Financial Stability Issues in Emerging Market and Developing Economies

Report to the G-20 Finance Ministers and Central Bank Governors

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FOREWORD

At the November 2010 Summit in Seoul, the G20 Leaders asked the FSB, IMF and the World Bank to deliver a report on financial stability issues that are of particular interest to emerging market and developing economies (EMDEs). This request reflected a recognition that the post-crisis financial regulatory reform debate had focused mainly on addressing the problems that had arisen in the financial systems of advanced economies (AEs). It also reflected the importance of preserving financial stability in EMDEs, which are increasingly becoming an engine of growth for the global economy and helped contribute to global financial stability during the recent crisis.

The focus of the paper is on five key financial stability issues in EMDEs, which have been selected on the basis of their degree of materiality for a reasonably broad range of EMDEs; their implications for regulatory, supervisory or other financial sector policies; and the extent to which these issues are not already being addressed by other international workstreams.

The paper does not cover other financial stability issues that may also be relevant for EMDEs but are addressed in other G20/FSB workstreams. Such issues include the management of sizeable and volatile capital flows; the design of policy measures to address the risks arising from systemically important financial institutions; the development of macro-prudential policy frameworks; the creation of effective resolution tools and regimes for financial institutions; strengthening the oversight and regulation of the shadow banking system; and reforming the functioning of over-the-counter derivatives and commodities markets. Reports on all of these issues will be submitted at the same time to the G20, and this paper should be seen in the context of this broader package.

The paper was prepared by a Task Force (see Annex IV) comprising FSB members, staff of the IMF and World Bank, and senior policymakers from some emerging market and developing economies outside the FSB.

GLOSSARY

ABF	Asian Bond Fund
ABMI	Asian Bond Markets Initiative
AEs	Advanced Economies
AEC	ASEAN Economic Community
ASEAN	Association of Southeast Asian Nations
BCBS	Basel Committee on Banking Supervision
BCP	Basel Core Principles for Effective Banking Supervision
CEE	Central and Eastern Europe
CGIF	Credit Guarantee and Investment Facility
CNBV	National Banking and Securities Commission (Mexico)
EMDEs	Emerging Market and Developing Economies
EMEAP	Executives' Meeting of East Asian and Pacific Central Banks
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSI	Financial Stability Institute
FX	Foreign Exchange
GDP	Gross Domestic Product
ICPs	Insurance Core Principles
IAIS	International Association of Insurance Supervisors
IOSCO	International Organization of Securities Commissions
ISG	Intermarket Surveillance Group
MFIs	Microfinance Institutions
MMoU	Multilateral Memorandum of Understanding
MoU	Memorandum of Understanding
NBFCs	Non-bank Financial Companies
NBIs	Non-bank Institutions involved in lending and deposit-taking activities
NGOs	Non-governmental Organizations
OTC	Over-the-counter
PAIF	Pan-Asian Bond Index Fund
RMB	Chinese Renminbi
ROSC	Report on the Observance of Standards and Codes
S&C	Standards and Codes (Initiative)
SIFIs	Systemically Important Financial Institutions
SHF	Federal Housing Corporation (Mexico)
WEO	World Economic Outlook

EXECUTIVE SUMMARY

Emerging market and developing economies (EMDEs) comprise a large and diverse group whose financial systems have grown in importance over the last decade. Based on the classification of countries used by the IMF in its World Economic Outlook (WEO), 150 economies are classified as EMDEs, including 10 members of the G20. They differ substantially in terms of economic size, level of development, legal and institutional frameworks, and other factors that affect financial systems. Over the last 10 years, financial systems in EMDEs have grown significantly vis-à-vis those in advanced economies (AEs). Although they proved resilient during the global financial crisis, they are now facing important new challenges.

Some key characteristics of financial systems in EMDEs are particularly relevant for financial stability. Since EMDEs are a large and diverse group, they do not all share the same financial system characteristics; in fact, many characteristics vary as much across EMDEs as between EMDEs and AEs. However, in general, financial systems in EMDEs tend to be relatively smaller in size, more concentrated and less complex than systems in AEs, with banks playing a large role while capital markets and other financial institutions remain relatively under-developed. Other prevalent (although not universal) features include greater dependence on foreign capital, weaker institutional frameworks and market infrastructures, important capacity constraints, a relatively greater involvement of the state in the financial system, and greater use of international currencies for domestic financial transactions ("financial dollarization").

Against this background, this paper focuses on five key financial stability issues in EMDEs:

- **Application of international financial standards.** Most EMDEs have strengthened banking supervision and the quality of securities regulation and insurance supervision over the past decade, helping them withstand the effects of the global financial crisis. The principal challenges in this area relate to supervisory capacity constraints, incomplete legal frameworks, the ability to adequately regulate and supervise financial and mixed-activity conglomerates, and the adoption of international standards at a pace consistent with the level of those countries' financial development and supervisory capacity.

- **Promoting cross-border supervisory cooperation.** In countries where foreign banks play a significant role, the inherent conflicts of interest between the home and host jurisdictions can prevent adequate supervisory cooperation and information sharing and complicate risk assessments and cross-border resolution. In response, many EMDEs and some AEs require foreign banks to enter as subsidiaries and sometimes apply additional prudential measures ('ring-fencing') to safeguard the interests of local stakeholders.

- **Expanding the regulatory and supervisory perimeter**. In many EMDEs, small-scale non-bank lending and deposit-taking institutions play an increasingly important role. As it has expanded, this sector has become increasingly complex and interconnected with the rest of the financial system. The rapid pace of growth, sometimes combined with

deteriorating asset quality, may potentially have adverse consequences to financial stability in some EMDEs. Several factors contribute to this situation, including an inadequate regulatory framework and limited supervisory resources and capacity.

- **Management of foreign exchange risks**. The volatility in nominal exchange rate movements, compounded by sizeable capital flows, can create important foreign exchange risks. These risks are especially prominent in EMDEs with thin domestic financial markets, significant financial dollarization, or limited markets to hedge currency mismatches. Banks may be exposed to such risks either directly via net open positions that cannot be efficiently hedged, or indirectly as a result of lending to borrowers whose asset-liability profiles and revenue sources expose them to exchange rate fluctuations.

- **Developing domestic capital markets**. Compared to AEs, capital markets in EMDEs are more shallow and susceptible to sudden price movements and greater disruption that may undermine confidence in their integrity. The development of the domestic investor base, measures to address market illiquidity, and improvements in market infrastructure are important building blocks to address some of the related financial stability issues.

The international community can play an important facilitating role to help EMDEs address these issues (see the table with key recommendations below). The steps that the international community can take include supervisory capacity development through targeted and well-coordinated technical assistance; the development of guidance by standard-setting bodies in areas of concern for EMDEs (Basel III, management of foreign exchange risks, etc.); and the promotion of further cross-border supervisory cooperation and information exchange.

A number of conclusions can be drawn from these financial stability issues and the recommendations to address them. First, the breadth of issues that are covered reflects the wide diversity of financial systems in EMDEs. This heterogeneity implies that, while the issues and associated recommendations are relevant for a broad range of EMDEs, their relative importance and cost-benefit trade-off differ widely across countries or even for the same country over time. Second, many financial stability issues arise from underlying structural features of EMDEs. Addressing these issues cannot therefore be separated completely from addressing broader structural features of the economy. Third, financial stability is closely linked to financial development. In that sense, steps to promote financial development in EMDEs (if well-sequenced) can also support financial stability. At the same time, however, it is important to ensure that regulatory and supervisory frameworks and financial sector policies not only support but also keep up with market development to avoid creating new sources of financial instability.

There is a need to continue to bring issues of relevance for EMDEs to the attention of the international community. The IMF, the World Bank and the FSB, particularly via its regional consultative groups, have an important role to play in that regard. In addition, international bodies should take into account EMDE-specific considerations and concerns in designing new international financial standards and policies.

Key Recommendations

- EMDEs should take further measures to enhance financial stability, including by strengthening supervisory independence, resources and capacity; adjusting prudential frameworks to reflect the growth in, and the risks arising from, small-scale non-bank lending and deposit-taking institutions; strengthening the management of foreign exchange risks; promoting the development of a domestic investor base; taking measures at both national and regional levels to deepen capital market liquidity; and ensuring the robustness of the infrastructure for clearing and settlement systems.
- The international community should send a clear and consistent message on the appropriate pace of adoption of the Basel II/III framework in EMDEs. The more financially-integrated EMDEs—especially those that belong to the G20/FSB and participated in the development of this framework—should adopt the framework according to the agreed timetable. Other countries, with less internationally integrated financial systems and/or with substantial supervisory capacity constraints, should first focus on reforms to ensure compliance with the Basel Core Principles and only move to the more advanced capital standards at a pace tailored to their circumstances.
- The international community should continue to promote the development of supervisory capacity in EMDEs through targeted and well-coordinated technical assistance and other capacity building activities. In addition, the Basel Committee on Banking Supervision (BCBS), the International Association of Insurance Supervisors (IAIS) and the International Organization of Securities Commission (IOSCO), with input from the IMF and World Bank, should take stock of the range of practices on resources and capacity—including on staffing and skill levels, training certification programs, and financing options—and identify good practices to strengthen supervisory authorities in EMDEs.
- Home supervisors for large international banks should provide host supervisors, particularly when those banks are systemically important in the host jurisdiction, with timely, accurate and comprehensive information on the parent bank via supervisory colleges and crisis management groups and/or via enhanced bilateral relationships.
- The IOSCO and IAIS should work with EMDEs to promote adoption of multilateral arrangements, such as the *Multilateral Memorandum of Understanding*, to facilitate cooperation and information exchange in the securities and insurance sectors.
- The BCBS should provide guidance on: (1) the application of new measures included in Basel III to EMDEs that do not intend to adopt the advanced approaches of Basel II; and (2) the steps that EMDE supervisors can take to monitor and address the buildup of direct and indirect foreign exchange risks. The BCBS should also take stock of the range of practices on supervisory approaches, prudential regulations and data reporting and disclosure requirements for small-scale non-bank lending and deposit-taking institutions.
- The BCBS, IAIS and IOSCO should report to the FSB on progress made in meeting the above recommendations by end-2012. The IMF and the World Bank should continue to assess the progress made by EMDEs in enhancing their financial stability frameworks.

I. INTRODUCTION

1. **At the November 2010 Summit in Seoul, the G20 Leaders asked the FSB, IMF and the World Bank to deliver a report on financial stability issues that are of particular interest to emerging market and developing economies (EMDEs).**[1] This request reflected a recognition that the post-crisis financial regulatory reform debate had focused mainly on addressing the problems that had arisen in the financial systems of advanced economies (AEs). It also reflected the importance of preserving financial stability in EMDEs, which are increasingly becoming an engine of growth for the global economy and helped contribute to global financial stability during the recent crisis.

2. **The EMDEs comprise a large and diverse group whose financial systems have grown in importance over the last decade.** Based on the classification of countries used by the IMF in its World Economic Outlook (WEO), 150 economies are classified as EMDEs, including 10 members of the G20.[2] They differ substantially in terms of economic size, level of development, legal and institutional frameworks, and other factors that affect financial systems. Over the last 10 years, financial systems in EMDEs have grown substantially vis-à-vis those in AEs—for example, their banking assets increased from about 19 percent of the global banking system at end-2000 to about 27 percent at end-2009.

3. **Financial systems in many EMDEs proved resilient during the global financial crisis, although they are now facing important new challenges.** Underlying this resilience are several distinct factors, including stronger macroeconomic fundamentals, lower reliance on wholesale funding as part of a more traditional banking business model, minimal exposure to US subprime mortgage assets, as well as improvements that have been achieved in policy frameworks and financial supervision and market infrastructures in recent years. However, EMDEs remain exposed to global risks arising from the sizable sovereign debt overhang and the ongoing repair of financial sector balance sheets in many AEs. They are also experiencing volatility in commodity export prices and significant capital inflows, which may be contributing to overheating, excess credit growth, higher leverage, and elevated asset prices. In many EMDEs, the appropriate policy response will involve not only a prudent macroeconomic approach but also policies directly aimed at preserving financial stability.

4. **Some key characteristics of financial systems in EMDEs are particularly relevant for the analysis of financial stability issues**. Since EMDEs are a large and diverse group, they do not all share the same financial system characteristics (see Annex I); in fact, many characteristics vary as much across EMDEs as between EMDEs and AEs. However, in general, financial systems in EMDEs tend to be relatively smaller in size, more concentrated and less

[1] See the Seoul Summit Declaration (http://www.g20.org/Documents2010/11/seoulsummit_declaration.pdf).

[2] The definition of EMDEs can vary depending on the criteria used by different organizations and market participants (e.g., size of economy, level of per capita income, equity and debt market capitalization, etc.).

complex than systems in AEs. Banks play a large role—typically accounting for 85-90 percent of financial system assets—while capital markets and other financial institutions remain relatively under-developed even though they have been growing rapidly in some EMDEs in recent years. Other prevalent (although not universal) features include greater dependence on foreign capital, weaker institutional frameworks and market infrastructures, important supervisory capacity constraints, a relatively greater involvement of the state in the financial system, and greater use of international currencies for domestic financial transactions ("financial dollarization").

5. **Against this background, this paper focuses on five key financial stability issues in EMDEs**:

- **Application of international financial standards.** Most EMDEs have strengthened banking supervision and the quality of securities regulation and insurance supervision over the past decade, helping them withstand the effects of the global financial crisis. The principal challenges in this area relate to supervisory capacity constraints, incomplete legal frameworks, the ability to adequately regulate and supervise financial and mixed-activity conglomerates, as well as adopting international standards at a pace consistent with the level of those countries' financial development and supervisory capacity.

- **Promoting cross-border supervisory cooperation.** In countries where foreign banks play a significant role, the inherent conflicts of interest between the home and host jurisdictions can prevent adequate supervisory cooperation and information sharing and complicate risk assessments and cross-border resolution. In response, many EMDEs and some AEs require foreign banks to enter as subsidiaries and sometimes apply additional prudential measures ('ring-fencing') to safeguard the interests of local stakeholders.

- **Expanding the regulatory and supervisory perimeter**. In many EMDEs, small-scale non-bank lending and deposit-taking institutions play an increasingly important role. As it has expanded, this sector has become increasingly complex and interconnected with the rest of the financial system. The rapid pace of growth, sometimes combined with deteriorating asset quality, may potentially have adverse consequences to financial stability in some EMDEs. Several factors contribute to this situation, including an inadequate regulatory framework and limited supervisory resources and capacity.

- **Management of foreign exchange risks**. With the growing reliance on flexible exchange regimes in many EMDEs, the nominal exchange rate is often more volatile, especially during shifts in the global economic environment. While this flexibility provides important benefits, the resulting volatility—which can be compounded by sizeable capital flows—can also present risks. These risks are especially prominent in EMDEs with thin domestic financial markets, significant financial dollarization, or limited markets to hedge currency mismatches. As a result, banks may be exposed to foreign exchange risk either directly via net open positions that cannot be efficiently hedged, or indirectly as a result of lending to borrowers whose asset-liability profiles and revenue sources expose them to exchange rate fluctuations.

- **Developing domestic capital markets**. Compared to AEs, capital markets in EMDEs are more shallow and susceptible to sudden price movements and greater disruption that may undermine confidence in their integrity. When faced with negative investor sentiment, liquidity in those markets can erode quickly, causing panic sales and contagion effects resulting in disorderly markets and financial instability, as evidenced by a number of crises affecting EMDEs in the past two decades. The development of the domestic investor base, measures to address market illiquidity, and improvements in market infrastructure are important building blocks to address some of the related financial stability issues.

6. **The rest of the paper is structured as follows**. The second section reviews how well EMDEs have applied international financial standards in light of their capacity constraints, and discusses areas where international guidance could be improved. The third section examines the effectiveness of the current framework for cross-border supervision and suggests ways to further improve international cooperation among supervisory authorities. The fourth section addresses the oversight of small-scale non-bank lending and deposit-taking institutions, which have grown rapidly in recent years outside the regulatory perimeter in many EMDEs. The fifth section reviews policy actions that EMDEs can take to improve the capacity of their financial systems to manage exchange rate risk. The sixth section presents steps to develop domestic capital markets in EMDEs in order to ensure a more diversified financial system and thereby build resilience. The final section concludes and summarizes the main recommendations.

II. Application of International Financial Standards

7. **The international community attaches importance to the adoption and implementation of international financial standards by all countries because they promote the stability of financial systems at national and global levels**. In particular, 12 key standards have been designated by the FSB as deserving priority implementation depending on country circumstances.[3] They include three key standards—on banking supervision, securities regulation, and insurance supervision—that are being assessed for all countries, including EMDEs, by the IMF and the World Bank as part of their Standards and Codes (S&C) Initiative.[4]

8. **Most EMDEs have strengthened banking supervision over the past decade, helping them withstand the effects of the global financial crisis (see Annex II for details).**[5] Areas

[3] The 12 key standards, as well as other standards that are complementary in nature and cover particular functional areas, are included in the FSB Compendium of Standards, which provides a one-stop, easy-to-understand reference for the various economic and financial standards that are accepted by the international community as important for sound financial systems - see http://www.financialstabilityboard.org/cos/index.htm for details.

[4] The S&C Initiative was launched in 1999 and was designed to strengthen the international financial architecture through the development, dissemination, adoption, and implementation of international standards and codes (see http://www.imf.org/external/standards/index.htm). The IMF and the World Bank recently completed a review of this initiative (available at http://www.imf.org/external/np/pp/eng/2011/021611.pdf).

[5] These findings are based on 58 assessments completed by the IMF and World Bank since 2006 in the areas of banking, insurance and securities regulation and supervision in EMDEs. The analysis includes 42 Basel Core

(continued)

where these gains were most evident include capital adequacy frameworks; accounting and reporting systems; supervisory techniques; licensing procedures; policies to address problem assets and loan loss provisions; and proper authorization for the conduct of banking activities. Progress has also been made in monitoring and mitigating risks associated with related lending and large exposures.

9. **The quality of insurance supervision and securities regulation in EMDEs has improved as well.** In some of the countries reviewed, insurance supervisors and securities regulators have a clear mandate, with sufficient authority, independence, and legal protection.[6] Areas for improvement include better enforcement powers and procedures (in the case of securities regulators) and stronger group-wide supervision, resolution and liquidation procedures, and disclosure of financial conditions (in the case of insurance supervisors).

A. Supervisory Capacity and Legal Framework

10. **There is scope in many EMDEs to make further progress in strengthening supervisory capacity and legal frameworks.** Countries across all regions have faced challenges in complying with those Basel Core Principles (BCPs) that address the governance, resources and operational independence of bank supervision. Political pressures can influence supervisory matters, while supervisors lack legal protection for official actions.

11. **These challenges can undermine the effectiveness of other supervisory tasks, such as**:

- *Corrective and remedial actions.* In a number of countries, particularly in Africa, bank supervisors lack an adequate range of tools to implement timely corrective actions. In some cases, these shortcomings relate to the absence of proper legal powers, but in other cases supervisors lack the de facto authority to take forceful and timely measures against a problem bank. In some countries, the supervisor is required to obtain government approval for corrective and remedial actions, which can delay or terminate the process.

- *Risk management and operational risk.* In about half of the EMDEs reviewed, bank supervisors lack the ability to assess the effectiveness of banks' risk management practices, especially the adequacy of capital in relation to the risks undertaken by the bank. In many cases, a shortage of expertise in the supervisory agency is the source of this shortcoming. This capability is especially important for those EMDEs that have approved the use of the advanced approaches in Basel II in their jurisdiction, which allow banks to rely on historical data and internal models for the determination of credit risk

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Principles (BCP) assessments; 7 International Association of Insurance Supervisors (IAIS) assessments; and 9 International Organization of Securities Commissions (IOSCO) assessments.

[6] The insurance and securities sectors in many EMDEs are relatively small and fewer countries have undergone an IAIS or IOSCO assessment. Therefore, while the findings should be interpreted cautiously, the review provides a glimpse into certain strengths and weaknesses of the regulation and supervision of these sectors.

estimates and capital requirements. This lack of supervisory capacity spills over to assessing other risks as well, such as market and interest rate risks.

12. **The lack of adequate regulatory capacity is also evident in securities markets surveillance and enforcement.** In the majority of EMDEs reviewed, securities regulators do not have adequate civil or administrative enforcement powers and often rely on the criminal authorities for enforcement purposes, which can hinder their credibility and effectiveness. The lack of sufficient operational independence and powers is also a challenge as compliance rates with the relevant principles are low in this area. However, the main challenge relates to the actual capacity of the regulator to conduct surveillance and adequately implement supervisory programs, as well as to appropriately use its disciplinary powers. While some EMDEs have invested in sophisticated surveillance systems, it has been more difficult to build the appropriate technical capacity to understand and monitor the linkages and potential risk transmissions across market segments. This is particularly evident in conducting surveillance over the derivatives and commodities markets as compared to the equities market. For example, in a recent survey,[7] while 80 percent of EMDEs surveyed had either a derivatives market or a commodities exchange in their jurisdictions, only 57 percent conducted inter-market surveillance.

B. Consolidated Supervision of Financial Conglomerates

13. **Supervisors often lack the legal basis or expertise to monitor and control the risks arising from financial conglomerates, especially those that belong to mixed-activity economic groups.** Roughly three-fifths of the EMDEs reviewed had difficulties with consolidated supervision, particularly of financial conglomerates, as well as with the ability to apply prudential norms to the foreign operations of the conglomerate where appropriate. Many countries, such as Brazil, have strengthened their legal frameworks for consolidated supervision, while other countries are in the process of evaluating alternative legal approaches. However, the scope of consolidated supervision often does not allow a supervisor to monitor all entities within a financial conglomerate, especially foreign operations. Supervisors often do not have powers to enforce regulations and require corrective action for all entities within a conglomerate. The situation is even more acute with respect to financial conglomerates that form part of broader mixed-activity economic groups. This is a structure present in many EMDEs, particularly in Latin America and Asia, whereby the financial activities of the group are often used to support the non-financial businesses (for example, a retailer that extends consumer credit via its banking affiliate to promote the purchase of its products). Supervisors often lack the legal authority to obtain basic information regarding beneficial ownership and intra-group transactions, which undermines their ability to supervise capital adequacy and compliance with related-party lending rules.

[7] See report on "Approaches to Market Surveillance in Emerging Markets" by the Emerging Markets Committee of the IOSCO (December 2009, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD313.pdf).

C. Pace of Adoption of International Financial Standards

14. **Supervisors in some EMDEs can feel compelled to adopt new international financial standards even when these standards may not be a priority for their jurisdiction.** Standard setters and international organizations, such as the IMF and the World Bank, have emphasized that EMDEs should strive to adhere to regulatory and supervisory standards elaborated in the BCP, IOSCO and IAIS principles and at a minimum implement the Basel I standard. In addition, EMDEs should adopt more sophisticated international standards in a timeframe appropriate for their financial system characteristics and supervisory capacity. However, national authorities may feel the need to adopt all new standards in order to keep pace with peers, or as a result of pressures from global financial institutions operating in their jurisdictions that prefer to be subject to a single standard for their worldwide operations.

