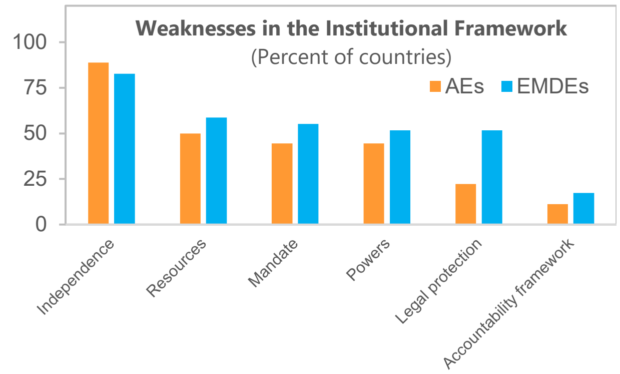
Figure 3. Weakness in Institutional Setting for Bank Supervision – 2012-2023H1

While the importance of a sound institutional setting for effective bank supervision is widely accepted, many countries do not equip bank supervisors with the necessary powers and conditions for their work.

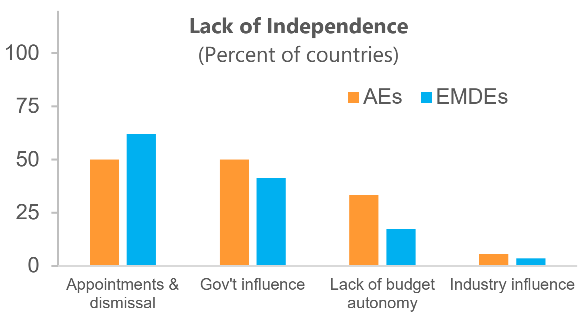
1. The new standards raised the bar for the institutional framework which many jurisdictions have not met.



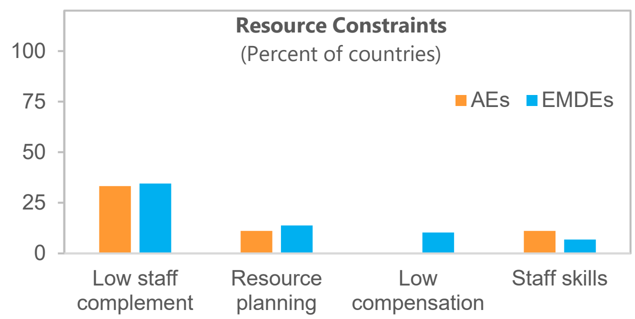
2. Insufficient independence of supervisors is the most common weakness, followed by lack of resources and absence of a clear mandate for financial stability.



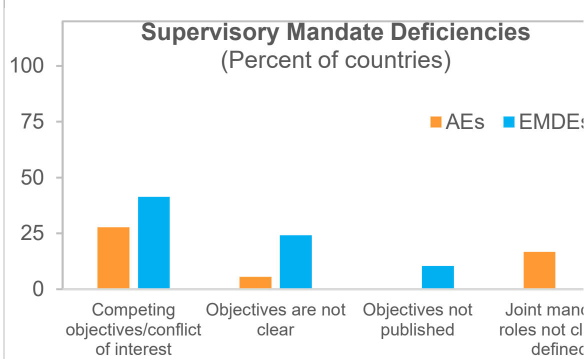
3. Supervisors' independence is impacted by deficient appointment and dismissal processes and government influence in key decisions.



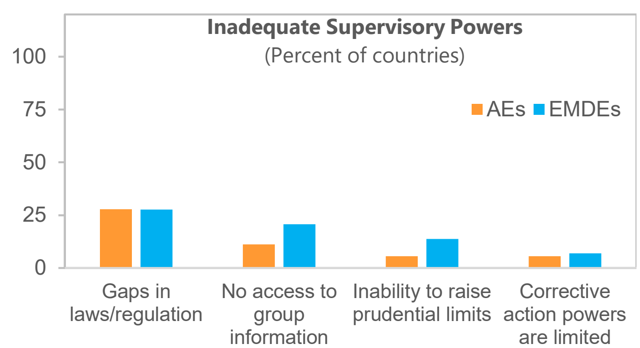
4. Insufficient staff, compensation, and specialized skills impedes supervisory effectiveness. Resource planning is weak in some jurisdictions.



5. Many supervisors have mandates that do not give primacy to safety and soundness or are unclear.



6. Common issues include lack adequate powers to access group information or raise prudential limits. In other instances, their corrective powers are also limited.

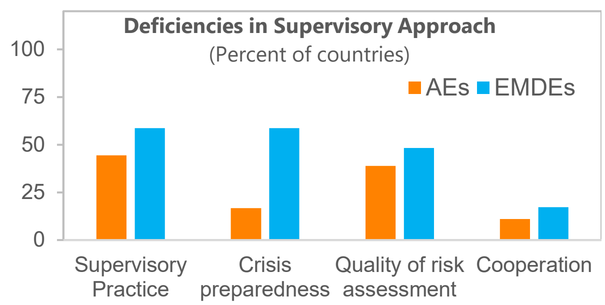


Sources: Basel Core Principles for Effective Banking Supervision database; and IMF staff calculations. Note: AEs = advanced economies; C/LC rating aggregate of compliant and largely compliant ratings; EMDEs = emerging market and developing economies; MNC/NC = aggregate of materially noncompliant and noncompliant ratings.

