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The Post-Crisis Challenges Facing Supervisors

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Contents

Introduction[1]

This Note discusses how emerging markets should approach the implementation of the post-crisis and other recent regulatory reforms into their national financial services regulation, considers the challenges for supervisors stemming from more wide-ranging, robust and complex regulatory requirements, provides an overview of emerging risks and supervisory responses, and discusses the importance of supervisory cooperation.

The global financial crisis of 2007-2009 was followed by large-scale regulatory reform, led by the G20 group of countries and the Financial Stability Board (FSB), and taken forward by sectoral or subject specialist international standard-setters including the Basel Committee on Banking Supervision (BCBS), the International Association of Insurance Supervisors (IAIS), the International Organization of Securities Commissions (IOSCO), the Financial Action Task Force (FATF) and the Organisation for Economic Co-operation and Development (OECD).

Although still not fully completed ten years after the crisis, the regulatory reform agenda has introduced stricter standards in a wide range of areas. These range across governance and culture, compensation practices, risk management, capital, solvency, loss absorbing capacity, leverage, liquidity, enhanced disclosure requirements, the central clearing of derivative transactions, recovery and resolution planning, the designation of global and national systemically important financial institutions, and addressing risks to financial stability, including through monitoring the non-bank sector and undertaking macro-prudential policy.[2]

Given the nature and impact of the financial crisis, it is not surprising that these stricter standards have been applied primarily to the banking sector. However, many of these reforms have also been applied to some extent across the financial system to insurance companies, investment and securities firms, and financial market infrastructures.

In addition, tougher regulation has been and is being introduced in many other areas and across all sectors of the financial system. These include conduct of business requirements in both retail and wholesale markets, financial benchmarks, anti-money laundering and countering terrorist financing controls (AML/CFT), and revised core principles for effective supervision and revised methodologies for assessing compliance with these principles in the banking, insurance, pensions and securities sectors. Some of these are related in part to the financial crisis, while others are unrelated. Principles and guidelines are also beginning to be developed in response to emerging issues such as financial inclusion, gender equality, cyber security and technology-enabled innovation in financial services (FinTech).

Another key issue emerging from the global financial crisis was the quality of financial sector supervision. While most countries operated broadly under the same regulatory standards, differences emerged in supervisory approaches. While the international response to this crisis has focused on the need for more and better regulation, there has been less discussion of how supervision itself could be strengthened. Now that stronger regulations are in place, the focus needs to shift to strengthening supervision and to the appropriate implementation of these reforms. This highlights the importance of supervision as a complement to regulation.

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[1]This Note was prepared by Clive Briault and Demet Canakci on behalf of Toronto Centre.
[2]See Financial Stability Board, *Implementation and Effects of the G20 Financial Regulatory Reforms: Third Annual Report* (July 2017), http://www.fsb.org/2017/07/implementation-and-effects-of-the-g20-financial-regulatory-reforms-third-annual-report/, for a comprehensive assessment of the implementation and effects of the agreed financial regulatory reforms.

The key challenges for financial supervisors to mitigate the risks and costs of future crises without unduly suppressing financial activity are: (i) proportionate implementation of these reforms; (ii) tailoring regulation and supervision to emerging market economies; (iii) maintaining a focus on fundamental issues such as credit and insurance underwriting risks; and (iv) assessing emerging risks such as those arising from FinTech and cyber security.

National Implementation of International Standards

How should emerging markets approach the implementation of the post-crisis and other recent regulatory reforms into the regulation of their national financial services?

There are three broad options available, the use of which could vary across, and even within, different sets of international standards:

- implementing international standards through a 'copy-out' approach;
- implementing a 'local' version of international standards, amending the standards in light of local circumstances; or
- not implementing (some) international standards at all

In some respects, these choices will be determined by the way in which international standards have been formulated. Some international standards are applicable to all financial institutions within the relevant sector, with little or no guidance on proportionality. Some other international standards include simpler approaches designed for smaller, less sophisticated and less complex financial institutions, making it possible to copy out only a subset of the standards. The standardized approach for the capital treatment of credit risk and the development of a simple standardized approach to market risk under the BCBS standards are good examples of this approach.