15. **An example of this issue concerns the adoption of the Basel II/III framework (see Box 1 in Annex III)**. A worldwide survey conducted in 2010 by the Financial Stability Institute (FSI)[8] indicated that 112 countries intend to implement all pillars of Basel II by 2015, with 65 of those planning to implement the more advanced approaches of internal ratings based models for credit risk embodied in Pillar 1.

- The complexity of designing and implementing the capital calculations of Basel II/III can prove challenging for all countries—not just EMDEs. The implementation of even the standardized approach can be technically complex in practice and requires the authorities to make numerous judgments (e.g., whether and how to use external credit ratings) that may overwhelm local capacity. Inconsistencies or ambiguities in the application of the capital rules at consolidated versus solo levels may create challenges for host EMDEs.[9]

- While certain elements of the Basel II/III framework—such as the definition of capital and the supervisory review of a bank's risk and capital management practices—are very relevant and may be useful to implement quickly, the full-scale adoption of the framework may distract many EMDEs—particularly low-income countries—from more basic and urgent reform priorities. These countries should improve their supervisory capacity and their compliance with the BCPs before dedicating resources to the adoption of advanced capital and liquidity methodologies and requirements.

16. **This issue will become increasingly important with the promulgation of new international standards in the aftermath of the financial crisis**. A wide variety of standards in

[8] See the "2010 FSI Survey on the Implementation of the New Capital Adequacy Framework" (BIS Occasional Paper No. 9, August 2010, available at http://www.bis.org/fsi/fsipapers09.pdf).

[9] For example, the capital charges for the same sovereign issuer can vary between the parent and subsidiaries of a global bank. Sovereign debt usually carries a zero capital charge when it is denominated and financed in domestic currency; however, global banks and their home supervisors may treat host country sovereign debt held by their overseas subsidiaries as foreign debt and therefore impose a higher capital charge.

financial regulation and supervision has been issued in recent years, with the main focus being on regulators and supervisors in AEs. Maximizing supervisory effectiveness under tight resource constraints requires appropriate sequencing and prioritization. In EMDEs with limited human and financial resources, the adoption of such standards would need to proceed at a pace consistent with countries' supervisory capacity and level of financial system development.

D. Recommendations

17. **Greater efforts are needed to bolster supervisory capacity and independence, strengthen legal frameworks, and reinforce the supervision of financial groups in EMDEs.** Specific recommendations include:

- National authorities in EMDEs should ensure that appropriate legal underpinnings are in place to protect banking, securities and insurance regulators and supervisors; that there is operational independence in the enforcement of corrective and remedial actions; and that there are adequate budgetary resources and competitive salaries to support recruitment, training, compensation, and staff retention capacities.[10] Supervisors in EMDEs should also be given the legal authority to monitor risks, set prudential requirements, designate a lead supervisor and apply remedies as needed for financial conglomerates.

- The international community should send a clear and consistent message on the appropriate pace of adoption of the Basel II/III framework in EMDEs. The more financially integrated EMDEs—especially those that belong to the G20/FSB and participated in the development of this framework—should adopt the framework according to the agreed timetable. Other countries, with less internationally integrated financial systems and with substantial supervisory capacity constraints, should first focus on reforms to ensure compliance with the BCPs and only move to the more advanced capital standards at a pace tailored to their circumstances.[11]

- The BCBS should issue guidance on the application of new measures included in Basel III—such as capital buffers, leverage ratio, and liquidity requirements—to EMDEs that do not intend to adopt the advanced approaches of Basel II.

- The international community should continue to promote the development of supervisory capacity in EMDEs, particularly through technical assistance. This needs to be targeted

[10] Many of these themes are echoed in the recommendations included in the report on the "Intensity and Effectiveness of SIFI Supervision" that was issued in November 2010 by the Financial Stability Board (available at http://www.financialstabilityboard.org/publications/r_101101.pdf).

[11] The IMF and the World Bank had prepared such guidance in the context of Basel II implementation. See "Implementation of Basel II - Implications for the World Bank and the IMF" (July 2005, available at http://www.imf.org/external/np/pp/eng/2005/072205.htm) and the relevant IMF Board discussion (Public Information Notice No. 05/154, available at http://www.imf.org/external/np/sec/pn/2005/pn05154.htm).

on specific areas based on sound diagnostic work (such as IMF-World Bank assessments) and good coordination among donors. The efficiency and effectiveness of technical assistance may be aided by the development of supervisory certification programs (e.g., by the FSI or the Toronto Centre[12]), the encouragement of research to provide sound underpinnings for policy reform, the channeling of funds to multilateral initiatives (e.g., the FIRST Initiative[13]), the posting of long-term resident experts in relevant agencies, and by financial support from donors for staffing supervisory agencies in selected cases. The experience of more financially developed EMDEs, as well of those EMDEs that recently obtained AE status, may also be particularly relevant and useful in this context.

- The Joint Forum, in updating the *Principles for the Supervision of Financial Conglomerates*, should develop additional guidance to assist with the identification and control of the risks arising from financial conglomerates, particularly those that belong to mixed-activity economic groups.

- The BCBS, IAIS and IOSCO, with input from the IMF and World Bank, should take stock of the range of practices on resources and capacity—including on staffing and skill levels, training certification programs, and financing options—and identify good practices to strengthen supervisory authorities in EMDEs.

III. Promoting Cross-Border Supervisory Cooperation

18. **Foreign-owned banks have a sizable presence in many EMDEs**. Such institutions account for a large share of financial system assets, and are often systemically important in view of their size or interconnectedness. In particular, foreign-owned banks account for 70 percent or more of total financial system assets in many countries in Central and Eastern Europe (CEE); over 40 percent of system assets in much of the Caribbean and Latin America; and up to 50 percent of system assets in a few Asian countries (see Figure 18 in Annex III). Many of these banks belong to large global banking groups from AEs, although smaller regional banks from EMDEs have also been expanding in other EMDEs more recently such as, for example, South African and Nigerian banks in sub-Saharan Africa. In many cases, the domestic subsidiary of a global bank may be important for the host country, even though it may only represent a small share of the global bank's total consolidated assets (see Table 7 in Annex III).

19. **The entry of foreign banks can bring benefits to host countries' financial systems and economies at-large**. These benefits stem from efficiency gains brought about by new technologies, products and management techniques as well as from increased competition. Moreover, as foreign banks may have better access to resources from abroad, they usually have

[12] See http://www.bis.org/fsi/aboutfsi.htm and http://www.torontocentre.org/.

[13] The Financial Sector Reform and Strengthening Initiative (http://www.firstinitiative.org/) is a multi-donor grant facility providing technical assistance to promote financial sector strengthening.

more stable funding and lending patterns than domestic banks. They also hold a more geographically diversified credit portfolio and hence would not be as significantly affected during periods of stress in the host country.

20. **However, the presence of foreign-owned banks also entails potential risks for host EMDEs.** Liquidity or solvency problems may spill over from a parent bank to its operations in host countries. For instance, foreign-owned banks in CEE relied heavily on external funding (primarily from their parent banks) to support rapid credit growth, which reinforced the credit boom experienced by those countries prior to the global financial crisis and then aggravated the effects of the crisis on their economies. In Latin America, most of the foreign-owned (particularly Spanish) banks fund their operations through domestic retail deposits, helping diminish their dependence on funding from the parent bank. However, the financial soundness of the parent bank can influence the volume of lending by these banks through local operations as well as through cross-border transactions. Common lender problems may also be present when a bank operates in many EMDEs. For instance, during the financial crisis, there were worries by national authorities in CEE that the problems experienced in some of these countries could affect the availability of credit and the viability of operations of foreign banks more broadly throughout the region.

A. Cross-Border Supervisory Cooperation and Information Sharing

21. **In EMDEs where foreign banks play a significant role, the inherent conflicts of interest between home and host authorities can raise financial stability concerns.** The conflicts of interest arise because respective supervisory authorities are mandated to protect depositors and safeguard financial stability in their own country and because of insufficient coordination between them. As a result, home authorities are cautious about sharing information with host authorities on adverse material changes in the global condition of banking groups. Moreover, the interests of the parent bank and its operations in the host country can also differ since the optimization of capital, liquidity and risk management strategies may not be the same at different levels within the group. The optimization also differs depending on the mode of entry in a foreign jurisdiction, which can take the form of branches[14] or subsidiaries.[15] The global financial crisis illustrated that liquidity flows within international groups can become a source of contagion, which prompted regulatory responses in some countries.

[14] A branch typically has no legal personality separate from its parent. Thus, in principle, under a branch structure, all of the parent bank's assets are available to cover all of its liabilities in case of resolution or liquidation, regardless of their geographic distribution.

[15] A subsidiary is locally incorporated and the parent bank's liability is limited to the capital it holds in it. In principle, subsidiaries have an independent board as well as local liquidity and risk management practices; however, many international banks have centralized practices in which the boundaries of the individual legal entity may be blurred. While managing risks on a consolidated basis makes sense from an economic perspective, the existence of different legal entities may limit the free movement of resources between institutions belonging to the same group.

22. **The current international framework for cross-border supervision does not provide sufficient powers and rights to information to the host country in some cases.** The framework[16] recommends that the host authority should obtain the prior consent of the home authority, as well as ensure that the home authority practices effective consolidated supervision, before allowing a subsidiary or branch to operate in its jurisdiction. The home authority is entitled to obtain from the cross-border bank all the information it needs to effectively discharge its supervisory responsibilities. However, the converse is not fully envisaged and strongly emphasized in the framework, and host authorities do not always receive sufficient information on the overall financial health of the parent bank.

23. **The absence of effective cross-border resolution frameworks makes it difficult to manage the risks associated with foreign financial institutions**. Uncoordinated measures when a firm faces stress—such as requiring a transfer of assets—could strengthen one affiliate at the expense of the other parts of a global institution. Uncertainty about the ability of national authorities to take action can delay or raise the cost of resolution. Weaknesses in cross-border resolution can also add to moral hazard for global systemically important financial institutions (SIFIs), by tilting the incentives in favor of public sector support to resolve difficulties with individual affiliates to avoid the costs, complexities and disruption of cross-border resolution. Following the financial crisis, supervisory and regulatory efforts have been steered mainly from the perspective of improving consolidated supervision by the home supervisor. Although there has been intensified focus on options to improve supervisory cooperation in normal, and particularly in crisis, times, less attention has been paid to the specific issues affecting host supervisors, particularly those whose financial systems are dominated by foreign owned banks.

24. **Several countries have put in place regional agreements to facilitate information sharing and cooperation.** Within the European Union, financial institutions with cross-border operations may establish a branch or subsidiary in the host country, with branches subject to the supervisory framework of the home authority and subsidiaries of the host authority. One of the supervisors is identified as the consolidating supervisor, with responsibility for the consolidated supervision of the entire banking group. Supervisors are required to share information, drawing on established channels and procedures. Other European cooperation agreements also proved

[16] The BCBS issued a set of minimum standards and set out recommendations for their effective implementation in "Minimum Standards for the Supervision of International Banking Groups and their Cross-Border Establishments" (July 1992, http://www.bis.org/publ/bcbsc314.pdf) and "The Supervision of Cross-Border Banking" (October 1996, http://www.bis.org/publ/bcbs27.pdf). Additional principles for the cross-border implementation of the Basel II Framework were formulated in "High-level principles for the cross-border implementation of the new Accord" (August 2003, http://www.bis.org/publ/bcbs100.pdf) and "Home-host information sharing for effective Basel II implementation"(June 2006, http://www.bis.org/publ/bcbs125.pdf). Finally, two papers prepared by the Joint Forum on the supervision of financial conglomerates - the "Framework for Supervisory Information Sharing" (1999a, http://www.bis.org/publ/joint02.pdf#page=53) and "Principles for Supervisory Information Sharing" (1999b, http://www.bis.org/publ/joint02.pdf#page=95) - are also applicable to cross-border issues.

useful in the recent crisis.[17] Central American and Caribbean as well as some African countries have agreed on regional Memorandum of Understanding (MoU) among financial supervisors.

25. **Actions by host EMDEs alone cannot resolve the inherent conflicts of interest that stand in the way of effective consolidated supervision and cross-border resolution**. Most countries are not members of a regional union that allows for agreements on supra-national legislation, while an agreement among a sub-region of smaller countries (such as Central America) would not necessarily promote better cooperation with supervisors of parent banks that operate globally. Even within highly integrated regions, cross-border cooperation in a crisis is far from complete. For instance, in the Nordic-Baltic region, MoUs are not legally binding, which can make it difficult to secure a mandate to pursue enforcement actions. Subsidiarization and ring-fencing (see below), which may be adopted by national authorities to protect the interests of domestic depositors, may nevertheless create some inefficiencies in the allocation of capital and liquidity that can limit or reduce global banks' activities and complicate cross-border resolution.

26. **Many EMDEs require foreign banks to operate as subsidiaries and to be subject to their supervision**.[18] A subsidiary structure allows the host supervisor to exercise more supervisory control and oversight responsibility, which is particularly important in the case of foreign banks that can access domestic deposit insurance or have a systemic presence in the host country. Since the host country has supervisory responsibility and would bear the cost of a stand-alone resolution of the subsidiary, it subjects such entities to additional prudential norms in order to ensure a sound oversight framework. These may include corporate governance requirements on board members at the local entity to ensure that they appropriately oversee risk management operations and, in some cases, a requirement to maintain key infrastructure and back office systems in the host country.[19]

27. **Other tools used by host authorities include regulatory and supervisory measures ('ring-fencing') to protect the local stakeholders of the branch or subsidiary**. These measures include asset pledge or maintenance requirements for branches in order to assure that sufficient assets will be available in their jurisdiction in the event of failure of the parent bank; guidance or requirements that foreign banks operate through stand-alone subsidiaries; and

[17] The European Bank Coordination Initiative (Vienna Initiative) brought together the various stakeholders of EU-based cross-border banking groups that are systemically important in Central and Eastern Europe, in order to discuss crisis management and resolution issues and to avoid a massive and uncoordinated withdrawal of these groups from the region that would have triggered a systemic banking crisis. Countries in the Nordic-Baltic region have signed a general MoU as well as institution-specific MoUs on crisis management arrangements among the relevant national supervisors.

[18] In Latin America as well as Central and Eastern Europe, most foreign-owned banks operate as subsidiaries. The experience is Asia is mixed, as some countries (like Korea) permit a branch structure, while other countries (such as China and Malaysia) rely entirely on subsidiaries.

[19] New Zealand is an example of an AE whose banking system is dominated by foreign banks that uses a combination of cross-border cooperation between supervisory authorities as well as subsidiarization and other prudential measures (e.g., limits on outsourcing functions and corporate governance requirements).

limitations on inter-affiliate transactions, including transfers of assets, to prevent contagion and to protect the creditors of a given legal entity.[20] In the case of a domestic subsidiary of a foreign bank or affiliate within a financial group, the host authorities may impose limits on intra-group transactions in order to protect the domestic entity from contagion by the parent and prevent the outflow of funds to the detriment of the domestic entity.[21] These measures, however, do entail some risks, as they may increase the probability of knock-on defaults in the group and complicate crisis management, and may adversely affect credit supply in the host country.

B. Recommendations

28. **Supervisory colleges for large international banks should include host authorities if those banks are systemically important for the host's financial system.** Supervisory colleges have been created for such banks as mechanisms to facilitate the exchange of information and cooperation. It would be impractical and unrealistic to expect all host authorities of global banks to be involved in these colleges. However, it is important to ensure that all host authorities are invited to participate in supervisory colleges of global banks that may be systemic in their own jurisdictions, even if the bank's activities in that jurisdiction are less relevant from the home-country perspective. Host authorities in some of the larger EMDEs believe that there is a strong case for such participation being at the core college level if the global bank is systemic in their own jurisdictions. The home supervisor should continue to take the lead role in organizing the college, but needs to ensure that the arrangements reflect the scale and complexity of the banking group as well as the needs of other supervisors of that group.[22] In that context, it will be important to ensure that host supervisors - particularly where the global bank is systemically important in their jurisdiction - receive timely, accurate and comprehensive information from the home supervisor. Such information sharing should be underpinned by appropriate legal agreements and confidentiality safeguards where necessary. As part of its reporting to the FSB in 2012 on the functioning of supervisory colleges[23], the BCBS should report on the adequacy of membership and information sharing arrangements from the perspective of host authorities.

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[20] During the financial crisis, the exposures of Mexican subsidiaries to their parent banks abroad increased sharply. In March 2011, the authorities modified their regulation so that banks operating domestically would have to deduct from regulatory capital all exposures with related parties (including parent banks) that exceed 25 percent of core capital.

[21] See "Report and Recommendations of the Cross-border Bank Resolution Group" by the BCBS (March 2010, at http://www.bis.org/publ/bcbs169.pdf) and "Risk Management Lessons from the Global Banking Crisis of 2008" by the Senior Supervisors Group (October 2009, at http://www.financialstabilityboard.org/publications/r_0910a.pdf).

[22] See "Good practice principles on supervisory colleges" by the BCBS (October 2010, available at http://www.bis.org/publ/bcbs177.pdf).

[23] One of the recommendations in the FSB's report on reducing the moral hazard posed by SIFIs calls for the standard-setting bodies to report by end-2012 on how to improve the operation of supervisory colleges (October 2010, available at http://www.financialstabilityboard.org/publications/r_101111a.pdf).

29. **A similar approach needs to be undertaken for crisis management groups**. Crisis management groups are being formed to assist with cooperation over resolution matters. The FSB's predecessor (Financial Stability Forum) had set out principles for cross-border cooperation in crisis management to which crisis management groups should adhere.[24] The principles state that home authorities should ensure that all countries in which the firm has systemic importance are kept informed of the arrangements for crisis management that have been developed. Crisis management groups should provide for information sharing and cooperation on recovery and resolution plans with all parties that would be significantly affected.

30. **Bilateral and regional agreements may be a valid alternative to full participation in supervisory colleges and crisis management groups.** These agreements, which can take the form of a MoU, include cooperation procedures, the general allocation of supervisory responsibilities between host and home supervisor, the minimum content for information sharing, the confidentiality provisions prevailing in each country, as well as aspects referring to technical cooperation, operational contacts and bilateral meetings.[25] Whenever possible, these agreements should enhance preparedness for, and facilitate the management and resolution of, a cross-border crisis affecting the firm.

31. **Home and host authorities in EMDEs should further develop mechanisms for cross-border supervisory cooperation and information sharing of their own financial institutions.** Current efforts at the international level, including supervisory colleges, focus primarily on global banks that are typically incorporated in AEs. However, banks headquartered in some EMDEs are expanding in other EMDEs, usually in a sub-regional context, and it is imperative for home and host authorities to ensure adequate information exchange and cooperation in both normal and crisis times. Technical assistance from international organizations can play an important role in achieving this goal.

32. **Another crucial step would be to move forward with efforts to set up a stronger international framework for cross-border cooperation over crisis resolution.** The FSB's *Key Attributes of Effective Resolution Regimes for Financial Institutions* include important elements of cross-border cooperation. In particular, they call on countries to seek convergence of resolution regimes through the legislative changes needed to incorporate the tools and powers set out in the *Key Attributes* into the national regimes. Greater convergence of national resolution regimes should facilitate cross-border cooperation and coordination. In addition, the *Key Attributes* stipulate that national laws and regulations should not discriminate against creditors on the basis of their nationality, the location of their claim or the jurisdiction where it is payable,

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[24] See "FSF Principles for Cross-Border Cooperation on Crisis Management" (April 2009, available at http://www.financialstabilityboard.org/publications/r_0904c.pdf).

[25] See "Essential elements of a statement of cooperation between banking supervisors" by the BCBS (May 2001, available at http://www.bis.org/publ/bcbs83.pdf) and "Principles Regarding Cross-Border Supervisory Cooperation" by IOSCO (May 2010, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD322.pdf).

recognizing that authorities will only be willing to cooperate if creditors in home and host jurisdictions are treated fairly. The *Key Attributes* set out a presumption in favor of cross-border cooperation, but reserve the right of discretionary national action if necessary to achieve domestic stability in the absence of effective action (including cross-border cooperation and information sharing) by the home authority. The FSB has also set out the essential elements of institution-specific cooperation agreements that should be in place for all global SIFIs.

33. **Multilateral arrangements in the securities and insurance sectors, such as the IOSCO Multilateral Memorandum of Understanding (MMoU)[26] and the IAIS MMoU,[27] should also be promoted in order to facilitate cross-border cooperation and information exchange**. Currently, only around 50 percent of EMDE jurisdictions are Appendix A signatories to the IOSCO MMoU. Several EMDE jurisdictions have not been able to become a full signatory to the MMoU due to legal constraints in their ability to obtain and provide securities enforcement-related information. In order to ensure information sharing and effective cross-border cooperation to combat capital market violations, it is imperative that regulators that do currently not have the requisite powers bring about necessary legislative changes to fully comply with the MMoU requirements; IOSCO is providing technical assistance to support this process (see Box 2 in Appendix III). Cross-border cooperation among EMDEs must also extend to more preemptive and proactive efforts, including supervision and surveillance.[28]

IV. Expanding the Regulatory and Supervisory Perimeter

34. **Small-scale, non-bank institutions involved in lending or deposit-taking activities (NBIs) play an increasingly important role in many EMDEs**. For the purposes of this paper, NBIs include savings and credit cooperatives, microfinance institutions (MFIs), credit unions, finance companies, and non-governmental organizations (NGOs).[29] They form a very diverse range of entities that are especially important in providing services to households and micro, small and medium-sized enterprises. Their growth over the past few years has been significant in certain regions, notably in Africa; both in response to the need to expand financial access beyond the banking system, but also because of factors that may not always be welfare-enhancing (e.g., tax arbitrage, onerous banking regulations, etc.). According to a World Bank survey, NBIs accounted for as much as 15 percent of the total volume of deposits worldwide in 2009. In many

[26] See "Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information" by the IOSCO (May 2002, at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD126.pdf).

[27] See "Multilateral Memorandum of Understanding on Cooperation and Information Exchange" by the IAIS (February 2007, available at http://www.iaisweb.org/__temp/IAIS_MMoU.pdf).

[28] The only multilateral surveillance-specific arrangement in place is the Intermarket Surveillance Group (ISG), which provides a framework for the sharing of information and the coordination of regulatory efforts among exchanges and market regulators that perform front-line surveillance in order to address potential inter-market manipulations and trading abuses (https://www.isgportal.org/home.html). Only 5 EMDEs are signatories to the ISG.

[29] Other entities that fall under the category of non-bank financial institutions - such as pension funds, mutual funds, insurance companies, broker-dealers and asset management companies - are not included in this discussion.