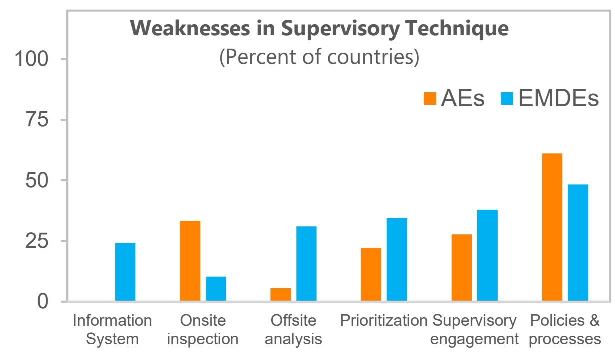
Figure 4. Supervision – 2012-2023H1

Supervisory techniques are improving and becoming more forward looking, but attention is still needed in data quality, crisis preparedness, and timely corrective actions.

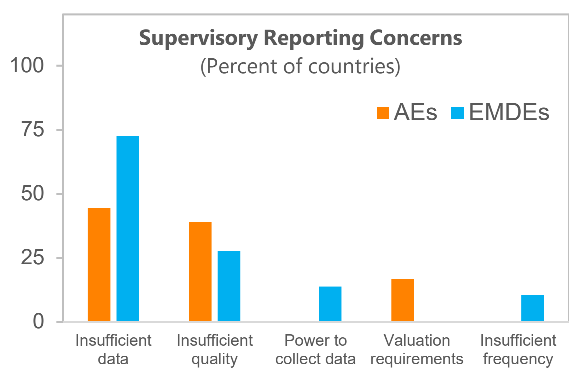
1. Despite advances in risk-based supervision, weak supervisory practices and insufficient preparedness for crisis are still observed.



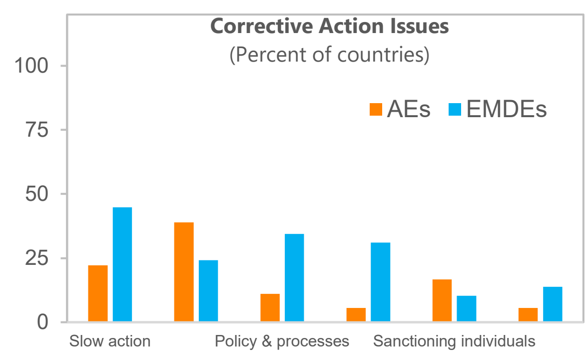
2. The quality of policies, procedures, and prioritization is also challenging and supervisory engagement with the boards and management of banks is still developing.



3. Comprehensive and high-quality data reporting is improving in almost all jurisdictions, but gaps in coverage and granularity need to be addressed.



4. Several factors can hinder timely corrective action. A good-quality supervisory process is as important as a full suite of powers.

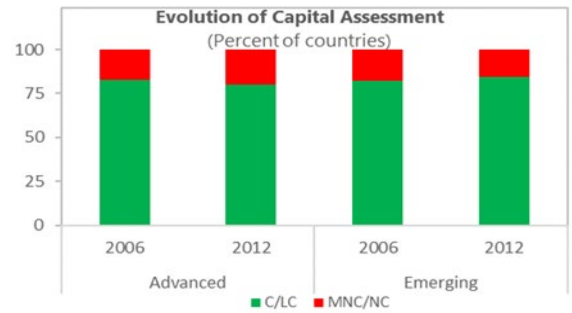


Sources: Bank for International Settlements; Basel Core Principles for Effective Banking Supervision database; and IMF staff calculations.
Note: AEs = advanced economies; EMDEs = emerging market and developing economies.

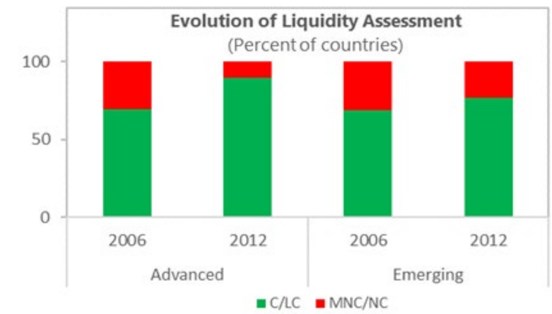
Figure 5. Regulatory Standards – 2012-2023H1

Most jurisdictions have enhanced their capital and liquidity standards in their prudential framework; however, there are remaining deficiencies in the capital and liquidity rules.

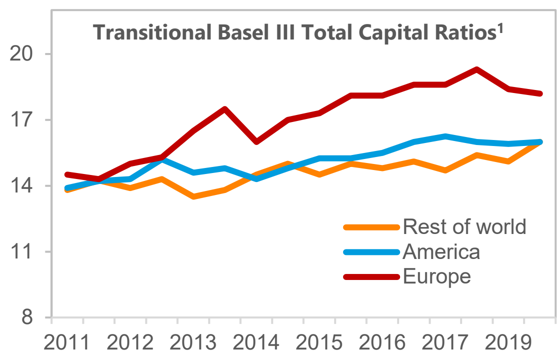
1. Most jurisdictions have successfully incorporated enhanced capital …



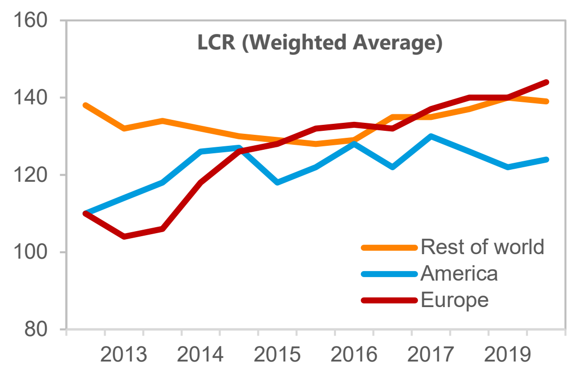
2. … and liquidity frameworks in line with BCP standards.