In other cases, some international standards are formulated in a way that encourages and facilitates a 'proportionate' or 'appropriate' implementation for smaller, less sophisticated and less complex financial institutions. Examples here would include standards relating to corporate governance and risk governance, and the 'application paper'[3] in which the IAIS allows for a proportionate approach to the adoption of the Insurance Core Principles (ICPs). However, in some cases the international standards are less helpful in guiding national implementation.

Some international standards are presented as being applicable only to large internationally active financial institutions (or in some cases only to global systemically important financial institutions). However, in many of these cases there has also generally been a strong suggestion from the relevant international standard setters that these standards should also be applied more widely, at least to domestic systemically important financial institutions, and that broadly comparable standards should be applied to other financial institutions (see for example IAIS's *Comframe*[4] and the BCBS's *Principles for Effective Risk Data Aggregation and Risk Reporting*[5]).

[3] See International Association of Insurance Supervisors, *Application Paper on Regulation and Supervision* (October 2012), https://www.iaisweb.org/file/34110/application-paper-on-regulation-and-supervision-supporting-inclusive-insurance-markets, for more information on this approach.
[4] See International Association of Insurance Supervisors, *Common Framework for the Supervision of Internationally Active Insurance Groups* (2016), https://www.iaisweb.org/page/supervisory-material/common-framework

Implementation of international standards is further complicated by the growing complexity of these standards, including even the ‘standardized’ approaches to credit, market and operational risk for banks under Basel III. The BCBS has attempted to make these standardized approaches more risk sensitive to compensate for the removal of, or constraints on, the use of internal model approaches (which are being constrained because of concerns about the consistency of their use and the variability of the outputs of these models across banks, especially for low default portfolios), and to impose a more risk-sensitive standardized approach based floor on the extent to which the use of internal model-based approaches can drive down risk weighted exposures.

Many emerging markets therefore face a difficult task in implementing international standards, not least where their financial institutions are relatively small, undiversified and predominantly local in operation, and where their financial sectors are smaller and less complex than in major economies. There are also some specific sensitivities that regulators in emerging market economies have had to consider:

- **Liquidity:** High quality liquid assets may be in limited supply, and the net stable funding ratio might overly constrain ‘simple’ national banking models based on short-term customer deposits financing longer-term customer lending.
- **Risk Governance**: International standards are based on a more complex and sophisticated approach than is found in most financial institutions in emerging markets, and do not fully take into account the situation of state and family owned financial institutions.
- **Resolution Planning:** Under-developed debt markets and a funding strategy based almost entirely on equity and customer deposits makes it difficult and expensive for emerging market banks to add large amounts of ‘bail-inable’ subordinated debt to their liability structures.
- **Credit Risk:** Standardized risk weights on low loan-to-value ratio (LTV) mortgages might be too generous for some jurisdictions.
- **Anti-Money Laundering and Countering the Financing of Terrorism:** Over the last decade, global banks have been tightening operations to comply with regulations designed to curtail money laundering and the financing of terrorism. As a consequence, global banks have been limiting correspondent banking relationships with local banks in emerging and developing economies – a practice referred to as “de-risking.” This unintended consequence of regulatory reforms has led the FSB to investigate the sharp reduction in correspondent banking.
- **Under-Developed Markets:** In emerging market economies, insurance and securities markets are often underdeveloped, and imposing international standards might undermine efforts to grow these markets, thus creating a tricky balancing act.

There is no suggestion of a two-tier global rule book. Yet, without additional guidance on how standards could be proportionately applied to different sizes and types of financial institutions and financial sectors, there is a risk that emerging markets could end up with multiple national solutions.

National Supervision

While progress is being made in putting revised regulations in place, work remains to be done in many countries to strengthen supervision. This section highlights four key aspects.

The Basics

Supervisors should not lose sight of the basics of good supervision. In particular, as set out in an IMF publication,[6] it is important that supervisors become, or remain:

- **Intrusive** – supervisors need to understand the entities they supervise;
- **Sceptical** – supervisors should be questioning, inquisitive and curious, even in the good times. Indeed, it is often during the good times that financial institutions behave recklessly, which is why the IMF paper refers here to 'countercyclical supervision';
- **Proactive** – supervisors should take action based on a forward-looking assessment of firm-specific and system-wide risks;
- **Comprehensive** – supervisors should remain alert to developments 'at the margin' in regulated firms/groups and in unregulated firms;
- **Adaptive** – supervisors should adapt to new products, markets, services and risks in individual firms and system-wide; and
- **Conclusive** – where supervisors identify material risks they should follow these through to a clear conclusion.