EMDEs, NBIs have more extensive branch networks than banks in rural areas and provide financial access to under-served segments of the population, thereby playing a critical role in poverty alleviation and economic empowerment of marginalized and vulnerable communities.[30]

35. **As it has expanded, the NBI sector has become increasingly complex and interconnected, including with the banking sector**. In a number of countries, various formal, semi-formal or informal entities have emerged that provide financial services. Interconnectedness between banks and NBIs has grown significantly. Banks are partnering with MFIs to reach out to previously-neglected segments of the population, often providing them with liquidity support. Banks have also established agency arrangements with non-bank outlets (e.g., postal offices, gas stations, groceries) for the promotion of branchless banking. The growth of Mobile Network Operators that facilitate branchless banking has also blurred the traditional distinction between banks and NBIs.

A. Inadequate Regulation and Supervision of NBI Sector

36. **The asset quality of NBI portfolios has deteriorated in a number of countries, partly as a result of poor risk management and the rapid and uneven expansion of the industry**. Private investors, attracted by the high returns and low loan losses prior to the crisis, have made relatively large amounts of funds available to many MFIs, enabling them to expand lending capacity. Moreover, large banks began moving down-market to enter the microfinance market; many savings and loan institutions aggressively expanded micro-lending in urban markets; telecom companies started offering mobile money; and governments continued to provide subsidized lending programs. However, a number of these firms suffer from important institutional weaknesses, including a lack of proper governance, poor management quality and staffing, and absence of internal controls. The ensuing erosion of lending discipline contributed to a deterioration in asset quality in some EMDEs (e.g., in West Africa), particularly in the aftermath of the financial crisis.

37. **The deteriorating asset quality of NBIs can be attributed to several factors:**

- ***Inadequate regulatory framework***. Deficiencies in the licensing and regulatory frameworks have facilitated the proliferation of financially weak and poorly managed institutions. MFIs in many countries do not adhere to prudential regulations either because of the absence of a regulatory body or because the supervisor has insufficient capacity. Licensing regimes are lax or sometimes non-existent, creating opportunities for regulatory arbitrage. For instance, a problem that arose in CEE was the role of these institutions in circumventing banking sector regulations. In particular, when CEE regulators tried to slow down the credit growth that preceded the crisis, new lending was

[30] For example, in a number of West African countries (e.g., Benin, Burkina Faso, Cote d'Ivoire and Niger), deposit-taking MFIs have more depositors than commercial banks.

increasingly channeled through NBIs. This reduced the effectiveness of prudential measures and had adverse consequences for financial stability.[31]

- ***Weak supervisory capacity***. Supervisory frameworks have not kept up with the rapid growth of NBIs and are not yet fully developed. The lack of proper supervision is particularly severe in the case of NBIs given the multitude of entities and the priority accorded to supervising the banking sector. While NBIs may be small in size, they are important in terms of access to finance and can generate disproportionate reputational effects, particularly if they are involved in deposit-taking activities. Scarce resources coupled with limited availability of qualified staff, analytical tools and technology have been major obstacles.

- ***Political constraints***. The financial health of the NBI sector can also be undermined by populist policies, including a willingness by politicians to allow (or even encourage) borrowers not to repay their loans.[32] The laudable objective set by governments and donors of promoting access to finance, notably through non-bank sources of funding, has not always been matched by adequate attention to establishing proper regulation and supervision.

38. **The rapid pace of growth of the NBI sector, combined with worsening asset quality, may potentially have adverse consequences for financial stability in some EMDEs.** To the extent that NBIs are increasingly moving into—or are interconnected with—traditional financial intermediation, their failure may adversely impact depositors and, under certain circumstances, result in contagion to other financial institutions.[33] High debt levels observed in some NBI markets could potentially give rise to the kind of "debtor revolt" that took place in Nicaragua in 2009 or to the crippling debt problems of farmers in Southern India. In this regard, social instability that could affect the business climate and jeopardize financial stability cannot be ruled out and warrants attention, at least in a few EMDEs in Africa, Central America and South East Asia. Moreover, the erosion of public confidence in NBIs may encourage further growth in the informal financial system and thus undermine public policies to promote financial inclusion.

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[31] Similarly in India, branch licensing for banks is subject to a regulatory process, whereas branches can be freely opened by nonbank financial companies (NBFCs). In fact, some banks have launched NBFCs within their group to skirt these regulations.

[32] See, for example, (i) the spearheading of a "no pago" movement in Nicaragua; (ii) the circulation of a written chit in 2008 proclaiming a loan waiver in the Punjab Province of Pakistan, which encouraged microfinance borrowers not to repay their loans; and (iii) the passing of an Ordinance in Andhra Pradesh, India, encouraging borrowers to question their obligation to repay.

[33] For example, certain finance companies in India had become heavily dependent on mutual funds and commercial banks for their funding needs prior to the global financial crisis. Following significant institutional investor redemptions and the freezing of bank credit lines brought about by the crisis, the Reserve Bank of India had to step in and provide liquidity and other forms of support to them (see Box 3 in Annex III).

B. Recommendations

39. **EMDEs should consider adjusting their regulatory framework to reflect the growth in, and the risks arising from, NBIs**. A "one size fits all" solution is not appropriate given the diversity of these institutions. However, it is no longer advisable to allow NBIs, particularly MFIs, to continue growing outside a proper regulatory framework. A suitable system may include defining permissible activities clearly in licenses and identifying criteria for regulation based on the nature and scale of NBI activities. Where necessary, this should involve the adoption of prudential norms on capital adequacy, loan classification and provisioning, loan rescheduling and write-offs, governance, and Board composition on NBIs. These prudential norms would apply to those institutions that take deposits (and perhaps exceed a size threshold), and would need to be accompanied by appropriate supervisory and enforcement powers to be able to detect problems and resolve troubled institutions.[34] By contrast, credit-only institutions might be subject only to conduct-of-business and consumer protection norms, although this may also depend on the extent to which they are linked to the rest of the financial system (see Box 4 in Annex III for the case of non-bank mortgage lenders in Mexico).

40. **EMDEs should also consider alternative ways to strengthen the supervision of NBIs given capacity constraints.** Supervisory arrangements for NBIs vary significantly across EMDEs, with some entities supervised by bank supervisors, others by the ministry of finance or other ministries, and others remaining outside the supervisory perimeter. As mentioned above, NBIs could be subject to supervision if they are to be given authorization to take deposits from the public via conventional (e.g., branches) or other channels (e.g., mobile banking). Policymakers will need to find the right balance between the need to subject relevant NBIs to minimum oversight while ensuring continued supervision of the banking sector. A graduated, cost-effective approach that would involve progressively more intensive forms of supervision depending on the size and complexity of a NBI is warranted. In this regard, some form of delegated supervision might be appropriate—whether to an apex institution or to second-tier institutions—at least for smaller entities. NBI examiners will need specialized skills and techniques to assess products, delivery mechanisms and credit portfolios, which differ substantially from those of conventional retail banks. Given the number of institutions involved and the dearth of supervisory resources, it would be desirable to apply risk-based supervision whenever possible by focusing on the most important entities and sources of risk. Inter-agency coordination should also be encouraged when more than one agency is involved in supervision.

41. **Data collection, reporting and disclosure requirements for the NBI industry also need to be improved.** Official indicators do not always provide an adequate and timely picture of the soundness of the industry in some EMDEs - such as, for example, loan quality, liquidity and concentration risks - making it difficult to take appropriate supervisory actions. In that

[34] Mexico, for example, has subjected to supervision some entities (such as cooperatives) that pass a critical asset size in order to protect depositors' interests and members' contributions.

regard, it would be important to continue with initiatives already underway by the United Nations Development Program and the World Bank to assess data needs and to explore the feasibility of developing offsite surveillance mechanisms. It would also be important to put in place supporting infrastructure, such as industry-wide credit bureaus, since the lack of credit history data on borrowers is a systemic weakness observed in many EMDEs. Repositories of credit information bring down the cost and time of loan underwriting, and help avoid client over-indebtedness. Land title registries would also provide lenders valuable information in credit decisions.

42. **Additional work is needed at the international level on the regulation and supervision of NBIs**. The lack of international standards for the sector has been pointed out as a problem; however, the sector is too diverse and heterogeneous to support standardized norms that would be suitable to all entities. At the same time, NBIs are growing rapidly in importance and number, and these changes merit attention from the international community. One solution would consist for the BCBS to leverage and build upon its recent work on microfinance. The BCBS document in this area is an important step forward as it suggests that the BCPs generally offer a suitable framework for microfinance supervisors, although some tailoring is required according to the type, size, and complexity of transactions, and the need to contain compliance costs for institutions as well as supervisors.[35] The BCBS could follow up this work by taking stock of the range of practices in certain key areas for NBIs undertaking bank-like activities, such as on supervisory approaches, prudential regulations (i.e., capital adequacy, loan classification and provisioning, loan rescheduling and write-offs, governance, Board composition) as well as data reporting and disclosure requirements.

V. Management of Foreign Exchange Risks

43. **Many EMDEs have introduced more flexibility in their exchange rate regimes over time.** This increased flexibility can promote a more efficient allocation of resources and a smoother adjustment of external current account balances. Nonetheless, it can also mean periods of high exchange rate volatility, often in response to shifts in global economic conditions resulting in sizable capital inflows or outflows (as experienced by many EMDEs) and high volatility in those flows. Moreover, many EMDEs have thin domestic financial markets, which can exacerbate the volatility of the exchange rate and other asset prices in response to shocks, such as surges in capital inflows. In EMDEs with weaknesses in the structure of their domestic financial markets, currency volatility can therefore present risks to financial stability. In particular, the build-up of currency mismatches on bank and borrower balance sheets, when combined with sharp fluctuations in the exchange rate, can heighten credit and liquidity risks at financial institutions and result in a sharp deterioration in their financial condition.

[35] See "Microfinance Activities and the Core Principles for Effective Banking Supervision" by the BCBS (August 2010, available at http://www.bis.org/publ/bcbs175.pdf).

A. Limiting Currency Mismatches

44. **Many EMDEs exhibit significant financial dollarization (financial transactions conducted in foreign currency) or liability dollarization (external foreign currency liabilities).** As recent experience illustrated, volatility in capital flows and exchange rates can quickly impair the balance sheet of any resident with a sizable net foreign currency liability position or lead to sharp fluctuations in credit growth. Since banks often account for the bulk of financial system assets in EMDEs, these risks frequently affect the banking system either directly via net open positions that cannot be efficiently hedged (for example, due to the lack of swaps markets of adequate maturity or depth), or indirectly as a result of lending to borrowers whose asset-liability profiles (in terms of maturity and currency composition) and revenue sources expose them to exchange rate fluctuations.

45. **Countries with high financial dollarization can supplement strong macroeconomic policies with prudential regulations that encourage use of the domestic currency and help internalize the cost of foreign exchange (FX) risk management**. In addition to ensuring sound macroeconomic fundamentals, including low and stable inflation, countries can promote the use of the domestic currency in several ways including: use in official transactions; removal of legal tender status of foreign currency; exclusive coverage of domestic deposits in deposit insurance schemes; use for constituting required reserves; increasing government borrowing in local currency while promoting domestic bond markets; and favoring the domestic currency in the payments system. In addition, prudential regulations can help the private sector internalize some of the FX-related risks via the adoption of measures such as: (i) tightening limits on open FX positions; (ii) increasing liquidity, reserve or capital requirements on foreign currency liabilities or assets; (iii) focusing risk-based supervision on FX risk management; (iv) stress testing the creditworthiness of borrowers for exchange rate movements; and (v) removing FX restrictions that lead to hoarding of foreign currency.

46. **There are many recent examples of countries that have used prudential or other measures to limit currency mismatches.** From 2004-2007, several countries in CEE adopted a variety of prudential and administrative measures, such as differential and marginal reserve requirements; higher capital requirements on foreign lending; tighter asset classification and provisioning rules on foreign credit; higher risk weights on foreign currency denominated mortgages; and setting lower loan-to-value ratios for foreign currency loans. Prudential policies also helped several Latin American countries (Argentina, Bolivia, Paraguay, Peru, and Uruguay) to reduce financial dollarization. These measures included raising the provisioning requirements on foreign currency loans, tightening requirements on the net open FX positions of banks, applying differentiated risk weights (and hence capital requirements) on foreign currency loans, and imposing a financial transactions tax on foreign currency transactions. In 2003, Argentina introduced a limit on the net global position in foreign currency of financial institutions and restricted lending in foreign currency only to firms with revenues denominated in foreign currency. In Korea, the authorities differentiated liquidity weights according to the asset class when calculating the foreign currency liquidity ratio, and set the minimum level of safe assets

that banks should hold. Korea recently re-imposed its withholding tax on bond investments by non-residents for equal treatment with residents. It has also imposed a macro prudential stability levy—which varies by maturity—on non-deposit foreign currency liabilities of financial institutions, effective since 1 August 2011. In India, the authorities' toolkit includes direct administrative measures, such as quantitative ceilings and end-use restrictions.

47. **However, without supportive macroeconomic policies, prudential and administrative measures can be much less effective**. Credible and sustainable fiscal and monetary policies will limit the risk of high inflation and strengthen the demand to denominate financial assets and liabilities in domestic currency. A flexible exchange rate policy transfers to the private sector the responsibility for managing the risk of currency volatility and can provide a strong incentive for residents to match their foreign currency assets and liabilities, particularly when hedging markets exist (see below).

B. Developing Short-Term Domestic Currency Money and Government Securities Markets

48. **Financial markets in EMDEs are thinner, less liquid and have a smaller range of instruments compared with AEs**. The depth of domestic currency money markets varies widely across EMDEs, with fairly deep and liquid short-term markets in a few countries (such as Brazil, Korea and Mexico) but shallow markets in many others. The depth of such markets tends to be constrained by perceptions of high counterparty risk and often a limited supply of high quality collateral, contributing to high spreads. An equally critical factor is the capacity of central banks and the government to manage liquidity effectively so that the market is not subject to large liquidity swings, which can make market participants take precautionary liquidity that limits their trading activity. Deep and liquid money markets in domestic currency provide banks the primary mechanism through which to adjust intraday liquidity and manage financing needs as well as facilitate the functioning of other financial markets, public debt management, and monetary policy. Lower financial development in EMDEs can in turn lead to the concentration of inflows into certain sectors - for example, real estate through bank intermediation—leading to rapid asset price inflation with the attendant risks associated with sharp reversals.

49. **Over the past few decades, many EMDEs have adopted a wide range of measures to develop these domestic currency markets.** These steps include: (i) the development of market infrastructure, such as sound payments systems and the introduction of central securities depositories and transparent collateral management; (ii) the easing of restrictions on financial markets, such as interest rate controls and administrative allocation of credit, to enhance the quality of information and facilitate pricing; (iii) the establishment of good government cash management practices and sterilization mechanisms by central banks; and (iv) the development of the market for government securities, which provide relatively safe instruments for secondary market trading and collateral for the money market. For example, Mexico developed a liquid long-term government bond market in the last decade as a result of macroeconomic stability, the growth of the local institutional investor base, and proactive policies to consolidate benchmark securities and foster market-making by primary dealers. Macroeconomic stability and effective

debt management policies also contributed to enhance liquidity and develop local currency government bond yield curves in several other EMDEs, including Brazil, Turkey and South Africa.[36] China offers a more recent example of successful ongoing development of short-term money and government securities markets (see Box 5 in Annex III).

C. Developing Instruments to Hedge Exchange Rate Risk

50. **The large majority of EMDEs lack derivatives markets that could help financial institutions, corporations and households to hedge risks from unexpected volatility in exchange rates and other asset prices.** The active use of hedging instruments lets markets distribute the FX risk among those participants who are willing and able to bear it, and this can promote the efficiency of financial markets, lower borrowing costs and promote growth. With limited opportunities for hedging FX risk, private sector balance sheets are more vulnerable to the effects of currency mismatches. So far, a few EMDEs (e.g., Mexico and South Africa) have developed significant onshore over-the-counter (OTC) derivatives markets, which tend to concentrate on hedging FX risk through forward contracts. Brazil also has extensive exchange-traded onshore derivatives markets. Derivatives markets in a few other EMDEs are smaller, and their currencies often trade in unregulated, offshore derivative markets through non-deliverable forward contracts. However, for many EMDEs, particularly smaller and developing ones, the creation of instruments and markets to hedge exchange rate risk may not be a realistic option in the near future.

51. **A precondition for developing efficient hedging of FX risk is establishing a liquid spot foreign exchange market in addition to domestic money markets**. The authorities can assist the development of this market, including by abolishing administrative restrictions and conducting transparent operations in it. The authorities can also develop timely and credible reference interest rates to allow for the consistent and accurate pricing of cash and derivative market instruments. It also helps to establish standardized methods for valuing positions in FX and ease restrictions on bank foreign currency cash positions. The adoption of centralized clearing and settlement systems can help reduce counterparty risk and other costs.

52. **Robust and transparent derivatives markets help participants manage risks and are more likely to remain useable and liquid under stressed conditions.** The FSB recommendations to improve OTC derivatives markets promote standardization, clearing, exchange (or electronic platform) trading, and reporting of OTC derivatives transactions to trade

[36] See "Local Currency Bond Markets in Emerging Markets: A Contribution to the Stability of the International Monetary System", prepared by staff of the World Bank Group, with input from regional development banks, for the Finance Ministers and Central Bank Governors of the G20 for their meeting in Washington, DC in April 2011. See also "Financial stability and local currency bond markets" by the Committee on the Global Financial System (CGFS Paper No. 28, June 2007, available at http://www.bis.org/publ/cgfs28.pdf).

repositories.[37] Further work is underway to address issues relating to interoperability and access to central counterparties for smaller and cross-border market participants. In addition to the use of central counterparties, other internationally recognized FX settlement systems can also effectively control counterparty risk.

53. **FX derivatives instruments require strong financial supervision, as they can create vulnerabilities if used for taking open positions or funded at short maturities.** The modest currency volatility and sustained nominal appreciation observed in several countries in 2007-08 led some corporations to take important off-balance sheet FX exposures through derivative positions, which subsequently led to significant losses in countries such as Brazil and Mexico. The Korean authorities imposed several restrictions, including a limit on individual forward contracts within underlying trade contracts and ceilings on financial institutions' FX derivatives positions in proportion to their capital, in response to a maturity mismatch that originated in forward FX sales by shipbuilding companies.

D. Recommendations

54. **EMDEs should adopt a more proactive supervisory and regulatory stance with respect to mitigating FX risks**. The likely prospect that the factors driving capital flows and contributing to FX risk will remain in place for some time underscores the importance of applying prudential norms to discourage the build-up of currency mismatches and developing short-term money markets and instruments to hedge currency risk. This is particularly so since even deep and liquid markets (where they exist) cannot fully insulate EMDEs from shocks emanating from large capital inflows and FX transactions.

55. **EMDEs may also need to enhance their tools and capacity to identify the build-up of FX risks at an early stage**. In particular, timely information for on- and off-balance sheet exposures of both banks and non-bank financial institutions, including overseas branches, can allow supervisors to monitor the development of net open FX positions. A liquidity coverage ratio on foreign currency liquidity could help signal when net cash outflows under stress exceed liquid assets denominated in foreign currency. Such an early warning system would require improvements in the quality of data in many EMDEs, in particular on- and off-balance transactions involving both financial and non-financial institutions and timely information on capital flows.

56. **Better information sharing among countries can help EMDEs monitor these risks.** In many countries, domestic non-financial institutions may take open FX positions with non-residents, which may escape the monitoring systems of the domestic supervisors. In this regard, there are benefits to improving transparency and reporting in FX derivative markets worldwide,

[37] See "Implementing OTC Derivatives Market Reforms" by the FSB (October 2010, available at http://www.financialstabilityboard.org/publications/r_101025.pdf).

such as through trade data repositories or by moving derivatives trading to organized exchanges, while limiting or making more transparent the extent of OTC FX derivative operations.

57. **The BCBS can provide more guidance on the steps that countries can take to detect and monitor the buildup of FX risks and to develop appropriate prudential regulations to address them**. Such guidance that could, for example, be included in Pillar 2 of the Basel framework and complemented by appropriate stress testing, should address both direct FX risks as well as the credit risks arising from borrowers' FX exposures.

VI. Developing Domestic Capital Markets

58. **The development of deeper domestic capital markets can improve the economy's ability to absorb shocks and manage financial risks**. These benefits to financial stability complement the critical role that capital markets play in efficient resource allocation and in reducing over-reliance on the banking sector for the mobilisation of savings and financial intermediation. Diversified capital markets provide investors with alternative asset classes in times of financial stress. However, developing such markets is a long-term process that requires proper planning and commitment as well as appropriate prioritization and sequencing.

59. **Capital markets in EMDEs have become more interlinked within the local and global financial systems, but remain vulnerable to changes in investor sentiment and contagion effects**. Compared to AEs, capital markets in EMDEs are more shallow and susceptible to sudden price movements and greater disruption that may undermine confidence in their integrity. Liquidity in those markets can erode quickly, causing panic sales and contagion effects resulting in disorderly markets and financial instability, as evidenced by a number of crises affecting EMDEs in the past two decades.[38]

60. **This section focuses on key steps to develop the domestic investor base, address market illiquidity, and improve key aspects of market infrastructure in order to mitigate risks to financial stability**. Other important building blocks include sound macroeconomic and fiscal policies, developing short-term domestic currency money and government securities markets and instruments to hedge exchange rate risk (as described above), as well as developing corporate bond markets[39] and improving the quality and reliability of information disclosures.

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[38] See, for example, the report on "Causes, Effects and Regulatory Implications of Financial and Economic Turbulence in Emerging Markets" by the Emerging Markets Committee of the IOSCO (November 1999, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD99.pdf).

[39] See the Action Plan to support the development of local currency bond markets prepared by the G20 Working Group on the Reform of the International Monetary System. A Task Force within the Emerging Markets Committee of the IOSCO is also examining the issue of the development of corporate bond markets in emerging markets and is expected to issue a report by the end of 2011.

A. Developing the Domestic Investor Base

61. **In many EMDEs, there is a lack of a sufficiently diverse and deep pool of investors that can act as a source of stability in times of crisis.** The efficiency of the intermediation process in capital markets is highly dependent on the investor base, which should have a combination of domestic retail and institutional investors as well as foreign investors. In most EMDEs, there is rarely a balance across those three categories of investors and, as a consequence, capital markets become vulnerable to the behaviour of the dominant class of investors. For example, in times of capital flight by foreign investors (as a result of an exogenous event) and in some cases by domestic retail investors (as a result of major changes in market sentiment), the presence of strong domestic institutional investors with a predominantly domestic investment mandate can play a key role in acting as a "buffer" against severe price declines.

B. Addressing Market Illiquidity

62. **Market illiquidity remains a chronic problem in many EMDEs, and has a consequential impact on the stability of the overall financial system**. Thin and shallow markets can also give rise to higher instances of market manipulation. Market illiquidity in EMDEs mostly emanates from insufficient breadth in the investor base and other structural problems such as, for example, high concentration of ownership resulting in limited free float as well as a lack of diverse products and participants. The low tolerance for risk, insufficient diversity in investment strategies, a lack of market makers, relatively high friction costs and limited channels for electronic trading are also causes of market illiquidity in EMDEs. The lack of adequate hedging markets also poses challenges to increasing liquidity and connectivity between different market segments and asset classes. In addition, liquidity inflows to EMDEs are generally cyclical in nature and driven largely by volatile capital inflows, which are susceptible to sudden reversal in times of crisis.