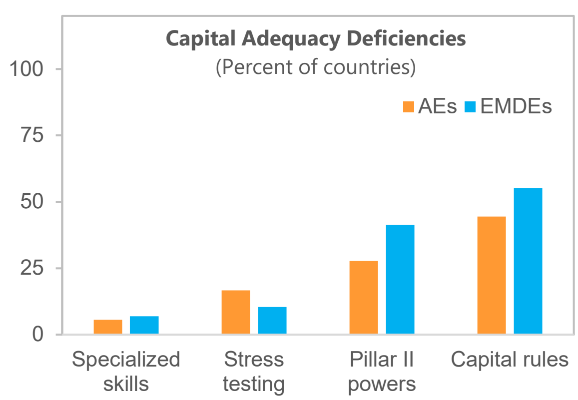
3. The implementation of the new standards has improved the capitalization of the banking sector …



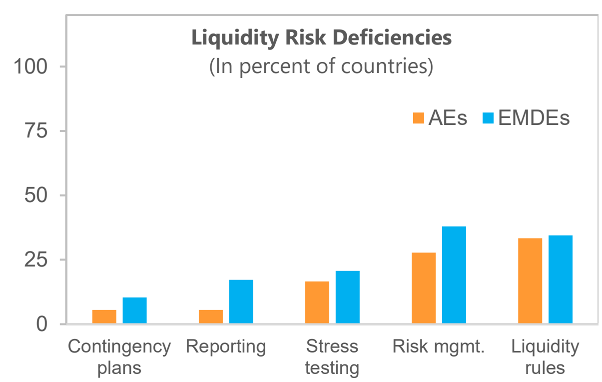
4. …. and required banks to hold larger liquidity buffers.



5. However, challenges persist as deficiencies in capital rules are common, and supervisors often lack Pillar II powers and processes to impose bank specific charges.



6. Some jurisdictions need to further emphasize liquidity risk management and better design and calibrate quantitative liquidity rules.



Sources: Basel Committee on Banking Supervision; IMF, Standards and Codes Database; and IMF staff calculations.
Note: 2006 = assessments conducted using the BCP methodology established in 2006; 2012 = revised BCP methodology issued in 2012; AEs = advanced economies; BCP = Basel Committee on Banking Supervision; C/LC = aggregate of compliant and largely compliant ratings; EMDEs = emerging market and developing economies; MNC/NC = aggregate of materially noncompliant and noncompliant ratings.
[1]Americas: Brazil, Canada, Mexico, United States; Europe: Belgium, Finland, France, Germany, Italy, Luxemburg, Netherlands, Russia, Spain, Sweden, Switzerland, Türkiye, United Kingdom; rest of world: Australia, China, India, Saudi Arabia, Singapore, South Africa.

Supervisory Strengths, Weaknesses, and Challenges

Reviewing the information obtained in the context of IMF surveillance and capacity development activities, we now delve more deeply into the achievements and obstacles facing supervisors in order to shed more light on the value and practices of supervision. While there have been clear positive developments in the framework and practice of supervision, this must be evaluated against the higher bar for supervisors set by the evolving nature of the job, and the many challenges—old and new—that remain.

Progress—Forward-Looking Supervisory Approaches

Evolving supervisory tools, such as on monitoring frameworks, stress testing, and business model analysis, are part of progressively more forward-looking supervisory approaches. The 2012 BCP stated more clearly that supervisors should perform forward-looking assessments of banks and banking systems. Supervisors in many jurisdictions have taken up the challenge and are either implementing or constantly updating core elements of such a framework, many times referred to as risk-based supervision, as opposed to the older, compliance-based supervision framework. In its capacity building role, the IMF assists many jurisdictions in implementing forward-looking supervisory approaches, and many projects in this area are now in progress.[19]

Monitoring Frameworks

Supervisory monitoring frameworks have an even more important role to play nowadays, helping supervisors understand risks and take timely actions in the context of increasingly complex financial systems and institutions. Countries are constantly improving monitoring frameworks in which regular data received from banks is checked for consistency and analyzed in a system that triggers meaningful early warnings to onsite supervisors. In many countries, the framework, based on predetermined "issues to be monitored", uses available data to calculate key indicators, to analyze evolution over time, including by comparing to peer-groups, and to identify discrepancies and changes in patterns that merit being flagged. Monitoring systems are vital to put a large array of data, from balance-sheet figures to credit bureau information and securities and derivatives trades, into use.

Adequate risk data and reporting have been a key challenge for risk monitoring frameworks and banks' risk management in general. Progress has been slow with upgrading banks' IT infrastructure and data architecture, compromising availability of accurate information on aggregate risk exposures.[20] This issue requires continuous supervisory vigilance and banks' investment to achieve the desired outcome of better and more comprehensive information that supports risk identification, monitoring, and management.

Most financial authorities have already engaged in Suptech initiatives aimed at developing tools to facilitate early and frequent engagement between regulators and financial institutions. Authorities have also launched initiatives to streamline data processing, including automating data collection and validation, and deploying visualization and semantic search tools. Supervisors are increasingly using artificial intelligence and machine learning (AI/ML) tools to analyze large volumes of structured and unstructured data, and Natural

[19] For examples, see IMF (2022): Capacity Development Annual Report 2022.
[20] See Progress in adopting the "Principles for Effective Risk Data Aggregation and Risk Reporting."

Language Processing tools to summarize and compare large documents, translations, and semantic searches. Other examples of Suptech tools include cluster analysis, anomaly detection, and stress testing.[21]

While acknowledging the advantages of Suptech in the supervisory process, challenges also persist in its adoption. These include securing organizational buy-in, establishing multidisciplinary teams comprised of IT experts, data scientists, and supervisors; implementing scalable and tailormade tools; and managing the involvement of third-party vendors. There is still much to be developed in the field: unstructured data like social media, for example, may provide valuable insights to supervisors as seen in recent market events. Additionally, while Suptech applications that leverage AI/ML can provide predictive analyses with the potential to improve the quality of supervision, AI/ML is not a silver bullet, and the effectiveness of supervision will continue to depend significantly on supervisory judgement (Boukherouaa and others, 2021). Addressing deficiencies noted in the previous section, related to budget, quality of source data, and particularly (data analytical) skills of supervisory staff, must be addressed for more systematically exploiting the data-intensive surveillance and analytical Suptech tools, and for seamlessly integrating technology within the risk- and judgement-based supervisory process.