In some emerging economies there are constraints on the willingness and ability of supervisors to act in these ways. There may be a lack of legal protection for supervisors, undue political influence over the supervisory authority, various forms of direct and indirect regulatory capture, a lack of formal powers, a lack of resources, or an undemanding supervisory risk appetite under which the supervisory authority chooses to take an 'accommodating' approach.

Risk Based Supervision

Since the crisis, an increasing number of national supervisory authorities have adopted more forward-looking approaches to supervision, incorporating both quantitative and qualitative elements into their risk based supervisory assessments. Even in jurisdictions with relatively simple financial systems, there can be a large number of firms of different sizes undertaking a range of activities with complex operations. Supervisors on the other hand are resource constrained, requiring them to prioritize rigorously. Risk based supervision (RBS)[7] increases the effectiveness of supervision through improving supervisory outcomes while also increasing efficiency through improved resource allocation and processes. It involves allocating resources to the areas of greatest risk. Risks are not eliminated under RBS, but supervisors are able to address them in the most efficient and effective way in pursuing their objectives.

A key feature of RBS is that it is forward looking. Some ratings-based approaches have the disadvantage that they are capable of providing only a 'point in time' assessment of risks today. RBS is fundamentally different from compliance-based approaches that focus largely on the extent to which firms adhere to rules, requirements and directives, often involving a rigid on-site inspection schedule and penalties for non-compliance.

RBS is largely outcomes- and principles-based. It seeks to assess, within a forward-looking perspective and making extensive use of judgement, the most important (prudential and conduct) risks posed by

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[6] See International Monetary Fund, *The Making of Good Supervision: Learning to Say`No`,* IMF Staff Position Note (May 18, 2010), https://www.imf.org/external/pubs/ft/spn/2010/spn1008.pdf
[7] See Toronto Centre, *Risk-Based Supervision,* TC Note (March 2018), https://www.torontocentre.org/index.php?option=com_content&view=article&id=82:risk-based-supervision&catid=10&Itemid=101

firms to supervisory objectives and the extent to which firms are able to manage and contain these. An important principle of RBS is that, conducted effectively, it is capable of identifying risks at an early stage so that the necessary remediation can be undertaken before these can crystallize and cause damage.

In addition to institution-specific supervision, supervisors are also adopting benchmarking exercises and thematic (horizontal) reviews as part of their toolkit to better detect emerging risks and potential outlier financial institutions. Many national authorities have also undergone organizational changes to support these approaches and have introduced dedicated teams and oversight functions to ensure that early supervisory actions are taken and followed up.

Range and Complexity of Supervision

The wide scope of the regulatory reform agenda places a requirement on supervisors to increase their understanding of both the nature of new regulatory requirements and the myriad ways in which they affect the financial institutions they supervise. Key areas here include:

- **Governance** - supervisors need to undertake a far more intensive assessment of the effectiveness of corporate governance and risk governance in financial institutions. This is likely to require more extensive use of on-site supervision, where supervisors interview a range of directors, senior management and heads of internal control functions, and where supervisors attend some board, board committee and senior management meetings;
- **Culture** – increasing emphasis is being placed on the importance of culture and values in driving the behaviour of firms (in terms of both reckless risk-taking and misconduct). Supervisors therefore need to be able to assess the culture of a financial institution, and whether the stated culture and values of a financial institution (the 'tone from the top') are communicated effectively to, and followed by, staff at all levels within the financial institution;
- **Capital, Solvency, Leverage and Liquidity** – although not wholly new, supervisors need to be able to understand the revised regulatory requirements in these areas and to assess whether the financial institutions they supervise meet these new standards;
- **Designation of Global and Domestic Systemically Important Financial Institutions** – having identified financial institutions whose failure would have system-wide implications, supervisors are supposed to subject such institutions to higher capital requirements, higher standards of corporate governance and risk governance, more stringent recovery and resolution planning, and more intensive supervision;
- **Stress Testing** – the results of stress testing should help both supervisors and financial institutions to understand better the risks facing individual financial institutions and indeed the financial system more generally. Stress tests also provide input to the supervisory review and evaluation of the capital and liquidity assessments, recovery plans and business models of financial institutions, and inform macro-prudential policy;
- **Business Model Analysis** – consistent with a more forward-looking and risk-based approach, supervisors should be considering the viability and sustainability of financial institutions' business models, in particular in countries where financial institutions in at least some sectors have low levels of profitability;
- **Recovery and Resolution Planning** – these are new areas for many supervisors and for the financial institutions they supervise. In the case of resolution planning this may also involve the creation or designation of a new resolution authority, with which supervisors will need to interface; and