C. Ensuring Robust Market Infrastructure

63. **During the peak of the global financial crisis, a number of EMDEs implemented measures to restrict financial market trading that sometimes proved to be counterproductive.** Examples included imposing limits on price declines or even closing down domestic equity markets for several days.[40] Halting operations in the context of well-defined, transparent procedures provides market participants an opportunity to pause and assess market conditions during significant market declines. However, when this is done in an unexpected

[40] For example, Indonesia closed its market for three days following the drastic fall of its index in October 2008; in Romania, two market closures were imposed in October 2008 due to increased market volatility and a significant drop in the index; in Peru, three market closures were imposed at around the same period; Kuwait closed its market for two days in November 2008, following a court order to protect investors from further losses after the bourse's main index slid to the lowest point since July 2005; and Russia closed its market for four consecutive days in September 2008, and four consecutive days in October 2008 due to extreme market volatility.

manner, these interventions can be destabilizing since investors seek more liquidity and begin selling other assets. It is therefore important that market interventions in EMDEs are structured, transparent and systematic in order to mitigate potential systemic risk and maintain orderliness in the market. The smooth functioning of domestic capital markets is critical to investor confidence, and their ability to continuously trade is important in times of severe market stress.

64. **The single market infrastructure framework common in many EMDEs gives rise to concentration risks as well as clearing and settlement risks**. Market infrastructure in many EMDE capital markets generally lack substitutes and operate on a single vertical exchange model as competition may be difficult to instill or maintain due to economies of scale. In contrast, clearing and settlement in more developed economies may often occur in several venues. Additionally, in many EMDEs, there is a high concentration of settlement banks which can potentially affect financial stability should these banks fail and be unable to settle trades or quickly transfer the business, resulting in operational risk and potentially systemic failure. Past experiences, such as the 1987 Hong Kong crash, have highlighted that, in order to manage risk in the financial system, the regulation of central counterparties is imperative for market authorities and regulators. However, many EMDEs do not yet subject the operation of clearing and settlement services to inspection and periodic review and stress testing.

D. Recommendations

65. **EMDEs should promote the development of a domestic institutional and retail investor base**. Institutional and retail investors play an increasingly important role in supporting the capital formation process, and can act as a "buffer" against severe price declines in times of capital flight. Being highly specialized and having substantial capital, institutional investors can also foster more institutionally-based shareholder activism and encourage stronger corporate governance. Ways to promote a diverse and deep pool of such investors include the mobilisation of savings through licensed collective investment schemes,[41] the development of private retirement schemes as an alternative investment vehicle, and greater investor education. IOSCO is currently undertaking work to develop suitable recommendations in this area.

66. **EMDEs could also take measures to deepen market liquidity and to promote the use of shared market infrastructures**. In addition to ensuring a sound macroeconomic environment, EMDEs could take measures to promote liquidity in both government and corporate debt markets as well as in equity markets. Government debt markets are essential to build a risk-free yield curve that would serve as a reference for other financial products and

[41] In some EMDEs, the setting-up of a national mutual fund can play a key role by building investor confidence and familiarity. National mutual funds facilitate the participation of a wider cross-section of the population, promote diversification of risk and the hedging of financial portfolios and can become an important institutional investor vehicle. This was, for example, the approach taken in Mauritius where the National Mutual Fund Ltd was established as a joint venture between local private insurance companies and some government-controlled companies in an attempt to encourage a strong domestic institutional investor base.

support liquidity in other markets, including the development of liquidity and risk management instruments by financial institutions. Those markets are also essential for efficient monetary policy and fiscal management in moments of stress. On the equity side, EMDEs could encourage the divestment of state and family holdings to increase the free float of shares and liberalize foreign equity limits to new investments. They could allow a wider range of services and products to be offered across all of these markets by, for example, introducing market making facilities, full service and discount brokers, and arbitrage traders. There is also a need to strengthen mechanisms to increase market connectivity that will facilitate greater access to international liquidity pools such as through direct market access. In that context, it is important to recognize that smaller EMDEs face significant challenges in enhancing liquidity in, as well as in building infrastructures for, their domestic capital markets. In such cases, regional initiatives such as the recent integration of the Santiago, Lima, and Bogota stock exchanges in Latin America, the plan to integrate capital markets in the Association of Southeast Asian Nations (ASEAN) by 2015 (see Box 6 in Annex III), and the establishment of the Asian Bond Market Initiative and the Asian Bond Fund (see Box 7 in Annex III) - would be alternative ways to achieve economies of scale in securities market infrastructures and to attract foreign investors.

67. **Dealing with severe price volatility requires a structured, transparent and widely understood approach for market intervention**. EMDE regulators need to consider the introduction of various robust intervention tools (e.g., market-wide circuit breakers, trading halts, price limits, etc.) as a means of providing market participants an opportunity to pause and assess market conditions during significant market declines. However, such market intervention measures should have clear rules and parameters. This is particularly important for discretionary market interventions, especially market closures, which may have the most severe impact and reputational damage on EMDE markets. This will also ensure that markets are not indiscriminately closed under political or stakeholder pressures. It is crucial to apply such measures consistently across all exchanges and/or markets to prevent regulatory arbitrage. For example, a recent survey of EMDEs[42] shows less than half the markets halt trading in derivatives when the underlying stock is halted. It is critical therefore for EMDE regulators to ensure that rules on interventions aimed to ensure the stability and integrity of markets are consistent across all exchanges and/or markets.

68. **The robustness of the infrastructure for clearing and settlement systems should be assessed.** Securities regulators, or other authorities as necessary, in EMDEs need to implement periodic stress-testing of clearing and settlement systems. These tests should include assessments of the reliability and scalability of the system to handle stress volume, concentrated exposures, and appropriate contingency plans to handle system interruption. This can be further complemented by reviews of risk management procedures, back-up and information recovery of these systems to allow for timely recovery of operations and completion of the settlement

[42] See report on "Effectiveness of Market Interventions in Emerging Markets" by the Emerging Markets Committee of the IOSCO (October 2010, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD333.pdf).

process. Moreover, it is critical that the robustness of the clearing participants be monitored on a regular basis, with special attention given to the adequacy of the collateral at the clearing house and the counterparty exposures and financial conditions of settlement banks. Finally, EMDEs should review closely the governance and conflict management arrangements to ensure that sufficient resources are devoted to maintaining the robustness of trading, clearing and settlement platforms.

69. **Regulatory capacity could be enhanced through an explicit mandate to monitor systemic risk by securities regulators in coordination with other relevant bodies.** In many EMDEs and AEs, the role of securities regulators in contributing to the identification and management of systemic risk is not well understood and defined. Appropriate regulatory reforms or revisions to their mandate may be required to provide clarity in their roles and relationship with prudential regulators with regards to systemic risk. While securities regulators do not have tools to provide markets with liquidity in times of crisis, nor do they have direct supervision over banks and the payment system, they do have direct authority and a regulatory toolkit for supervision of a wide cross-section of market participants (especially in terms of their business conduct) and of exchange-traded market infrastructures. Appropriate processes could therefore be developed, and existing securities laws amended within EMDEs, to promote systemic stability by formalising the securities regulator's role in monitoring, mitigating and managing systemic risk in capital markets in coordination with other relevant bodies and within the existing regulatory structures.[43] The relevant international standard setters could assist in the formulation and operationalization of an appropriate systemic risk framework for this purpose.

VII. CONCLUSIONS AND RECOMMENDATIONS

70. **The recommendations to strengthen financial stability in EMDEs reflect the wide diversity of financial systems in these countries**. There is a continuum that ranges from large, sophisticated and internationally integrated countries with relatively deep and liquid capital markets, to small, low-income countries with bank-dominated financial systems that are not well integrated with international financial markets. This heterogeneity implies that, while the financial stability issues in this report are relevant for a broad range of EMDEs, their relative importance and cost-benefit trade-off differ widely across countries or even for the same country over time.

71. **Many financial stability issues arise from underlying structural features of EMDEs**. Some structural features may enhance financial stability (e.g., greater reliance by banks on stable customer deposits rather than on wholesale funding), while others may be sources of systemic

[43] See discussion paper "Mitigating Systemic Risk - A Role for Securities Regulators" by the Technical Committee of the IOSCO (February 2011, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD347.pdf), which addresses the role that securities regulators play in promoting financial system stability. The paper notes that promoting financial stability is a shared responsibility amongst the regulatory community and that it will require strong coordination between securities regulators, central banks and prudential regulators in both EMDEs and AEs.

risk. For example, a reliance on foreign capital leaves EMDEs vulnerable to external shocks, while scarce resources and weaker institutional frameworks imply that supervisory capacity constraints are important. A small (but growing) domestic savings pool and the predominance of small, family-owned firms in most EMDEs constrain the rapid development of capital markets. Addressing these financial stability issues cannot therefore be separated completely from addressing broader structural features of the economy.

72. **Financial stability is closely linked to financial development**. Several of the recommendations in this report call for improvements in institutional and market infrastructures. In that sense, steps to promote financial development in EMDEs (if well-sequenced) can also support financial stability. At the same time, it is important to ensure that regulatory and supervisory frameworks and financial sector policies not only support but also keep up with market development in order to avoid the creation of new sources of financial instability.

73. **There are various measures that EMDEs can take to enhance financial stability:**

- Improving the effectiveness of supervision is still a critical issue for many EMDEs. This requires greater resources and capacity, strengthened legal frameworks, and better supervision of financial groups. Supervisors in EMDEs need better legal protection for their official actions and greater financial and operational independence.
- National authorities in EMDEs should consider adjusting their regulatory and supervisory frameworks to reflect the growth in, and the risks arising from, small-scale non-bank lending and deposit-taking institutions. While a “one size fits all” solution is not appropriate given the diversity of these institutions, it is no longer advisable to allow these institutions to continue growing outside a proper regulatory and supervisory framework. Data collection, reporting and disclosure requirements for this sector also need to be improved.
- EMDEs could benefit from strengthening the management of foreign exchange risks. Steps in this area include enhancing supervisory tools and the capacity to monitor the build-up of these risks at an early stage, and developing short-term local currency money and government securities markets and instruments to hedge currency mismatches.
- EMDEs should promote the development of a domestic investor base and take measures at both national and regional levels to deepen capital market liquidity. They should also ensure the robustness of the infrastructure for clearing and settlement systems.

74. **At the same time, the international community can play an important facilitating role to help EMDEs address these issues:**

- The international community should send a clear and consistent message on the appropriate pace of adoption of the Basel II/III framework in EMDEs. The more financially-integrated EMDEs—especially those that belong to the G20/FSB and participated in the development of this framework—should adopt the framework according to the agreed timetable. Other countries, with less internationally integrated

financial systems and/or with substantial supervisory capacity constraints, should first focus on reforms to ensure compliance with the Basel Core Principles and only move to the more advanced capital standards at a pace tailored to their circumstances.

- The international community should continue to promote the further development of supervisory capacity in EMDEs through targeted and well-coordinated technical assistance and other capacity building activities. In addition, the BCBS, IAIS and IOSCO, with input from the IMF and World Bank, should take stock of the range of practices on resources and capacity—including on staffing and skill levels, training certification programs, and financing options—and identify good practices to strengthen supervisory authorities in EMDEs.

- Home supervisors for large international banks should provide host supervisors, particularly when those banks are systemically important in the host jurisdiction, with timely, accurate and comprehensive information on the parent bank via supervisory colleges and crisis management groups and/or via enhanced bilateral relationships. Such information sharing should be underpinned by appropriate legal agreements and confidentiality safeguards where necessary. As part of its reporting to the FSB in 2012 on the functioning of supervisory colleges, the BCBS should report on the adequacy of membership and information sharing arrangements in such colleges from the perspective of host authorities.

- The IOSCO and IAIS should work with EMDEs to promote adoption of multilateral arrangements, such as the *Multilateral Memorandum of Understanding*, to facilitate cooperation and information exchange in the securities and insurance sectors.

- The BCBS should provide guidance on: (1) the application of new measures included in Basel III—such as capital buffers, leverage ratio, and liquidity requirements—to EMDEs that do not intend to adopt the advanced approaches of Basel II; and (2) the steps that EMDE supervisors can take to monitor and address the buildup of FX risks, including both direct FX risk as well as the credit risk arising from borrowers' FX exposures. The BCBS should also take stock of the range of practices on supervisory approaches, prudential regulations and data reporting and disclosure requirements for different types of small-scale non-bank lending and deposit-taking institutions in EMDEs.

- The Joint Forum, in updating the *Principles for the Supervision of Financial Conglomerates*, should develop additional guidance to assist with the identification and control of the risks arising from financial conglomerates, particularly those that belong to mixed-activity economic groups.

- The IOSCO should provide guidance to securities regulators in EMDEs on ways to promote the development of a domestic institutional and retail investor base.

- The BCBS, IAIS and IOSCO should report to the FSB on progress made in meeting the above recommendations by end-2012. The IMF and the World Bank should continue to assess the progress made by EMDEs in enhancing their financial stability frameworks.

75. **There is a need to continue to bring issues of relevance for EMDEs to the attention of the international community.** The IMF and the World Bank, as well as the FSB including through the establishment of its regional consultative groups, have an important role to play in that regard. In addition, international bodies should take into account EMDE-specific considerations and concerns in designing new international financial standards and policies.

ANNEX I. CHARACTERISTICS OF FINANCIAL SYSTEMS IN EMDES

76. **EMDEs comprise a large and diverse group of financial systems.** Altogether, 150 economies are classified as EMDEs (Table 1).[44] There is substantial differentiation among EMDEs in terms of economic size, level of development, geography, legal and institutional framework, and many other factors that affect financial systems. In analyzing financial stability issues in EMDEs, it is crucial to understand common trends as well as differences and the factors driving them.

77. **Several characteristics appear particularly relevant for understanding the prevalent financial stability issues in EMDEs**. The developing nature of their financial systems is reflected in their relatively small overall size, lower complexity, a dominant role of banks and a relatively small role of nonbank financial institutions, thin capital markets, and greater challenges in providing broad access to finance. Other prevalent (although not universal) features include financial dollarization, importance of foreign capital, weaker institutional frameworks and market infrastructures, important supervisory capacity constraints, and a relatively greater involvement of the state in the financial system. However, many of these characteristics vary as much across EMDEs as between EMDEs and AEs.

A. Structure of EMDE Financial Systems

78. **Financial systems in EMDEs have grown in relative importance in the last decade**. Over the last 10 years, financial systems in EMDEs have grown substantially vis-à-vis those in developed countries. Available data indicate that private sector credit in EMDEs has increased by a factor of three between end-2000 and end-2009, compared to a doubling in AEs over the same period. Correspondingly, EMDE banking systems have grown from about 19 percent of the global banking system at end-2000 to about 27 percent at end-2009. Similarly, insurance company assets in EMDEs have grown from about 12 percent to about 20 percent of global insurance sector assets.

79. **The EMDE financial systems tend to be smaller and less complex than their advanced economy counterparts**. The smaller size is manifested both in absolute terms (e.g., as approximated by total assets, private credit, or capital in dollars) and in relative terms (e.g., as a ratio of total assets, private credit, or capital in relation to gross domestic product/GDP). For example, the median ratio of private credit to GDP in EMDEs is about 20 percent, compared to about 60 percent in advanced economies (Figure 1), although there are large differences across regions. The lower complexity is reflected, for example, in the EMDEs' generally lower degree of interconnectedness to the global financial system.[45] It is also reflected in their substantially

[44] Of the nineteen countries that are G20 members, ten are EMDEs. The definition of the EMDEs follows the IMF's *World Economic Outlook* (http://www.imf.org/external/pubs/ft/weo/2011/01/pdf/statapp.pdf).

[45] Of the twenty-five jurisdictions identified as having "the most systemically important financial sectors" based on their size and interconnectedness, only six are EMDEs (http://www.imf.org/external/np/pp/eng/2010/082710a.pdf).

lower exposures to financial derivatives, both on the asset side and on the liabilities side (Table 2).

80. **One facet of the lower complexity is the larger role of banks in EMDEs.** The share of banks in the overall financial system is higher than in AEs (Figure 2). In recent years, some EMDEs have experienced rapid growth of non-bank financial institutions. These were often part of financial conglomerates and private pools of capital such as mutual funds. Nonetheless, banks still dominate in most EMDE financial systems.

81. **Financial systems in EMDEs are relatively concentrated**. In many EMDEs, several large banks, often the center of financial conglomerates (and in some case of mixed-activity economic groups), account for a large share of financial system assets. The issue of concentration is not unique to EMDEs (concentration in many AE financial systems is also considerable) and it is not universal among them (there are some EMDEs with relatively low concentration), but it is more prominent among EMDEs (Figure 2).[46] To some extent, this greater concentration of the financial system reflects the more concentrated nature of the economies themselves. For example, some of the EMDE economies (especially some of the smaller, lower income ones) are dependent on relatively few sectors or industries. This economic concentration increases risks in the financial system. Financial system concentration creates challenges, for example, for consolidated supervision and in controlling the build-up of systemic risks. Moreover, in EMDEs where concentration in the regulated/traditional banking sector is combined with underdevelopment and financial repression, the result is greater prominence of "shadow banking institutions" (such as financial companies and micro lenders).

82. **Related in part to the dominant role of banks, many EMDEs have relatively thin capital markets**. The thinness of the markets, illustrated for example by the relatively lower turnover in stock markets (Figure 3), is reflected in greater volatility. Volatility in other markets (such as the foreign exchange market and the bond market) also tends to be higher, exposing the domestic financial system to potentially greater exchange rate and interest rate shocks. Other markets, such as interbank markets, also tend to be thin as reflected, for example, in the high average bid-ask spreads in those markets (Table 2). These high spreads are usually attributed to perceptions of high counterparty risk, relatively less stable macroeconomic environment, and in some cases a limited supply of acceptable collateral. The thinness of markets and high spreads often lead to greater price volatility as well as challenges for monetary policy (the absence of the short-term money market makes it difficult to facilitate the conduct and transmission of monetary policy), lender of last resort facilities, and systemic liquidity assistance. Moreover, the absence of hedging markets creates challenges for the management of foreign exchange risks. To some extent, the thin capital markets are the flip side of the dominant role of banks: in general, the more concentrated the banking system, the thinner the capital markets.

[46] High concentration does not necessarily mean a small number of institutions. Many EMDEs also have a relatively large number of small institutions, challenging supervisory resources further.

B. Performance of EMDE Financial Systems

83. **Comparing the financial soundness indicators of EMDEs and advanced economies is challenging**. A comparison of basic indicators suggests that, on average, EMDEs tend to have slightly higher capitalization, higher nonperforming loan ratios, higher deposit-to-loan ratios, higher shares of loans to the domestic economy (and residents), and higher profitability (Table 2).[47] On aggregate, these differences seem to broadly offset each other: while risk variables (e.g., volatility of bank returns) appear somewhat higher on average in EMDEs, the buffers (average capitalization and average returns) appear somewhat higher.[48] These differences between the two groups are small relative to the differentiation among individual EMDEs in the two groups (epitomized by the regional differences, highlighted in Table 3).

84. **The comparison of financial soundness indicators also points to lower levels of exposure to the household sector**. One of the financial soundness variables that stands out in Table 2 is EMDEs' much lower level of household debt to GDP. Corresponding to this are EMDE banks' lower exposures to residential real estate (Table 2). In turn, this may be a function of (i) a relatively lower portion of households receiving regular salaries; (ii) more severe information asymmetries in EMDEs; (iii) deficiencies in risk management and the institutional framework supporting the financial sector (including bankruptcy laws, land registration, and collateral rules); and (iv) the underlying economic structure, with an increasing part of the population only now moving to the middle class and being able to afford the purchase of a home. Indeed, some EMDEs that went through expansion in household lending over the last decade subsequently saw a notable deterioration in performance, reflecting infrastructure weaknesses.

85. **Another relevant feature of the EMDE banking systems is high lending-deposit spreads**. The average spreads between lending and deposit rates in EMDEs are significantly higher than in AEs (Table 2). Studies show that these higher spreads can be attributed to the structure (e.g., the higher concentration in the system), performance (e.g., lower competition), and weaknesses in the underlying infrastructure (e.g., credit bureaus, collateral recovery regimes).

86. **In many EMDEs, the developing nature of their financial systems is reflected in a more limited access to finance**. These challenges are manifested in lower degrees of penetration of the population by financial institutions' branches (Figure 4) and client accounts, as well as lower penetration by insurance and other non-bank financial services. The difficulties in access are especially significant for households and small and medium enterprises, and they tend to be

[47] A caveat to be mentioned here is that the quality of financial statements may be lower in some EMDEs relative to advanced economies, with capital and earnings being possibly overstated.

[48] The so-called z-score, which combines volatility of returns with the corresponding buffers, and has become a popular summary measure of soundness, is not significantly different in EMDE banks relative to their advanced economy counterparts.

more pronounced in low-income EMDEs. Related to these challenges is also relatively lower reach of the payments system.

C. Foreign Capital and Financial Dollarization

87. **Cross-border capital flows, and their volatility, play an important role in EMDEs; an important element of this is a high degree of foreign ownership**. In many EMDEs, foreign-owned financial institutions account for a high share of financial system assets (Figure 5), and often are systemic in view of their size or interconnectedness. Foreign financial institutions may be more resilient to local shocks given greater overall diversification and access to additional resources at the parent financial institution. However, from a financial stability perspective, there have also been concerns among some host-country supervisors in EMDEs that difficulties in the parent bank could lead to rapid capital outflows and spread to the host country banking system. This, in turn, underscores the importance of effective cross-border supervisory cooperation. It also implies that important trade-offs will need to be made as countries decide on whether foreign banks should enter as branches or subsidiaries.[49]

88. **Another important feature of many EMDEs is financial dollarization**. In a number of EMDEs, a significant share of financial transactions is denominated in foreign currency (Figure 6). This feature is not universal, but it is a key issue in certain regions, for example in Latin America and CEE. High levels of financial dollarization, which may be partly due to a reliance on external sources of funding, can accentuate the financial system's vulnerability to exchange rate fluctuations through currency mismatches. Such mismatches occur not only directly in the financial system but also in its non-financial counterparts (e.g., corporate borrowers), and could manifest themselves as credit exposures. Financial dollarization can also interfere with the transmission of monetary policy and complicate management of financial safety nets. At the same time, it may reflect a lack of confidence in economic management (e.g., monetary policy), which also hampers financial sector development and contributes to the build-up of vulnerabilities.[50]

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[49] For more information, see "Subsidiaries or Branches: Does One Size Fit All?" by J. Fiechter et al. (IMF Staff Discussion Note 11/04, March 2011, available at http://www.imf.org/external/pubs/ft/sdn/2011/sdn1104.pdf).

[50] Financial dollarization is the extreme form of limited use of domestic currency in financial transactions. Other intermediate problems also exist, especially the difficulty that governments and firms have in issuing short and long-term debt in domestic and foreign capital markets.