Stress Testing and Pillar 2

The wide adoption of stress tests as a risk management and supervisory tool represents a major advance in financial stability analysis and policy since the GFC, one in which the IMF has played a crucial role since the creation of the FSAP in 1999. Stress testing broadens the view of possible threats to both the banking system and individual institutions, beyond historical data and experiences from the past.[22] As recognized by the Basel Committee on Banking Supervision (BCBS), "stress testing is now both a critical element of risk management for banks and a core tool for banking supervisors and macroprudential authorities". For example, the annual stress tests conducted by the Federal Reserve in the United States and by the European Banking Authority in the European Union are frameworks that assess the resilience of banking systems and individual banks to adverse economic scenarios and may result in additional capital being required of banks to ensure they can withstand periods of stress.[23]

Progress is also being made across jurisdictions in the "Pillar 2" supervisory review framework and implementation. Recognizing that a bank's risks may not be wholly or adequately captured by the "Pillar 1" minimum regulatory requirements, Pillar 2 is a crucial part of the Basel capital framework. It requires supervisors to have in place a review process to make sure a bank's capital and liquid asset holdings are adequate given its risk profile. One of the components of Pillar 2 is the Internal Capital Adequacy Assessment Process (ICAAP) that banks are required to execute, and supervisors periodically review, which has played an key role in fostering the development of good stress testing practices in banks.[24] The supervisory assessment will make use of the ICAAP, supervisory-run stress tests, and a number of other inputs to form a view on capital adequacy for each bank. Crucially, Pillar 2 expects supervisors to intervene at an early stage to prevent capital from falling below the level required to support a bank's risk profile. Forward-looking stress testing is thus well suited to assist supervisors in calibrating quantitative expectations. It also underpins the discipline of taking supervisory action at the earliest

[21] The Cambridge University SupTech Lab alone lists 79 solutions for prudential supervision, covering such aspects as: data handling, automated validation, threshold monitoring, automated report generation, entity rating and monitoring, cross entity analysis, peer-group/risk classification, fit and proper assessment, risk-based prioritization, automated examination, scenario analysis, stress tests, and early warning systems.

[22] Supervisory and bank stress testing have evolved significantly over the years. See Supervisory and Bank Stress testing: range of practices. In addition, the BCBS published in 2018 updated Stress Testing Principles. The intent of integrating macroprudential concerns into supervisory stress tests have also been studied and practices have evolved: see Making supervisory stress tests more macroprudential: Considering liquidity and solvency interactions and systemic risk (bis.org).

[23] For a brief comparative analysis, see https://www.bis.org/fsi/publ/insights12.pdf.

[24] See https://www.bis.org/bcbs/publ/d465.pdf for an overview of Pillar 2 practices, which shows the widespread use of stress testing as inputs to Pillar 2.

moment. Pillar 2 regimes need to be designed on a risk-based approach that also supports a systematic examination of risk management and corporate governance in banks.

Business Model Analysis and Corporate Governance

Business model analysis has become integral to supervisory frameworks in many jurisdictions, supporting early identification of vulnerabilities and the supervisory dialogue on the sustainability of banks. Such scrutiny is a critical part of the ongoing supervision process and is updated to reflect the evolving macroeconomic outlook, market conditions, business environment, and bank strategy.

Supervisory business model analysis is a key component of the early warning toolkit, emphasizing structural issues that most often bring about the demise of banks and prompting proactivity from supervisors.[25] Supervisors are expected to discuss strategic and business model risks during meetings on prudential issues with banks' senior management and boards, to allow for adequate forward-looking assessments of emerging risks. Expectations have changed—"light touch" supervision, where it was practiced, has largely been replaced by more frequent meetings between supervisors and banks' senior managers and boards so that supervisors understand the firm's business model and risks. This has been supported by the parallel emphasis on the importance of effective corporate governance which has increased the engagement between the authorities and the boards. Extensive offsite reviews assess banks' business performance, projections, and emerging risks. With the right information, supervisors can take action and enforce change within a defined timeframe when a bank's business model is unsustainable and its viability potentially jeopardized.

Supervision of corporate governance was introduced as a separate core principle in the BCP in 2012, incorporating lessons from the GFC. This paved the way for supervisory agencies to increasingly identify corporate governance as a key supervisory priority (Enria 2023). Weakness in corporate governance is a common root cause of banking problems. A comprehensive review of corporate governance arrangements and swift enforcement of remedial action when weaknesses are found are, respectively, a core skill set and discipline that supervisors must develop.

Taking action as a result of business model analyses and supervisory findings vis-à-vis governance has been a significant challenge for supervisors. This may originate in concerns regarding stepping onto management's responsibilities, thereby interfering with internal corporate governance. There may be pushback, including political resistance—supervisors may be scrutinized for being excessively intrusive with respect to internal governance matters and banks' business decisions. Supervisors may be especially hard pressed to challenge banks with healthy profits and contented shareholders/depositors, and where this occurs, banks' boards may be able to successfully prioritize short-term profits over effective risk management (Federal Reserve 2023). The recent bank failures highlight the significance of supervisory business model analysis and supervision of corporate governance. Failure to anticipate the challenge posed by abrupt increases in interest rates to these banks and the consequences of not pursuing anticipatory and timely remedial action by them when times were (still) good were key factors in their demise.