- **Macro-Prudential Policy** – the financial crisis revealed the need to take a 'macro-prudential' view of risks to the financial system as a whole, rather than for supervision to focus only on the positions of individual financial institutions. This has led to the creation of macro-prudential authorities in many countries, responsible for assessing systemic risk and taking (or recommending) actions to mitigate such risks. Again, the key point for supervision here is for supervisors to understand how macro-prudential policy operates and to facilitate a constructive two-way flow of information and analysis between the micro- and macro-prudential authorities.

Implications for Supervision

Dealing with complexity, innovation and continuous change is one of the most important challenges for supervisors.

First, supervisors, in particular in many emerging markets, face a massive challenge in terms of the resources, skills and expertise needed to cope with the increased workload and the greater range and complexity of regulatory requirements. Without additional resources in terms of both numbers of staff and their skills and experience, many supervisory authorities are not well positioned to carry forward most of the regulatory reform initiatives, even if these are adopted in a proportional way that takes account of the specific circumstances of the country.

Second, in addition to the basics of good supervisory approaches, supervisors must ensure that they do not lose sight of the key risks facing the financial institutions they supervise during this period of massive regulatory change. For banks this is usually credit risk, for insurers underwriting risk, and for securities firms market and credit risk, while for all types of financial institution there are various forms of conduct risk. In addition, supervisors should spend time planning and practicing (through simulation exercises) for crisis preparedness.

Third, supervisory authorities should continue to introduce and develop systems of risk-based supervision. This needs to cover both the basics of RBS and newer enhancements to take into account the impact of shifts in approaches on impact assessment (for example the greater emphasis on systemically important financial institutions), the range of inherent risks (recoverability), conducting stress testing to supplement the forward-looking approach, the range of risk mitigants (for example the greater emphasis on culture and loss absorbing capacity), and the two-way links between micro- and macro-prudential risks.

Finally, all this places considerable demands on supervisory leadership, stakeholder communications and expectation management. This includes positioning the supervisory authority in terms of mandate, objectives, strategy, risk appetite, and accountability. It requires understanding the potential impacts of regulatory and market developments on the supervisor and on supervised financial institutions.

The challenges and implications of the post-crisis reforms for supervisors also raise the need for capacity building efforts for emerging market economies. International organizations and capacity building organizations with the specific mission to provide high quality capacity building programs for financial supervisors and regulators need to cooperate to meet the needs of supervisors.

Emerging Risks from FinTech

While supervisors need to remain focused on traditional risks such as asset quality and insurance underwriting, they also need to be mindful of emerging risks posed by rapidly evolving technological innovations (FinTech). FinTech has the potential to transform the financial system across a broad range of services. Although some of the technology may be revolutionary, its overall effect on the financial system is likely to be evolutionary. Financial institutions that adapt successfully will survive, and some new service providers will become part of the financial ecosystem. In some areas, this evolution is happening rapidly, but in other areas the most transformative technologies still have developmental hurdles to clear.

FinTech is being applied to a wide range of financial products and services such as digital payments and e-money, international remittances, personal and business loans, peer-to-peer lending platforms, crowdfunding platforms, robo-advisors and crypto assets.

FinTech offers many potential benefits. Innovations in financial services can lead to greater efficiency through the adoption of productivity-enhancing technologies. Lower costs and new products, services and delivery channels could all benefit consumers. Better uses of data could reduce information asymmetries in financial systems and increase transparency. FinTech reduces barriers to entry, can generate greater competition, and is one way of improving access to financial services for those currently excluded. And financial institutions can enhance their compliance, data management, regulatory reporting, stress testing capabilities and 'know your customer' procedures through the adoption of FinTech (these regulatory benefits for financial institutions are generally referred to as 'RegTech').[8]

The initial response of regulators and supervisors to FinTech was to welcome and encourage FinTech innovations. Supporting messages were backed up in some countries with the introduction of 'sandboxes', accelerators and innovation hubs to provide safe environments in which FinTech innovations could be tested and – in some cases – to provide a means for new entrants to gain a restricted or conditional licence to provide regulated activities.[9] However, there also regulatory concerns that FinTech poses risks to financial institutions, to consumers, and to financial stability. For financial institutions the main risks can be grouped into six broad categories:

- Operational risks, such as from the introduction of new technology and an increasing reliance on third parties (outsourcing to partner FinTech firms, and reliance on cloud computing);
- Greater vulnerability to cyber-attacks;
- Inadequate protection of customer data;
- A failure (not least at board and senior management level) to understand emerging FinTech risks and to manage and control these risks effectively;
- New product development running ahead of internal control processes; and
- Business model risk as new technology, new entrants and greater competition threaten the viability of existing business models.

For financial stability, the main risks arising from FinTech include new and unexpected forms of interconnectedness among financial markets and institutions; greater concentration arising from economies of scale in the application of new technologies; herd-like behaviours arising from the use of artificial intelligence and machine learning methods and models; and the emergence of new systemically important players that could fall outside the regulatory perimeter.

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[8] See Toronto Centre, *FinTech, RegTech and SupTech: What They Mean for Financial Supervision,* TC Note (August 2017), https://www.torontocentre.org/index.php?option=com_content&view=article&id=263:fintech-regtech-and-suptech-what-they-mean-for-financial-supervision-2&catid=12&Itemid=99
[9] See Toronto Centre *Regulatory Sandboxes*, TC Note (November 2017), https://www.torontocentre.org/index.php?option=com_content&view=article&id=77:regulatory-sandboxes&catid=12&Itemid=99

For consumers, the risks include the possibility that new products, services and delivery channels will become new ways of treating customers unfairly; that the use of 'big data' will create scope for the unfair treatment of some consumers and for conflicts of interest between firms and their customers (for example, through a lack of pooling of insurance risks); data privacy and data protection issues; and that digitalization could disadvantage older and other vulnerable consumers who have limited access to, or understanding of, digital delivery channels.

In response to these risks there are already a steady stream of international and national standard-setters issuing various principles and guidance relating to FinTech. These have so far tended to be high level, leaving financial institutions and their supervisors to determine how these principles and guidance can best be applied in more specific circumstances. There is a significant challenge for supervisors here in assessing how, when and where FinTech developments begin to pose significant risks, how such risks can best be addressed, and whether the regulatory perimeter needs to be re-assessed and updated. But at the heart of much of this lies the conceptually more familiar supervisory issue of how to assess whether the governance and risk management frameworks within financial institutions are evolving in the right direction and at the right pace to ensure that risks arising from FinTech developments are properly identified, understood, managed and monitored.

Just as technological innovation offers opportunities to financial institutions, there is scope for supervisors to use the same technology and data analytics to enhance their monitoring of the firms and markets they supervise. This opportunity, known as 'SupTech', remains at a relatively early stage of development, but could evolve into the greater use of 'real time' access to and interrogation of data on financial institutions, and greater analysis of the 'big data' contained in regulatory reporting by financial institutions and more widely in other information sets and social media. Again, however, such developments depend on supervisory authorities having the necessary resources and skills to take them forward.[10]

Supervisory Cooperation and Coordination

Financial sector supervisors face many challenges in achieving effective cooperation and coordination. Indeed, many of the 'age old' challenges remain, and in some respects have been accentuated under post-crisis regulatory and supervisory expectations.

Effective cooperation and coordination cannot be taken as a given, not even within a single country and not even where some of the main agencies reside within a single institution such as a central bank. This has been further complicated by the introduction of new authorities (or changes in the mandate and responsibilities of existing authorities), such as resolution and macro-prudential authorities. One specific manifestation of the coordination problem here is the impact of additional authorities and/or responsibilities on crisis preparedness and crisis management, even when confined to within a country. It is important for supervisors not just to prevent the next crisis but to have the tools and clearly understood processes and procedures in place to deal with a crisis should one arise.

Although international cooperation and coordination in implementing international standards was an important takeaway from the global financial crisis, there are many pressures for lessening international cooperation as national authorities implement international standards in increasingly different ways. It has never been easy to deliver global consistency in the development and application of international standards in any financial sector, or to achieve the desired level of international cooperation and

[10] See Toronto Centre, *SupTech: Leveraging Technology for Better Supervision,* TC Note (July 2018), https://www.torontocentre.org/index.php?option=com_content&view=article&id=269:suptech-leveraging-technology-for-better-supervision-2&catid=12&Itemid=99

collaboration. Despite unprecedented political momentum from G20 leaders, the post-crisis international standards are not being implemented consistently, even across major economies. This is evident from almost every BCBS and FSB implementation assessment, with differences emerging in the timing and detail of implementation, and the application of national super-equivalence (for example national capital buffers and national minimum leverage ratios, and the ring fencing of retail banks in the UK).