D. Institutional Frameworks and Capacity Constraints

89. **Available data suggest that EMDEs have relatively weaker institutional frameworks**.[51] This is illustrated, for example, by the indices approximating the quality of the financial sector regulatory framework (Table 3). It is brought up also by the Reports on the Observance of Standards and Codes (ROSC) assessments undertaken in recent years by the IMF and the World Bank, mostly in the context of the FSAP. These assessments also tend to indicate relatively lower levels of compliance with international standards in EMDEs. Across the three major assessment areas (banking, insurance, and securities regulation), advanced economies tend to have higher levels of compliance than EMDEs, with the difference in compliance levels being bigger between high-income and medium-income economies than between medium-income and low-income economies.[52] The assessments also suggest weaknesses in market and financial infrastructure.[53]

90. **In many EMDEs, especially the smaller and less developed ones, institutional weaknesses reflect important capacity constraints**. FSAP assessments for EMDEs tend to point out capacity constraints both in the regulatory and supervisory framework (e.g., shortages of well-trained staff in supervisory agencies) as well as in financial institutions (e.g., weak risk management capacity). Capacity constraints are particularly binding in many smaller, lower-income EMDEs and are accentuated by the salaries in the public sector, which tend to be relatively lower vis-à-vis the domestic private sector.

91. **The role of the state in the economy tends to be greater in EMDEs than in AEs.** In particular, direct state ownership in banks tends to be higher in EMDEs (Figure 5). There is wide cross-country differentiation, with some major EMDE financial systems dominated by majority state-owned banks, and with others having virtually no such institutions (Figure 7). Examples of major EMDEs where the state plays an important role in finance include Brazil, Russia, India, and China. Beyond direct ownership, the state is also involved via credit ceilings, guarantees, subsidies, and—in some EMDEs—interest rate limits. The state also tends to be a relatively large debtor, and sometimes creditor, to the financial system in several EMDEs.

92. **The differences in institutional frameworks needs to be taken in context**. First, there are important cross-country differences within these wide country groupings, with some EMDEs (e.g., small, low-income countries) facing important constraints and tradeoffs, while others (e.g., larger, medium-income countries) having relatively sophisticated institutional frameworks.

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[51] More generally, EMDEs tend to score less favorably in terms of broader indexes of institutional strength, such as the Worldwide Governance Indicators (http://info.worldbank.org/governance/wgi/index.asp).

[52] For a detailed analysis of the compliance rankings, see "Quality of Financial Sector Regulation and Supervision Around the World" by M. Čihák and A. Tieman (August 2008, IMF Working Paper No. 08/190, available at http://www.imf.org/external/pubs/ft/wp/2008/wp08190.pdf).

[53] For the methodology and the published assessments, see http://www.imf.org/external/standards/index.htm.

Second, EMDE financial systems tend to be less complex than those in advanced economies, limiting to some extent the adverse impact of the institutional weaknesses. Indeed, the global financial crisis illustrated that even countries with advanced institutional frameworks can face major financial difficulties when financial institutions and products become too complex and the complexity is not matched by the quality of the framework. Third, the available data do not yet capture the impact of reforms in institutional frameworks in EMDEs as well as in developed economies in response to the global financial crisis (indeed, many of these reforms are still ongoing, so a full evaluation would be premature).

93. **Another important structural characteristic of EMDEs is the prominence of family-owned enterprises**. Both the structure of the corporate sector (dominance of small and medium-sized firms) as well as the dearth of public capital sources (at least until recently) are explanatory factors. This makes the establishment of corporate governance standards and the strengthening of minority investor rights for companies that wish to raise funds from public markets of particular importance to EMDEs.

E. Recent Trends

94. **Recent experience, both during the global financial crisis and in its aftermath, has highlighted the relative robustness of the financial systems of many EMDEs**. One of the most pronounced features of the post-crisis environment thus far has been the two-speed recovery—modest in advanced economies and robust in EMDEs.

95. **Underlying this macro resilience are improvements in financial system resilience of EMDEs**. One can point to some visible successes, such as increased capital and liquidity buffers as well as strengthened asset classification standards and exposure limits, in many EMDEs. Also, there was a substantial improvement in most EMDEs in important parts of their financial infrastructure as illustrated, for example, by the growing reach of credit registries (Figure 8). There has also been some (albeit slow) progress in strengthening underlying legal frameworks, although there are substantial differences among countries (Figure 9).

96. **In response to the global financial crisis, policy makers around the world, including in EMDEs, took measures to ease the perceived credit crunch and kick-start lending**. EMDEs that were less financially integrated (such as in Sub-Saharan Africa) or that had stronger macroeconomic and financial system fundamentals (such as those in Latin America) have generally been less affected by the crisis. Some emerging economies—particularly in CEE and parts of the Middle East and East Asia—have attempted to match developed countries by increasing deposit insurance coverage and introducing blanket guarantees to prevent capital outflows or destabilizing bank runs. A few countries have introduced selective controls on capital outflows. Capital support has focused mostly on expanding the equity base of state-owned banks as a way to increase lending (these banks played an important counter-cyclical role during the crisis in some EMDEs), as a preemptive measure, or as a means to assist troubled financial institutions. There have been relatively few instances of banking system-wide problems

due to a significant accumulation of nonperforming loans. In many EMDEs, the crisis has manifested itself mainly through terms-of-trade and investment (rather than financial) links, including drops in commodity prices, remittances, and foreign direct investment. The pressures were particularly severe for countries that relied on capital inflows to expand economic activity and domestic financing. Finally, deleveraging around the world is leading to the crowding out of riskier borrowers, particularly small and medium-size enterprises. Thus, many EMDEs have adopted a range of measures—including unconventional ones—to avoid a credit crunch and kick-start lending.

97. **The global financial crisis has also triggered some improvements in policy frameworks for financial stability**. These include the introduction of new tools and frameworks for macroprudential policy. For example, many EMDEs have recently set up new organizations or councils tasked with ensuring financial stability. It would be, however, too early at this point to evaluate the impact of these reforms, given that many of them are ongoing.

98. **Capital inflows to emerging markets have rebounded but remain volatile**. While inflows are not yet excessive in most markets, closing output gaps and rising inflation complicate policy responses. There are pockets of rising corporate leverage and evidence that weaker firms are accessing capital markets, making corporate balance sheets vulnerable to external shocks.

99. **In the post-crisis environment, emerging market economies are facing new challenges associated with strong domestic demand, rapid credit growth, relatively accommodative macroeconomic policies, and large capital inflows**. Some regions, including East Asia, have experienced rapid credit growth (Figure 10). Their main macro-financial challenge is to limit overheating and a buildup of vulnerabilities. Emerging market economies have continued to benefit from strong growth relative to that in advanced economies, accompanied by increasing portfolio capital inflows. This is putting pressure on some financial markets, contributing to higher leverage, potential asset price bubbles, and inflation. It will therefore be important to contain the buildup of macrofinancial risks to avoid future problems that could inhibit their growth and damage financial stability. In many EMDEs, this will entail a tighter macroeconomic policy stance, and, when needed, the use of macroprudential tools as well as improvements in microprudential supervisory oversight and risk management capacity to ensure financial stability. Increasing the financial sector’s capacity to absorb higher flows through efforts to broaden and deepen local capital markets will also help.

Table 1. Emerging Markets and Developing Economies, 2011

Numbers of Jurisdictions	Included in WDR data	of which: EMDEs	of which: Advanced
Total	213	150	63
of which (by region):			
South Asia	8	8	0
Europe & Central Asia	58	27	31
Middle East & North Africa	21	18	3
East Asia & Pacific	36	19	17
Latin America & Caribbean	39	32	7
Sub-Saharan Africa	48	46	2
North America	3	0	3
of which (by G-20 membership):			
G-20 members	19	10	9
Not in G-20	194	140	54

Source: World Bank (World Development Report).

Table 2. Financial Soundness Indicators, end-2009 (percent, unless indicated otherwise)

	EMDEs		Advanced	
	Average	St.Dev.	Average	St.Dev.
Regulatory capital to risk-weighted assets	17.0	3.2	14.0	2.3
Regulatory Tier 1 capital to risk-weighted assets	14.1	3.2	11.5	2.1
Capital to assets	10.6	3.0	6.2	2.3
Nonperforming loans to total gross loans	5.3	3.8	4.0	2.9
Customer deposits to total (noninterbank) loans	101.8	57.5	94.5	27.7
Loans to residents (as percent of total loans)	91.2	12.0	72.7	21.1
Loans to domestic economy (as percent of total loans)	84.6	16.6	65.0	19.3
Foreign-currency-denominated loans to total loans	46.5	29.6	21.1	15.5
Foreign-currency-denominated liabilities to total liabilities	47.2	28.3	23.7	17.7
Return on assets	1.1	1.5	0.5	0.6
Return on equity	9.5	15.2	7.4	11.1
Gross asset position in financial derivatives to capital	33.2	69.6	222.1	279.9
Gross liability position in financial derivatives to capital	33.4	68.9	228.1	281.7
Spread btw reference lending and deposit rates (bp)	611.5	299.2	321.5	99.6
Spread between highest and lowest interbank rates (bp)	536.3	637.3	41.7	61.7
Nonfinancial corporations: total debt to equity	153.3	87.7	119.9	58.4
Household debt to GDP	22.7	9.2	89.8	42.5
Residential real estate loans to total loans	15.9	10.1	27.8	12.3
Commercial real estate loans to total loans	10.2	9.0	10.8	8.1

Source: IMF Financial Soundness Indicators database; IMF staff calculations.

Table 3. Financial Soundness Indicators, end-2009
(in percent, unless indicated otherwise)

	EMDEs by selected regions (averages)				
	Europe & Cen. Asia	Lat. Am. & Caribbean	Middle East & N. Africa	South Asia	East Asia & Pacific
Regulatory capital to risk-weighted assets	15.7	16.9	15.7	19.5	16.3
Regulatory Tier 1 capital to risk-weighted assets	12.9	14.1	10.7	16.2	13.3
Capital to assets	9.9	10.7	…	11.3	10.1
Nonperforming loans to total gross loans	7.2	2.7	8.3	3.5	2.5
Customer deposits to total (noninterbank) loans	64.2	97.4	…	180.5	142.1
Loans to residents (as percent of total loans)	85.0	87.5	…	97.1	92.6
Loans to domestic economy (as percent of total loans)	75.2	82.2	…	…	94.6
Foreign-currency-denominated loans to total loans	50.5	40.7	…	69.1	15.6
Foreign-currency-denominated liabilities to total liabilities	45.7	45.0	…	53.3	16.5
Return on assets	0.2	1.8	1.2	0.8	1.7
Return on equity	0.6	16.5	11.5	8.1	18.9
Gross asset position in financial derivatives to capital	6.2	39.7	…	…	2.2
Gross liability position in financial derivatives to capital	6.8	39.8	…	…	1.4

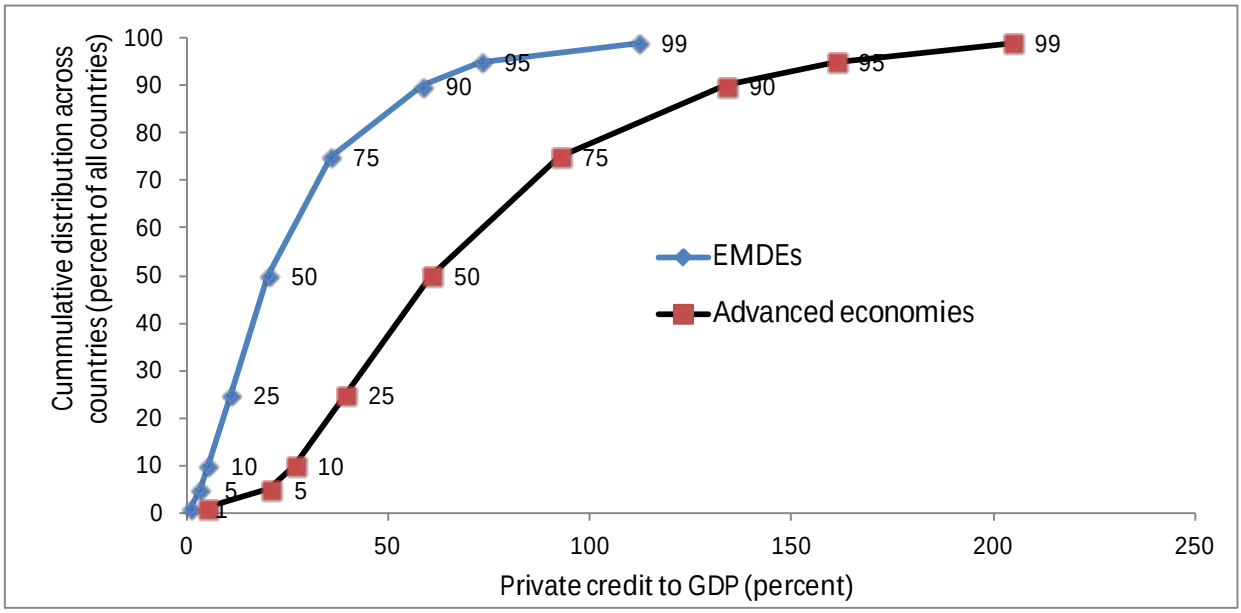
Sources: IMF Financial Soundness Indicators database, Global Financial Stability Report.

Table 4. Quality of Financial Sector Regulatory Framework, 2008

	EMDEs		Advanced	
	Average	St.Dev.	Average	St.Dev.
Index of financial reform	9.5	5.8	15.5	5.1
Banking supervision	0.6	0.8	1.5	1.1
Credit controls	1.5	1.1	2.3	1.0
Directed credit	1.5	1.1	2.2	1.0
Entry barriers	1.8	1.2	2.3	1.0
Credit ceilings	0.6	0.5	0.8	0.4

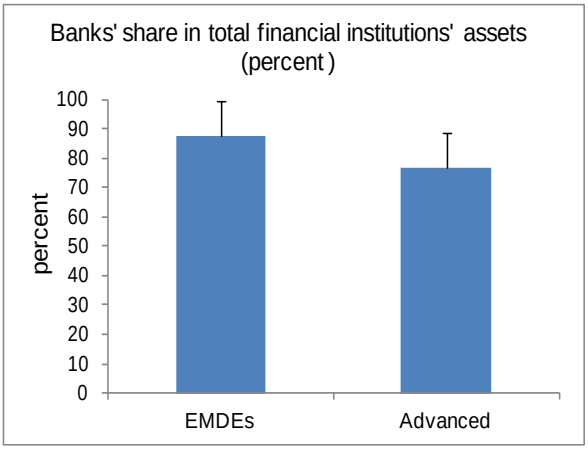
Source: IMF Financial Reforms database.

Figure 1. Financial Sector Size Across Countries, 2009 (or Latest Data)

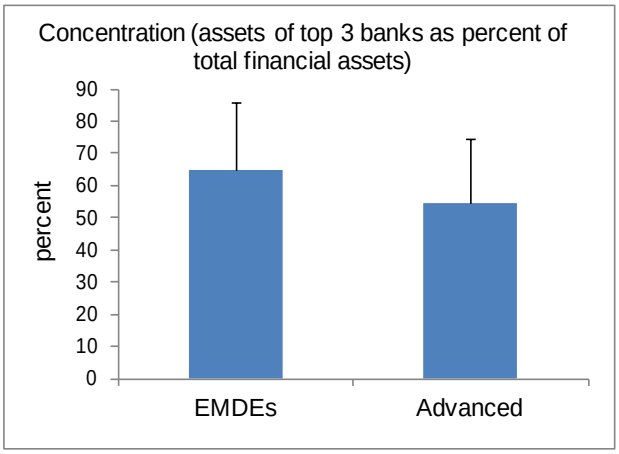


Source: World Bank Financial Structure database.

Figure 2. Financial Sector Structure, 2009 (or Latest Data)

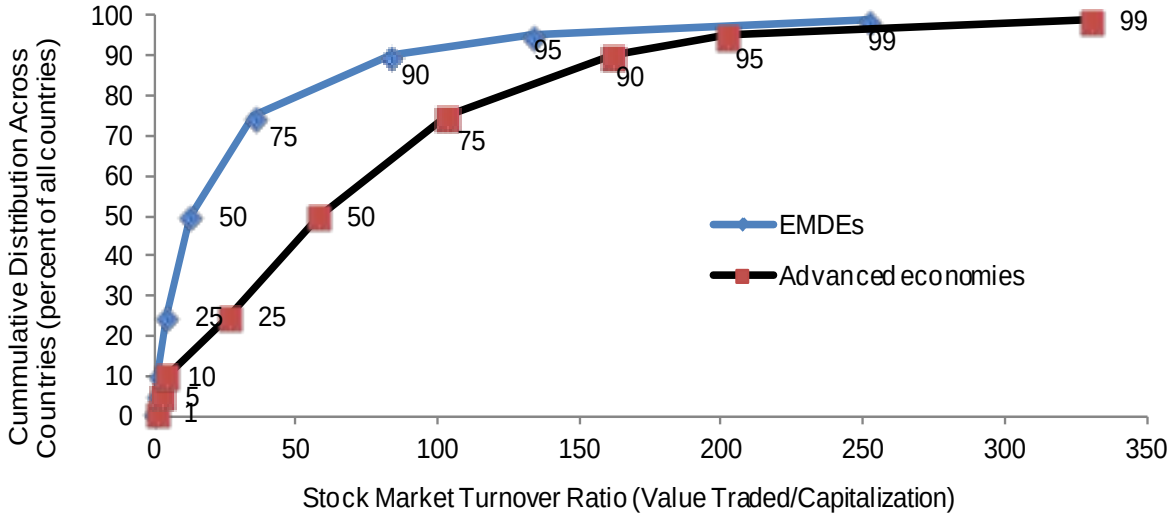


Source: IMF Financial Soundness Indicators database.



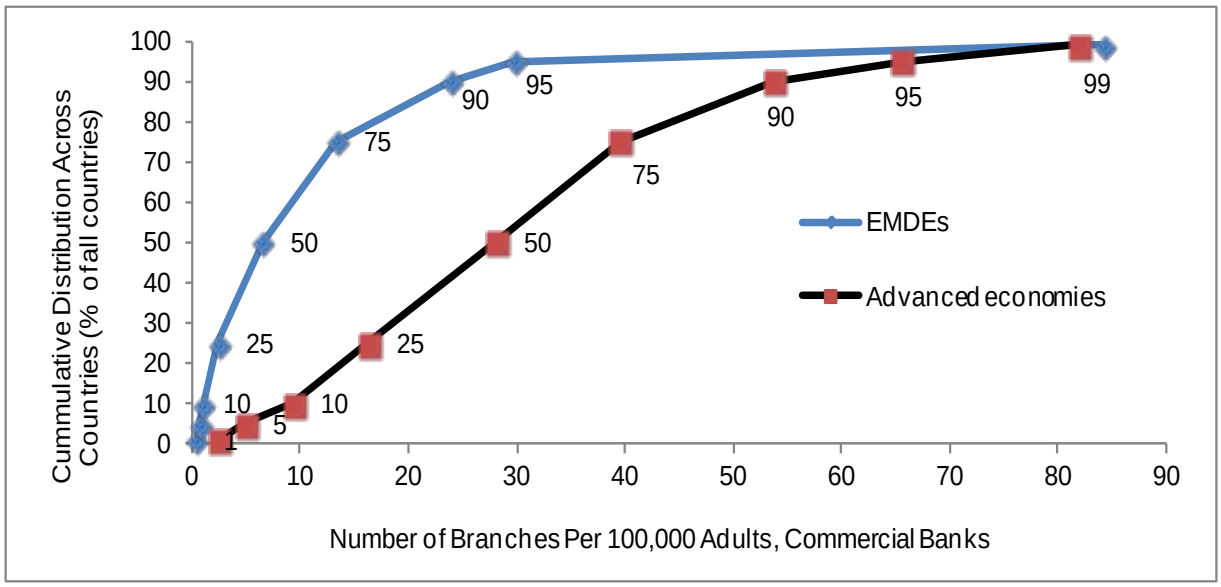
Source: IMF Financial Soundness Indicators database.

Figure 3. Stock Market Turnover, 2009 (or Latest Data)



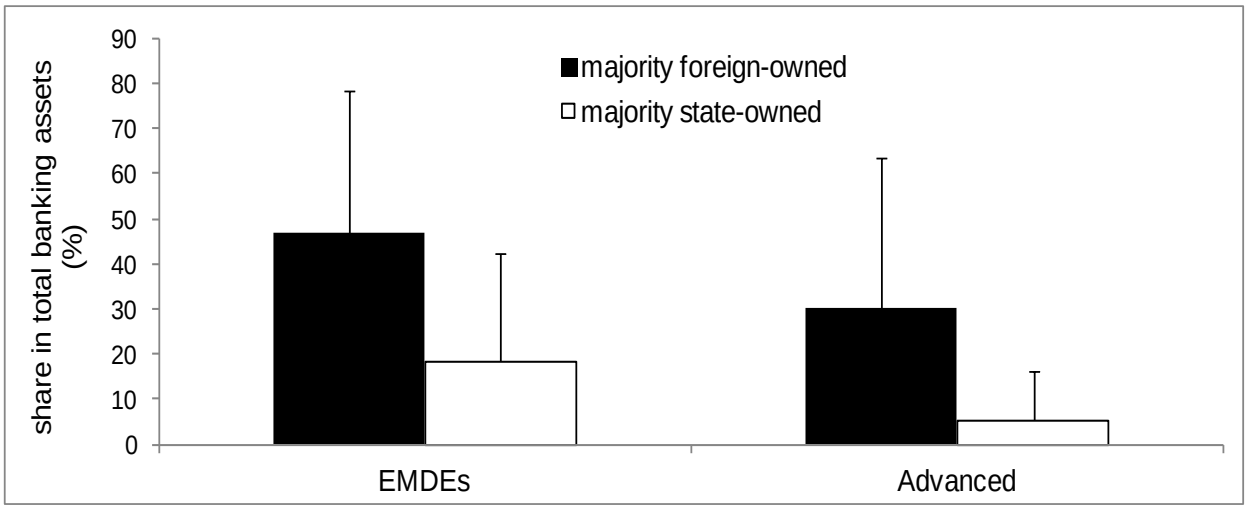
Source: Standard & Poor's (World Development Indicators).