[25] For a review of supervisory practices for assessing the sustainability of banks' business models, see https://www.bis.org/fsi/publ/insights40.pdf.

Gaps

As supervisory practices evolve, IMF surveillance and capacity development activities have identified a number of vulnerable areas that need to be more systematically addressed to ensure effective supervision.

Standards are meant to be minimum not maximum

Implementation of Basel III has gained a lot of traction but the approach to implementation has been rather 'mechanical' in some jurisdictions. Minimum capital requirements are covered, but supervisors are reticent in requiring higher total capital ratios when there is uncertainty regarding banks' (exposure to) risks. For example, supervisors may not recalibrate some Basel framework parameters that could result in higher-than-minimum capital and/or liquidity requirements. Since Basel III sets minimum requirements, this practice works against expectations that supervisors assess risks within their jurisdictions and implement higher risk weights for capital calculations, or run-off rates for liquidity calculations, when appropriate.[26] The reasons are manifold, but often reflect a lack of supervisory ability or authority and difficulties in calibration due to the complexity of Basel III, combined with a perception that stricter requirements may be detrimental to economic activity and hurt the competitiveness of local banks.

In addition to applying minimum requirements, banking supervision needs to accurately comprehend evolving macrofinancial risks and ensure that banks adequately manage corresponding exposures and vulnerabilities. Good supervision in such a context often requires supervisors to pierce the veil of headline numbers and ratios since data from financial institutions will only be reliable if they reflect the current macroeconomic outlook and financial stability risks. COVID-19-related relief measures, implemented across many jurisdictions during 2020–22 to support the liquidity and functioning of financial markets, illustrate how data can change when rules and risk management practices change. Without a good supervisory framework, "good looking ratios" could be masking an ugly truth underneath.

Banks Large and Small: Proportionality and Systemic Risk

While a significant share of supervisory resources and attention must be focused on larger and more complex banks due to their systemic importance, good supervision cannot afford to overlook the risks to the banking system and real economy posed by smaller banks. The failure of a small institution could undermine the reputation of supervisors (Ferreira et al. 2019). The events of March 2023 were a reminder that tailoring regulation and the supervisory approach exclusively to balance-sheet size is neither risk-based nor conducive to timely supervisory action. Four considerations are important.

First, small banks face distinctive risks and business models that require special attention. They may play key roles in local areas, operate in niche markets, have concentrated loan portfolios, and rely on specific funding sources. Concentration risk in both funding and credit is often a feature of smaller banks, as are potential weaknesses in corporate governance. Supervisors need to consider these factors and tailor their approach, considering the unique risk profiles and business models of such banks.

Second, the collective and common exposures of several small banks may cause contagion and give rise to systemic risks, especially in periods of elevated uncertainty. Concerns about the sustainability of the business model of one small bank can implicate, by association, all small banks with similar business models. This

[26] In some emerging and developing economies, implementation has resulted in lower total capital requirements, whereas in some advanced economies, it has resulted in lower requirements on specific exposures, such as in the current proposal on real estate and corporate exposures in the EU.

means that banks that are not systemic in good times may become systemic during a crisis, especially as a group. The potential systemic impact emphasizes the need for robust regulation and supervision of smaller banks.

Third, limited supervisory resources often lead to less frequent and less comprehensive inspections of small banks. Consequently, offsite monitoring becomes the primary method of supervision. More data-driven and standardized processes are applied. In some cases, external independent parties may be engaged for reviews of risk management systems and controls. Nevertheless, it is essential for supervisors to conduct targeted or limited scope inspections of small banks. Special attention should also be given to watch-list and complex institutions regardless of their size. Supervisors should ensure that the resources allocated to supervisory activities are commensurate with the risks posed by small banks.

Finally, proportionality is essential for effective banking supervision due to the heterogeneity of financial systems. Proportional approaches to regulation and supervision may be simpler but should not be less prudent—they must not undermine financial stability and the safety of financial institutions. They should be consistent with the BCP and not result in a dilution of the framework when compared to international standards. Simplified frameworks should be more conservative, to account for lower risk sensitivity and possibly less frequent supervisory scrutiny. Moreover, jurisdictions should aim to develop proportional supervisory approaches that are enforceable in view of available resources, and, in addition to banks' size, should consider the complexity of risk profiles and business models when defining such approaches.[27]

Challenges

The 2010 paper and our more recent review of national progress and gaps based on post-2012 FSAP findings point to some key, persistent deficiencies in supervision that also played a role in the events of March 2023. They indicate that the willingness and ability to act of supervisors has in practice been hindered by different factors.

Delay or Hesitation in Acting versus Escalation Practices[28]

Supervisors may delay or hesitate to take action for several reasons.

- **Supervisory practices and culture.** Supervisors prefer to engage by providing informal warnings and recommendations to banks' senior management and boards, allowing them an opportunity to address concerns voluntarily before resorting to formal corrective measures. This approach promotes cooperation, helps banks proactively address their own shortcomings, and minimize need for formal intervention, but it can also lead to delays in necessary actions where banks continue to fail to meet expectations.
- **Resource constraints.** Supervisors need significant time, expertise, and resources to gather information, conduct analysis, and understand the full implications of the issues-at-hand. Gaps in human capital are a recurring issue across jurisdictions. Where resources are lacking, delays and inaccurate conclusions are more likely.
- **Length of the due process and the burden of proof** for implementing supervisory decisions (Federal Reserve 2023). Most supervisory actions, such as adjustments to supervisory ratings, are subject to legal and procedural frameworks that impose stringent due process requirements and place the burden of proof largely

[27] For proportionality and tailoring of regulation and supervision, see High-level considerations on proportionality (bis.org) and From Basel I to Basel III: Sequencing Implementation in Developing Economies (imf.org).