There are considerable domestic political pressures on national authorities to seek to protect their national creditors in the event of the failure of an international financial institution. Examples of this include US rules for foreign banking organizations, proposed EU rules on intermediate parent holding companies and on the location of euro denominated clearing, and tougher host country 'ring-fencing' requirements on capital, the pre-positioning of loss absorbing capacity, liquidity, governance and enforced subsidiarization. Lord King's (former Governor of the Bank of England) observation that banks are global in life but national in death continues to be a major impediment to enhanced international cooperation. Yet a fragmentary response that makes financial institutions more local in life, local in death and simultaneously subject to both global and local regulations will not promote the G20's objective of strong, sustainable and balanced growth. Fragmentation of national standards makes it more expensive and more complex for financial institutions to operate internationally, with adverse impacts on flows of financing and on the maintenance of open and global markets. For example, BIS data show that global banks increasingly rely on local funding for local lending.

There are also still issues with information sharing, including legal constraints, natural caution and secrecy. Supervisors should strengthen the effectiveness of their cooperation, pursuing clear agreements on specific information to be shared through efficient communication channels, and working together for a common supervisory approach to improve joint monitoring of the main risks facing the financial system. In addition to legal and confidentiality constraints, various organisational, cultural and technical factors can also play an important role in impeding data-sharing.

Supervisory colleges – and now also crisis management groups (resolution colleges) - continue often to exclude supervisory authorities from host countries where subsidiaries may not be material to the financial group to which they belong but may still be of systemic importance in the host country.
New technological developments also highlight the importance of international cooperation (see box 2). International cooperation will be essential to address the challenges posed by FinTech. For instance, cyber risk is of critical concern to supervisory and regulatory authorities and financial institutions. The changing nature of cyber risk is driven by evolving technology, which can lead to new or increased vulnerabilities for financial institutions and their clients. Recognizing the threat from cyber risks and the critical need to enhance financial institutions' resilience to those risks, authorities across the globe have taken regulatory and supervisory measures designed to mitigate and manage cyber risk. As cyber risk is not limited by political or geographical barriers, international supervisory cooperation and coordination is needed.

Box.1. Priority areas for international cooperation

Areas where international bodies and national authorities should seek to increase their awareness of FinTech when undertaking regular risk assessment and development of micro- and macroprudential regulatory frameworks include:

1. Managing operational risks from third-party service providers.
2. Mitigating cyber risks.
3. Monitoring macrofinancial risks.

Other issues that merit authorities' attention

4. Cross-border legal issues and regulatory arrangements.
5. Governance and disclosure frameworks for big data analytics.
6. Assessing the regulatory perimeter and updating it on a timely basis.
7. Shared learning with a diverse set of private sector parties.
8. Further developing open lines of communication across relevant authorities.
9. Building staff capacity in new areas of required expertise.
10. Studying alternative configurations of digital currencies.

Conclusion

This note has focused on financial sector supervision rather than on the detail of the post-crisis regulatory reforms. In doing so, four key propositions have emerged.

First, a proportionate and country-specific approach is required for the implementation and supervisory application of international regulatory standards, in particular in emerging economies. This should not compromise the objectives of these standards, but rather should reflect local circumstances.

Second, national supervisory authorities need to strengthen their supervisory frameworks and the skill sets of supervisors, and to continue to enhance their approaches to supervision. The success of the post-crisis reforms – and indeed the soundness and stability of financial systems more generally - depends heavily on the effectiveness of financial sector supervision.

Third, both regulation and supervision need to take account of emerging risks, such as those arising from FinTech applications. A delicate balance needs to be drawn here to maximize as far as possible the benefits of FinTech while addressing the potential risks to consumers, financial institutions and financial stability.

Fourth, the necessary supervisory frameworks need to be put in place to maximize the benefits of the new international standards, including effective international coordination and cooperation in the form of supervisory colleges, crisis management groups and capacity development programmes.

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