Figure 4. Financial Access: Branches, 2009 (or Latest Data)



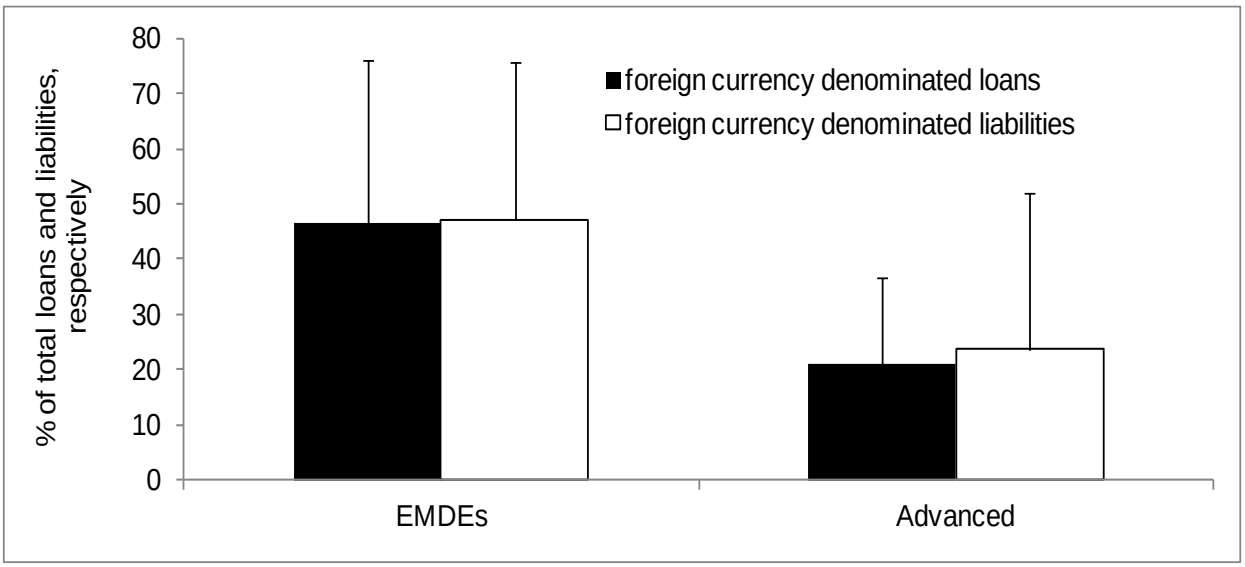
Source: IMF's Access database.

Figure 5. Foreign and State-Owned Banks, 2009 (or Latest Data)



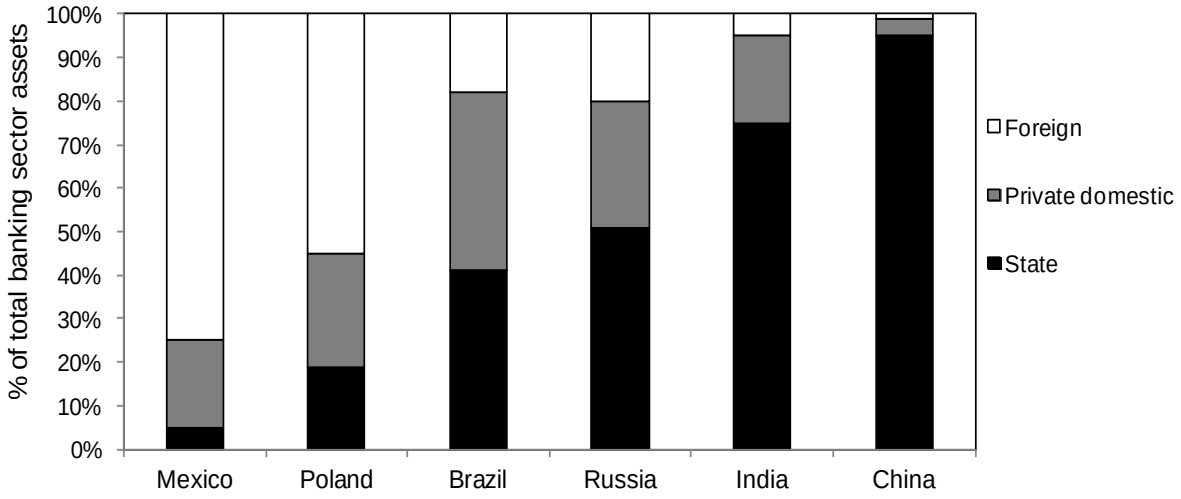
Sources: World Bank Banking Regulation and Supervision database.

Figure 6. Financial Dollarization, End-2009 (or Latest Data)



Source: IMF Financial Soundness Indicators database.

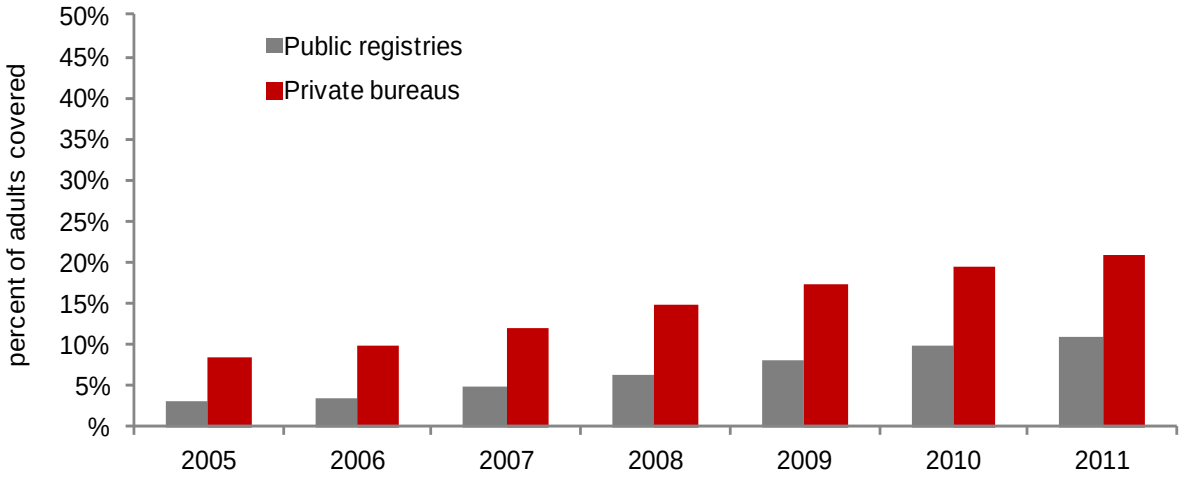
Figure 7. Bank Ownership in Selected EMDEs, 2009 (or Latest Data) 1/



Source: BankScope, individual banks, country authorities.

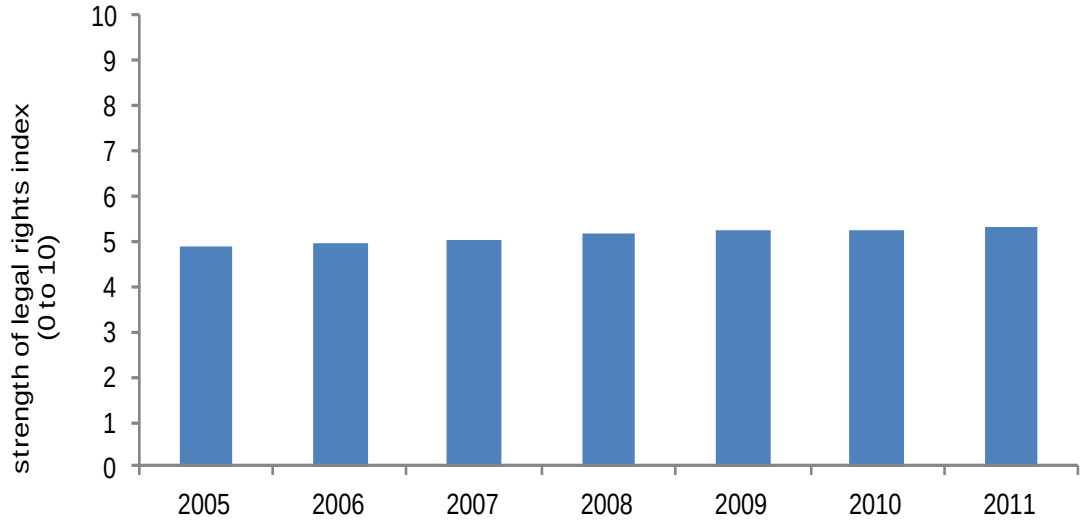
1/ Defined according to majority on ownership.

Figure 8. Credit Information Sharing in EMDEs, 2005–11



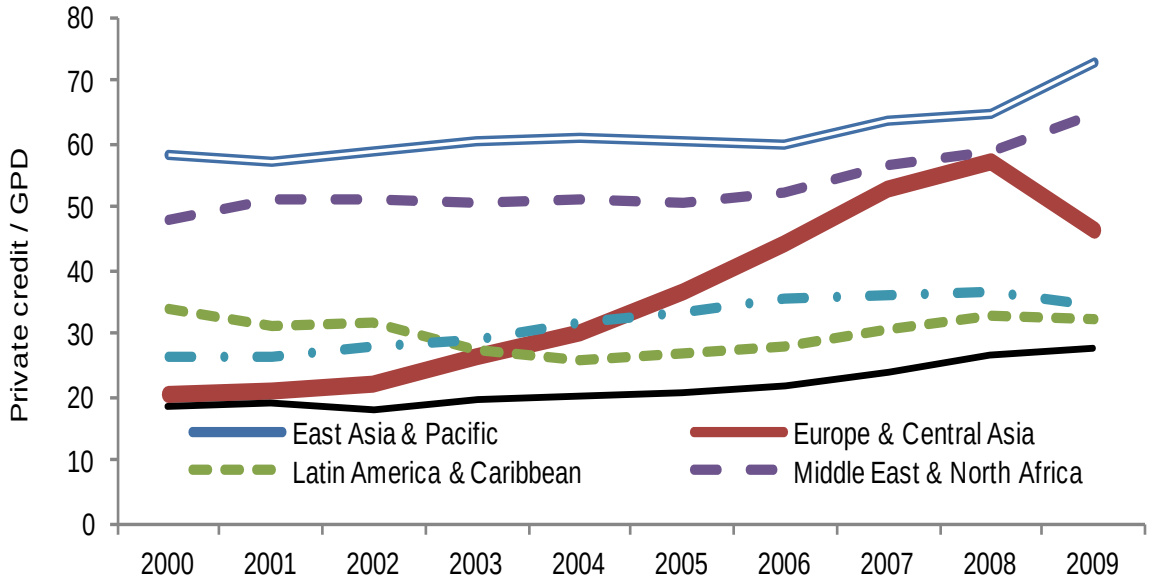
Source: World Bank Group's Doing Business Indicators.

Figure 9. Legal Rights, EMDEs, 2005–11



Source: World Bank Group's Doing Business Indicators.

Figure 10. Private Credit to GDP in EMDEs, 2000–09



Source: IMF International Financial Statistics.

ANNEX II. COMPLIANCE WITH INTERNATIONAL STANDARDS FOR FINANCIAL SUPERVISION

100. **This section provides details regarding the findings from 58 assessments completed by the IMF (Fund) and the World Bank (Bank) since 2006 in the areas of banking, insurance, and securities regulation and supervision in EMDEs.** Specifically, the analysis includes forty-two BCP assessments[54]; seven IAIS assessments; and nine IOSCO assessments.

Experience with BCP Assessments

101. **The BCP findings are based on assessments using the revised principles and methodology promulgated by the BCBS in October 2006.** Initially formulated in 1997, the principles set forth the minimum standards for sound practices in banking supervision, which have been used by the IMF and World Bank to assess banking supervision in the context of the FSAP and the ROSCs. A strong and effective framework of banking supervision, as reflected in high compliance with these standards, helps lay the foundation for financial stability.[55]

102. **The banking supervisory systems in all EMDEs exhibit a high degree of compliance in most areas.** The majority of EMDEs (over 60 percent) are compliant with 75 percent of the principles.[56] Moreover, over 80 percent of the EMDEs are compliant with 40 percent of the principles. The areas of higher compliance (over 80 percent of countries) include strong supervisory accounting and reporting systems, supervisory techniques, licensing, capital adequacy frameworks, policies to address problem assets and provisions; and proper authorization for the conduct of banking activities (Table 5 and Figure 11).

103. **The areas exhibiting a notable level of non-compliance are limited in EMDE banking supervisory systems.** These areas are risk management, consolidated supervision, market risk and interest rate risk. However, EMDEs could strengthen their systems in a number of areas.

104. **It is difficult to compare the levels of compliance for EMDEs assessed after 2006 to those of the AEs assessed after 2006 due to sample size.** The sample size for AEs is only four, so the ability to make any firm conclusions is limited. Nevertheless, the level of compliance for this small group is also high with the majority of all countries (over 60 percent) compliant with 96 percent of the principles (Figure 12). EMDEs do appear to have higher compliance ratings for three principles. Such areas that favor EMDEs relate to licensing (CP3), capital adequacy (CP6), and supervisory techniques (CP20).

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[54] The review includes countries that have been assessed between 2007 and 2010.

[55] Periodic reviews of the BCP findings have been conducted and submitted to the IMF Board in 2000, 2002, 2004, and 2008. The discussion in this paper focuses solely on EMDEs.

[56] BCP ratings are compliant, largely compliant, materially non-compliant, and non compliant. For the purpose of this analysis, "compliant" includes compliant and largely compliant and "non-compliant" includes materially non-compliant and non-compliant.

105. **An important weakness across the EMDE spectrum is consolidated supervision (CP24).** In this regard, 57 percent of EMDEs are non-compliant in this area. Many constraints may be present that would contribute to low levels of compliance. Legal constraints and lack of information may limit the supervisor's surveillance capabilities; however, irregularities identified in cross-border financial groups could affect the stability of banks located in the home country and supervisors need to have the powers, capacity, and determination to monitor cross-border basis and take appropriate actions, if necessary. Securing the ability to monitor non-banks in a financial group is becoming more and more important, especially after the recent financial crisis. Many of these issues also relate to cross-border cooperation and information exchange.

106. **There appears to be a fairly even distribution of non-compliance for CP24 across income baskets; however, distribution across regions varies (Table 6 and Figure 13).** For example, the range of non-compliance for income levels is between 50 percent and 58 percent with the widest disparity between high and medium income levels. There is a wide disparity among the various regions with the highest degree of non-compliance observed in the Western Hemisphere region (86 percent) and the lowest degree of non-compliance observed in the Europe region (45 percent).[57]

107. **The level of non-compliance for exposure to related parties (CP 11) is considerable for some regions.** In the Middle East, Asia Pacific and Western Hemisphere regions, the non-compliance rate is about 40 percent. Related party lending is potential area of abuse which arises from granting credit to non-arms-length and related parties including companies and individuals. Major abuses have occurred in various countries that have subsequently led to crisis situations. Consequently, it is important that banks grant credit to such parties on an arm's-length basis and that the amount of credit granted is adequately monitored.

108. **Another concern relates to the sound governance, adequate resources and sufficient operational independence of the supervisor (CP 1.2).** While 40 percent of countries overall are materially compliant or non-compliant in this area, supervisory independence and resources are an issue for most regions, with Asia Pacific and Western Hemisphere exhibiting at least a 50 percent noncompliance rate. Governments in many countries continue to interfere in supervisory matters and act as the ultimate decision maker for the conduct of supervision. In addition, many supervisors are not adequately resourced or have the necessary skills to meet the increasing demands placed on supervisors. This is apparent when evaluating the capacity related to the development of supervisory processes for the various risk management areas.

109. **Weaknesses in risk management practices (CP7) continue to be an issue.** A key lesson from the financial crisis is that banking organizations and their supervisors need to

[57] The sample sizes for the regions vary, which may distort the results somewhat. For example, Asia Pacific and Western Hemisphere are each represented by seven countries; while the European and African regions are represented by 11 and 12 countries, respectively. The Middle East is represented by five countries.

enhance the effectiveness of the risk-management systems. This holds true for all EMDEs where 45 percent of these countries are non-compliant in this area. However, the range of compliance is more apparent across regions and income levels than observed for consolidated supervision. In this respect, the degree of non-compliance ranges between 25 and 58 percent across income levels and between 27 and 71 percent across regions. Western Hemisphere appears to have the lowest level of compliance while Europe appears to be stronger in this area.

110. **A few notable differences across the EMDE regions exist with respect to certain strengths and weaknesses in the countries' supervisory systems.** For example, one of the major weaknesses observed in the African region relates to the framework supervisors have established to pursue corrective and remedial actions against banks. Almost 67 percent of countries in this region are non-compliant in this area (CP23). This contrasts with other regions where the degree of compliance is much higher.[58] In some cases, the shortcomings in the African region relate to absence of proper legal powers, but for others, the powers are provided for, but are not being used effectively and supervisors are not proactive and forceful in taking timely measures against a delinquent bank. The ability to act and the will to act are two pillars of good supervision.[59]

111. **Another major weakness that is more pronounced in one region than the others relates to operational risk (CP15).** The degree of non-compliance for the Western Hemisphere region was approximately 85 percent whereas for the other regions, the degree of *compliance* ranges between approximately 60 and 90 percent. Many shortcomings derive from a shortage of staff and expertise as well as absence of regulations or formal policies. As a result, supervisors may rely on internal and external auditors for assessing this risk, including IT risk, which is not in line with international best practice. The integrity of bank IT systems is a cornerstone of operational risk management under Basel II because banks rely on historical data for the determination of risk estimates. Additional staff and specialized training on these risks are needed to effectively supervise these risks. In addition, operational risk is still an evolving risk discipline and the Basel Committee recently issued a consultative paper on operational risk which updates an earlier version discussing the sound practices for management and supervision of operational risk. The principles outlined in the report are discussed within the context of three overarching themes: governance, risk management and disclosure.[60]

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[58] The degree of compliance for the other regions for CP23 ranges between 71 and 100 percent.

[59] See "The Making of Good Supervision: Learning to Say No" by J. Viñals, J. Fiechter et al (IMF Staff Position Note 10/08, May 2010, available at http://www.imf.org/external/pubs/ft/spn/2010/spn1008.pdf).

[60] Operational risk is also part of the Basel II capital adequacy framework which is designed to take into account changes in bank and risk management practices.

Experience with IAIS Assessments

112. **As an international standard-setting body, the IAIS plays an important role in promoting financial stability in the insurance sector**. Its membership includes insurance regulators and supervisors from over 190 jurisdictions and contributes to an effective forum for standard-setting and implementation activities by providing opportunities to share expertise, experience and understanding.

113. **The IAIS Insurance Core Principles (ICPs) provide a globally-accepted framework for the supervision of the insurance sector.** The existing 2003 IAIS ICPs are currently in the final stage of revisions with the intent of adopting the complete set of 26 revised ICPs and corresponding standards and guidance material in October 2011. These revisions reflect the changing supervisory systems and practices and also incorporate FSB recommendations for enhanced supervision that are included in the report on *Intensity and Effectiveness of SIFI Supervision*.

114. **The ICPs apply to insurance supervision in all jurisdictions regardless of the level of development or sophistication of the insurance markets and the type of insurance products or services being supervised**. It is recognized that supervisors will need to tailor certain supervisory requirements and actions in accordance with the nature, scale and complexity of individual insurers. In this regard, supervisors should have the flexibility to tailor supervisory requirements and actions so that they are commensurate with the risks posed by individual insurers as well as the potential risks posed by insurers to the insurance sector or the financial system as a whole. This is provided for in the revised ICPs and standards where relevant.

115. **The implementation of the ICPs and standards relevant to group-wide supervision may vary across jurisdictions depending on the supervisory powers and structure within a jurisdiction.** Regardless of the approach, the supervisor must be able to demonstrate that in effect, the outcome is similar to having the supervisory requirements applied directly on those entities within the insurance group from which the risks are emanating. This is to ensure effective group-wide supervision, which includes ensuring that all relevant group-wide risks impacting the insurance entities are addressed appropriately.

116. **Taking into account these new developments, particularly those resulting from pronouncements by the G20 and FSB, the IAIS has focused its implementation activities on areas such as supervisory cooperation and the assessment of observance of standards.** As a result, three new working parties were formed to focus on Education, Standards Observance and Supervisory Cooperation among supervisors.

117. **As part of the Standards Observance Subcommittee's work plan, the subcommittee will be conducting self-assessments of the FSB-recommended topics relating to mandate, supervisory powers and consolidated supervision in 2011**. Deficiencies and corrective action

plans are to be outlined in a letter to the FSB chair and shared with FSB peers by end of March 2012.

118. **The IAIS findings analyzed in this paper are based on a group of assessments undertaken after 2006 which includes only seven EMDEs (Figures 14, 15).**[61] Given the small sample size, these findings should be viewed very loosely and interpreted cautiously and the issues identified here may not be deemed to be representative of all EMDEs. Nevertheless, the few countries assessed provide a glimpse into certain strengths and weaknesses of the regulation and supervision of the global insurance sector.

119. **Overall, the ratings indicate that these countries appear to have fairly sound regulatory and supervisory systems.** Over 80 percent of the countries were considered to be "observing"[62] four core principles related to the supervisory system and entity. For example, the few EMDEs assessed have established laws that include clear supervisory objectives and fully empower the supervisory authority to achieve its objectives and conduct its functions in a transparent and accountable manner. In addition, over 60 percent of the countries were considered to be in observance of 15 additional core principles.

120. **The major weaknesses identified in this small sample relate to certain aspects of supervision and to information disclosure for market participants.** In particular, over 70 percent of the countries assessed were found to be deficient in the laws, regulations, criteria, and procedures for dealing with insolvency and winding–up of the insurer; group-wide supervision; and the disclosure of relevant quantitative and qualitative information regarding financial condition, risks, and management and corporate governance of insurance activities (CPs 16, 17, and 26). While it is difficult to draw any substantive conclusion as to whether these weaknesses represent a significant gap in EMDEs overall, it is noteworthy to compare to the advanced countries, where the sample size for all assessments is much larger (18 countries). In this group, the level of compliance in these areas is much higher.[63]

Experience with IOSCO Assessments

121. **The IOSCO issued its first set of principles, *Objectives and Principles of Securities Regulation,* in 1998 and updated the methodology in 2003. The principles were updated in**

[61] A total of 28 ICP assessments have been conducted using the 2003 methodology (18 in AEs and 10 in EMDEs). Over 50 percent (16) were conducted prior to 2006 (13 in AEs and three in EMDEs). Since 2006, only 12 ICP assessments have been undertaken (five in AEs and seven in EMDEs). Of the seven EMDEs assessed, four are high income countries, two are middle income countries and one is a low income country.

[62] Ratings for the IAIS assessments are defined as observed, largely observed, partly observed and not observed. For this analysis, "observed" includes observed and largely observed and "not observed" includes partly observed and not observed.

[63] The range of compliance is between 72 percent and 100 percent for all assessments using the 2003 methodology, and 80 percent and 100 percent for all assessment conducted after 2006.

June 2010; however, no assessments have been conducted using the new standards. The main revisions included adding nine new principles and deleting one. The IOSCO principles are used in the FSAP to diagnose the quality of the securities regulatory system.

122. **The IOSCO findings discussed below are based on a group of assessments conducted after 2006 which includes only nine EMDEs (Figures 16 and 17).**[64] As with the IAIS assessments, this sample size is very low and very few solid conclusions regarding the regulatory and supervisory frameworks are likely to be drawn for all countries. Nevertheless, a few observations can be made.