[23] For further discussion on escalation, see Guidelines for Identifying and Dealing with Weak Banks and Frameworks for early supervisory intervention (bis.org).

on supervisors rather than banks. If the supervisory action process cannot keep up with the rapid development of a bank of concern, there is a risk of delayed supervisory action.

- **Legal risk.** Relatedly, supervisors will be hesitant to take decisive action when they have legitimate or perceived concerns about potential legal challenges and repercussions. This fear can arise particularly when the regulatory framework is ambiguous or less enforceable; when the supervisory authority lacks the necessary operational independence; or where legal protection for actions taken in good faith is not guaranteed.
- **Political pressure and inadequate policy support.** Supervisory decisions can be influenced by political factors and public perception, such as criticism of supervisory actions as heavy-handed or overly intrusive. Enabling supervisors to act independently and firmly requires insulating them from undue political pressures. A less assertive supervisory approach may also arise in contexts where policymakers are unsupportive of supervisors' enforcement actions, or where the political process has promoted or advocated a weak regulatory framework.
- **Absence of adequate impact assessment.** Supervisors may fear that their actions could disrupt market confidence and trigger financial instability. In such contexts, inability to conduct adequate and timely impact assessments can lead to inaction and hesitancy. Supervisors need full analytical support to provide them sufficient comfort that their decisions will not lead to unintended, negative consequences.
- **Supervisory capture.** Capture can occur when supervisors develop too close a relationship with banks under their supervision, leading to a bias in favor of industry interests. In such cases, supervisors may be reluctant to enforce and escalate supervisory actions, compromising the effectiveness of supervisory intervention.

Supervisors that fail to follow through in supervisory intervention allow weak banks to continue problematic business strategies and actions. In the first instance, informal supervisory actions such as letters of warning and moral suasion may be appropriate for giving the bank's management an opportunity to resolve the issues identified. However, if the bank does not respond, continued reliance on informal tools will be ineffective and lead to a delay in necessary actions. Supervisors should consider binding enforcement actions and/or entering into time-bound action plans, when it becomes apparent that the concerned banks are unwilling or unable to address their concerns. Setting a strong supervisory tone by pursuing a more formal action earlier is consistent with the forward-looking supervisory approach. For example, strong enforcement action may be needed early for young institutions growing aggressively by relying on volatile funding, and more generally, exhibiting weak risk management practices. Taking a more intrusive supervisory posture could help ensure banks' boards and senior management understand and respond better to the identified risks.

Establishing an explicit framework for taking escalated supervisory actions and handling long outstanding measures can help supervisors take proactive action. For example, if banks fail to meet supervisory expectations continuously or do not comply with measures and warnings, escalation to more severe supervisory action ("ladders of action") may become mandatory after a predetermined period. Enhanced transparency in supervisory expectations and prompt consequences for noncompliance are essential. Well-defined rules can streamline the supervisory process and reduce ambiguity, making it easier to manage legal risks. The procedures for, and effects of, escalating the measures should be stipulated clearly, including conditions and processes for actions to be escalated, types of actions, timeframes of each stage of actions, components of binding Memorandums of Understanding/commitment letters (depending on jurisdiction), and monitoring tools to track compliance, and potential corrective measures and sanctions for unreasonable delay in action. Supervisors should be empowered to make use of the escalation framework, and the industry be provided with clear and transparent guidance that ensures supervisors' ability to take corrective measures when certain conditions are met.[29]

Adequate internal accountability, governance, and quality assurance are also key. Internal processes for decision making, roles and responsibilities, and necessary checks and balances need to be clear and provide incentives for early identification of risks and prompt action. In some cases, an internal quality assurance or review function for supervisory action is lacking. Well-defined internal governance will help ensure consistency in the adequacy of the degree, type, or escalation of supervisory actions. There should be mandatory review and analysis processes to ensure consistency and justification of inspection outcomes and supervisory actions across the banking system. These processes, along with regular benchmarking exercises, horizontal reviews, and identification of outlier banks, are also useful to promote a proactive supervisory environment and enhance firms' understanding of supervisory expectations and standards. They help supervisors be more assertive, exercise judgement-based supervision in a consistent way, and reduce the likelihood that banks challenge supervisors on fairness in the supervisory approach.

Accountability[30]

Supervisory powers to execute corrective actions, intervene, suspend activities, or even revoke authorizations must be balanced by a transparent system of accountability. The supervisor's authority will always be an amalgam of its legal powers and the respect it accrues due to the professionalism and integrity with which it operates. Accountability mechanisms ought to underpin the integrity of the system and are thrown into relief at any time that there is a question over the actions or decisions of the supervisor. Accountability should not be confused with management of supervision or ex-ante interference by government departments that are neither the equivalent of a parliamentary body nor possess the necessary knowledge and expertise to oversee a supervisory agency, particularly if their singular or preeminent focus is on cost cutting. Supervisory skillsets are specialized, need time to be trained and develop competence, and are growing in scale, scope, and complexity.

Positive approaches toward accountability that have been adopted across jurisdictions include reporting to parliamentary bodies, such as the Senate Banking Committee and the House Committee on Financial Services in the United States; the House of Commons Treasury Select Committee in the United Kingdom; and the Committee on Economic and Monetary Affairs of the European Parliament. Such hearings are frequently, and even typically, held in public, and are sometimes televised, such as in the United States or Hong Kong SAR, the People's Republic of China. The objective is to raise public confidence by demonstrating, very visibly, a willingness to accept responsibility and to be subject to further due process, such as independent reviews and recommendations and embarking on agreed change processes, especially after a major supervisory event has occurred.

Resources[31]

In several countries, investment in supervision is key to containing and addressing threats to financial stability. Maintaining, updating, and upgrading supervisory skill sets needs not only greater appreciation but also a strategy to ensure adequate scope, quality, and timeliness of supervision by providing learning and experience sharing opportunities in the face of growing mandates and associated demand for specialized skills. The absence of a strategy delivering on these goals is a major challenge in many jurisdictions. A key reason is tight supervisory budgets that often reflect the lack of operational independence. In some cases, mission creep may be a factor,

[29] Potential exceptions should be considered, such as supervisory actions related to IT enhancement projects requiring significant time and investment.

[30] For a further discussion on accountability, see Report on the impact and accountability of banking supervision (bis.org).

[31] The FSB found that in some cases, resources are insufficient even for the supervision of G-SIBs. See Thematic Review on Supervisory Approaches to SIBs (fsb.org).

wherein supervisors are tasked with issues outside of core prudential competencies. An example of this is the superimposition of noncore objectives that conflict with supervisors' primary safety and soundness mandate, such as developing or promoting specific markets or products.[32]

Despite investment in areas such as Suptech and supervisory monitoring, an adequate balance of offsite and onsite supervision remains necessary. Onsite work is key to "provide independent verification that adequate policies, procedures and controls exist at banks, determine that information reported by banks is reliable, obtain additional information on the bank and its related companies needed for the assessment of the condition of the bank, monitor the bank's follow-up on supervisory concerns, etc." (BCBS 2012). Visiting banks at a regular interval cannot be substituted by technology or offsite monitoring, since supervision requires verification. Moreover, supervisory judgement depends upon a holistic understanding of the financial institution, including non-quantifiable elements such as risk management culture and corporate governance. Confirmation of the veracity and reliability of policies, procedures, and even commitments made to supervisors can only be assessed through direct contact. Likewise, the work of auditors can complement but not substitute supervision—supervisors need to ensure the work of auditors can be relied upon and also consider potential biases that may influence their views.

In this context, the movement of staff between industry and regulatory agencies is often a sensitive topic. In some countries, the industry is seen as poaching good quality regulatory talent, adding to the strain on resources. In some others, "revolving doors" from the supervised to the supervisor and vice versa offer potential benefits of bringing industry expertise but raise concerns about conflicts of interest. While certain types of specialized expertise may be better sourced outside the supervisory agency in some jurisdictions, it is important that internal processes address potential conflict of interest, and that internal training ensures upskilling of the existing staff.

Structural Transformations and Growing Prudential Mandates

The introduction of the frameworks for Global and Domestic Systemically Important Banks recognized that some banks are so important to the global or domestic system that they warrant higher regulatory and supervisory standards. Despite efforts to promote simplicity, the focus on systemic and complex banks and the evolution of the regulatory agenda has been an inexorable force in driving up the complexity of the regulatory framework itself. In such a context, interpretation and compliance become a challenge both for the regulated industry and supervisors, leaving greater room for regulatory arbitrage.

In addition, the environment in which banks—and their supervisors—operate has become increasingly complex. Digital innovation; cybersecurity; climate-related financial risks; interconnectedness with nonbank financial intermediation; and complex business models, often associated with concentration risk, are making for sprawling mandates and rendering banking supervision ever more challenging. Digital innovation, for instance, has affected banks' business from product distribution to reputation management to liquidity risk. The recent bank turmoil focused attention on the speed of technology-enabled deposit withdrawals and the implications for liquidity risk, but digitalization of banking has a broader range of implications—not least the increasing threat of cyberattacks affecting banks' operational and financial resilience. The remarkable growth in nonbanks since the GFC also raises the stakes for risk management and supervision of banks due to step-in and counterparty risks, and the possibility that high levels of interconnectedness of banks with nonbanks act as an amplification channel for financial stress (GFSR 2023). These structural transformations add to the mandate and complexity of banking supervision.

[32] For a survey on conflicting mandates of supervisors, see The universe of supervisory mandates - total eclipse of the core? (bis.org).

Advancing the Supervisory Agenda

Priorities for Supervision

A few themes emerge clearly as needing priority attention going forward, based on the findings of IMF surveillance and capacity development work:

- **Countering hesitation and delay**. Supervisory effectiveness continues to be diluted and jeopardized by failure to intervene and use relevant supervisory tools at an early moment, by reluctance to use supervisory judgement, and by wariness in sharing supervisory information with other supervisory authorities and using information shared by them.
- **Strengthening legal protection**. The number of supervisory authorities who have inadequate and inappropriate legal protection in the faithful conduct of their offices, absent gross negligence, has been falling, but a meaningful number of exceptions still remain across AEs and EMDEs.
- **Closing information gaps and enhancing data quality**. Sound, verifiable data is at the heart of supervisory analysis. Some authorities have made good progress while lack of resources continues to constrain others. But all supervisory authorities need to be able to trust and verify the data they work with, failing which, capital and liquidity metrics will not be meaningful. In this regard, an important priority is to remove legal impediments constraining the ability of supervisors to require from firms all the data they need to carry out their work. This situation often arises in cases where prudential concerns have been “balanced” with competitiveness interests.
- **Pillar 2, as many supervisors would agree, is a cornerstone of supervision**. It lies at an important interface of regulation and supervisory practice. It is taking longer for some supervisory authorities than others to fully incorporate Pillar 2 into their decision making. The use of discretion, necessary for Pillar 2, has required legal changes to be made in several jurisdictions and this has caused an element of delay and/or resistance in some cases.