123. **The degree of compliance is high for this group of EMDEs.** [65] The majority of the countries (at least 64 percent) assessed after 2006 were found to have implemented 80 percent of the principles and 80 percent of the countries had implemented almost half of the principles. This level of compliance is much higher than the entire group of EMDEs that has been assessed over the past 10 years. Based on the findings for this latter group, the majority of countries were found to have implemented only 27 percent of the principles. This trend could be viewed quite positively; however, since the post-2006 sample size is so small, it is difficult to draw this conclusion.

124. **The main weakness identified in the post-2006 EMDEs group concerns the enforcement of securities regulation.** The majority of EMDEs (64 percent) do not have comprehensive inspection, investigation, surveillance, or enforcement powers. While showing a slight improvement over the years, it still appears that this has been a longstanding issue in EMDEs as these findings are broadly in line with the findings for EMDE countries assessed prior to 2006; however, the sample size for this group is much larger. For this latter group, the non-implementation rate was 67 percent based on a sample size of 50 countries. The advanced EMDEs lag behind other EMDEs in this respect as 100 percent of the assessments showed non implementation. However, the sample size comprises only two countries, so, it is unlikely this holds true for all others.

[64] A total of 83 IOSCO assessments have been conducted on EMDE countries using the 1998 principles.

[65] Ratings for IOSCO assessments are defined as fully implemented, broadly implemented, partly implemented, and not implemented. For this analysis, “implemented” includes implemented and broadly implemented and “not implemented” includes partly implemented and non-implemented.

Table 5. EMDE Compliance with BCPs

High Compliance	
Core Principle	Percent of Countries Assessed: Compliant / Largerly Compliant
2 : Permissible Activities	93
1.3 : Legal Framework	90
1.1 : Responsibilities of Supervisor	86
21 : Supervisory Reporting	86
1.4 : Legal Powers	83
6 : Capital Adequacy	83
9 : Problem Assets, Provisions, and Reserves	81
20 : Supervisory Techniques	81
22 : Accounting and Disclosure	81
Low Compliance	
Core Principle	Percent of Countries Assessed: Materially Non-Compliant / Non-Compliant
24 : Consolidated supervision	57
7 : Risk management practices	45
13 : Market risk	43
16 : Interest rate risk in the banking book	43
12 : Country and transfer risks	43
1.2 : Independence, accountability and transparency	40
15 : Operational risk	40
18 : Abuse of financial services	36
25 : Home-host relationships	36
5 : Major acquisitions	31
23 : Corrective and remedial powers of supervisors	31
10 : Large exposure limits	29
11 : Exposure to Related Parties	29

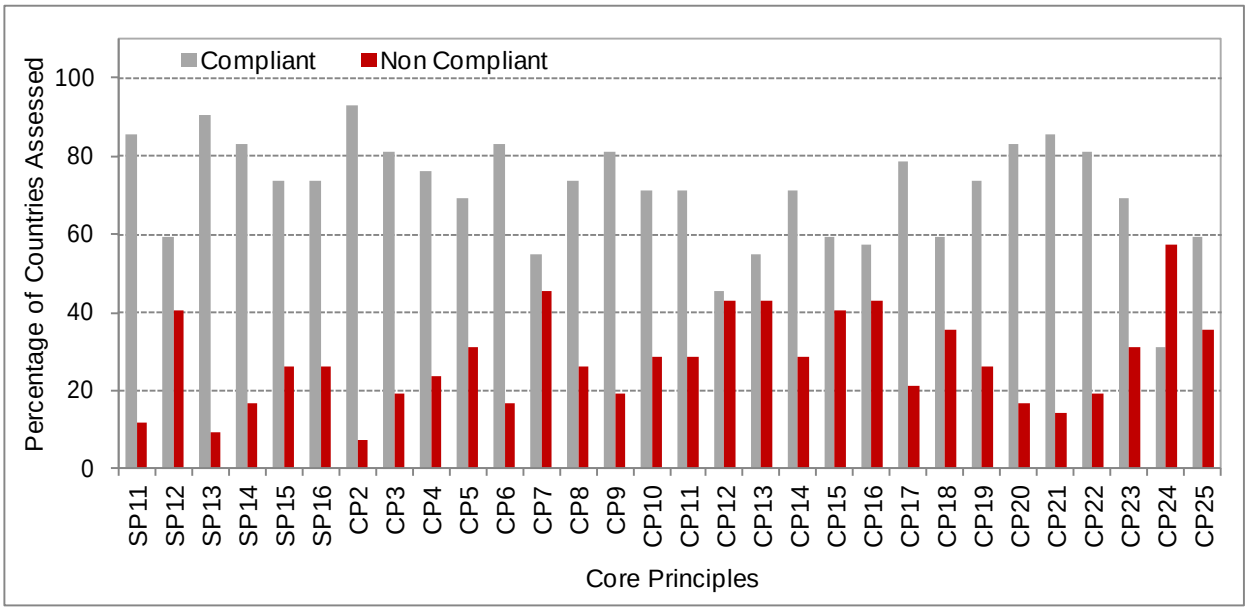
Source: International Monetary Fund.

Table 6. Dispersion for Consolidated Supervision: By Income Level and Region

Core Principle:	Consolidated Supervision	Exposure to Related Parties	Risk Management	Corrective and Remedial Powers of Supervisors	Independence, Accountability, and Transparency	Operational Risk
	Percent of Countries Assessed: Materially Non-Compliant / Non-Compliant					
Income Level						
High income	50	25	25	0	25	13
Medium income	59	23	45	22	32	41
Low income	58	42	58	67	67	58
Region						
Africa	50	17	42	67	42	42
Asia Pacific	57	43	43	29	71	43
Europe	45	18	27	0	9	9
Middle East	60	40	60	20	40	40
Western Hemisphere	86	43	71	29	57	86

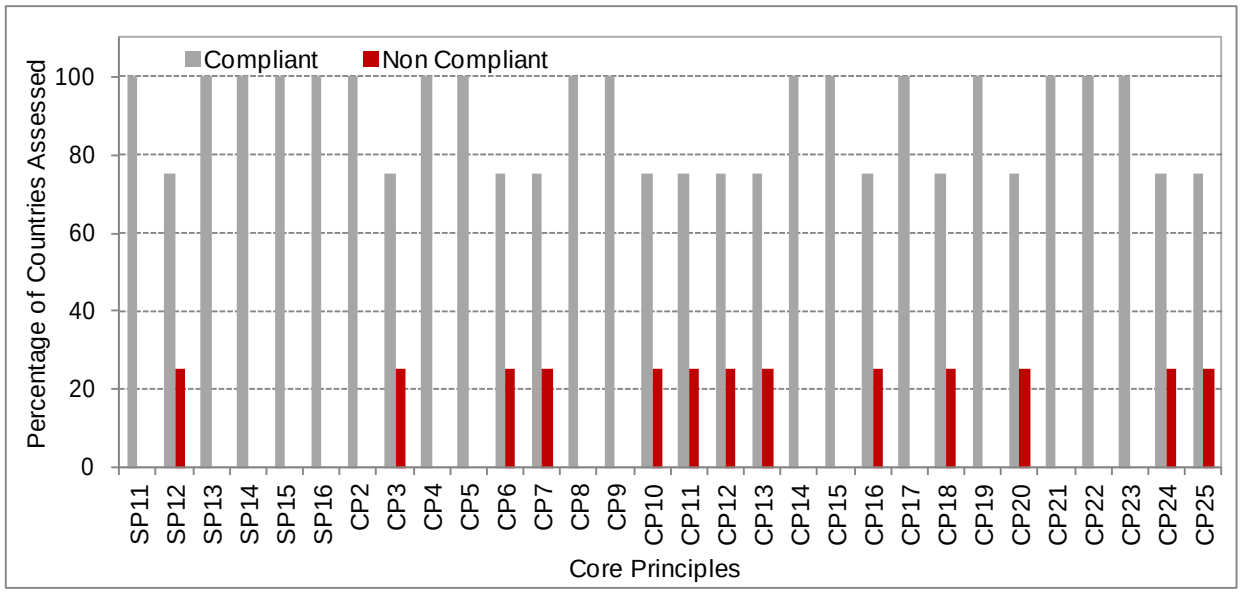
Source: International Monetary Fund.

Figure 11. BCPs (2006 Version): All EMDE Assessments (42 Countries)



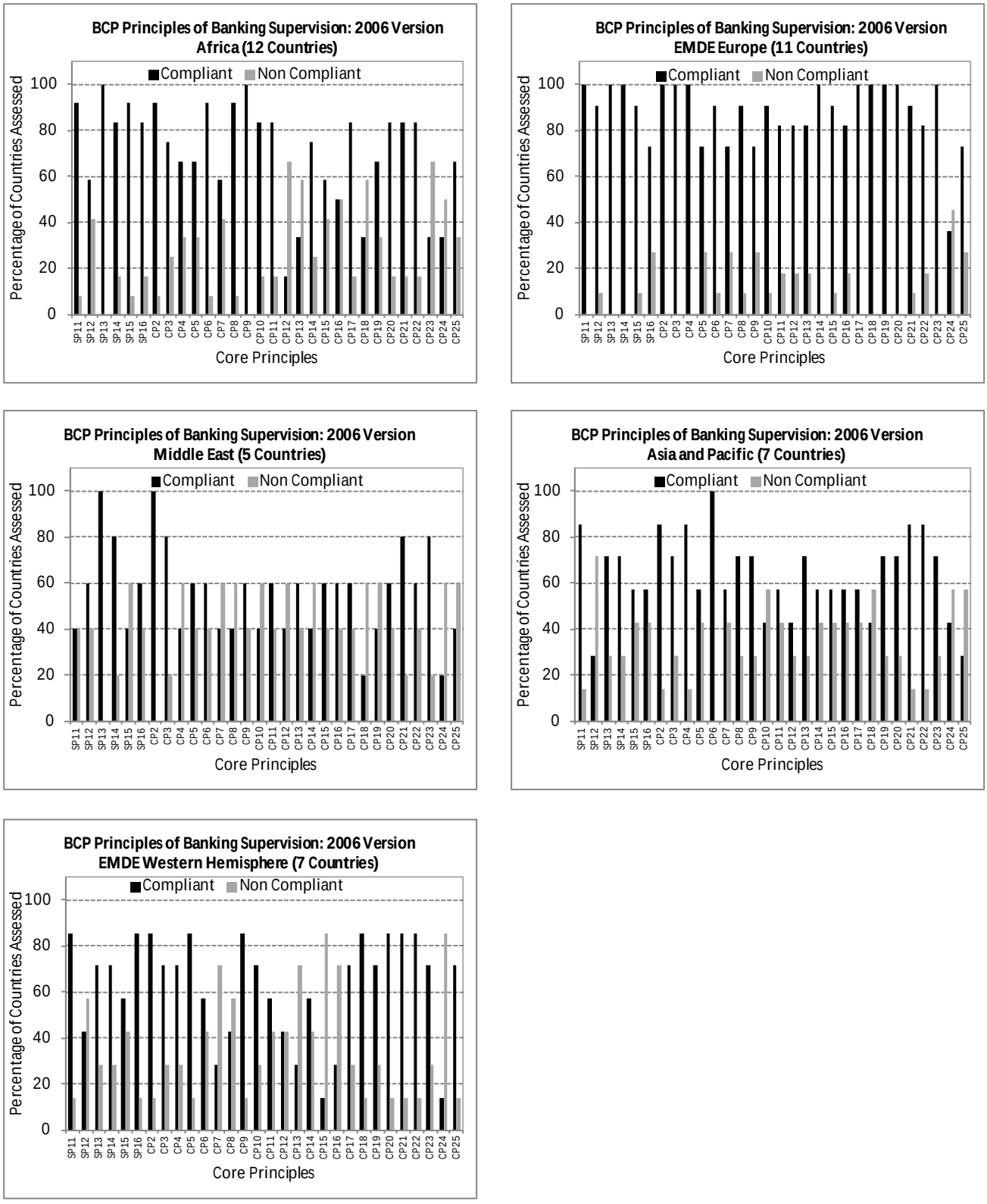
Source: IMF Standards and Codes database.

Figure 12. BCP (2006 Version): Advanced Country Assessments (4 Countries)



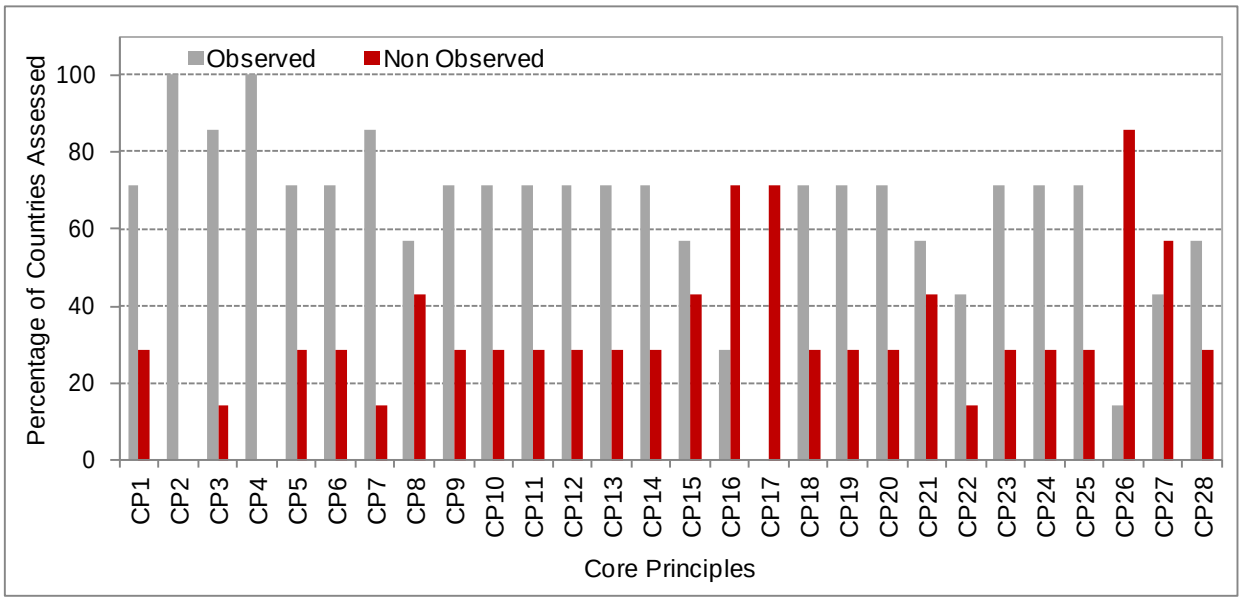
Source: IMF Standards and Codes database.

Figure 13. BCP Compliance by Region



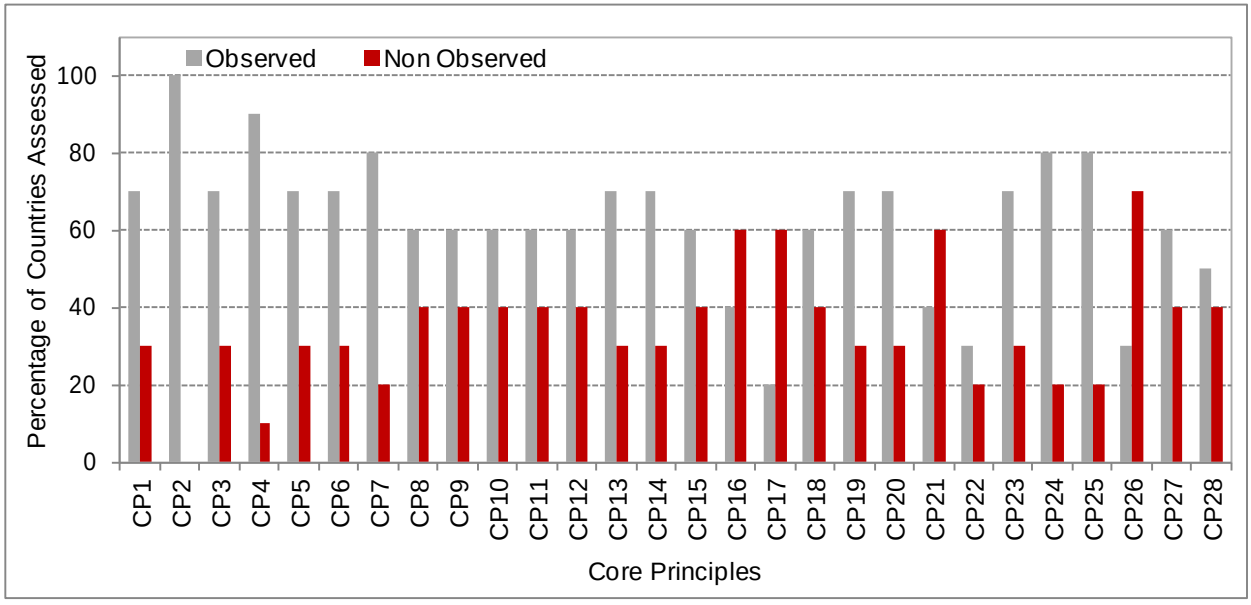
Source: IMF Standards and Codes database.

Figure 14. ICPs (2003 Version): All EMDE Assessments after 2006 (7 Countries)



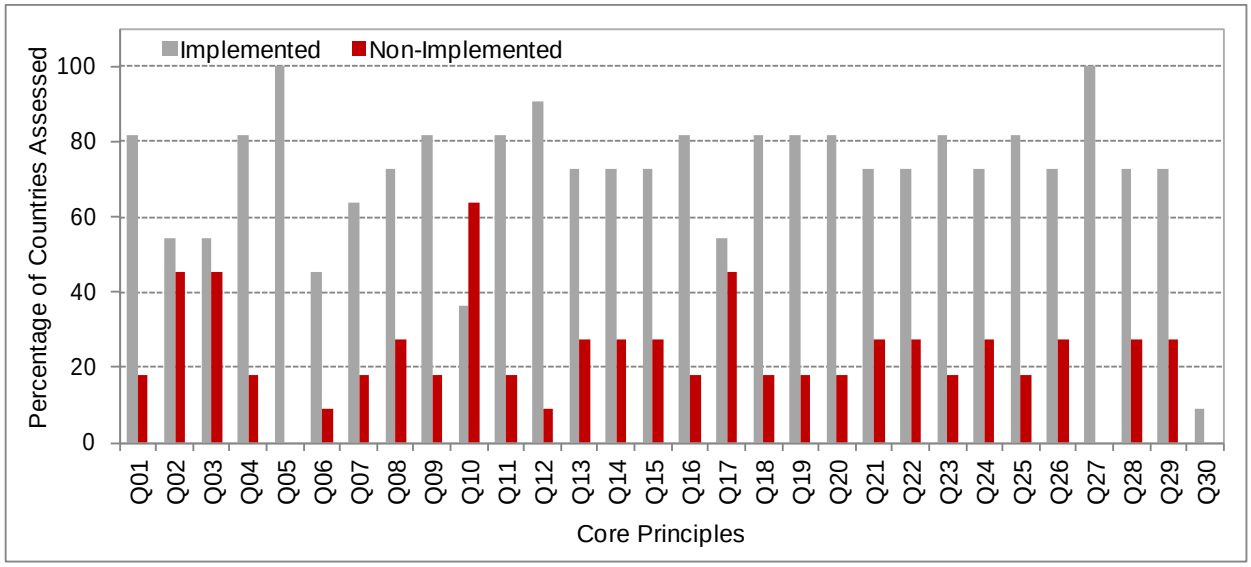
Source: IMF Standards and Codes database.

Figure 15. ICPs (2003 Version): All EMDE Assessments (10 Countries)



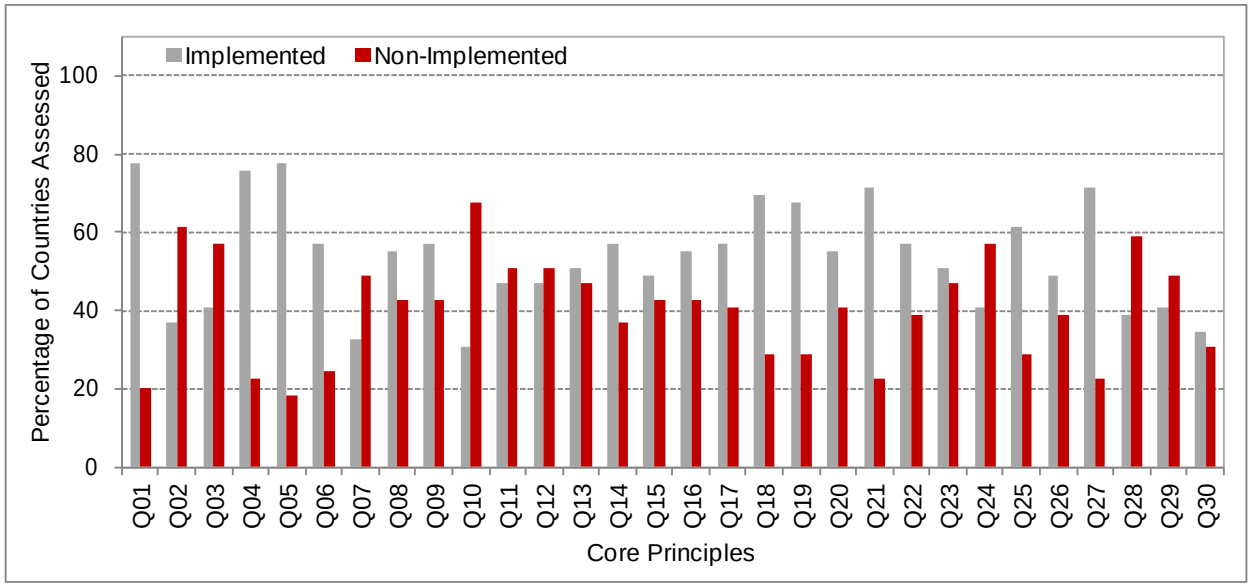
Source: IMF Standards and Codes database.

Figure 16. IOSCO: EMDE Assessments after 2006 (9 Countries)



Source: IMF Standards and Codes database.

Figure 17. IOSCO: All EMDE Assessments (50 Countries)



Source: IMF Standards and Codes database.