Despite challenges, supervisory practices and standards continue to evolve and momentum must be maintained. While the upcoming revisions to the BCP will reflect the evolution in supervisory practices, it is worth highlighting a few areas where work is in train and advancing successfully:

- **Supervisory techniques and tools**. Practical strategies such as horizontal and peer reviews and shorter but intense onsite “deep dives” have gained notable traction in the last decade across several jurisdictions and yielded much benefit—not just for supervisors but also for banks. Analytically, supervisory risk models have become more sophisticated, particularly but not exclusively in the more advanced economies. Some jurisdictions have enhanced their approaches to business model analysis, permitting a deeper and more nuanced understanding of potential vulnerabilities in banks’ business lines and overall strategies. These changes are important as they facilitate a deep engagement with the banks’ activities and, ultimately, give supervisors a window into sustainability, viability, and stability. Such adaptiveness by the supervisor will be essential to keep pace with evolution within the financial sector. Such successes are not uniform, and more progress is needed in a number of countries. As noted in the 2021 paper on “Strengthening Bank Regulation and Supervision” (Dordevic and others, 2021), to the extent that authorities have invested in and enhanced "risk-based techniques, stress-testing and other analytical tools to build a forward-looking supervisory approach, they will be well positioned to identify the good policy options and the most vulnerable institutions which will require closest attention.”

- **Corporate Governance and Risk Management**. Much greater attention has been paid to both corporate governance standards and enterprise risk management. Although supervisors can never function as banks' compliance departments—and some banks, especially those subject to the most intense onsite engagements, have sometimes betrayed this attitude—the supervisor has a powerful role to play in setting the expectation for a strong and well-resourced risk management function within the banks.

Supervisory Judgment

Risk-based supervision does not rely solely on identifying violations of regulations or noncompliance with rules. It goes further, and examines the nature, scale, and scope of the risk and what, if anything, might need to be done in response. Hence, risk-based supervision is grounded in the active use of supervisory judgement. Regulation (including quantitative rules), however comprehensively scoped and conservatively calibrated, cannot substitute for judgement in the making of supervisory decisions. Findings in BCP assessments and technical assistance indicate that supervisory judgement and decision making have encountered problems in several jurisdictions. While judgement derives significantly from experience, the ability to exercise it (*supervisory discretion*) derives from culture and authority. In this context, the continuous evolution of forward-looking, risk-based approaches across a wide set of advanced, emerging, and developing economies is a positive development, since they provide an anchor for exercising discretion.

An important priority in making further headway in this direction is better integration of macroeconomic and financial stability analysis. This will require adequate coordination and information sharing within and across financial agencies, for example when the key financial stability analysis is undertaken by a sister institution or department and the output needs to be made readily available to supervisors. Supervisors also need to incorporate the relevant information in a meaningful way into their supervisory engagement with firms.

Different Responsibilities: Banks, Supervisors, and Governments

Banks, supervisors, and governments are all key actors in a well-functioning supervisory framework. Banks are primarily responsible for managing their own risks. Effective corporate governance, that includes risk management and internal control systems, is essential for a safe and sound banking business. The supervisor must execute its mandate and be answerable under the terms of the accountability mechanisms that have been established. Finally, the government is responsible for ensuring that the supervisor was provided with the appropriate mandate and adequate powers and resources to carry out its function. An inadequate supervisory framework may reflect a constellation of drivers, such as competitiveness concerns of political authorities, exacerbated in jurisdictions where prudential supervisors are not fully independent or have competitiveness objectives that are not subordinate to safety and soundness mandates. Governments have an important role to play in ensuring that supervisors have responsibilities, objectives, and powers clearly defined and in providing for independence, accountability, resourcing, and legal protection for supervisors.

Conclusion

This paper, like the earlier one from 2010, is based on the premise that supervision is a public good. The practice and art of supervision has, in essence, largely been born from the need for authorities to intervene in the wake of banking failures. While supervision and regulation have both evolved over the years, experiments with so called “light touch supervision” have rarely, if ever, been successful, even if on occasion such approaches have been seen by some as legitimate efforts to encourage economic activity and foster competition. In reality though, whether it is Northern Rock in 2008 or Silicon Valley Bank in 2023, after the event, the question is inevitably why supervisory efforts were not more intrusive and timelier. That is, while each failure is multidimensional, what these cases had in common is that in the aftermath of collapse, the wider public and the authorities wanted to know where the supervisors had been, what they had done, when they had done it and, in particular, if they had not done something, why they had not acted.

When supervision has been absent, or has failed, therefore, it is important to consider the underlying factors—what has affected their will or ability to act? The list of factors that hinder effective supervision maps closely to criteria that the BCP expect to be in place for supervisory authorities. If these conditions are not in place, then supervision is unlikely to be assertive or proactive. A non-exhaustive list of factors observed in IMF assessments and technical assistance work often suggests that hesitation can stem from perceived or actual vulnerability to influence by government or industry and lack of legal protection. Delays, as opposed to hesitation, appear to be more commonly a result of inadequate resources hindering timely action and poor-quality internal processes around escalation, review, and decision making. Also, sometimes there is a cultural—or legal—view that supervisory action can only take place when there is egregious evidence, or legal thresholds that have been breached. That is often too little, and too late to achieve the public good objectives of banking supervision.

While some of the necessary action to meet heightened expectations of supervisors will need to be their own, other authorities will also need to step up. Supervisory authorities would benefit from undertaking a detailed review of their internal processes; devoting more attention to business model risk, corporate governance, and risk management; and focusing on closing data gaps and improving data quality. Similarly, attention paid by other responsible authorities to resources, independence, and legal powers of supervisors will also pay dividends.

Banking will continue to evolve. Regulation and supervision need to move with it. Regulation, like supervision, is important—it must be designed thoughtfully, calibrated appropriately, and implemented thoroughly. But it is rarely, if ever, enough. Supervision is essential. As the dozen United States senators who wrote to the Federal Reserve Board, “Irresponsible and excessive risk taking by SVB […] should serve as a clear reminder that banks cannot be left to supervise themselves.”[33]

[33] Letter of US Senators to Vice Chair Barr, March 21, 2023.

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