ANNEX III. ADDITIONAL INFORMATION ON FINANCIAL STABILITY ISSUES IN EMDES

Box 1. International Standards for Banking Supervision

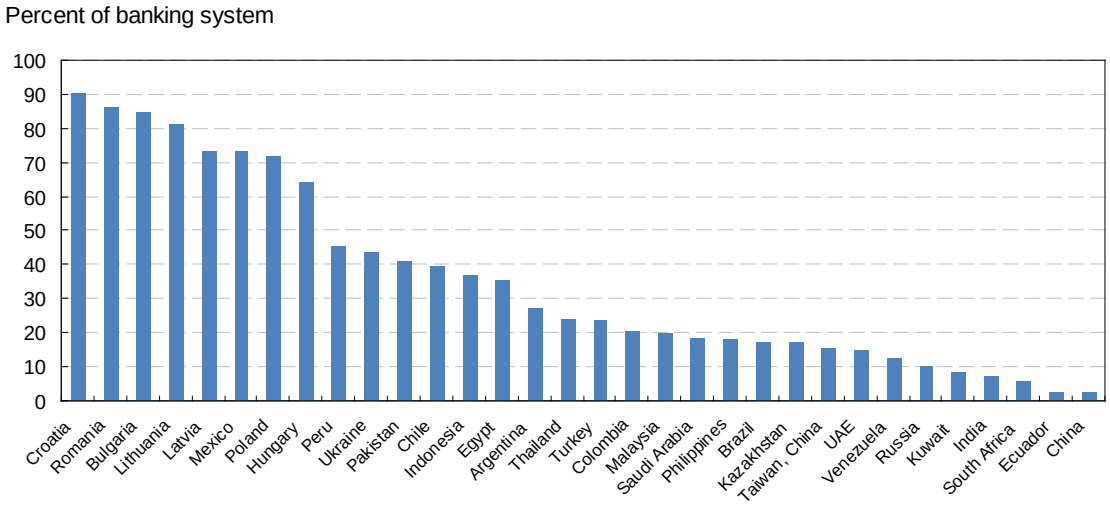
The Basel Committee on Banking Supervision (BCBS) has issued guidance and standards intended primarily for addressing issues pertaining to its member countries, with particular focus on internationally active banks. This guidance, however, has also become of paramount importance in influencing banking supervision worldwide. Acknowledging its role beyond its member countries, the BCBS has always tried to make clear the circumstances under which its guidance should be applied. For example, the BCBS capital framework aims to reflect best practices and offer a range of options with increasing levels of complexity covering a full range of markets and banks, and BCBS members are expected to refer to it as minimum criteria without necessarily implementing the capital framework for all banks.

Basel I, as the first capital standard to be issued, was originally targeted to banks undertaking international business. Over time it has been broadly implemented by most countries and for all kinds of banks. In that sense, Basel I can be regarded as an important step in strengthening capital requirements in financial systems with various levels of complexity, as well as for the first time providing a standard method of comparison of banks' soundness worldwide.

Basel II was designed to provide a more risk-sensitive approach to calculating minimum capital requirements. Basel II offered a range of options with increasing levels of sophistication and complexity, with applicability to a variety of banks and banking systems worldwide. Based on a three-pillar framework, Basel II reflected the BCBS understanding that capital requirements alone were not enough to ensure the soundness and stability of financial systems. While it broadened capital requirements (Pillar 1) beyond credit and market risk by incorporating operational risk capital charges, it also recognized the role played by banks themselves and bank supervisors in ensuring the appropriate levels of capital beyond minimum capital requirements (Pillar 2), as well as market discipline in promoting the safety and soundness of financial systems (Pillar 3). The BCBS, however, stated clearly that implementation of Basel II might not be a priority for non-member countries and that each supervisor should consider its benefits with regard to local conditions. The Basel II approaches have to be chosen in light of particular circumstances in local jurisdictions and should not be expected to be implemented in the same way in every jurisdiction.

Basel III was introduced as a complement to Basel I and Basel II and in principle its elements are expected to be relevant to banks and financial systems of all kinds. Basel III was designed to address the lessons of the financial crisis by enhancing banking sector resilience, reducing the probability and severity of banking crises through a series of measures comprising macroprudential and microprudential elements. Enhancements to the prior framework include a significant increase in the level and quality of capital, a leverage ratio, capital buffers, and a liquidity framework.

Figure 18. Foreign Ownership in Selected EMDEs (2009-10)



Source: National authorities.

Table 7. Importance of Host Operations to Selected Foreign Banks vs. Importance of Selected Foreign Banks to Host Banking Systems (Percentage of parent bank group assets or host country banking system assets)

Latin America							Eastern Europe					
	BBVA	Citibank	HSBC	Santander	Scotiabank		ING	Nordea	Raiffeisen	Swedbank	Unicredit	
Argentina	1.0	0.2	0.2	0.6	0.0	Parent Bank	0.0	0.0	2.5	0.0	0.6	**Bulgaria**
	5.8	2.9	4.4	7.1	0.0	Country	0.7	0.0	8.9	0.0	15.3	
Brazil	0.0	1.7	3.0	13.7	0.0	Parent Bank	0.0	0.5	0.0	4.8	0.0	**Estonia**
	0.0	1.3	2.9	8.6	0.0	Country	0.0	13.6	0.0	47.1	1.7	
Chile	2.1	0.0	0.1	2.9	0.1	Parent Bank	0.0	0.5	0.0	3.3	0.1	**Latvia**
	6.8	0.0	1.1	20.4	4.7	Country	0.0	10.0	0.0	20.7	3.4	
México	12.8	4.7	1.4	3.4	0.4	Parent Bank	0.7	1.1	5.4	0.0	3.6	**Poland**
	21.8	20.8	8.0	12.7	3.7	Country	4.8	1.8	2.1	0.0	10.0	
Peru	1.8	0.1	0.1	0.0	1.7	Parent Bank	0.1	0.0	3.9	0.0	0.5	**Ukraine**
	22.1	2.8	2.0	1.0	15.0	Country	1.0	0.0	5.8	0.0	5.3	

Note: Only the assets of branches and of subsidiaries in which the bank has equity participation greater than 50 percent are included.

Sources: National authorities, IMF, Fitch, Banks' annual reports.

Box 2. IOSCO's Technical Assistance to Jurisdictions Listed on Appendix B of the MMoU

In June 2010, the IOSCO's Presidents Committee resolved to pursue full implementation of the IOSCO Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information (IOSCO MMoU) by asking all Appendix B* members of IOSCO to apply to become full signatories to the MMoU by 1 January 2013.

Since the new Resolution, IOSCO's main focus has been to implement a strategy to graduate Appendix B member jurisdictions to full MMoU signatory status. A key component of the strategy is the provision of technical assistance to members that need support in revising their legislation in order to give comfort that the proposed changes will address the issues previously identified that prevented them from becoming signatories to the MMoU.

IOSCO has received by June 2011 requests for technical advice from 17 jurisdictions, all of them from emerging markets, which referred to the adequacy of proposed amendments for compliance with the IOSCO MMoU. In the majority of cases, the provision of technical advice has been organized through the formation of working groups at IOSCO level (MMoU Team from the General Secretariat and members of the Verification Teams responsible for the assessment of the MMoU applications) focusing on the draft legislation submitted by the members.

In addition to the technical advice, when making legislative proposals intended to address the identified deficiencies, jurisdictions are likely to seek confirmation from the IOSCO group that is responsible for assessing the MMoU applications. This more formal assessment on whether the identified gaps have been properly addressed is referred to as a "Preliminary Assessment" and is given by the relevant IOSCO group. IOSCO had received by June 2011 requests for Preliminary Assessment from 4 jurisdictions, and it expects this number to increase by the end of the year.

** Members listed on Appendix B do not fulfil all the requirements set by the MMoU, but they are committed to seek the legal authority necessary to enable them to become full signatories (Appendix A).*

Box 3. Impact of the Financial Crisis on Non-Bank Finance Companies (NBFCs) in India

The global financial crisis and its impact on the domestic economy adversely affected the NBFC sector, with significant stress on its asset quality, liquidity and funding costs. The impact differed depending on the structural features of each NBFC, e.g. asset-liability maturity profiles and type of assets financed. The NBFC sector had deep funding inter-linkages with mutual funds and commercial banks. Mutual funds, the prime source of funds available to NBFCs, were major subscribers to commercial paper and debentures issued by the NBFCs, in addition to certificates of deposit issued by banks. The drying up of liquidity, with mutual funds themselves facing redemption pressure, coupled with tightening foreign funding, put pressure on the NBFCs. Those NBFCs having larger asset-liability mismatches and greater dependence on mutual funds for funding were affected more severely.

With the stock market hit by the selling pressures created by the contagion from the global financial crisis, institutional investors started redeeming their investments in money market funds. Rollover of maturing short-term instruments floated by NBFCs became difficult. The borrowing portfolio of NBFCs faced steep deceleration. The credit crisis was followed by an increase in interest rates in October and November 2008, which resulted in a widespread crisis of confidence that made banks reluctant to lend to NBFCs; already sanctioned credit lines froze. Demand for finance fell as loan book and investment growth of several NBFCs slowed down considerably. Deteriorating business conditions led to fears of increased defaults in repayments. Stock prices of NBFCs crashed on the back of rising non-performing assets and several companies closed their operations. Some international NBFCs closed down their operations in India. The segment which was hit hardest was vehicle financing, which had long-term assets and short-term liabilities. NBFCs that had overseas parents were able to mobilize some temporary liquidity support.

In recognition of the liquidity needs the Reserve Bank of India announced a series of measures to provide support to the financially stressed NBFCs in 2008-2009. They were allowed, as a temporary measure, to raise short term foreign currency borrowing under certain conditions. They were also allowed to temporarily borrow from the central bank liquidity adjustment facility through the commercial banks. They were given more time to comply with increased capital adequacy requirements. Risk weights on banks' exposure to NBFCs were reduced. NBFCs also benefitted from the RBI's refinance facility. Systemically important non-deposit taking NBFCs were permitted to augment their capital by issue of perpetual debt instruments qualifying for capital. They were also given access to an indirect lender of last resort facility (traditionally available only to banks) through a special purpose vehicle against commercial paper collateral of good quality issued by them.

Since then, asset-liability management in NBFCs has been closely supervised, capital adequacy requirements enhanced, and supervision and reporting requirements tightened.

Box 4. The Evolution of Non-Bank Mortgage Lending in Mexico

Sofoles (Limited Purpose Financial Institutions) began providing mortgage finance when commercial banks faced recapitalization problems after the 1995 crisis and were not extending mortgages. *Sofoles* are supported in part by the Federal Housing Corporation (SHF), a development bank for housing, and are regulated and subject to information disclosure requirements by the National Banking and Securities Commission (CNBV). In 2006, they were allowed to evolve into multi-purpose non-regulated entities (and changed their names accordingly to *Sofome*), except in the case of subsidiaries of commercial banks or financial holding companies that are regulated and supervised by the CNBV. In addition, *Sofoles/Sofomes* that secure funding through the debt market are subject to CNBV oversight. *Sofomes* must register with the National Commission for the Protection of Users of Financial Services (Condusef), and periodically disclose their lending rates in a standardized format for transparency purposes. By minimizing the regulatory burden, it was expected that financial costs of credit would be lowered.

Sofoles/Sofomes do not take deposits and fund themselves mainly through commercial banks and commercial paper. Since their funding is more expensive relative to banks, they increasingly relied on securitization of mortgages. During the crisis, heightened risk aversion made it very hard for *Sofoles/Sofomes* to refinance their short-term debt, as markets dried up and counterparty risk was at its highest. From late 2008, there has been no mortgage-backed security originated by *Sofoles/Sofomes*. Deterioration of asset quality and growing levels of non-performing loans also greatly weakened their financial performance. In the midst of the crisis, the SHF started a partial guarantee program of 65 percent of short-term debt issued by some mortgage *Sofomes/Sofoles*, which played a key role in allowing capital market funding to these intermediaries. Although there was a sharp decline in the mortgage loan portfolio originated by *Sofomes*, mortgage loans originated by other agencies and intermediaries, such as banks and *Infonavit* (the private workers' housing fund) have remained stable. The crisis exposed the business model's vulnerabilities, and three of the largest *Sofomes* were severely affected: one of them went bankrupt and the other two were nearly bankrupted.

The growth deterring effect of the international crisis for this sector, coupled with the limited size and interconnection with the rest of the financial system, meant that the financial distress of *Sofoles/Sofomes* had no systemic or financial stability repercussions. Although the economic crisis is in part to blame for the rapid asset deterioration, the business model of *Sofoles/Sofomes* does have important shortcomings. The dependence on securitization makes them highly vulnerable to market conditions.

The relevant authorities are undertaking efforts to collect accurate information about exposures in order to carry out effective monitoring of the sector, recognizing that its size and interconnections with other financial intermediaries may become a source of systemic risk in the future.

Box 5. The Development of China's Interbank and Bond Markets

Starting in 1997, China began to develop its interbank and domestic bond markets through the following steps:

- *Enhance market infrastructure*. Steps in this area included improvements in the clearing & settlement system (the introduction of delivery vs. payment settlement, straight through processing, and electronic commercial draft system) and the creation of a market-making mechanism to facilitate transactions and increase liquidity. Most recently, the Shanghai Clearing House is conducting research on providing centralized clearing services for OTC products traded on the interbank market.
- *Strengthen institutions*. A 3-pillar mechanism was established to oversee the market that includes the supervisory agency (the People's Bank of China), a self-regulatory private sector institution, as well as market discipline. Regulations were issued by the supervisory authority, and master agreements were signed by market players under the self-regulatory framework. Over time, credit rating agencies, accounting firms and other institutions were introduced to the bond market, which supported a merit-based registration system for bond issuance. The establishment of a credit enhancement agency—China Bond Insurance Co. Ltd—helped promote risk sharing and broadened access to credit by small- and medium-sized enterprises.
- *Establish benchmark interest rate.* The Shanghai Inter-Bank Offered Rate (Shibor) was launched in 2007 to provide the benchmark interest rate in cash and derivative markets.
- *Diversify and broaden market participants*. The range of market participants was broadened over time. More recently, locally incorporated foreign banks, financial leasing companies, and auto finance companies were allowed to publicly issue financial bonds. Foreign renminbi (RMB) clearing banks, central banks or monetary authorities, and banks participating in cross-border trade RMB settlement business, were allowed to make RMB investments in the interbank market.
- *Expand range of products*. More products with a wider range of maturities have become available on the interbank market, including short-term commercial paper (introduced in 2010), short-term financing bills (introduced in 2005), medium-term notes (introduced in 2008), and collective small and medium-sized enterprise bills (introduced in 2009). Treasury bills with a maturity of 1 year or less and treasury bonds with a maturity of up to 50 years were added to the product mix, which has contributed to an improved yield curve.

Box 6. ASEAN Securities Regulators Agree on Roadmap to Integrate Capital Markets by 2015

The ASEAN securities regulators reached an agreement in 2009 on the roadmap to integrate ASEAN capital markets under the objectives of the ASEAN Economic Community (AEC) Blueprint 2015. The roadmap, known as "the Implementation Plan", sets out strategic action plans for capital market integration and provides key milestones to be achieved during 2009-2015 by ASEAN members.

The Implementation Plan was initiated by the ASEAN Capital Markets Forum, a group comprising heads of securities regulators for discussion of capital market policy issues. The project was endorsed by the ASEAN Finance Ministers at their 2008 meeting and received support from the Asian Development Bank through its regional technical assistance program on Strengthening Southeast Asian Financial Markets. The Implementation Plan was also guided and overseen by a group of experts in international capital markets.

The AEC Blueprint 2015 envisages an integrated market which is stronger and more efficient where ASEAN products are viewed as an asset class and where investors would be able to trade ASEAN capital market products freely in any ASEAN exchanges at a competitive fee from a single access point with market intermediaries that can provide services throughout the region based on home country approval. The growing competition from global players, and the pressures for consolidation and efficiency enhancements due to technological advancement make regional integration of capital markets a priority. The ongoing global financial crisis and economic slowdown have had a large impact on ASEAN capital markets and strengthen the case for accelerating the pace of ASEAN capital market integration.

Recognizing the differences in stages of development among ASEAN members, the Implementation Plan takes a phased approach to integration and liberalization. For example, during Phase I (2009-2010), the focus has been on wholesale markets for institutional and qualified investors, such as accepting offering documents presented in a common language and governed by the law of the issuer's jurisdiction. Mutual recognition of rules for securities offerings will take place in Phase II (2011-2012), while investors can trade ASEAN exchange products freely in Phase III (2013-2015).

Box 7. Asian Bond Fund and Asian Bond Markets Initiatives

Based on the lessons of the Asian financial crisis, two important regional initiatives for developing deep and liquid domestic bond markets have been introduced in the East Asia-Pacific region: the Executives' Meeting of East Asia Pacific Central Banks (EMEAP)[66] Asian Bond Fund (ABF) initiative, and the ASEAN Plus Three[67] Asian Bond Markets Initiative (ABMI).

1. EMEAP ABF Initiative

The EMEAP ABF initiative was first launched in June 2003. The first stage, called the ABF1 (Figure 19), is a basket of U.S. dollar-denominated bonds issued by sovereign and quasi-sovereign issuers in EMEAP economies, excluding Australia, Japan, and New Zealand.

The second stage, called the ABF2 (Figure 20), was launched in December 2004. The ABF2 invests in local currency-denominated bonds issued by sovereign and quasi-sovereign issuers in the same eight EMEAP markets. It comprises (i) the Pan-Asian Bond Index Fund (PAIF), an exchange-traded fund investing in the eight EMEAP markets, and (ii) the eight single-market funds investing in their respective markets. The PAIF is listed on the Stock Exchange of Hong Kong and the Tokyo Stock Exchange, and the eight single-market funds are also open to private sector investments. The size of the PAIF in particular, has been growing steadily, reflecting strong investor demand for Asian financial product (Figure 21). The ABF initiative has also acted as a catalyst for regulatory and tax reforms, and for improvements in the financial infrastructure of EMEAP markets.

Figure 19. ABF1 Framework

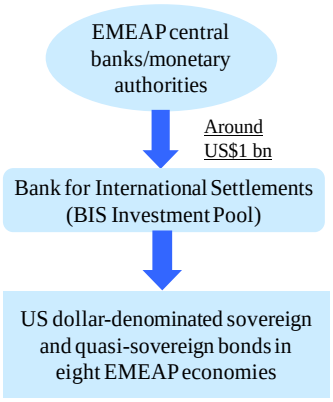


Figure 20. ABF2 Framework

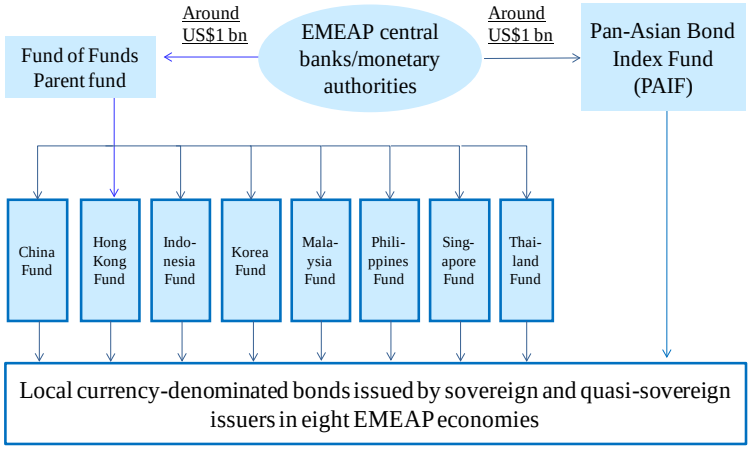
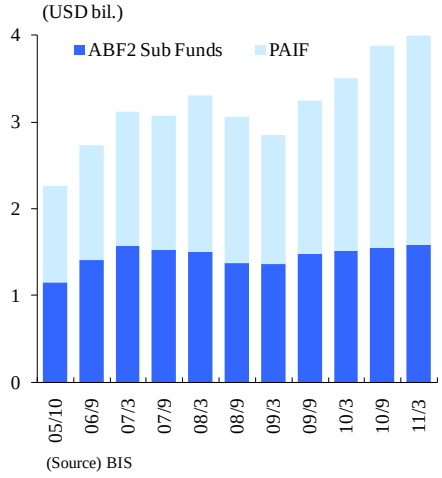


Figure 21. Fund Size



2. ASEAN Plus Three ABMI

The ASEAN Plus Three ABMI was launched in August 2003, with the aim of developing efficient and liquid bond markets in Asia, and thereby enabling better utilization of regional savings for its investments and mitigating over-reliance on foreign currency funding. Among its achievements, the Credit Guarantee and Investment Facility (CGIF) was established in November 2010. The CGIF is a trust fund of 700 million U.S. dollars. The primary function is to provide guarantees for local currency-denominated corporate bonds issued by firms in the region.

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[66] EMEAP comprises 11 central banks and monetary authorities in the East Asia and Pacific region.

[67] Association of Southeast Asian Nations (Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam) plus China, Japan, and the Republic of Korea.

ANNEX IV. MEMBERS OF THE EMDES TASK FORCE

Chair	**Sangche Lee** Commissioner Korean Financial Services Commission
Argentina	**Sergio Chodos** Member of the Board of the Central Bank and Deputy Superintendent of Financial Institutions Central Bank of Argentina
Botswana	**Moses D Pelaelo** Deputy Governor Bank of Botswana
Brazil	**Cleofas Salviano Junior** Senior Advisor, Financial System Regulation Department Central Bank of Brazil
Canada	**Lawrence Schembri** Adviser Bank of Canada
China	**Zhang Tao** Director General, International Department People's Bank of China
Costa Rica	**Alvaro García** President National Council of Financial System Supervision
India	**Meena Hemachandra** Chief General Manager, External Investments and Operations Reserve Bank of India
Indonesia	**Muliaman D Hadad** Deputy Governor Bank Indonesia
Japan	**Shinobu Nakagawa** Associate Director-General, International Department Bank of Japan
Korea	**Tae Soo Kang** Director General, Financial System Stability Department Bank of Korea
Mexico	**Pascual O'Dogherty** Director General, Financial Stability Department Bank of Mexico

Russia	**Vladimir Chistyukhin** Director, Financial Stability Department Central Bank of the Russian Federation
Saudi Arabia	**Turki Dhaifallah Almutairi** Economic Specialist Saudi Arabian Monetary Agency
South Africa	**Francis Selialia** Head, Macroprudential Analysis Division South African Reserve Bank
Spain	**José María Roldán** Director General, Banking Regulation Bank of Spain
Turkey	**Mehmet Yörükoğlu** Deputy Governor Central Bank of the Republic of Turkey
Uganda	**Louis Kasekende** Deputy Governor Bank of Uganda
USA	**Gerard Dages** Senior Vice President, Emerging Markets & Institutional Affairs Group Federal Reserve Bank of New York
BCBS	**Karl Cordewener** Deputy Secretary General
IAIS	**Hari Narayan** Chairman, IAIS Implementation Committee (Insurance Regulatory and Development Authority of India)
IOSCO	**Tuncay Yildiran** (on behalf of EMC Chair) Director of Investment Services Capital Markets Board of Turkey
	Ranjit Ajit Singh (on behalf of EMC Vice-Chair) Chair, Secondary Markets Group, EMC (Managing Director, Malaysia Securities Commission)
BIS	**Ramon Moreno** Head, Economics for Latin America and the Caribbean Monetary and Economic Department
IMF	**Christopher Towe** Deputy Director, Monetary and Capital Markets Department
	Robert Rennhack Assistant Director, Monetary and Capital Markets Department

World Bank	**Consolate K. Rusagara** Director, Financial Systems Department
	David Scott Program Manager, Prudential Oversight Unit Financial Systems Department
European Central Bank	**Marcel Fratzscher** Head, International Policy Analysis Division
FSB Secretariat	**Costas Stephanou**
	Rupert Thorne